National Pollutant Discharge Elimination System Permit 2012 Annual Report Executive Summary Exhibit G3

CITY OF WICHITA

Department of Public Works & Utilities
Stormwater Management
455 N Main
Wichita, KS 67202
(316) 268-4498

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CHAPTER 16.32. STORMWATER POLLUTION PREVENTION

Sec. 16.32.010. General provisions.

A. *Purposes.* The purpose and objective of this chapter are as follows:

1. To maintain and improve the quality of surface water and groundwater within the city;

2. To attenuate the discharge of contaminated storm water runoff from industrial, commercial, residential, and construction sites into the municipal separate storm sewer system (MS4) and natural waters within the city;

3. To promote public awareness of the hazards involved in the improper discharge of hazardous substances, petroleum products, household hazardous waste, industrial waste, sediment from construction sites, pesticides, herbicides, fertilizers, and other contaminants into the storm sewers of the city;

4. To encourage recycling of used motor oil and safe disposal of other hazardous consumer products;

5. To facilitate compliance with state and federal standards and permits by owners of industrial and construction sites within the city;

6. To enable the city to comply with all federal and state laws and regulations applicable to its NPDES permit for storm water discharges.

7. To regulate the management of storm water for purposes of public safety, welfare and quality of life;

8. To manage and maintain local floodplains; and,

9. To facilitate compliance with city standards and permits by owners of developed, redeveloped and undeveloped properties within the city.

B. *Administration.* Except as otherwise provided herein, the director, or his appointed representative, shall administer, implement, and enforce the provisions of this chapter.

C. *Authority.* The Director may develop additional policies, criteria, specifications and standards in a Storm Water Manual and/or in other policy, master plans, watershed plans or guidance documents as necessary to effectively implement the requirements of this chapter. The policies, criteria and requirements of the Storm Water Manual and/or other policy, plans or guidance documents may be implemented and amended by the Director, are referenced in this

chapter when required, and shall be enforceable, consistent with the provisions contained in this chapter. A public meeting shall be held bi-annually to allow public comment on this chapter and the Storm Water Manual.

In the event that a violation of any provision of this chapter has occurred, or that work does not have a required plan or permit, or that work does not comply with an approved plan or permit, the city may issue a Notice of Violation to the permittee, plan holder or property owner and/or any other person or entity having responsibility for the property or properties where the violation occurred under the provisions of subsection .100 B. of this chapter.

In the spirit of the purposes defined above for this chapter and in the administration of these requirements, the Director may consider the cost-effectiveness of storm water management controls provided that such controls meet the water quality, channel erosion protection and flood protection requirements of this chapter or are waived or exempted in accordance with the criteria defined in this chapter.

D. *Regulatory or legal conflicts.* This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, deed restrictions, or existing ordinances and regulations, except as specifically noted in this chapter. However, where the provisions of this ordinance and another regulation conflict or overlap, that provision which is more restrictive or imposes higher standards or requirements shall prevail.

E. *Abbreviations.* The following abbreviations when used in this chapter shall have the designated meanings:

TABLE INSET:

BMP	Best Management Practices
CFR	Code of Federal Regulations
CLOMR	Conditional Letter of Map Revision
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
HHW	Hazardous Household Waste
KAR	Kansas Administrative Regulations
KSA	Kansas Statutes Annotated
LOMR	Letter of Map Revision
mg/l	Milligrams per liter
MS4	Municipal Separate Storm Sewer System
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
OCI	Office of Central Inspection
PST	Petroleum Storage Tank
SWP3	Storm Water Pollution Prevention Plan
TMDL	Total Maximum Daily Load
USC	United States Code

F. *Definitions.* Unless a provision explicitly states otherwise, the following terms and phrases, as used in this chapter, shall have the meanings hereinafter designated.

1. *"As-built plan"* means a drawing showing the actual state of permanent storm water facilities as installed.

2. *"Best management practices (BMP)"* means schedule of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States or the city's MS4 and includes both temporary measures used during construction and permanent measures that are constructed in accordance with the provisions of this ordinance. Best management practices also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage areas. The BMPs required in this chapter will be sufficient to prevent or reduce the likelihood of pollutants entering storm sewers, ditches, or ponds.

3. *"City"* means the City of Wichita.

4. *"Commencement of construction"* means the disturbance of soils associated with clearing, grading, or excavating activities or other construction activities.

5. *"Commercial"* means pertaining to any business, trade, industry or other activity engaged in for profit.

6. *"Construction general permit"* refers to the Kansas General Permit for Storm water Discharges from Construction Sites.

7. *"Contractor"* means any person or firm performing construction work at a construction site, including any general contractor and subcontractors. Also includes, but is not limited to, earthwork, paving, building, plumbing, mechanical, electrical, landscaping contractors, and material suppliers delivering materials to the site.

8. *"Development"* or *"new development"* means undisturbed property where improvements are planned or intended that will result in land disturbance activities or impervious areas either during or after construction.

9. *"Director"* means the person appointed to the position of Public Works and Utilities Director by the City Manager of the City, or his/her duly authorized representative. Authorized representatives can include, but are not limited to, the City Engineer, the Storm Water Engineer, and others, as so authorized.

10. *"Discharge"* means any addition or introduction of any pollutant, storm water, or any other substance whatsoever into the municipal separate storm sewer system (MS4) or into waters of the United States.

11. *"Discharger"* means any person who causes, allows, permits, or is otherwise responsible for a discharge, including without limitation any owner of a construction site or industrial facility.

12. *"Domestic sewage"* means human excrement, gray water (From home clothes washing, bathing, showers, dishwashing, and food preparation), other wastewater from household drains, and waterborne waste normally discharged from the sanitary conveyances of dwellings (including apartment houses and hotels), office buildings, factories, and institutions, that is free from industrial waste.

13. *"Drainage plan"* refers to the detailed water quantity and quality calculations and plan that are required for final plat approval or for issuance of a building permit.

14. *"Earthwork"* means the disturbance of soils on a site associated with clearing, grading, or excavation activities.

15. *"Environmental Protection Agency (EPA)"* means the United States Environmental Protection Agency, the regional office thereof, any federal department, agency or commission that may succeed to the authority of the EPA, and any duly authorized official of EPA or such successor agency.

16. *"Extremely hazardous substance"* means any substance listed in the appendices

to 40 CFR Part 355, Emergency Planning and Notification.

17. *"Facility"* means any building, structure, installation, process, or activity from which there is or may be discharge of a pollutant.

18. *"Fertilizer"* means a substance or compound that contains an essential plant nutrient element in a form available to plants and is used primarily for its essential plant nutrient element content in promoting or stimulating growth of a plant or improving the quality of a crop, or a mixture of two or more fertilizers.

19. *"Final stabilization"* means the status when all soil disturbing activities at a site have been completed. This would establish a uniform perennial vegetative cover with a density of seventy percent coverage for unpaved areas and those not covered by permanent structures or equivalent permanent stabilization measures (by employing riprap, gabions, or geotextiles).

20. *"Fire protection water"* means any water, and any substances or materials contained therein, used by any person to control or extinguish a fire, or to inspect or test fire equipment.

21. *"Garbage"* means putrescible animal and vegetable waste materials from the handling, preparation, cooking, or consumption of food, including waste materials from markets, storage facilities, and the handling and sale of produce and other food products.

22. *"Harmful quantity"* means the amount of any substance that will cause a violation of a State Water Quality Standard or any adverse impact to the city's drainage system.

23. *"Hazardous household waste (HHW)"* means any material generated in a household (including single and multiple residences) by a consumer which, except for the exclusion provided in 40 CFR Section 261.4(b)(1), would be classified as a hazardous waste under 40 CFR Part 261.

24. *"Hazardous substance"* means any substance listed in Table 302.4 of 40 CFR Part 302.

25. *"Hazardous waste"* means any substance identified or listed as a hazardous waste by the EPA pursuant to 40 CFR Part 261.

26. *"Hazardous waste treatment, disposal, and recovery facility"* means all contiguous land, and structures, other appurtenances and improvements on the land used for the treatment, disposal, or recovery of hazardous waste.

27. *"Impervious area"* or *"impervious cover"* means the number of square feet of hard surface areas which either prevent or retard the entry of water into soil mantle, as it entered under natural conditions as undisturbed property, and/or causes water to run off the surface in greater quantities or at an increased rate of flow from that present under natural conditions as undisturbed property, including, but not limited to, roofs, roof extensions, patios, porches, driveways, sidewalks, pavement, athletic courts, and compacted dirt or graveled areas.

28. *"Individual building sites"* means and includes sites of building construction or earthwork activities that are not a part of a new subdivision development and any individual lot within a newly developing subdivision.

29. *Industrial general permit.* See "Kansas General Permit for Storm water Discharges Associated with Industrial Activity."

30. *"Industrial waste"* means any waterborne liquid or solid substance that results from any process of industry, manufacturing, mining, production, trade or business.

31. *"Industry"* means and includes: (a) municipal landfills; (b) hazardous waste

treatment, disposal, and recovery facilities; (c) industrial facilities that are subject to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) 42, U.S.C. Section 11023; industrial facilities required to obtain NPDES storm water discharge permits due to their Standard Industrial Classification or narrative description; and (d) industrial facilities that the director determines are contributing a substantial pollutant loading to the MS4, which are sources of storm water discharges associated with industrial activity.

32. *"Kansas General Permit for Storm Water Discharges Associated with Industrial Activity (or industrial general permit)"* means the industrial general permit issued by KDHE and any subsequent modifications or amendments thereto, including group permits.

33. *"Kansas General Permit for Storm Water Discharges from Construction Sites (or construction general permit)"* means the construction general permit issued by KDHE and any subsequent modifications on amendments thereto, including group permits.

34. *"Land disturbance"* means the disturbance of soils on a site associated with clearing, grading, excavation, new development or redevelopment activities.

35. *"Landfill"* means an area of land or an excavation in which municipal solid waste is placed for permanent disposal, and which is not a land treatment facility, a surface impoundment, or an injection well.

36. *"Municipal separate storm sewer system (MS4)"* means the system of conveyances, (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) owned and operated by the city and designed or used for collecting or conveying storm water, and which is not used for collecting or conveying sewage.

37. *"Municipal solid waste"* means solid waste resulting from or incidental to municipal, community, commercial, institutional, or recreational activities, and includes garbage, rubbish, ashes, street cleanings, dead animals, abandoned automobiles, and other solid waste other than industrial waste.

38. *"NPDES permit"* means for the purpose of this chapter, this is a permit issued by EPA or the state of Kansas that authorizes the discharge of storm water pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis

39. *"Nonpoint source"* means the source of any discharge of a pollutant that is not a point source.

40. *"Notice of intent (NOI)"* means the notice of intent that is required by either the industrial general permit or the construction general permit.

41. *"Notice of termination (NOT)"* means the notice of termination that is required by either the industrial general permit or the construction general permit.

42. *"Notice of violation"* means a written notice provided to the owner or contractor detailing any violations of this chapter and any clean-up action expected of the violators.

43. *"OCI"* means office of central inspection and includes its superintendent and his or her authorized representatives.

44. *"Oil"* means any kind of oil in any form, including, but not limited to: petroleum, fuel oil, crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure, sludge, oil refuse, and oil mixed with waste.

45. *"Outfall"* or *"storm water outfall"* means the terminus of the storm water system for a development or redevelopment where the storm water runoff is released into a larger

public or private storm water management system, or into a stream, waters of the United States or other water body.

46. *"Owner"* means the person who owns a facility, part of a facility, or land.

47. *"Person"* means any individual, partnership, copartnership, firm, company, corporation, association, joint stock company, trust, estate, government entity, or any other legal entity; or their legal representatives, agents, or assigns, including all federal, state, and local government entities.

48. *"Pesticide"* means a substance or mixture of substances intended to prevent, destroy, repel, or migrate any pest, or substances intended for use as a plant regulator, defoliant, or desiccant.

49. *"Petroleum product"* means a petroleum product that is obtained from distilling and processing crude oil and that is capable of being used as a fuel for the propulsion of a motor vehicle, or aircraft, including motor gasoline, gasohol, other alcohol blended fuels, aviation gasoline, kerosene, distillate fuel oil, and #1 and #2 diesel.

50. *"Petroleum storage tank (PST)"* means any one or combination of aboveground or underground storage tanks that contain petroleum product and any connecting underground pipes.

51. *"Point source"* means any discernable, confined, and discrete conveyance including, but not limited to: any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

52. *"Pollutant"* means dredged spoil, spoil waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical waste, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, soil, yard waste, hazardous household wastes, used motor oil, anti-freeze, litter, and industrial, municipal, and agricultural waste discharged into water and/or any substance, debris, matter that may be carried downstream by storm water runoff, and/or any substance or matter that may be dissolved in storm water runoff.

53. *"Pollution"* means the alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any water in the state that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property, or public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

54. *"Qualified personnel"* means persons who possess the required certification, license, or appropriate competence, skills, and ability as demonstrated by sufficient education, training, and/or experience to perform a specific activity in a timely and complete manner consistent with the regulatory requirements and generally accepted industry standards for such activity.

55. *"Redevelopment"* or *"redevelopment site"* means a change to previously existing improved property, including but not limited to the demolition or building structures, filling, grading, paving, or excavating.

56. *"Release"* means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the municipal separate storm sewer system (MS4) or the waters of the United States.

57. *"Reportable quantity (RQ)"* means, for any hazardous substance, the quantity established and listed in Table 302.4 of 40 CFR Part 302; for any extremely hazardous substance, the quantity established in 40 CFR Part 355.

58. *"Rubbish"* means nonputrescible solid waste, excluding ashes, that consist of: (a) combustible waste materials, including paper, rags, cartons, wood, excelsior, furniture, rubber, plastics, yard trimmings, leaves, and similar materials; and (b) noncombustible waste materials, including grass, crockery, tin cans, aluminum cans, metal furniture, and similar materials that do not burn at ordinary incinerator temperatures (one thousand six hundred to one thousand eight hundred degrees Fahrenheit).

59. *"Sanitary sewer"* means the system of pipes, conduits, and other conveyances which carry industrial waste and domestic sewage from residential dwellings, commercial buildings, industrial and manufacturing facilities, and institutions, whether treated or untreated, to the city sewage treatment plant (and to which storm water, surface water, and groundwater are not intentionally admitted).

60. *"Septic tank waste"* means any domestic sewage from holding tanks such as vessels, chemical toilets, campers, trailers, and septic tanks.

61. *"Service station"* means any retail establishment engaged in the business of selling fuel for motor vehicles that is dispensed from pumps.

62. *"Sewage"* means the domestic sewage mid and/or industrial waste that is discharged into the city sanitary sewer system and passes through the sanitary sewer system to the city sewage treatment plant for treatment.

63. *"Site"* means the land or water area where development or redevelopment is physically located or being conducted, including lands adjacent to the development that is not subject to land disturbing activities but that is used as a staging area or for other uses in connection with the new development or redevelopment.

64. *"Solid waste"* means any garbage, rubbish, refuse, sludge from a waste treatment plait, water supply treatment plant, or air pollution control facility, and other discarded material including: solid, liquid, semi-solid, or contained gaseous material resulting from industrial, municipal, commercial, mining, agricultural operations, and community and institutional activities.

65. *"State"* means the state of Kansas.

66. *"Storm water"* means storm water runoff, snow melt runoff, and surface runoff and drainage.

67. *"Storm water discharge associated with industrial activity"* means the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant which is listed as one of the categories of facilities in 40 CFR Section 122.26(b)(14), and which is not excluded from EPA's definition of the same term.

68. *"Storm water management facility"* or *"storm water control"* means any structure or installation used to manage storm water quality, flow rate, or volume.

69. *"Storm Water Manual"* refers to the latest version, as amended, of the document on file with the Director of Public Works entitled City of Wichita/Sedgwick County Storm Water Manual.

70. *"Storm water pollution prevention plan (SWP3)."* Means a plan required by an NPDES storm water permit and which describes and ensures the implementation of practices that are to be used to reduce the pollutants in storm water discharges associated with construction or other industrial activity.

71. *"Subdivision development"* means and includes activities associated with the platting of any parcel of land into two or more lots and includes all construction taking place thereon.

72. *"Undisturbed property"* means real property which has not been altered from its natural condition so that the entrance of water into the soil mantle is prevented or retarded through changes to the topography or soils.

73. *"Used oil (or used motor oil)"* means any oil that has been refined from crude oil a synthetic oil that, as a result of use, storage, or handling; has become unsuitable for its original purpose because of impurities or the loss of original properties.

74. *"Water of the state (or water)"* means any groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, navigable or non-navigable, and including the beds and banks of all water courses and bodies of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state.

75. *"Water quality standard"* means the designation of a body or segment of surface water in the state for desirable uses and the narrative an numerical criteria deemed by the state to be necessary to protect those uses.

76. *"Waters of the United States"* means all waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and the flow of the tide; all interstate waters, including interstate wetlands; all other waters the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce; all impoundments of waters otherwise defined as waters of the United States under this definition; all tributaries of waters identified in this definition; all wetlands adjacent to waters identified in this definition; and any water within the federal definition of "waters of the United States" at 40 CFR Section 122.2; but not including any waste treatment systems, treatment ponds, or lagoons designed to meet the requirements of the Federal Clean Water Act.

77. *"Watershed"* means the cumulative area that drains to a common point.

78. *"Watershed plan"* means an engineering and planning study for the drainage system and/or land areas of a watershed that may include a plan for storm water management in the watershed. Watershed plans can include, but are not limited to, the analysis of flooding problems, water quality problems, potential storm water capital improvements, land use patterns, and regulatory issues for existing and potential future land use conditions and address solutions to these problems.

79. *"Wetland"* means any area that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

80. *"Yard waste"* means leaves, grass clippings, yard and garden debris, and brush that results from landscaping maintenance and land-clearing operations.

(Ord. No. 44-123 § 1; Ord. No. 48-904, § 1, 11-16-2010)

Sec. 16.32.020. General prohibition.

A. No person shall introduce or cause to be introduced into the municipal separate storm sewer system (MS4) any discharge that is not composed entirely of stormwater, except as allowed in subsection B.

B. The following nonstormwater discharges are deemed acceptable and not a violation of this

section:

1. A discharge authorized by, and in full compliance with, an NPDES permit (other than the NPDES permit for discharges from the MS4);

2. A discharge or flow resulting from emergency fire fighting;

3. A discharge or flow of fire protection water that does not contain oil or hazardous substances or materials;

4. A discharge from water line flushing;

5. A discharge or flow from lawn watering, landscape irrigation, or other irrigation water;

6. A discharge or flow from a diverted stream flow or natural spring;

7. A discharge or flow from uncontaminated pumped groundwater or rising groundwater;

8. Uncontaminated groundwater infiltration;

9. Uncontaminated discharge or flow from a foundation drain, crawl space pump, footing drain, or sump pump;

10. A discharge or flow from a potable water source not containing any harmful substance or material from the cleaning or draining of a storage tank or other container;

11. A discharge or flow from air conditioning condensation that is unmixed with water from a cooling tower, emissions scrubber, emissions filter, or any other source of pollutant;

12. A discharge or flow from individual residential car washing;

13. A discharge or flow from a riparian habitat or wetland or natural spring;

14. A discharge or flow from water used in street washing that is not contaminated with any soap, detergent, degreaser, solvent, emulsifier, dispersant, or any other harmful cleaning substance;

15. Stormwater runoff from a roof that is not contaminated by any runoff or discharge from an emissions scrubber or filter or any other source of pollutant;

16. Swimming pool water, excluding filter backwash; that has been dechlorinated so that it contains no harmful quantity of chlorine, muriatic acid or other chemical used in the treatment or disinfection of the swimming pool water or in pool cleaning;

17. Heat pump discharge waters (residential only).

C. Notwithstanding the provisions of subsection B of this section, any discharge shall be prohibited by this section if the discharge in question has been determined by the director to be a source of a pollutants to the waters of the United States or to the MS4, written notice of such determination has been provided to the discharger, and the discharge has occurred more than ten days beyond such notice.

(Ord. No. 44-123 § 2)

Sec. 16.32.030. Specific prohibitions and requirements.

A. The specific prohibitions and requirements in this section are not necessarily inclusive of all the discharges prohibited by the general prohibition in Section 16.32.020.

B. No person shall introduce or cause to be introduced into the MS4 any discharge that causes or contributes to causing the city to violate a KDHE water quality standard, the city's NPDES

stormwater permit, or any state-issued discharge permit for discharges from its MS4.

C. No person shall dump, spill, leak, pump, pour, emit, empty, discharge, leach, dispose, or otherwise introduce or cause, allow, or permit to be introduced the following substances into the MS4:

1. Any used motor oil, antifreeze or any other petroleum product or waste;

2. A harmful quantity of industrial waste;

3. Any hazardous waste, including household hazardous waste;

4. Any domestic sewage or septic tank waste, grease trap waste, or grit trap waste;

5. Any garbage, rubbish, or yard waste;

6. Wastewater that contains a harmful quantity of soap, detergent, degreaser, solvent, or surfactant based cleaner from a commercial carwash facility; from any vehicle washing, cleaning, or maintenance at any new or used automobile or other vehicle dealership, rental agency, body shop, repair shop, or maintenance facility; or from any washing, cleaning, or maintenance of any business or commercial or public service vehicle, including a truck, bus or heavy equipment, by a business or public entity that operates more than five such vehicles;

7. Wastewater from the washing, cleaning, de-icing, or other maintenance of aircraft;

8. Wastewater from a commercial mobile power washer or from the washing or other cleaning of a building exterior that contains any harmful quantity of soap, detergent, degreaser, solvent, or any surfactant based cleaner;

9. Any wastewater from commercial floor, rug, or carpet cleaning;

10. Any wastewater from the washdown or other cleaning of pavement that contains any harmful quantity of soap, detergent solvent, degreaser, emulsifier, dispersant, or any other harmful cleaning substance; or any wastewater from the wash-down or other cleaning of any pavement where any spill, leak, or other release of oil, motor fuel, or other petroleum or hazardous substance has occurred, unless all harmful quantities of such released material have been previously removed;

11. Any effluent from a cooling tower, condenser, compressor, emissions scrubber, emission filter, or the blowdown from a boiler;

12. Any ready-mixed concrete, mortar, ceramic, asphalt base material or hydromulch material, or discharge resulting from the cleaning of vehicles or equipment containing or used in transporting or applying such material;

13. Any runoff, washdown water or waste from any animal pen, kennel, fowl or livestock containment area;

14. Any filter backwash from a swimming pool or fountain;

15. Any swimming pool water containing a harmful level of chlorine, muriatic acid or other chemical used in the treatment or disinfection of the swimming pool water or in pool cleaning;

16. Any discharge from water line disinfection by super chlorination if it contains a harmful level of chlorine at the point of entry into the MS4 or waters of the United States;

17. Any water from a water curtain in a spray room used for painting vehicles or equipment;

18. Any contaminated runoff from a vehicle wrecking yard;

19. Any substance or material that will damage, block, or clog the MS4;

20. Any release from a petroleum storage tank (PST), or any leachate or runoff from soil contaminated by leaking PST; or any discharge of pumped, confined, or treated wastewater from the remediation of any such PST release, unless the discharge has received an NPDES permit from the state.

D. No person shall introduce or cause to be introduced into the MS4 any harmful quantity of sediment, silt, earth, soil, or other material associated with clearing, grading, excavation or other construction activities in excess of what could be retained on site or captured by employing sediment and erosion control measures to the maximum extent practicable under prevailing circumstances.

E. No person shall connect a line conveying sanitary sewage, domestic or industrial, to the MS4, or allow such a connection to continue.

F. Regulation of Pesticides and Fertilizers.

1. No person shall use or cause to be used any pesticide or fertilizer in any manner that the person knows, or reasonably should know, is likely to cause, or does cause, a harmful quantity of the pesticide or fertilizer to enter the MS4 or waters of the United States.

2. No person shall dispose of, discard, store, or transport a pesticide or fertilizer, or its container, in a manner that the person knows, or reasonably should know, is likely to cause, or does cause, a harmful quantity of the pesticide or fertilizer to enter the MS4 or waters of the United States.

G. Used Oil Regulation.

1. No person shall discharge used oil into the MS4 or a sewer, drainage system, septic tank, surface water, groundwater, or water course.

H. Cleanup. Should it be determined by the director that any person or business has allowed any pollutant into the MS4 or waters of the United States, immediate measures will be taken by the responsible party to remove the pollutants. If the pollutants are not removed within the time period specified by the director, the city may remove the pollutants and assess the cost thereof to the responsible party. The city may use any legal means to collect said cost, should the responsible party fail to pay said cost within forty-five days.

(Ord. No. 44-123 § 3)

Sec. 16.32.040. Release reporting and cleanup.

A. Any person responsible for any release of any hazardous material that may flow, leach, enter, or otherwise be introduced into the MS4 or waters of the United States shall comply with all state, federal, and any other local law requiring reporting, clean-up, containment, and any other appropriate remedial action in response to the release.

B. Within thirty days following such release, the Wichita fire department shall submit a written report to the public works department detailing spill information and the methods used to remedy the problem.

(Ord. No. 44-123 § 4)

Sec. 16.32.050. Stormwater discharges from construction activities.

A. *General requirements (all sites).*

1. The owners of construction sites shall ensure that best management practices are

used to control and reduce the discharge of pollutants into the MS4 and waters of the United States to the maximum extent possible under the circumstances.

2. Qualified personnel (provided by the owner of the construction site) shall inspect disturbed areas that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, structural control measures, and locations where vehicles enter or exit the site, at least once every seven calendar days and within twenty-four hours of the end of a storm that is one-half inch or greater. All erosion and sediment control measures and other identified best management practices shall be observed in order to ensure that they are operating correctly and are effective in preventing significant impacts to receiving waters and the MS4. Based on the results of the inspection, the best management practices shall be revised as appropriate as soon as practicable. These inspections, along with a description of revisions, will be documented in writing and available for inspection by the director and OCI upon request.

3. Should it be found that soil or pollutants have already or may be carried into the MS4 or waters of the United States, immediate measures will be taken by the owner to remedy the violation and/or remove the pollutants. If the owner fails to remove pollutants within the time period prescribed in the notice of violation from the city, the city may remove the pollutants and assess the cost thereof to the responsible owner. Failure of the owner to pay said costs will be grounds for the denial of further approvals or the withholding of occupancy certificates.

4. When determined to be necessary for the effective implementation of this section, the director may require any plans and specifications that are prepared for the construction of site improvements to illustrate and describe the best management practices required by subsection A.1 of this section above that will be implemented at the construction site. Should the proper BMP's not be installed or if the BMP's are ineffective, upon reasonable notice to the owner, the city may deny approval of any building permit, grading permit, subdivision plat, site development plan, or any other city approval necessary to commence or continue construction, or to assume occupancy.

5. The owner of a site of construction activity is responsible for compliance with the requirements in this subsection. In the case of new subdivisions, builders on individual lots can operate under the developers NPDES permit if the developer's SWP3 deals with individual lots and the contractors certification has been signed.

6. Any contractor on a construction site will also be required to use best management practices so as to minimize pollutants that enter into the MS4.

7. All persons shall avoid damaging BMP devices once in place. Any person damaging a BMP device shall be responsible for the repair of the damaged BMP device. Malicious destruction of a BMP device or failure of such responsible person to repair BMP device will be deemed a violation of this chapter.

B. *Sites Requiring Federal and/or State NPDES Stormwater Discharge Permits.* All owners of and contractors on sites of construction activity, that require a federal or state NPDES stormwater discharge permit, or that are part of a common plan of development or sale requiring said permit(s), shall comply with the following requirements (in addition to those in subsection A):

1. Any owner who intends to obtain coverage for stormwater discharges from a construction site under the Kansas General Permit for Stormwater Discharges From Construction Sites ("the construction general permit") shall submit a signed copy of its notice of intent (NOI) to OCI when a building permit application is made. If the construction activity is already underway upon the effective date of this chapter, [January 1, 1999] the NOI shall be submitted within thirty days. When ownership of the construction site changes, a revised NOI shall be submitted within fifteen days of the change in ownership.

2. A stormwater pollution prevention plan (SWP3) shall be prepared and implemented in accordance with the requirements of the construction general permit or any individual or group NPDES permit issued for stormwater discharges from the construction site, and with any additional requirement imposed by or under this chapter and any other city ordinance.

3. The SWP3 shall be prepared by a qualified person and shall comply with State NPDES requirements. The signature of the preparer shall constitute his/her attestation that the SWP3 fully complies with the requirements of the permit issued.

4. The SWP3 shall be completed prior to the submittal of the NOI to OCI and for new construction, prior to the commencement of construction activities. The SWP3 shall be updated and modified as appropriate and as required by the NPDES permit.

5. The director and/or OCI may require any owner who is required by subsection B.2 of this section to prepare a SWP3, to submit the SWP3, and any modifications thereto, to the Director and/or OCI for review at any time.

6. Upon the director's review of the SWP3 and any site inspection that he/she may conduct, if the SWP3 is not being fully implemented, the director may upon reasonable notice to the owner, deny approval of any building permit, grading permit, site development plan, final occupancy certificate, or any other city approval necessary to commence or continue construction. A stop work order may also be issued.

7. All contractors working on a site subject to an NPDES permit shall sign a copy of the following certification statement before beginning work on the site:

I certify under penalty of law that I understand the terms and conditions of the National Pollutant Discharge Elimination System (NPDES) permit that authorizes the stormwater discharges associated with construction activity from the construction site identified as part of this certification and with the Stormwater Pollution Prevention Plan Chapter of the city, and I agree to implement and follow the provisions of the Stormwater Pollution Prevention Plan (SWP3) for the construction site;

The certification must include the name and title of the person providing the signature; the name, address, and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification is made.

All contractors will be responsible for their own activities to ensure that they comply with the owners' SWP3. Failure to comply with the SWP3 or malicious destruction of BMP devices is hereby deemed to be a violation of this chapter.

8. The SWP3 and the certifications of contractors required by subsection B.7 of this section, and with any modifications attached, shall be retained at the construction site or at a local office in Wichita from the date of construction commencement through the date of final stabilization.

9. The director may notify the owner at any time that the SWP3 does not meet the requirements of the NPDES permit issued or any additional requirement imposed by or under this chapter. Such notification shall identify those provisions of the permit or chapter which are not being met by the SWP3, and identify which provisions of the SWP3 require modification in order to meet such requirements. Within thirty days of such notification from the director, the owner shall make the required changes to the SWP3 and shall submit to the director a written certification from the owner that the requested changes have been made.

10. The owner shall amend the SWP3 whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the MS4 or to the waters of the United States, and which has not otherwise been addressed in the SWP3, or if the SWP3 proves to be

ineffective in eliminating or significantly minimizing pollutants, or in otherwise achieving the general objective of controlling pollutants in stormwater discharges.

11. Qualified personnel (provided by the owner of the construction site) shall inspect disturbed areas that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, structural control measures, and locations where vehicles enter or exit the site, at least once every seven calendar days and within twenty-four hours of the end of the storm that is one-half inch or greater. Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the SWP3 shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters or the MS4. Locations where vehicles enter or exit the site shall be inspected for evidence of off-site sediment tracking.

12. Based on the results of the inspections required by subsection B.11 of this section, the pollution prevention measures identified in the SWP3 shall be revised as appropriate. Such modifications shall provide for timely implementation of any changes to the SWP3 within ten calendar days following the inspection.

13. A report summarizing the scope of any inspection required by subsection B.11 of this section, and the names(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the SWP3, and actions taken in accordance with subsection B.12 of this section above shall be made and refined on site or at a local office in Wichita as part of the SWP3. Such report shall identify any incidence of noncompliance. Where a report does not identify any incidence of noncompliance, the report shall contain a certification that the facility is in compliance with the SWP3, the facility's NPDES permit, and this chapter. The report shall be certified and signed by the person responsible for making it.

14. The owner shall retain copies of any SWP3 and all reports required by this chapter or by the NPDES permit for the site, and records of all data used to complete the NOI for a period of at least three years from the date that the site is finally stabilized.

15. Upon final stabilization of the construction site, the owner shall submit written certification to the director and OCI that the site has been finally stabilized. The city may withhold the final occupancy or use permit for any premises constructed on the site until such certification of final stabilization has been filed and the director has determined, following any appropriate inspection, that final stabilization has occurred and that any required permanent structural controls have been completed.

(Ord. No. 44-123 § 5)

Sec. 16.32.060. Stormwater discharges associated with industrial activity.

A. All operators of: (1) municipal landfills; (2) hazardous waste treatment, disposal, and recovery facilities; (3) industrial facilities that are subject to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) 42, U.S.C. Section 11023; industrial facilities required to obtain NPDES stormwater discharge permits due to their Standard Industrial Classification or narrative description; and (4) industrial facilities that the director determines are contributing a substantial pollutant loading to the MS4, which are sources of stormwater discharges associated with industrial activity, shall comply with the following requirements:

1. Any owner who intends, after the effective date of this chapter,* to obtain coverage

for a stormwater discharge associated with industrial activity under the Kansas General Permit for Stormwater Discharges Associated With Industrial Activity ("the industrial general permit") shall submit a signed copy of its notice of intent (NOI) to the director.

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*Editor's note: Ordinance 44-123, which enacted Chapter 16.32, is effective on January 1, 1999.

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2. When required by their NPDES permit, all industries listed in this section shall prepare a stormwater pollution prevention plan (SWP3) and implement said plan in accordance with the requirements of their state or federal NPDES permit.

3. The SWP3, when required, shall be prepared and signed by a qualified individual and will comply with all state NPDES requirements. The signature of the preparer shall constitute his/her attestation that the SWP3 fully complies with the requirements of the NPDES permit.

4. The SWP3, when required, shall be updated and modified as appropriate and as required by the NPDES permit and this chapter.

5. A copy of any NOI that is required by subsection A.1 of this section shall be submitted to the city in conjunction with any application for a permit or any other city approval necessary to commence or continue operation of the industrial facility.

6. The Director may require any operator who is required by subsection A.2 of this section to prepare a SWP3, to submit the SWP3, and any modifications thereto, to the director for review.

7. Upon the director's review of the SWP3 and any site inspection that he/she may conduct, the director may upon reasonable notice to the owner deny approval necessary to commence or continue operation of the facility, on the grounds that the SWP3 does not comply with the requirements of the NPDES permit, or any additional requirement imposed by or under this chapter. Also, if at any time the director determines that the SWP3 is not being fully implemented, upon reasonable notice to the owner, he/she may deny approval of any application for a permit or other city approval necessary to commence or continue operation of the facility.

8. The SWP3, if required, with any modifications attached, shall be retained at the industrial facility from the date of commencement of operations until all stormwater discharges associated with industrial activity at the facility are eliminated and the required notice of termination (NOT) has been submitted.

9. The director may notify the owner at any time that the SWP3 does not meet the requirements of the NPDES permit, or any additional requirement imposed by or under this chapter. Such notification shall identify those provisions of the permit or chapter which are not being met by the SWP3, and identify which provisions require modification in order to meet such requirements. Upon thirty days of such notification from the director, the owner shall submit to the director a written certification that the requested changes have been made.

10. The owner shall amend the SWP3, if required, whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the MS4 or to the waters of the United States, or if the SWP3 proves to be ineffective in eliminating or significantly minimizing pollutants, or in otherwise achieving the general objective of controlling pollutants in stormwater discharges.

11. As may be required by the facilities NPDES permit, qualified personnel (provided by

the owner) shall inspect equipment and areas of the facility specified in the SWP3 at appropriate intervals or as may be specified in their NPDES permit. A set of tracking or follow up procedures shall be used to ensure that appropriate actions are taken in response to the inspections. Records of inspection shall be maintained.

12. Industrial facilities will implement a sampling and testing program as required by their individual NPDES permits. The director may require written reports of any such monitoring and testing to be submitted to him/her.

13. The owner shall retain the SWP3 and all sampling and testing reports until at least one year after stormwater discharges associated with industrial activity at the facility are eliminated, or the operator is no longer operating the facility, and a notice of termination (NOT) has been submitted.

14. For discharges subject to the semi-annual or annual monitoring requirements of the industrial general permit, in addition to the records-retention requirements of the paragraph above, owners are required to retain for a six year period from the date of sample collection, records of all sampling and testing information collected. Owners must submit such monitoring results, and/or a summary thereof, to the director upon his/her request.

15. After the effective date of this chapter,* no stormwater discharge shall contain any hazardous metals in a concentration that would result in the violation of any Kansas Surface Water Quality Standard.

(Ord. No. 44-123 § 6)

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*Editor's note: Ordinance 44-123, which enacted Chapter 16.32, is effective on January 1, 1999.

Sec. 16.32.070. Ditches and ponds.

A. Duty to Maintain. The owner of any private drainage ditch or pond that empties into the city's MS4 or the waters of the United States has a duty to use BMP's on the ditches or pond to minimize the pollutant levels downstream. Such BMP's include, but are not limited to, removing excessive build-up of silt, repairing bank erosion, maintaining vegetative cover, the cleaning of inlet and outlet works, and the like.

B. Inspection and Notice by City. The city will periodically inspect these privately owned ditches and ponds. Should conditions be found that cause the pollution of downstream receiving waters, the director shall so notify the owners, and state what actions are expected by the owners to remedy the problem.

C. Failure to Repair. Should the owners fail to make the necessary repair within one hundred twenty days after notice, the city is authorized to do the repairs at the expense of the owner. Should the owner fail to reimburse the city for the cost of the repairs upon demand, the city may assess the cost thereof to the owner and initiate any collection proceedings authorized by law.

(Ord. No. 44-123 § 7)

Sec. 16.32.080. Compliance monitoring.

A. *Right of entry.* The Director, the Superintendant of OCI and the City Health Officer, or their authorized representatives, shall have the right to enter the premises of any person discharging

storm water to the municipal separate storm sewer system (MS4) or to waters of the United States at any reasonable time to determine if the discharger is complying with all requirements of this chapter, and with any state or federal discharge permit, limitation, or requirement. Dischargers shall allow the inspectors ready access to all parts of the premises for the purposes of inspection, sampling, records examination and copying, and for the performance of any additional duties.

B. *Records.* Subject to the requirements of subsection A, dischargers shall make available, upon request, any SWP3's, modifications thereto, self-inspection reports, monitoring records, compliance evaluations, notice of intent, and any other records, reports, and other documents related to compliance with this chapter and with any state or federal discharge permit.

C. *Sampling.* The Director shall have the right to set up on the discharger's property such devices that are necessary to conduct sampling of storm water discharges.

(Ord. No. 44-123 § 8; Ord. No. 48-904, § 2, 11-16-2010)

Sec. 16.32.090. Subdivision development.

A. The developer of any subdivision requiring a federal or state NPDES stormwater discharge permit will be responsible for obtaining the required permit and developing and implementing an overall SWP3 for the subdivision. Said SWP3 shall include BMP's to be used on individual lot building sites.

B. City contractors installing public streets; water, sanitary sewer, storm sewer lines; and/or sidewalks will be required to comply with the developers SWP3's and sign the appropriate contractor certification statement. For work in public right-of-way or easements requiring a federal or state NPDES stormwater discharge permit, the city shall be responsible for obtaining the required permit and preparing and implementing the required SWP3's.

C. Any utility company installing utilities within a new subdivision will also be required to comply with the developers SWP3's and sign the appropriate contractor certification statement. For work in public rights-of-way or easements requiring a federal or state NPDES stormwater discharge permit, the utility company shall be responsible for obtaining the required permit and preparing and implementing the required SWP3's.

D. The purchasers or individual lots within the subdivision for construction purposes shall comply with the developers SWP3 and shall sign a certification statement agreeing to do so.

(Ord. No. 44-123 § 9)

Sec. 16.32.091. Storm water quality management standards

A. *Applicability.*

1. Water quality treatment and downstream channel protection shall be required of owners of new developments and redevelopments that cause a land disturbance greater than or equal to one acre, including projects that cause a land disturbance less than one acre that are part of a larger common plan of development or sale.

2. The requirements of 16.32.091 shall not apply to:

i. new developments or redevelopments that have a construction plan approved by January 1, 2011 and will have completed construction of all storm water management facilities within 90 days of January 1, 2011. This does not exempt such new developments from water quality management regulations that may be required in the future by EPA or KDHE; or,

ii. redevelopment projects that consist solely of ordinary maintenance activities, remodeling of buildings on the existing foundation, resurfacing (milling and overlay) of existing paved areas, and exterior changes or improvements.

B. *Water quality treatment standard for new developments.* Storm water runoff from applicable new developments must be treated for water quality prior to discharge from the development site in accordance with the storm water treatment standards and criteria provided in the Storm Water Manual.

C. *Water quality treatment standard for redevelopments.* Owners of applicable redevelopments must adhere to one of the following requirements.

1. The total impervious cover of the property after redevelopment shall be reduced by at least 20% from the total impervious cover of the property prior to the proposed redevelopment.

2. Storm water runoff from at least 30% of the site's existing impervious cover and for 100% of any new land disturbance that will result from the proposed redevelopment shall be treated for water quality prior to discharge from the redevelopment site in accordance with the storm water treatment standards and criteria provided in the Storm Water Manual.

3. The owner shall provide storm water controls at an alternative location in the same watershed as the proposed redevelopment. The level of storm water control provided shall be equivalent to what would have been provided at the proposed redevelopment for either requirement 1 or 2 above, at a minimum.

4. In agreement and partnership with the City of Wichita, the owner shall provide engineering design and/or construction activities to address one or more known downstream water quality or channel erosion issues located within the same watershed as the proposed redevelopment, through stream restoration and/or other off-site remedies approved by the Director.

5. The owner shall pay a fee in-lieu-of water quality control and channel protection control, in an amount to be determined by the city in accordance with the in-lieu-of fee schedule as adopted by the City Council of the City of Wichita per the watershed plan which covers the redevelopment.

6. Any combination of (1) through (5) above may be acceptable to the City of Wichita or other solution(s) approved by the Director that meets the intent of this chapter.

D. *Downstream stabilization standard.* Downstream long-term channel protection shall be provided for applicable new developments and redevelopments prior to discharge from the new/redevelopment site in accordance with the downstream stabilization standards and criteria provided in the Storm Water Manual.

(Ord. No. 48-904, § 3, 11-16-2010)

Sec. 16.32.092. Storm water quantity management standards

A. *Applicability.* Storm water runoff peak discharge analysis and control shall be required for new developments and redevelopments that will create or add one acre or greater of impervious cover, including projects that have less than one acre in impervious cover that are part of a larger common plan of development or sale that will result in one acre or greater of impervious cover.

B. *Water quantity management standard.* Storm water runoff peak discharge analysis and control shall be required for applicable new developments or redevelopments in accordance

with the storm water quantity standards and criteria provided in the Storm Water Manual.

(Ord. No. 48-904, § 4, 11-16-2010)

Sec. 16.32.093. Other storm water management requirements

A. *Applicability.* Section 16.32.093 is applicable to new developments and redevelopments that are required to comply with section 16.32.091 and/or section 16.32.092.

B. *Alternative standards for individual watersheds.* Alternative storm water management standards, either lesser or greater than those specified in this chapter, may be required by the Director in those areas or watersheds where water quality, flooding or erosion problems are known to exist, or in individual watersheds where a watershed plan or storm water master plan, approved by the City Council of the City of Wichita, specifies such alternative standards.

C. *Other requirements for storm water discharges.*

1. Storm water discharges shall be managed in consideration of the erosion control measures detailed in the Storm Water Manual.

2. Any discharge of storm water runoff to groundwater must meet all applicable local, State and Federal requirements, permits, plans and programs. The owner is responsible for complying with all local State and Federal permits that are applicable to the site.

D. *Requirement to stabilize banks.* Banks of all streams, channels, ditches and other earthen storm water conveyances shall be left in a stabilized condition upon completion of the new development or redevelopment. No actively eroding, bare or unstable vertical banks shall remain after completion of construction.

E. *Requirement to use the Storm Water Manual.* All storm water facilities and systems, including those designed and constructed for water quality treatment, downstream channel stabilization, and peak discharge control shall be designed, constructed and maintained in accordance with the criteria, standards, and specifications presented in this chapter and in the Storm Water Manual. The standards for water quality treatment, downstream channel stabilization and peak discharge analysis and control shall be achieved through the use of one or more storm water quality management facilities that are designed and constructed in accordance with the design criteria, guidance, and specifications provided in the Storm Water Manual. Methods, designs or technologies for storm water quality management facilities that are not provided in the Storm Water Manual may be submitted for approval by the city if it is proven that such methods, designs or technologies will meet or exceed the storm water treatment standards set forth in the Storm Water Manual and this ordinance. Proof of such methods, designs, or technologies must meet the minimum testing criteria set forth in the Storm Water Manual.

F. *Storm water facilities on public property.* Storm water management facilities shall not be installed within public rights-of-way or on public property unless a permit has been issued by the city engineer.

(Ord. No. 48-904, § 5, 11-16-2010)

Sec. 16.32.094. Waivers and exemptions from storm water management standards for new developments

A. *Exemptions.* Owners of properties where the following activities are undertaken are exempt from the requirements of sections 16.32.091, 16.32.092, 16.32.093 and 16.32.094 of this chapter.

1. Minor land disturbing activities at individual locations, such as gardening, building or grounds maintenance and landscaping, provided that the activity does not result in equal to or greater than one (1) acre of land disturbance;

2. Individual utility service connections, unless such activity is carried-out in conjunction with the clearing, grading, excavating, transporting, or filling of a lot or lots for which a grading permit would otherwise be required by regulation;

3. Installation, maintenance or repair of individual septic tank lines or drainage fields, unless such activity is carried out in conjunction with the clearing, grading, excavating, transporting, or filling of a lot or lots for which a grading permit would otherwise be required by the regulation;

4. Installation of posts or poles;

5. Farming activities;

6. Unplanned emergency work and emergency repairs necessary to protect life or property.

B. *Waivers.* All or some of the storm water management standards required in section 16.32.091 and/or 16.32.092 of this chapter may be waived by the Director under the following circumstances.

1. *Existing Downstream Facilities.* A waiver may be provided for one or more storm water management standards if the waived standard(s) are met by discharging the storm water runoff to an existing storm water management facility, whether public or private, that is:

i. provided in accordance with an existing watershed plan that is approved by the city; and,

ii. already in existence, or will be in existence at the time of construction of the new development or redevelopment; and,

iii. designed, constructed and maintained to provide a level of storm water control that is equal or greater than that which would be afforded by on-site storm water management facilities.

iv. If a waiver is provided for this reason, the owner of the new development or redevelopment will be required to pay a fee in-lieu-of water quality control, downstream channel stabilization and peak discharge control, in an amount to be determined by the city in accordance with an adopted in-lieu-of fee schedule as adopted by the City Council of the City of Wichita per the watershed plan which covers the new development or redevelopment.

2. *Adverse Impact.* A waiver may be provided if engineering studies determine that installing a storm water management facility in order to meet the storm water management standard being considered for waiver will cause adverse impact to water quality, or cause increased channel erosion, or downstream flooding.

3. *Technical Criterion.* A waiver may be provided if the technical criterion required to waive the storm water management standard, as presented in the Storm Water Manual, is met. In any case, a waiver is subject to satisfaction of the following requirements, which shall be shown in drainage plans submitted for the new development or redevelopment:

i. the waiver applicant shall provide an engineering study, as defined in 16.32.094.C that proves the adequacy of downstream or shared off-site storm water management facilities to offer equivalent or greater protection than the standard(s) for which a waiver is requested; and,

ii. the waiver applicant obtains any necessary CLOMR prior to construction, and a LOMR upon completion of construction; and,

iii. the waiver applicant obtains all State and Federal permits that may be applicable to the site.

C. *Engineering study required.* In the event that a waiver from storm water management control requirements is requested, the adequacy of downstream or shared off-site storm water management facilities to control storm water runoff shall be determined, reviewed and approved by an engineering study that is performed in accordance with the calculation methods presented in the Storm Water Manual. The engineering studies shall be performed at the expense of the owner(s) of the proposed new development or redevelopment, unless a study has already been or is being performed by the city as part of a watershed plan or other land use plan.

(Ord. No. 48-904, § 6, 11-16-2010)

Sec. 16.32.095. General requirements for storm water design plans

A. *[Design information.]* Storm water design information shall be submitted as part of the preliminary plat, final plat and construction plans, in accordance with the site development process established by the city.

B. *[Building permit.]* A building permit shall not be issued for the land development activity until the required storm water design information and corresponding plans are approved by the city.

C. *[Submission.]* At a minimum, the storm water design information submitted at each stage of the city development process shall include the specific required elements that are listed and/or described in the Storm Water Manual, and shall be prepared in accordance with the policies, guidance and calculation methods (unless equivalent methods are pre-approved by the city) presented in the Storm Water Manual. Additional storm water design information may be required as necessary to allow an adequate review of the existing or proposed site conditions.

D. The submittal of storm water design information shall be subject to the requirements set forth in the minimum subdivision regulations, zoning ordinance, or other city regulations.

E. *[Supervision.]* Storm water design information shall be prepared under the supervision of and stamped by a professional engineer licensed to practice in the State of Kansas.

F. *[Viability.]* The portions of the new development or redevelopment on which storm water management facilities and systems are located shall be shown on the preliminary and final plats for all residential subdivisions and recorded with the plat as permanent reserves or easements consistent with the policies stated in the Storm Water Manual. Non-residential plats and/or subdivisions having a total area less than or equal to 15 acres shall be required to demonstrate the viability of proposed storm water management facilities and systems. In such cases, the Director is authorized to allow contingent dedications for storm water facilities providing that the owner/developer enters into an agreement with the City guaranteeing the construction of the said facilities in accordance with a schedule approved in the said agreement.

G. *Conformity to the approved plans.*

1. Grading designs shown on approved master grading plans and the design of storm water facilities and controls shown on approved design plans shall be adhered to during grading and construction activities. Under no circumstance is the owner or operator of land development activities allowed to deviate from the approved plans without prior approval of a plan amendment by the city.

2. Grading and storm water design plans shall be amended to meet all local ordinances and standards if the proposed site conditions change after plan approval is obtained, or

if it is determined by the city during the course of grading or construction that the approved plan is inadequate.

H. *Duty to provide an operations and maintenance plan.*

1. An Operations and Maintenance Plan shall be included with the storm water design information submitted with the construction plan. The Operations and Maintenance Plan shall include the required operation and maintenance provisions for each storm water management facility and water quality volume reduction area that is serving, or will serve, the development or redevelopment. The Operations and Maintenance Plan shall include all of the required elements that are listed and/or described in the Storm Water Manual, and shall be prepared in accordance with the policies and guidance provided in the Storm Water Manual.

2. The Operations and Maintenance Plan shall include an executed legal document entitled "Restrictive Covenants for Storm Water Facilities" (Covenants). The property owner shall record the Covenants with the deed for the property. The location of the storm water management facility(s) and water quality volume reduction areas, the recorded location of the Covenants document, and inspection and maintenance guidance outlining the property owner's responsibility shall be shown on a plat that is recorded for the property

I. *Duty to provide storm water construction information on as-built drawings.*

1. Prior to the release of the performance bond, complete As-Built Drawings shall be provided to the Director, and shall include sufficient design information to show that the storm water facilities will operate as designed under the approved drainage plan.

2. The As-Built Drawings shall include the required elements that are listed and/or described in the Storm Water Manual, and shall be prepared in accordance with the policies and guidance provided in the Storm Water Manual.

3. The As-Built Drawings shall be prepared and stamped by a professional engineer licensed to practice in the State of Kansas.

(Ord. No. 48-904, § 7, 11-16-2010)

Sec. 16.32.096. Maintenance and inspection of storm water drainage paths and controls.

A. *Duty to inspect and maintain storm water systems and controls.* Property owners shall at all times properly maintain and shall at intervals in accordance with the Operations and Maintenance Plan inspect all storm water facilities, systems, conveyances, pipes, channels, ditches, swales, inlets, catchbasins, water quality volume credit areas, and other facilities and systems of storm water treatment and control (and related appurtenances) so that they operate at their full function. Maintenance and inspection of privately-owned storm water management facilities, systems, conveyances, pipes, channels, ditches, swales, inlets, catchbasins, water quality volume credit areas, and other facilities and systems of storm water treatment and control (and related appurtenances) shall be performed at the expense of the owner(s) of such facilities.

B. *Duty to provide inspection reports.* After construction of each storm water management facility on the property is complete, property owners shall provide to the Director on a bi-annual basis a completed and signed copy of the inspection report for each storm water management facility that is included with the Operations and Maintenance Plan for the property. The inspection report is due every two years no later than the date (month and day) of approval of the as-built plan for the property.

C. *Duty to preserve approved grading designs.* Re-grading an individual lot or lots, or portions of a lot or lots, in a manner that is in not accordance the approved master grading plan, such that the direction(s) of storm water runoff is altered from the direction that would occur under the approved master grading plan, shall be considered a violation of this chapter.

D. *Duty to preserve existing drainage paths.* Blockage of a channel, ditch, stream or any other drainage path or storm water system appurtenance that is located in a storm water easement or drainage easement shall be considered a violation of this chapter.

E. *Pollutant removal for maintenance.* The removal of pollutants, sediment and/or other debris for the purpose of maintenance of storm water management facilities shall be performed in accordance with all city, State, and Federal laws.

F. *Inspection during grading or construction.*

1. During grading or construction, the property owner or his/her appointed designee shall conduct site inspections in accordance with the requirements stated in the Kansas General Permit for Storm Water Discharges from Construction Sites. The property owner will also ensure construction conformance with the approved drainage and construction plans. More stringent inspection requirements may be imposed as necessary for purposes of water quality protection and public safety and to pursue total conformance of the site with the approved plans.

2. The following areas and items must be inspected throughout grading and construction to ensure that land disturbance activities do not cause adverse impacts to the performance of storm water management facilities and/or water quality volume reduction areas:

i. all unstabilized areas that drain to a permanent storm water facility or water quality volume reduction area;

ii. temporary and permanent storm water management facilities; and,

iii. all erosion prevention and sediment control measures.

G. *Inspection after construction.* Once the site has been stabilized and construction has ceased, the property owner or his/her appointed designee shall conduct routine inspections for the storm water management facilities and water quality reduction areas, based on the guidance provided in the Operations and Maintenance Plan and the requirements of the "Restrictive Covenants for Storm Water Facilities" for the property, as set forth in section 16.32.095.H.2. of this ordinance.

H. *Inspection records.* Property owners shall make available upon request any self-inspection reports, monitoring/maintenance records, compliance evaluations, notices of intent, and any other records, reports, receipts, and other documents related to compliance with this chapter and with any related local, State or Federal permit.

I. *Right-of-entry.* The Director or his/her designee shall have the right to enter the premises of any person discharging storm water to the MS4 or to waters of the United States at any reasonable time to determine if the discharger is complying with all requirements of this chapter, and with any State or Federal discharge permit, limitation, or requirement. Dischargers shall allow the Director or his/her designee ready access to all parts of the premises for the purposes of inspection, sampling, records examination and copying, and for the performance of any additional duties. Failure of a property owner to allow entry onto a property for the purposes set forth in this section shall be cause for the issuance of a stop work order, withholding of a certificate of occupancy, and/or civil penalties and/or damage assessments in accordance with the enforcement provisions of this chapter.

J. *Inspection and notice by City.* The city may periodically inspect these privately owned storm water controls. If the facility is not operating as shown in the approved As-Built Drawing, or

should conditions be found that cause or may cause the pollution of downstream receiving waters or the erosion of downstream channels or the flooding of adjacent or downstream properties, the Director may issue a notice of violation in accordance with the enforcement provisions stated in this chapter and shall notify the property owner(s) of the potential violation (s). The Director may order the property owner(s) to perform corrective actions as are necessary to facilitate the proper operation of these facilities for the purposes of flood prevention, downstream channel stabilization, water quality treatment and/or public safety, and/or to ensure compliance with jurisdictional regulatory conditions.

K. *Failure to perform corrective actions.* If property owner(s) fail to make the necessary corrective actions in the timeframe specified in the enforcement provisions of this chapter, the city is authorized to perform the corrective actions at the expense of the owner(s). If the owner (s) fail to reimburse the city for the corrective actions upon demand, the city may assess the cost of the corrective actions to the owner and initiate any collection proceedings authorized by law.

L. *Access to adjacent properties.* This ordinance does not authorize access by a property owner or site operator to private property adjacent to or downstream of the owner's property. Arrangements concerning removal of sediment or pollutants on adjoining property must be settled by the owner or operator with the adjoining landowner.

(Ord. No. 48-904, § 8, 11-16-2010)

Sec. 16.32.097. Special provisions for open channels.

A. No structure or land shall hereafter be developed, redeveloped, located, extended, converted, or structurally altered without full compliance with the terms of this section, the City of Wichita Floodplain Management Ordinance (Chapter 27.06) and other applicable local, state or federal regulations.

B. Requirements for vegetative buffer zones or maintenance access areas that have been established in approved and adopted watershed plans have priority over the provisions of this section.

C. Closure of open channels. Existing or proposed open channels may be enclosed if a maintenance plan approved by the City is provided; if the closed conduit conforms to the design criteria set in the Storm Water Manual.

D. Access easement required. All open channels must have a minimum twenty (20) foot wide maintenance access on each side of the stream as measured from the top-of-bank on each side of the stream, except as required by KSA 24-126 as amended, and KAR 5-45-12 as amended for "streams" defined in KAR 5-45-1 as amended.

(Ord. No. 48-904, § 9, 11-16-2010)

Sec. 16.32.100. Enforcement actions.

A. The discharge of, or potential discharge of, any pollutant to the MS4 or waters of the United States and/or the failure to comply with the provisions of this chapter and/or the failure to comply with and directive, citation, or order issued under this chapter; are violations of this chapter for which enforcement action may be taken.

B. Prior to taking any enforcement action as specified in this section, a violator will be issued a notice of violation except when, in the opinion of the Director, an owner or contractor has repeatedly ignored the requirements of this chapter and has not made any reasonable intent to comply with these provisions. When issued, the notice of violation will detail the nature of the

violation, actions to be taken to remedy the violation, actions to be taken to clean-up any pollutants, and any specific time periods within which to accomplish said actions. Failure to successfully comply with the notice of violation may result in enforcement action.

C. The enforcement actions to be taken under this chapter, as provided in Section 16.32.110 are as follows:

1. *Criminal penalty.* Any person violating any provision of this chapter is guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not more than one thousand dollars. Each and every day during which any violation of any provision of this chapter is committed, continue, or permitted is a separate violation.

2. *Stop work order.* Notwithstanding other penalties provided by this chapter, whenever the Director or OCI, or their designees, finds that any owner or contractor on a construction site has violated, or continues to violate, any provision of this chapter or any order issued thereunder, the Director or OCI may after reasonable notice to the owner or contractor issue a stop work order to the owner and contractors by posting such order at the construction site. Said order shall also be distributed to all city departments and divisions whose decisions may affect any activity at the site. Unless express written exception is made, the stop work order shall prohibit any further construction activity at building permit, grading permit, site development plan approval, or any other approval necessary to commence or to continue construction or to assume occupancy at the site. Issuance of a stop work order shall not be a bar against, or a prerequisite for, taking any other action against the violator. Failure to comply with the requirements of any stop work order is a violation of this chapter.

3. *Administrative penalty process.*

a. When the Director finds that any person has violated or continues to violate the provisions set forth in this chapter, or the person's NPDES permit or any order issued thereunder, the Director may issue an order for compliance to the person. Such orders may contain any requirements as might be reasonably necessary and appropriate to address noncompliance including, but not limited to, the installation of best management practices, additional self-monitoring, and/or disconnection from the MS4.

b. The Director is empowered to enter into consent orders, assurances of voluntary compliance, or other similar documents establishing an agreement with any person responsible for noncompliance. Such orders shall include specific action to be taken by the person to correct the noncompliance within a time period specified by the order.

c. Notwithstanding any other remedies or procedures available to the city, any person who is found to have violated any provision of this chapter, or any NPDES permit or any order issued under this chapter, may be assessed an administrative penalty as follows:

1. The minimum administrative penalty for any violation shall be no less than $500.00 per day the violation is maintained and not more than $2,500.00 per day for each day the violation is maintained;

2. Failure to obtain required NPDES permit: up to $2,500.00 per violation;

3. Failure to prepare stormwater pollution prevention plan: up to $2,500.00 per violation;

4. Failure to install best management practices: up to $2,500.00 per violation;

5. Failure to maintain best management practices: up to $2,500.00 per

violation;

6. Failure to perform required sampling and testing or provide testing reports: up to $1,000.00 per violation.

7. Commencement of construction without an approved drainage plan: up to $2,500.00 per day of noncompliance;

8. Failure to comply with approved drainage plan: up to $2,500.00 per day of noncompliance;

9. Failure to maintain storm water management facilities: up to $2,500.00 per day of noncompliance.

d. Each day on which noncompliance shall occur or continue shall be deemed a separate and distinct violation.

e. Separate but multiple violations (except for violations under subsection C.3.d) by the same person(s) on one or more sites within any period of twelve consecutive months shall be cause to double the amount of penalty assessed under section C.3.c above for each violation after the first.

f. Upon assessment of any administrative penalty, the city will bill the violator for said charge and the Director shall have such collection remedies as are available at law.

(Ord. No. 44-123 § 10; Ord. No. 48-904, § 10, 11-16-2010)

Sec. 16.32.110. Applicability of enforcement actions.

A. Illegal dumping will be subject to criminal penalties process.

B. Illegal connections will be subject to either the criminal or administrative penalty processes.

C. Industrial violations will be subject to the administrative penalty process.

D. Individual building sites not requiring a federal or state NPDES permit will be subject to the criminal penalty and the stop work order processes; however, any owner or contractor of such site found with multiple violations of this chapter will also be subject to the administrative penalty process.

E. Individual building sites requiring a federal or state NPDES permit will be subject to the administrative penalty process.

F. Subdivision developers in subdivisions not requiring a federal or state NPDES permit will be subject to the criminal penalty and stop work order processes; however, any such developer found with multiple violations of this chapter will also be subject to the administrative penalty process.

G. Subdivision developers of subdivisions requiring a federal or state NPDES permit will be subject to the administrative penalty process.

H. City contractors and utility companies working on projects not requiring a federal or State NPDES permit will be subject to the criminal penalty process.

I. City contractors and utility companies working on projects requiring federal or state NPDES permit will be subject to the administrative penalty process.

J. Property owners, subdivision developers, commercial and industrial developers, and city contractors working on new developments and redevelopments requiring compliance with the City of Wichita storm water quality or quantity management standards will be subject to the criminal penalty, stop work order and administrative penalty processes.

K. Owners of storm water management facilities and systems that are required to be maintained in accordance with an approved Operations and Maintenance Plan will be subject to the criminal penalty and administrative penalty processes.

(Ord. No. 44-123 § 11; Ord. No. 48-904, § 11, 11-16-2010)

Sec. 16.32.120. Hearing and appeal.

A. Persons who desire to appeal an administrative requirement, violation or penalty invoked under this chapter may request a hearing and appeal as follows:

1. Any party affected by a penalty, order, directive or determination issued or made, pursuant to this chapter may, within fourteen days of the issuance of such penalty, order, directive, or determination request a hearing before the Director to show cause why such should be modified or made to not apply to such person. Such request shall be in writing and addressed to the Director of Public Works and Utilities at 455 North Main Street, Wichita, Kansas, 67202. The Director or his designee shall hold the requested hearing as soon as practical after receiving the request, at which time the person affected shall have an opportunity to be heard. At the conclusion of the hearing, the Director shall issue a written response to the person requesting the hearing affirming, modifying, or rescinding the penalty, order, directive, or determination issued or made.

2. Any party aggrieved by the decision of the Director may appeal such decision to the City Council within fourteen days of receipt of the decision by filing notice of appeal with the city clerk. Upon hearing, the City Council may affirm, modify, or reverse the decision of the Director.

(Ord. No. 44-123 § 12; Ord. No. 48-904, § 12, 11-16-2010)

Sec. 16.32.130. Enforcement personnel authorized.

A. The following personnel employed by the city shall have the power to issue notices of violations, criminal citations and implement other enforcement actions under this chapter:

1. All deputies under the supervision of the Superintendent of the Office of Central Inspections;

2. All authorized personnel under the supervision of the Director of Public Works and Utilities;

3. All authorized personnel under the supervision of the City Health Officer.

(Ord. No. 44-123 § 13; Ord. No. 48-904, § 13, 11-16-2010)

Sec. 16.32.140. Other legal actions.

Notwithstanding any other remedies or procedures available to the city, if any person discharges into the MS4 in a manner that is contrary to the provisions of this chapter, or any NPDES permit or order issued hereunder, the city attorney may commence an action for appropriate legal and equitable relief including damages and costs in the district court of Sedgwick County. The city attorney may seek a preliminary or permanent injunction or both which restrains or compels the activities on the part of the discharger.

(Ord. No. 44-123 § 14)

Sec. 16.32.150. Falsifying information.

Falsifying information is a separate offense and deemed a misdemeanor. Any person who knowingly makes false statements, representation or certification in any application, record, report, plan or other document filed or required to be maintained pursuant to this chapter or any NPDES permit, or who falsifies, or tampers with any monitoring device or method required under this chapter shall, upon conviction, be punished by a fine of not more than one thousand dollars or by imprisonment for not more than six months, or by both.

(Ord. No. 44-123 § 15)

Sec. 16.32.160. Supplemental enforcement actions.

A. Performance Bonds. Where necessary for the reasonable implementation of this chapter, the director may, by written notice, order any owner of a source of stormwater discharge associated with construction or industrial activity effected by this chapter to file a satisfactory bond, payable to the city, in a sum not to exceed a value determined by the director to be necessary to achieve consistent compliance with this chapter. The city may deny approval of any building permit, grading permit, subdivision plat, site development plan, or any other city permit or approval necessary to commence or continue construction or industrial activity at the site, or to assume occupancy, until such a performance bond has been filed.

B. Liability Insurance. Where necessary for the reasonable implementation of this chapter, the director may, by written notice, order any owner of a source of stormwater discharge associated with construction or industrial activity effected by this chapter to submit proof that it has obtained liability insurance, or other financial assurance, in an amount not to exceed a value reasonably determined by the director, that is sufficient to remediate, restore, and abate any damage to the MS4, the waters of the United States, or any other aspect of the environment that is caused by the discharge.

(Ord. No. 44-123 § 16)

Sec. 16.32.170. Severability.

If any provision of this chapter is invalidated by any court of competent jurisdiction, the remaining provisions shall not be affected and shall remain in full force and effect.

(Ord. No. 44-123 § 17)

City of Wichita, Kansas

Stormwater Management Program 2007-2012

Kansas Permit No. M-AR94-S001

Federal Permit No. KS0091049

September 2008

Stormwater Management Program 2007-2012

City of Wichita, Kansas

September 2008

The City of Wichita (City or Permittee), Kansas has prepared this Stormwater Management Program (SWMP, SMP or Program) to outline the measures it will take to reduce the discharge of pollutants from the Municipal Separate Storm Sewer System (MS4) to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements and goals of the Clean Water Act, and the City's National Pollutant Discharge Elimination System (NPDES) Permit.

This Program has been submitted in compliance with the requirements of both the Kansas Water Pollution Control MS4 Permit No. M-AR94-S001 and Federal Permit No. KS0091049 that is required for the term beginning October 1, 2007, and expiring September 30, 2012. This Program also operates using the legal authority as set forth in City Ordinance Chapter 16.32, and subsequent revisions.

Changes to this plan may be made as allowed by the Permit and approved by the Kansas Department of Health and Environment (KDHE). This Program is implemented within areas of the City's legal jurisdiction, boundaries and on its properties.

This Program provides a list of stormwater Best Management Practices (BMPs) that the City of Wichita agrees to implement as required by the KDHE NPDES Permit. Each BMP will have goals and measurements to demonstrate compliance with the goals. There are three sections of this Program as follows:

- Section I - BMPs for Six Minimum Control Measures as required by KDHE NPDES Permit Part V;
- Section II – BMPs for Principal Pollutants of Concern (PPoC) as required by KDHE NPDES Permit Part IV that lists identified principal pollutants of concern; and
- Section III – BMPs for Total Maximum Daily Load (TMDL) Parameters as required by KDHE NPDES Permit Part III for specifically listed associated streams.

Section I and II will be implemented within all legal boundaries of the City and Section III will be implemented to comply with requirements for associated streams as specified in the current KDHE NPDES Permit and as identified in this Program.

Other agencies and organizations may contribute to the implementation of these measures. Also, actions and measures utilized but not documented in the SMP may be implanted throughout the permit years. Each of the contributions made by others as well as additional City actions will be documented in the Annual Report and will be counted towards goal attainment. All education programs and actions taken throughout 2008 shall count as activities towards compliance with this Program. Each year thereafter will follow the Program as identified in this document.

Section I - BMPs for Six Minimum Control Measures (MCM)

Minimum Control Measure No. 1: Public Education and Outreach

The City will implement a public education program which includes distribution of materials to the community or conducting equivalent outreach activities which address the impacts of stormwater discharges on water bodies and the steps the public can take to reduce pollutants in stormwater runoff. Each BMP listed below will describe a part of the City's public education program and will list how its completion will be measured.

A. Video messages and graphics will be developed by the City for use on the City's Cable Channel 7 or other video outlets for community distribution. This activity will take the form of periodic repeating video presentations or graphics informing citizens of the importance of preventing stormwater pollution and individual actions citizens can take to reduce their impact on stormwater.

   Measurable Goal: A repeating video or graphic designed to inform the public on stormwater pollution prevention will be run at least twice per year on the City's Cable Channel 7, beginning in October 2008, and continue each year thereafter. Presentations/messages and graphics will be documented along with the media used and its duration.

B. An informational brochure on stormwater quality for residents will be developed by the City. This brochure will be used as a Wichita Water Utility bill insert.

   Measurable Goal: A brochure will be developed and approximately 130,000 will be distributed beginning in October 2008. Each year thereafter the City will develop an annual brochure and distribute these via Wichita Water Utility bill inserts.

C. The City will distribute stormwater education materials through the City of Wichita website ("www.wichita.gov"). Materials will be distributed through City web pages and/or appropriate links to local, regional, and national websites.

   Measurable Goal: Website will be developed and in operation after October 1, 2008, and continue throughout the permit term. At least one informational document or website link will be added to the website for stormwater education and will be reported and documented in the Annual Report.

D. Stormwater pollution prevention, water conservation and water quality education programs have been and will continue to be developed and provided to public and private schools. These may be provided at the City's W.A.T.E.R. Center as well as at public school facilities or other locations. Such programs and assistance may be provided in cooperation with educational, non-profit, or other governmental groups.

   Measurable Goal: City will continue contact with interested teachers and appropriate school officials. Programs and assistance will continue to be provided through several ongoing programs and will reach a minimum of 500 students or participants each permit year and will be documented.

E. Stormwater pollution prevention, water conservation and water quality education programs have been and will continue to be developed and provided to neighborhood groups, homeowner's associations, business and trade associations, community organizations, youth groups, and other groups and organizations. These may be provided at the City's

W.A.T.E.R. Center as well as at other locations. Such programs and assistance may be provided in cooperation with educational, non-profit, or other governmental groups.

Measurable Goal: There will be at least 20 programs presented annually of each permit year. The programs will be documented and a summary of the programs provided will be identified in the annual report.

F. Annually each BMP and corresponding measurable goal provided in this SMP will be evaluated and progress or actions will be reported in the Annual Report as required by the KDHE NPDES permit.

Measurable Goal: As required by the KDHE NPDES permit, an Annual Report will be submitted to KDHE by April 1 of each year for the previous calendar year. The Annual Report will be provided to the City Manager and posted on the City's stormwater website.

Minimum Control Measure #2: Public Involvement and Participation

The City will implement a public involvement and participation program to solicit public comment and recommendations regarding the BMPs and measureable goals utilized in this Program to comply with this permit.

A. Public comments and recommendations for this plan and recommended changes to this plan will be solicited by the City regarding the BMPs and measurable goals that will be utilized to achieve the goals of this permit. Public input will be considered and utilized, if applicable, in the annual evaluation of this SMP.

Measurable Goal: Public comment periods will be established and announced via press releases and posted on the City website. Public comments will be documented and considered in finalizing all documents. Comments made via any method, (i.e., web site, phone, mail, etc.,) will be evaluated and, if appropriate, incorporated into this SMP. This will begin in October 2008.

B. The City will conduct at least one volunteer river clean up day with citizen and group volunteers and participants will be surveyed for their suggestions for stormwater pollution prevention measures.

Measurable Goal: An Arkansas River (and/or tributaries) Cleanup will be held at least once each year of the permit. Stream miles cleaned, number of volunteers, tons of trash collected and survey responses will be documented. Results will be contained in the annual evaluation of this SMP.

C. The City will convene a Task Force for the purpose of reviewing stormwater best management practices and making recommendations to the City for implementation.

Measureable Goal: The City has already initiated this Task Force (August 2008) and will seek its input regarding this Program and individual best management practices as determined by the City. Comments will be evaluated and, if appropriate, incorporated into this SMP. This will begin in September 2008.

Minimum Control Measure #3: Illicit Discharge Detection and Elimination

The City agrees to:

- Develop, implement, and enforce a program to detect and eliminate illicit discharges into the MS4;
- Develop a storm sewer system map of the Permittee's MS4, showing the location of all outfalls, either pipes or open channel drainage, showing the names and location of all streams or lakes that receive discharges from those outfalls;
- Enact an ordinance to prohibit non-stormwater discharges into the storm sewer system as required by the current KDHE permit and implement appropriate enforcement procedures and actions (a copy of the most recently adopted ordinance shall be submitted to KDHE with the subsequent Annual Report);
- Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste; and
- Develop and implement a plan to detect and address prohibited non-stormwater discharges as required by the current KDHE NPDES permit.

A. The City has already passed an ordinance to prohibit non-stormwater discharges into the storm sewer system as required by the current KDHE permit and has implemented appropriate enforcement procedures and actions.

   Measurable Goal: An ordinance prohibiting non-stormwater discharges is currently in place, Chapter 16.32, and will be maintained and updated as necessary throughout the effective dates of this permit. A copy of the implemented ordinance will be provided in the next Annual Report.

B. The City will continue to televise storm sewer pipe to identify illicit connections or discharges.

   Measurable Goal: Each permit year the City will televise 45,000 linear feet of storm sewer pipe in an effort to find illicit connections or discharges. Any illicit discharges found will be investigated with actions documented. The amount of storm sewer televised will be reported in the Annual Report with a summary of results included.

C. Permittee will continue the program of televising sanitary sewer lines.

   Measurable Goal: A minimum of 400,000 linear feet of sanitary sewer line will be televised in each of the remaining years of the permit and reported in the Annual Report.

D. A City program of systematic inlet inspections and cleaning, including visual observations for illicit discharges will be continued.

   Measurable Goals: Permittee will perform at least 30,000 catch basin cleanings each year. This effort is currently underway and inspection frequency will be reviewed each permit year for planning of the next year's cleaning schedule. In the third quarter of the 3rd year of permit coverage a new plan will be established for years 4 and 5 to take any new factors including new equipment into consideration.

E. The City has already prepared a current and complete storm sewer collection system map in accordance with the KDHE NPDES permit requirements. An updated GIS storm sewer

system map is currently being prepared.

Measurable Goal: Permittee has contracted for the development of an electronic geo-database of the storm sewer collection system. Due to the City's large system, this program will need to be implemented in phases. The system will include specifications identified by the current KDHE NPDES Permit. Phase 1 of this program is planned to be completed in the fall of 2008. Public Works plans to contract for the remaining program in-2008, with the entire geo-database stormwater system planned to be completed by 2011.

F. A restaurant inspection program will continue to be utilized to verify that grease is not being discharged to the municipal storm drains. These inspections are incorporated into the Water Utilities regular inspection program and accomplished by City inspectors.

Measurable Goal: Inspections of restaurant grease handling is an existing program within the Wichita Water Utility Department. There will be a minimum of 160 inspections performed each permit year and the results will be reported in the Annual Report. If changes are necessary with this program, KDHE will be informed.

G. Regulate septic system installation and usage, via the existing Ordinance, and respond to complaints regarding improper discharges related to septic systems. Septic system regulation is an ongoing program of the City. The City will seek City Council approval to "order in" municipal services as a result of failed septic systems.

Measurable Goal: Continue regulation of septic systems in accordance with City Code Chapter 16.12 during the entire permit term. Records will be maintained to document the number of complaints received and disposition of problems found will be reported in the Annual Report. Activities associated with "order in" requests to Council will be documented in the Annual Report. The number of "order in" requests is demand driven.

H. The City will either provide training for or work in conjunction with organizations to ensure businesses and industries are trained in stormwater pollution prevention best management practices and local, state and federal stormwater regulations and ordinances.

Measurable Goal: In the past, the City has provided periodic training and BMP discussions to area businesses regarding stormwater pollution prevention and BMPs. Beginning in January 2009, the city will conduct one annual training program for area businesses to ensure compliance with this Program. Results will be reported in the Annual Report.

Minimum Control Measure #4: Construction Site Runoff Control

The City has developed and agrees to continue implementation and enforcement of a program to reduce pollutants in stormwater runoff to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activities disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. The City will ensure that the program for construction site runoff control continues to include at a minimum the following:

- An ordinance to govern sediment and erosion control along with sanctions for compliance;
- Requirements for construction site owners or operators to implement BMPs for erosion

and sediment control;

- Requirements for owners or operators to control waste materials during construction that may cause adverse impacts to water quality;
- Procedures for site plan review which incorporates consideration of potential water quality impacts;
- Procedures for receipt and consideration of information submitted by the public; and
- Procedures for site inspection and enforcement of control measures.

A. The City has implemented an ordinance requiring erosion and sediment control measures at construction sites.

Measurable Goal: An ordinance is currently in place, Chapter 16.32.050, and will be maintained and updated as necessary throughout the effective dates of this permit.

B. The City has developed and implemented a program to reduce pollutants in stormwater runoff to the MS4 from construction activities as required by the City's permit.

Measurable Goal: This is an existing program, which will continue regulation of construction activities in accordance with City Code, Chapter 16.32.050. Permittee will perform at least 600 inspections in each year of the permit, and violations/citations will be written as necessary. A copy of program instructions will be included in the next Annual Report.

Minimum Control Measure #5: Post-Construction Stormwater Management in New Development and Redevelopment

The City agrees to develop a post-construction stormwater management program to address post-construction stormwater runoff from new develop and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the MS4. This program will include at a minimum the following:

- BMPs to prevent or minimize adverse water quality impacts;
- Strategies which include a combination of structural and/or non-structural BMPs appropriate for the municipality;
- Enact an ordinance to address post-construction runoff from new development and redevelopment projects to the extend allowable under State and local law; and
- Ensure adequate long-term operation and maintenance of BMPs.

A. The City will develop, implement, and enforce a program to address post-construction stormwater runoff from new development and redevelopment projects as required by the permit. To obtain the best information and technical input from national and area resources, the City has implemented a Task Force to develop the BMPs required for post-construction operations and maintenance.

Measurable Goal: Structural and/or non-structural BMPs will be selected and identified as determined by the City Task Force by October 2009 and implemented by January 2010.

B. The City will enact an ordinance to address post-construction runoff from new development and redevelopment projects.
Measurable Goal: The City currently has provisions in its stormwater ordinance to address protection of MS4 and waters of the U.S. from development as provided in Chapter16.32. Updates to the current ordinances will be provided by October 2009 and shall be reviewed, and updated as needed, each year of the permit.

Minimum Control Measure #6: Pollution Prevention/Good Housekeeping for Municipal Operations

The City agrees to develop and implement an operation and maintenance program for its municipal operations as required by the permit.

A. The City will develop and implement an operation and maintenance program that includes employee training, BMP's, and Stormwater Pollution Prevention Plans (SWP3's), to reduce or prevent stormwater pollution from municipal industrial operations including park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance.

Measurable Goal: Many programs are currently in place for stormwater pollution prevention at municipal facilities although not necessarily documented for this program. Current programs will be documented beginning in the fall of 2008. All municipal facilities will be evaluated and will have programs designed, implemented and completed by September 2009. A summary of these efforts will be provided in the Annual Report.

B. Stormwater pollution inspections of all municipal industrial facilities, noting potential sources of exposures and opportunities for improvements, will be conducted in coordination with identifying needed stormwater pollution prevention programs and training at municipal facilities.

Measurable Goals: All municipal industrial facilities with a Stormwater NPDES Permit will be inspected on a calendar year basis beginning in October 2009.

C. City will continue the existing street sweeping program to reduce pollutant loadings to the storm sewer.

Measurable Goals: Two rounds of residential street sweeping, eight rounds of arterial street sweeping, and two rounds per week of downtown street sweeping will be completed annually by the City. This effort is currently underway, and will continue throughout the permit term.

D. The City has a program to ensure proper application of pesticides and herbicides are applied at municipal parks and properties. Some parks will be designated as a "Pesticide Free" property.

Measurable Goals: The City will continue the existing program that requires all City employed applicators of pesticides and/or herbicides to be licensed or directly supervised by licensed personnel. Records shall be maintained as required by local, state and federal laws for pesticide/herbicide application events and licensed personnel shall be trained periodically to ensure proper management and application of the pesticides and/or herbicides. A "Pesticide Free" Parks program shall be maintained for some parks and

identified to the public through the City's website.

E. Stormwater control structures will continue to be adequately identified, operated and maintained through a coordinated operations and maintenance program.

   Measurable Goal: Control structures are already maintained in an ongoing maintenance program although not necessarily documented for this SMP. Current programs will be documented beginning in the fall of 2008. A summary of the annual maintenance efforts will be provided in the Annual Report.

F. The City will respond to spills of hazardous materials and solid wastes on to public roadways and private and public properties. City staff will ensure that discharged materials are cleaned up by the responsible parties and reported to local, state and federal officials as required by law and regulations.

   Measurable Goal: All roadway and property spills of hazardous materials or solid wastes will be monitored and cleaned up by responsible parties. Spill notifications, cleanup actions and environmental impacts will be documented and provided in each Annual Report throughout the permit period.

Section II - BMPs for Primary Pollutants of Concern (PPoC)

The City agrees to implement BMPs for Principal Pollutants of Concern (PPoC) as identified by the City's NPDES permit. The listed PPoC parameters are biochemical oxygen demand, E. coli, total recoverable cadmium, total recoverable copper, and total recoverable zinc. At a minimum, one BMP as required in Part IV of the permit shall be implemented for each of the PPoC, and these BMP's shall generally be implemented throughout the City's jurisdiction. Also, high concentrations of PPoC are often caused by similar sources. Therefore, each of the following BMPs listed below will help to address each of the PPoC.

BMPs for Five Principal Pollutants of Concern: Supplemental Control Measures

A. The City will implement a public education program for the Principal Pollutants of Concern (PPoC) that will include development of a message and distribution in the community. This message will be disseminated by use of the City's Cable Channel 7. This activity may take the form of a periodic repeating video presentation or graphic informing citizens of the importance of their activities regarding pollution prevention measures. Such information will highlight the PPoC.

   Measurable Goals: A repeating video or graphic designed to inform the public on the PPoC and stormwater pollution prevention will be once each year on the City's Cable Channel 7, beginning in October 2009.

   Affected Parameters: Biochemical oxygen demand, E. coli, total recoverable cadmium, total recoverable copper, and total recoverable zinc.

B. An informational brochure will be developed focusing on the five PPoC and stormwater quality for residents. This brochure will be used as a Water Utility bill insert.

   Measurable Goal: A PPoC-focused brochure will be developed and provided to Water Utility users to reflect the increased priority of PPoC and actions to prevent PPoC into stormwater.

Brochure will be mailed annually, beginning summer 2009.

Affected Parameters: Biochemical oxygen demand, E. coli, total recoverable cadmium, total recoverable copper, and total recoverable zinc.

C. Permittee will distribute stormwater education materials that will highlight PPoC through the City of Wichita website ("www.wichita.gov"). Such distribution may include direct distribution on the City web pages and/or may direct user to appropriate links to local, regional, and national websites.

Measurable Goal: Web pages will be designed and available highlighting the PPoC during the second year of the permit (2009) and continuing throughout the permit term. Web pages will be updated at least annually and will be copied and provided as attachments in the Annual Report. At least one informational document or website link will be added to the website for stormwater education and will be reported and documented in the Annual Report.

Affected Parameters: Biochemical oxygen demand, E. coli, total recoverable cadmium, total recoverable copper, and total recoverable zinc.

D. The City will continue the existing street sweeping program to reduce pollutant loadings to the storm sewer.

Measurable Goals: Two rounds of residential street sweeping, eight rounds of arterial street sweeping, and two rounds per week of downtown street sweeping will be completed annually by the City. This effort is currently underway, and will continue throughout the permit term.

Affected Parameters: Biochemical oxygen demand, E. coli, total recoverable cadmium, total recoverable copper, and total recoverable zinc.

E. An informational brochure for businesses and industries that have stormwater NPDES Permits will be developed focusing on the five PPoC and stormwater quality. This brochure will be provided as mailer to the identified businesses and industries.

Measurable Goal: A PPoC-focused brochure will be developed and provided to local businesses and industries to reflect the increased priority of PPoC and actions to prevent PPoC into stormwater. Brochures will be mailed annually, beginning spring 2009.

Affected Parameters: Biochemical oxygen demand, E. coli, total recoverable cadmium, total recoverable copper, and total recoverable zinc.

F. In an effort to ameliorate discharges of Primary Pollutants of Concern, the City will continue its industrial inspection program. Industries will be formally inspected each year to determine if NPDES permitted industrial activities are contributing to, or causing, illicit connections or pollutant discharges of PPoC or other contaminants to be discharged into the stormwater.

Measurable Goal: Ten industrial facilities will be inspected each year and a summary of the results will be included in the Annual Report.

Affected Parameters: Biochemical oxygen demand, E. coli, total recoverable cadmium, total recoverable copper, and total recoverable zinc.

Section III - BMPs for Total Maximum Daily Load (TMDL)

The listed TMDL regulated parameters are total phosphorus, total nitrogen, biochemical oxygen demand pollutants, suspended solids (sediment), and bacteria (E. coli). There are two listed associated streams for all of the City's TMDL regulated parameters, the Little Arkansas River and the Cowskin Creek. One TMDL is also required for the Big Arkansas River and the Whitewater River. Each BMP has a Measurable Goal, and the affected regulated parameters, as applied to the impacted watersheds. At a minimum there will be at least one BMP for each TMDL regulated parameter. These BMPs will be implemented at a minimum within the Permit area wherever stormwater drains to the associated impaired stream.

BMPS for Five Listed TMDL Parameters: Minimum Control Measures

A. A pet waste brochure will be developed for public education and dissemination. This brochure will encourage pet owners to pick up the waste as well as other pollution prevention tips for pet owners.

   Measurable Goal: The brochure will be posted on the City Stormwater Website and printed and placed in various buildings and City Hall for citizen use. This brochure will be provided to neighborhood associations for printing in their newsletters and for distribution at neighborhood meetings. This brochure will address the TMDL regulated parameters and actions that citizens and particularly pet owners can do to ameliorate the discharge. The brochure will be developed prior to May 1, 2009. Each subsequent year, pet waste will be addressed in an education program or printed informational handout.

   Affected Parameters: Total nitrogen, biochemical oxygen demand pollutants, suspended solids, and bacteria.

B. A "Don't discharge grass clippings or leaves into the street" brochure was developed and is disseminated to individuals when a complaint about grass clippings or leaves in the street has been observed.

   Measurable Goal: Brochures and citations presented to those that violate the ordinance requiring grass clippings and leaves to be kept out of the street and associated storm drains will be documented and reported in the City's Annual Report.

   Affected Parameters: Total phosphorus, total nitrogen, biochemical oxygen demand pollutants, suspended solids, and bacteria.

C. A display for the five regulated TMDL parameters will be designed and installed at the City's W.A.T.E.R. Center addressing each of the regulated parameters and their associated river or creek. This will be a static self-explanatory informational display available for all visitors to view.

   Measurable Goals: The display will be designed and installed prior to August 1, 2009. The annual number of W.A.T.E.R. Center visitors will be reported in the Annual Report.
   Affected Parameters: Total phosphorus, total nitrogen, biochemical oxygen demand pollutants, suspended solids, and bacteria.

D. The Little Arkansas and the Cowskin Creek watersheds contain several operations involved in the caring, feeding, and raising of livestock and other animals. These operations are not

large enough to require adherence to Confined Animal Feeding Operations (CAFO) regulations. The City or other organization on the City's behalf will seek and contact these operations to discuss types of assistance to reduce the listed pollutants in their discharge. Assistance could take the form of education, or, advising the operation of availability of grants/loans, or, obtaining/installing BMP's, such as grass buffers, silt fence, hay bales, etc.

Measurable Goal: Because this BMP is outside of the jurisdiction of the MS4 program, and at the request of EPA, this BMP has been removed from this document starting with 2012 NPDES Annual Report.

Affected Parameters: Total phosphorus, total nitrogen, biochemical oxygen demand pollutants, suspended solids, and bacteria.

E. In all four of the targeted watersheds, priority attention is currently given to regulated septic system installation and usage. Response to complaints received regarding improper discharges or surfacing sewage related to septic systems failures will be given top priority for complaint investigation and response.

Measurable Goal: Continue regulation of septic systems in accordance with City Code during the entire permit term. Records will be maintained of complaints, and their disposition, and reported in the Annual Report.

Affected Parameters: Total phosphorus, total nitrogen, biochemical oxygen demand pollutants, and bacteria.

F. The City will use the current program of construction site inspections to target construction activities within the four listed watersheds.

Measurable Goal: Beginning October 2008, the City will identify and target those construction or redevelopment projects having BMPs that are within close proximity to one of the four associated designated streams or rivers. The City will initially inspect within 30 days of the project start date. This effort will continue throughout the permit term.

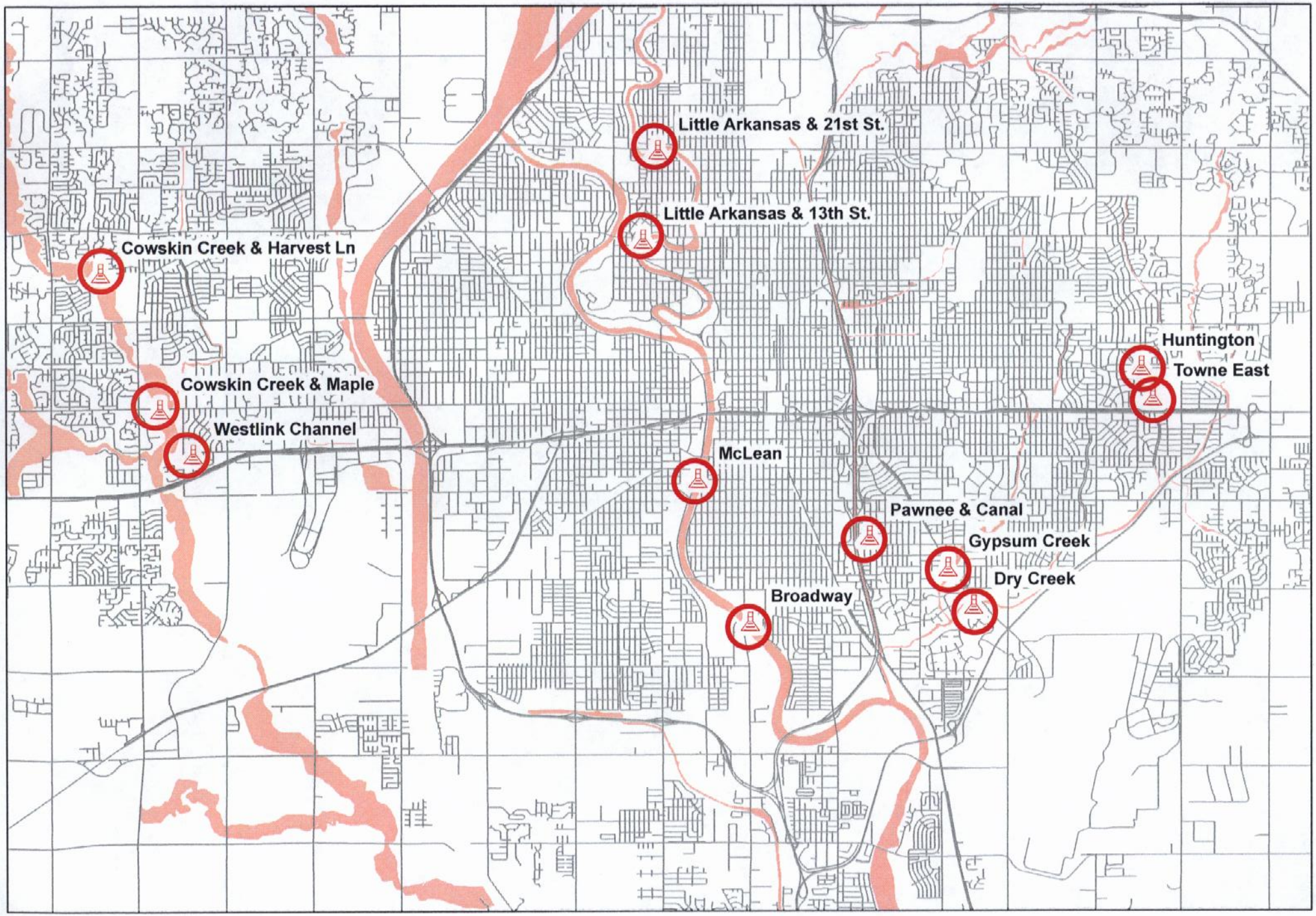
Affected Parameters: Total phosphorus, total nitrogen, biochemical oxygen demand pollutants, suspended solids, and bacteria.

G. Stormwater demonstration projects will be implemented in each permit year as funding sources are made available. Each project will be publicized for the community to view, evaluate and discuss. The City will evaluate each project for effectiveness and will report its findings to the general public through its website or other communication avenue and in the Annual Report.

Measurable Goal: Beginning October 2008, the City will identify at least one demonstration project for design, construction and implementation. The demonstration project will be in close proximity to one of the four associated designated streams or rivers. The City will periodically inspect, evaluate and maintain each project and report on its effectiveness in the Annual Report.

Affected Parameters: Total phosphorus, total nitrogen, biochemical oxygen demand pollutants, suspended solids, and bacteria.

Wichita Stormwater Wet Weather Sample Location Map

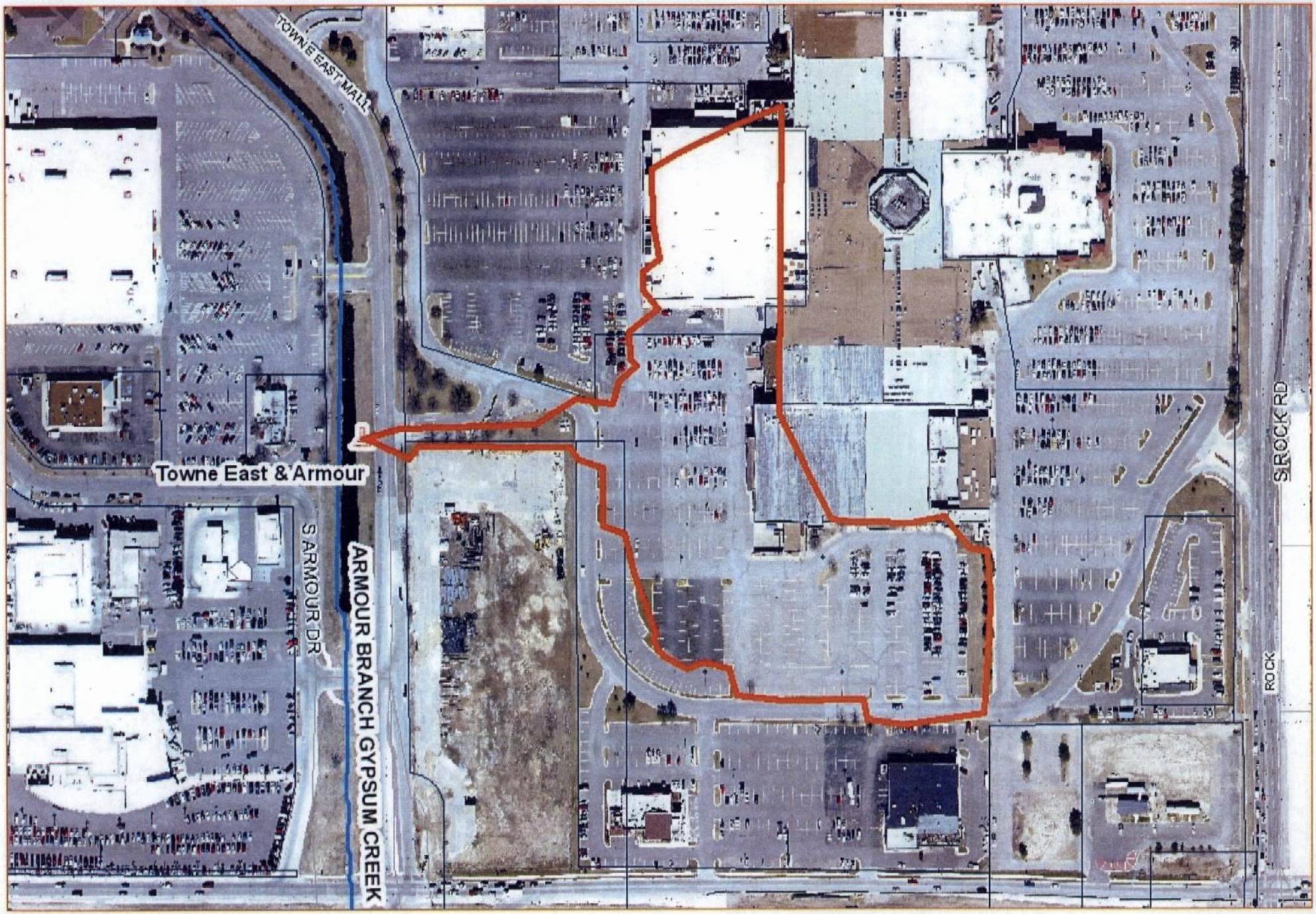


5.2 acres

Huntington & Armour

62.7 acres

Towne East & Armour

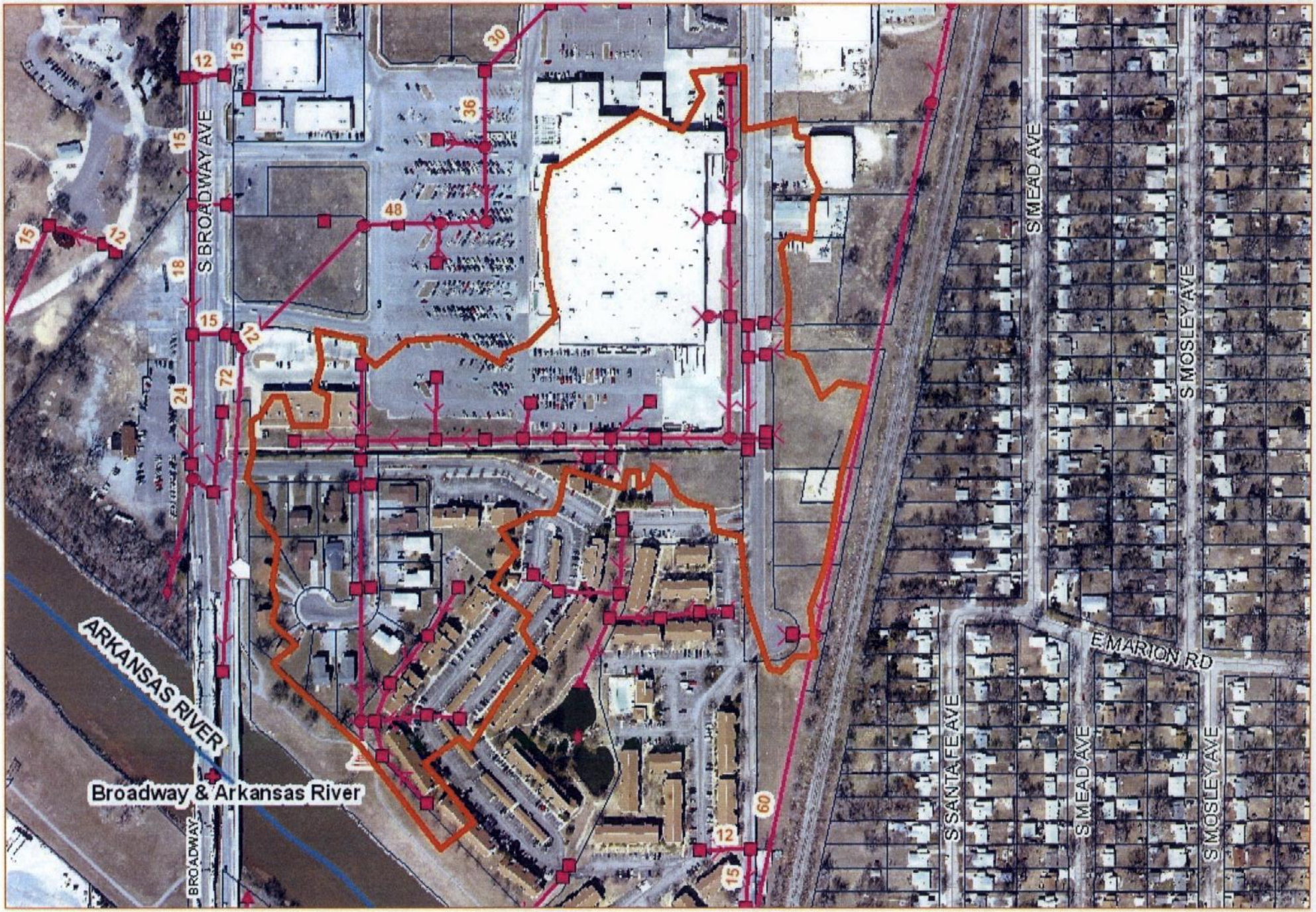


11.8 acres

McLean

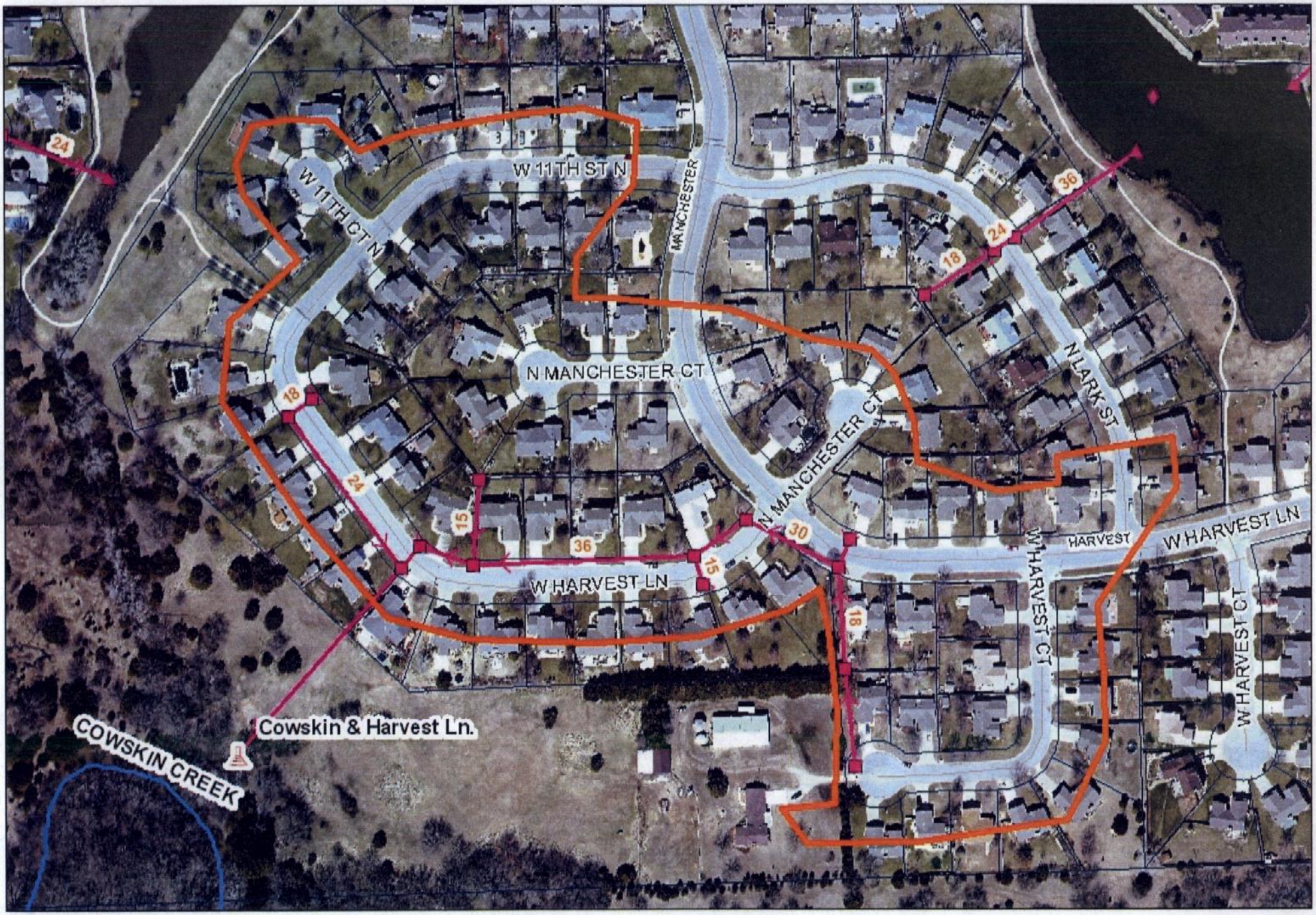
26.5 acres

Broadway & Arkansas River



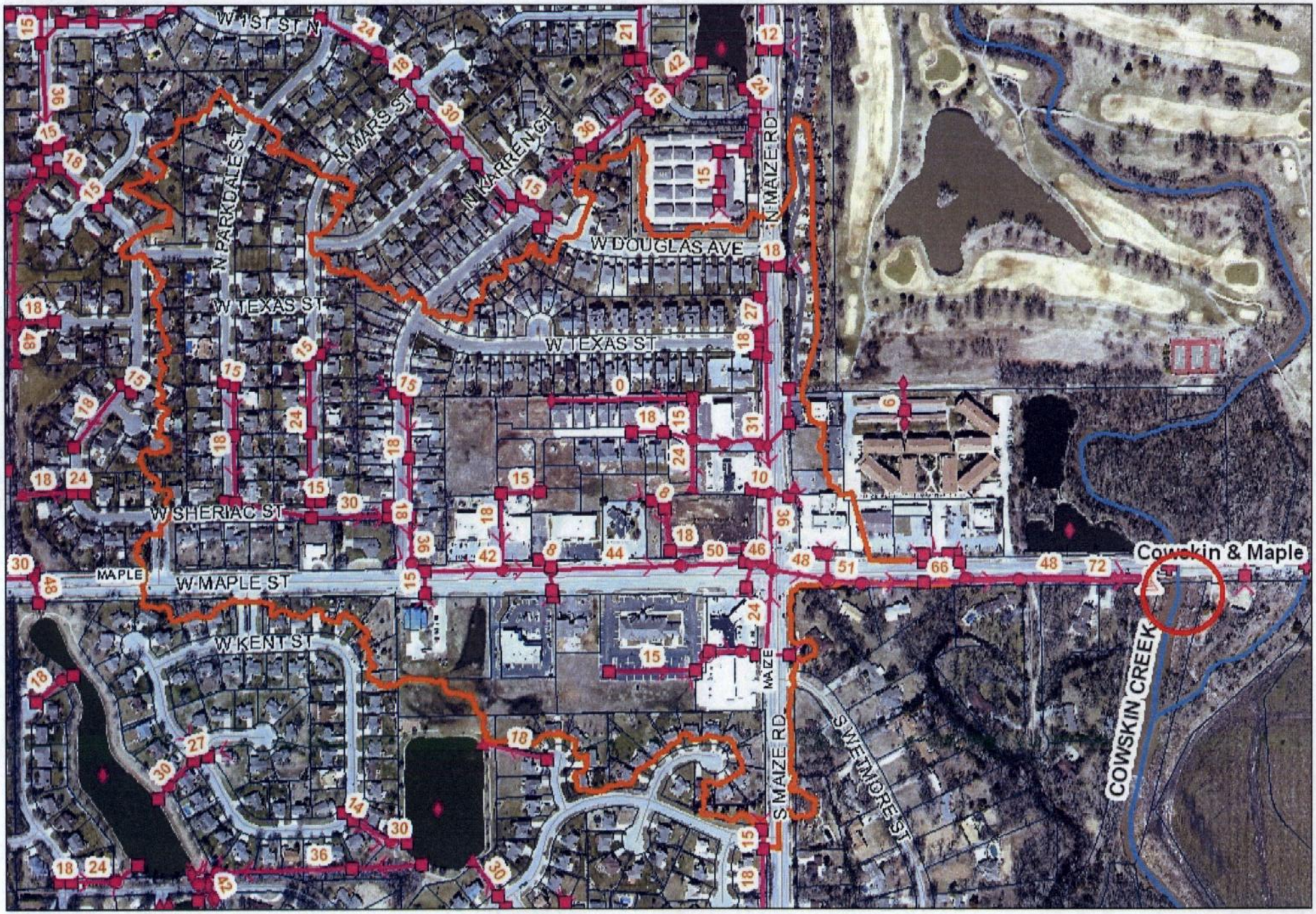
16.9 acres

Cowskin Creek & Harvest Lane



89.2 acres

Cowskin Creek & W. Maple



20.4 acres 13th Street North & N. River Blvd.

34.1 acres

Little Arkansas River & Hood St.

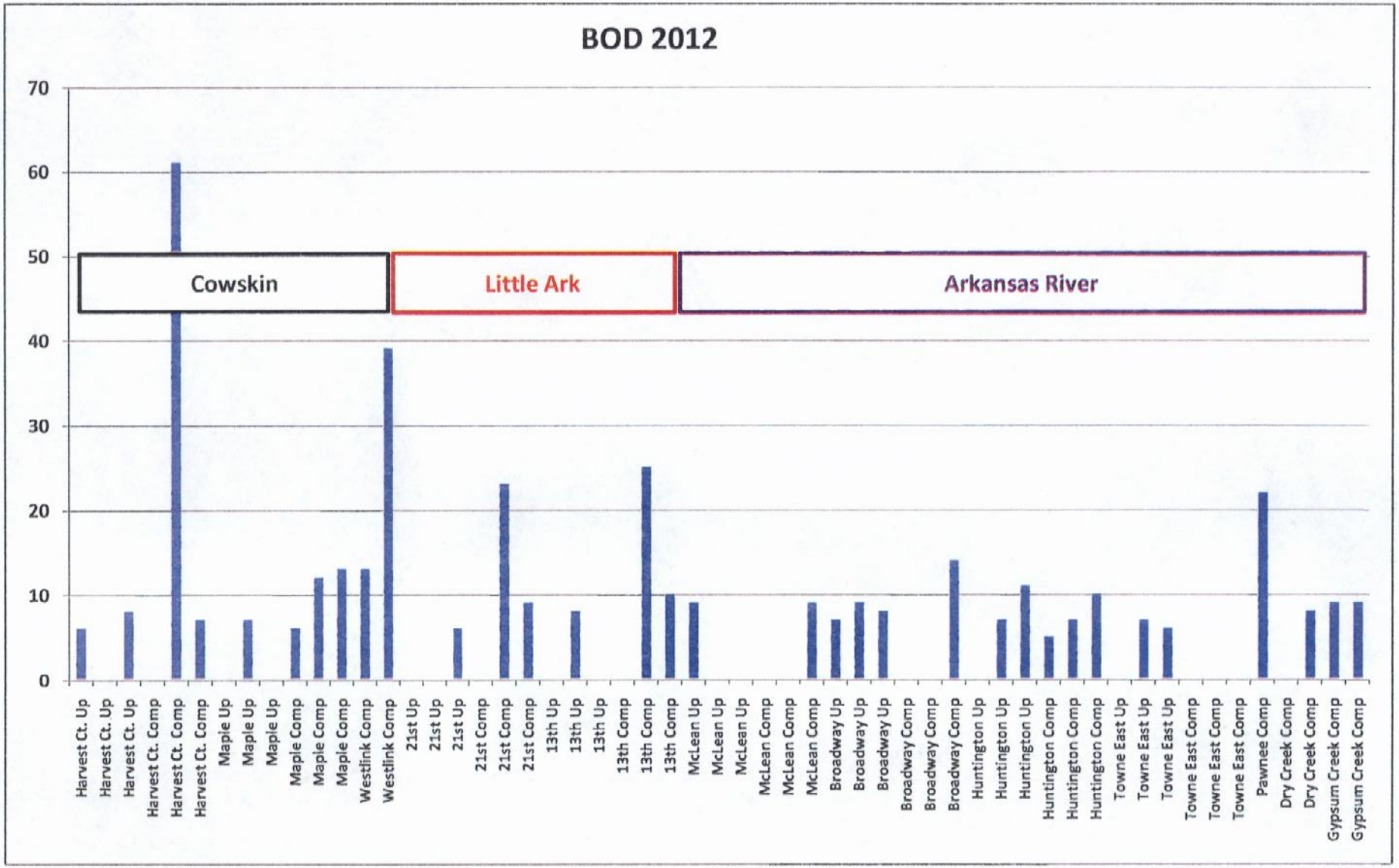
Summary of Results

2012 Storm Events

City of Wichita

The current reporting period covers the fourth year that the expanded complement of sample sites and sample requirements have been necessary under the current Permit. Therefore, the following analysis continues to be based on a limited data set, and, until more data are compiled, reliable observations are limited.

- Precipitation for all storm events was moderate, and ranged from approximately 0.7" to 0.20".
- The City continued upstream sampling at all sites in 2012, and plan to continue doing so throughout 2013. Oddly, in half of the 2010 events, upstream samples were higher in E. coli than were the 1st flush grab samples. In 2011, only 2 of the 8 upstream samples were higher. In 2012, of the 15 samples that exceeded 4000 MPN, 12 were grab samples and 3 were upstream samples.
- In 2012, E.coli results varied widely both upstream and 1st flush. Land use in the surrounding drainage area showed no correlation to sample results.
- Again in 2012, BOD results were generally highest at the Cowskin sites, specifically at Harvest Ct.. The Little Ark basin also had elevated samples, but not as consistent as the Cowskin basin.
- The McLean sample site produced consistent Cd results above detection limits, with the exception of one sample at Broadway, McLean is the only site that was above MDL (1 ug/L).
- In 2011, approximately 1/3 of Cu and Zn samples were non-detect. In 2012, the breakdown was 34% of Cu, and 17% of Zn samples were non-detect.
- Approximately 85% of TSS results were less than 100 mg/L. Of the 20 results that exceeded 100 mg/L, it is interesting that 10 of those results came from the newly added 'open channel' (Westlink, Gyp Creek, Dry Creek) sites.
- Clearly, the Cowskin and Little Ark sites are the most phosphorous laden. Of the 22 non-detects City wide, only 5 non-detects were from those 2 (western) drainage basins. The other 17 non-detects were in the 'Ark' (eastern) half of the City.
- Not surprisingly, Total Nitrogen followed a similar west/east pattern of non-detects.


BOD 2012
70
60
50
40
30
20
10
0
Cowskin
Little Ark
Arkansas River
Harvest Ct. Up
Harvest Ct. Up
Harvest Ct. Up
Harvest Ct. Comp
Harvest Ct. Comp
Harvest Ct. Comp
Maple Up
Maple Up
Maple Up
Maple Comp
Maple Comp
Maple Comp
Westlink Comp
Westlink Comp
21st Up
21st Up
21st Up
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13th Comp
McLean Up
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Broadway Up
Broadway Up
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Broadway Comp
Huntington Up
Huntington Up
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Huntington Comp
Huntington Comp
Huntington Comp
Towne East Up
Towne East Up
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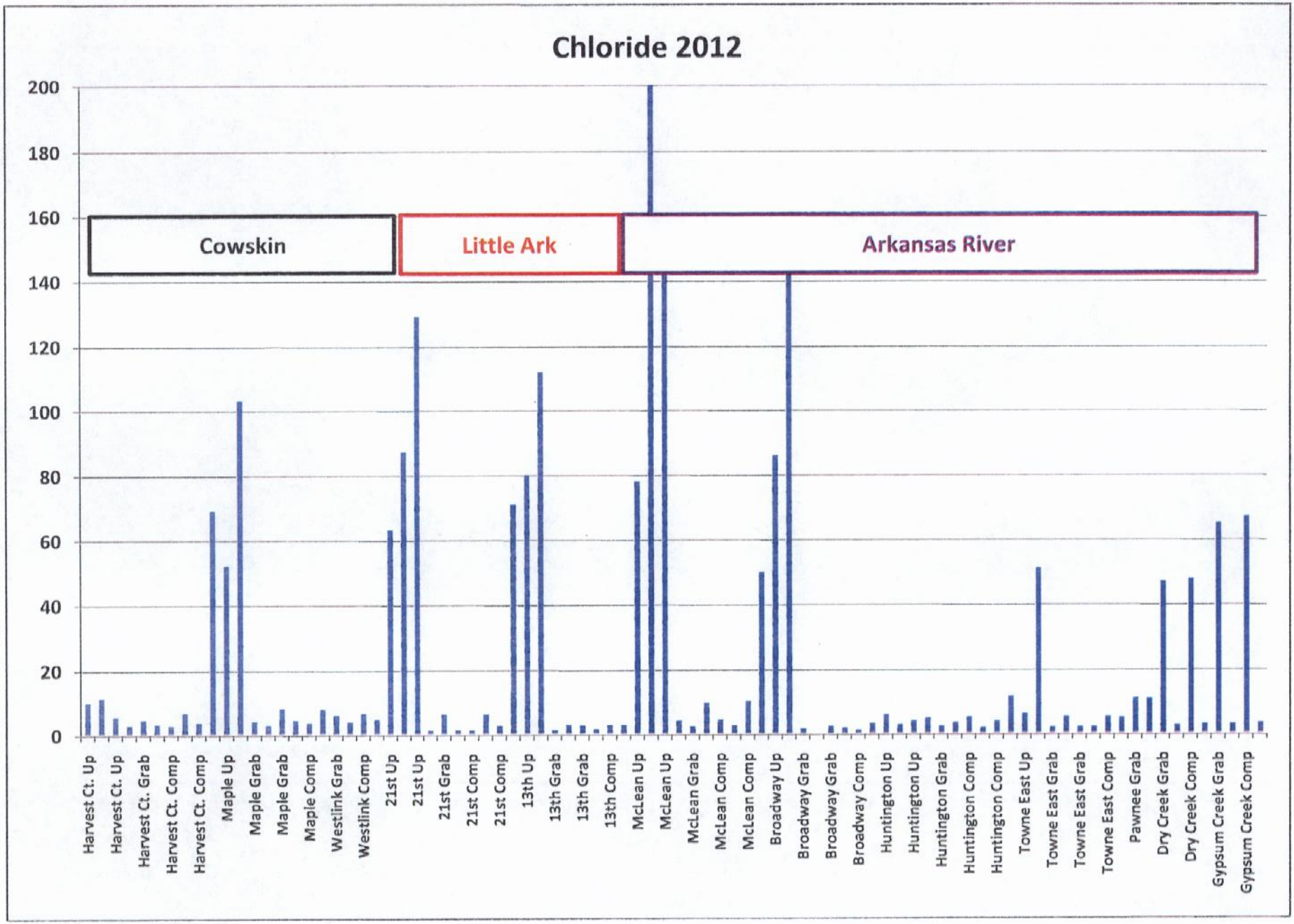
Pawnee Comp
Dry Creek Comp
Dry Creek Comp
Gypsum Creek Comp
Gypsum Creek Comp


Chloride 2012
200
180
160
140
120
100
80
60
40
20
0
Cowskin
Little Ark
Arkansas River
Harvest Ct. Up
Harvest Ct. Up
Harvest Ct. Grab
Harvest Ct. Comp
Harvest Ct. Comp
Maple Up
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Maple Grab
Maple Comp
Westlink Grab
Westlink Comp
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Huntington Up
Huntington Up
Huntington Grab
Huntington Comp
Huntington Comp
Towne East Up
Towne East Grab
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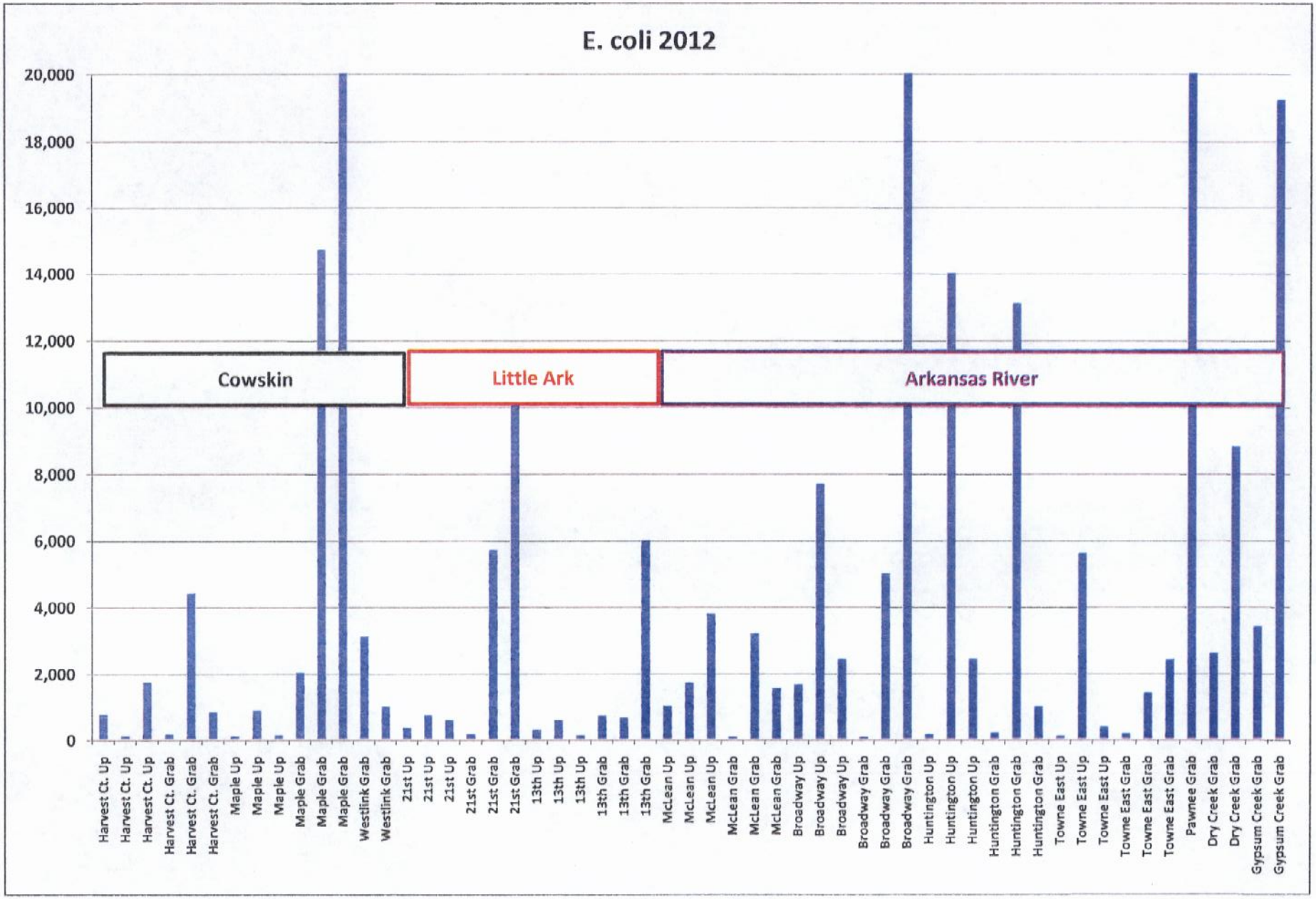
Towne East Comp
Pawnee Grab
Dry Creek Grab
Dry Creek Comp
Gypsum Creek Grab
Gypsum Creek Comp


E. coli 2012
20,000
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
Cowskin
Little Ark
Arkansas River
Harvest Ct. Up
Harvest Ct. Up
Harvest Ct. Up
Harvest Ct. Grab
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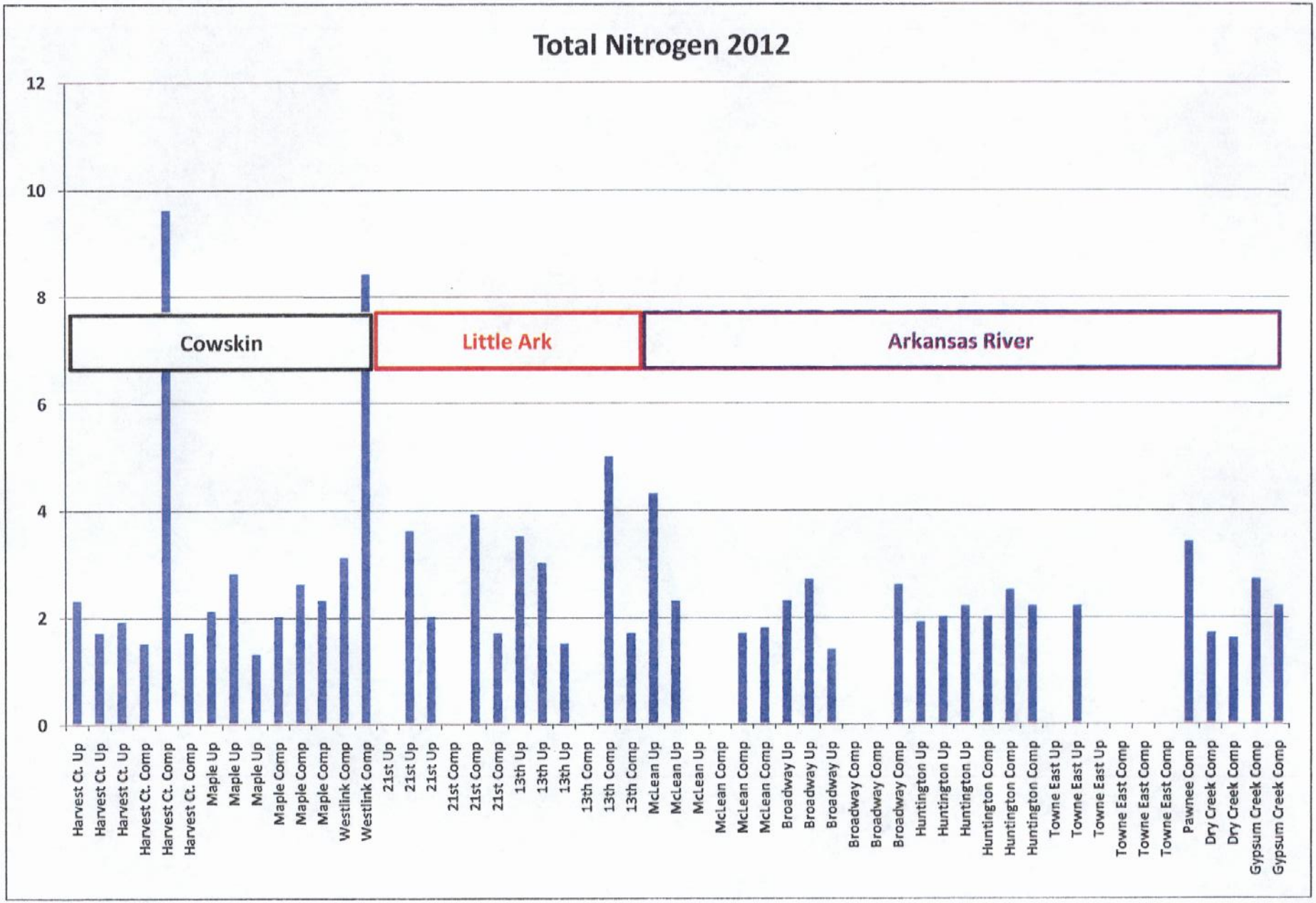
Total Nitrogen 2012
12
10
8
6
4
2
0
Cowskin
Little Ark
Arkansas River
Harvest Ct. Up
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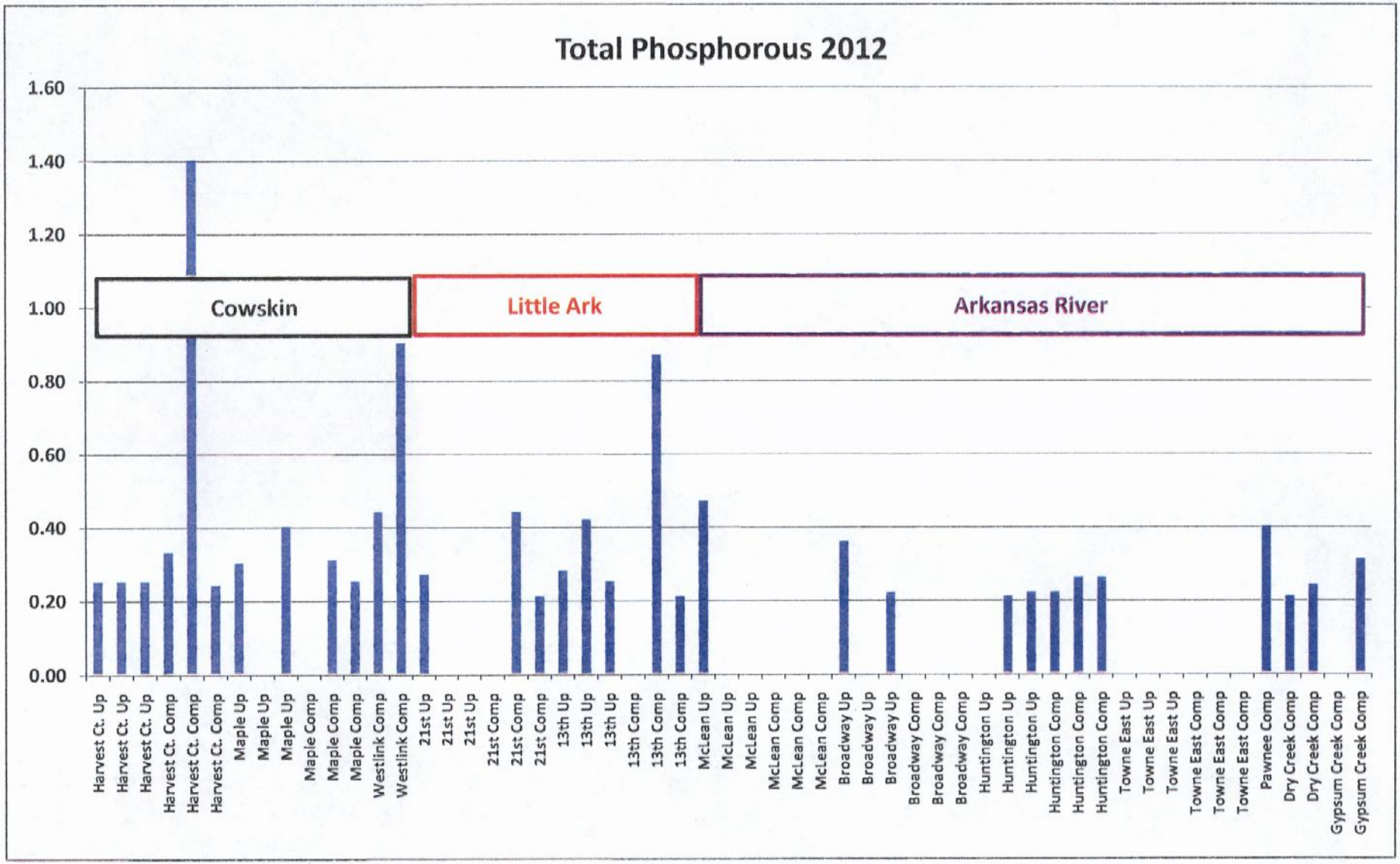
Total Phosphorous 2012
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
Cowskin
Little Ark
Arkansas River
Harvest Ct. Up
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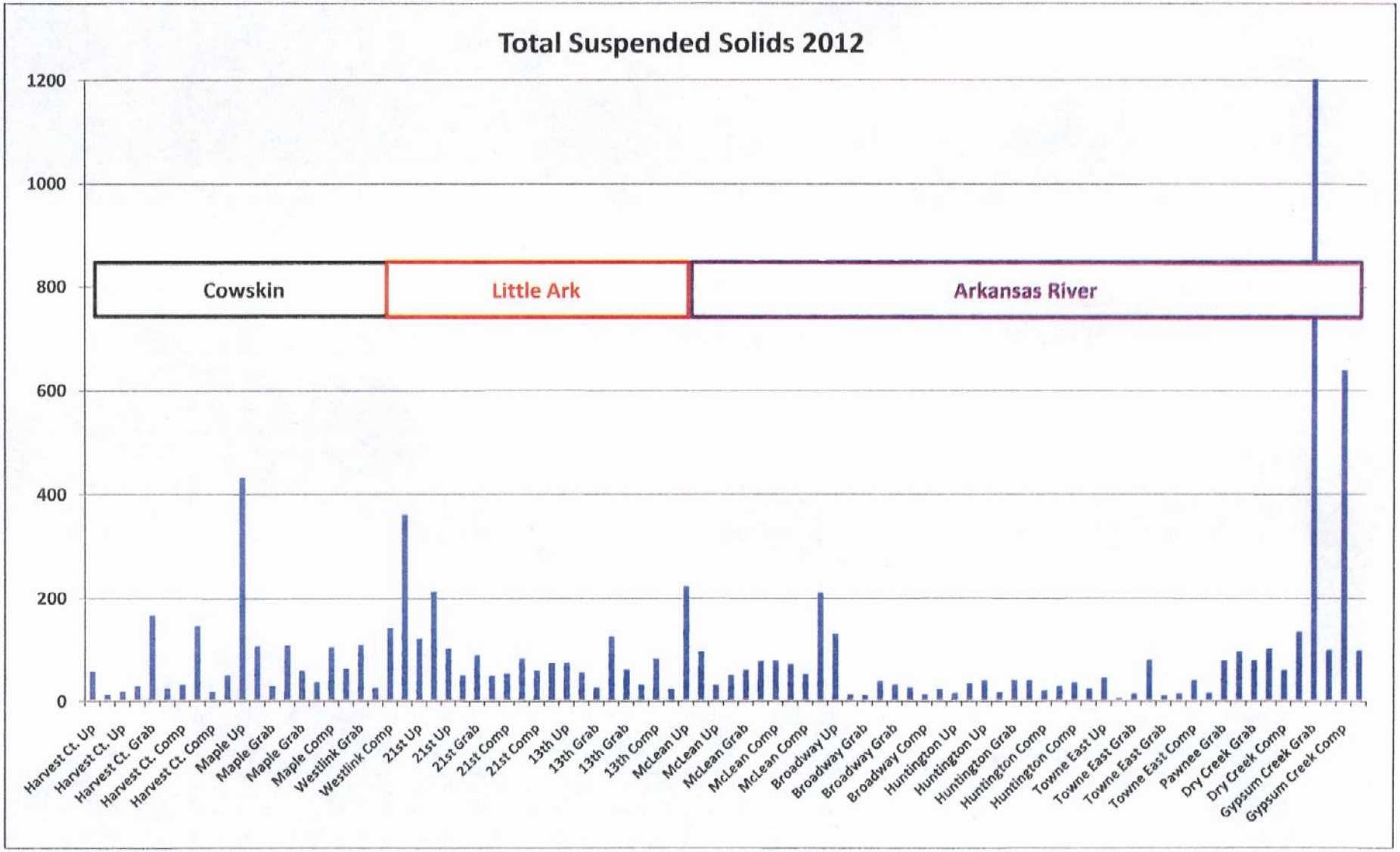
Total Suspended Solids 2012
1200
1000
800
600
400
200
0
Cowskin
Little Ark
Arkansas River
Harvest Ct. Up
Harvest Ct. Up
Harvest Ct. Grab
Harvest Ct. Comp
Harvest Ct. Comp
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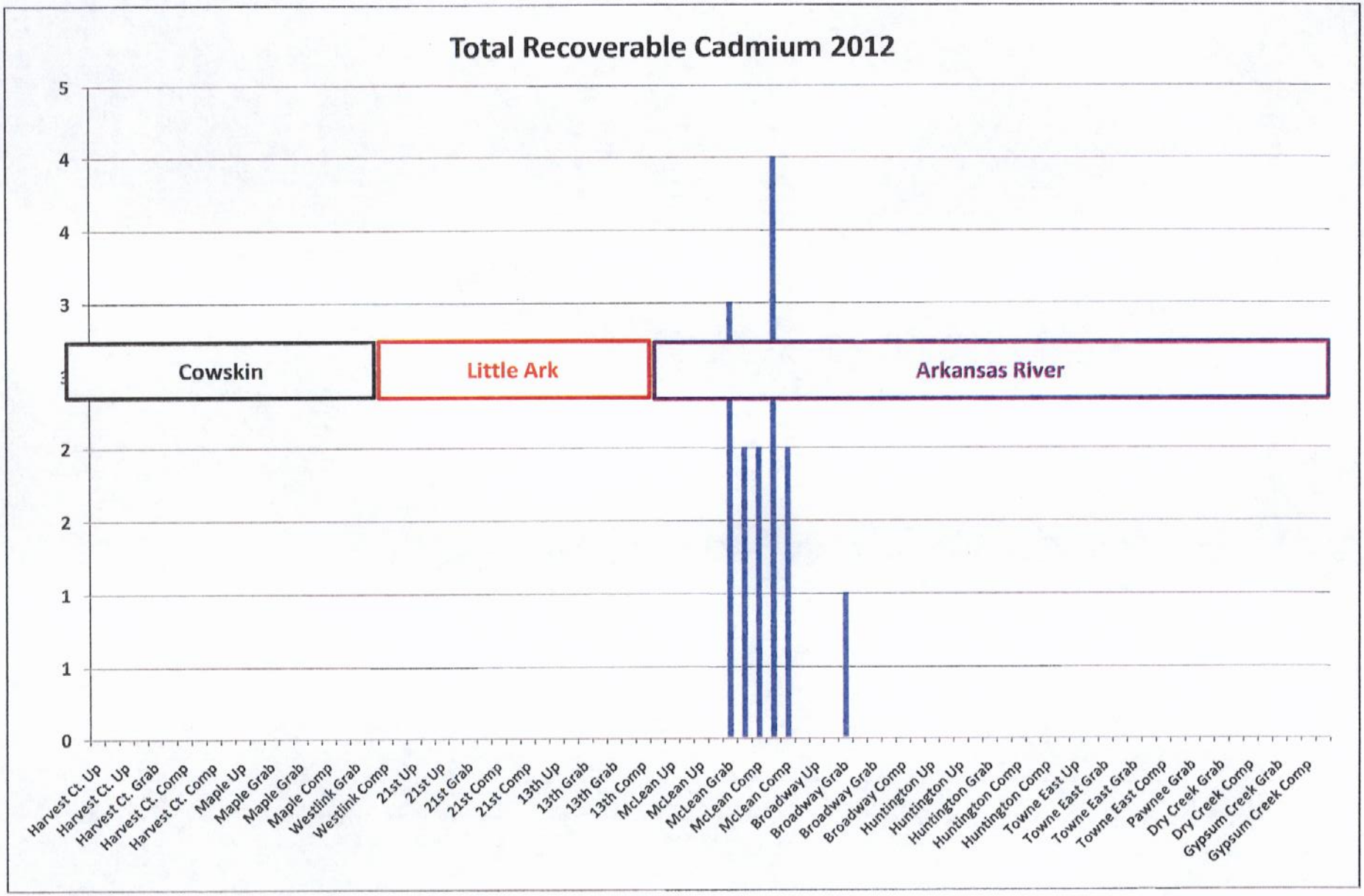
Total Recoverable Cadmium 2012
5
4
4
3
2
2
1
1
0
Cowskin
Little Ark
Arkansas River
Harvest Ct. Up
Harvest Ct. Up
Harvest Ct. Grab
Harvest Ct. Comp
Harvest Ct. Comp
Maple Up
Maple Grab
Maple Grab
Maple Comp
Westlink Grab
Westlink Comp
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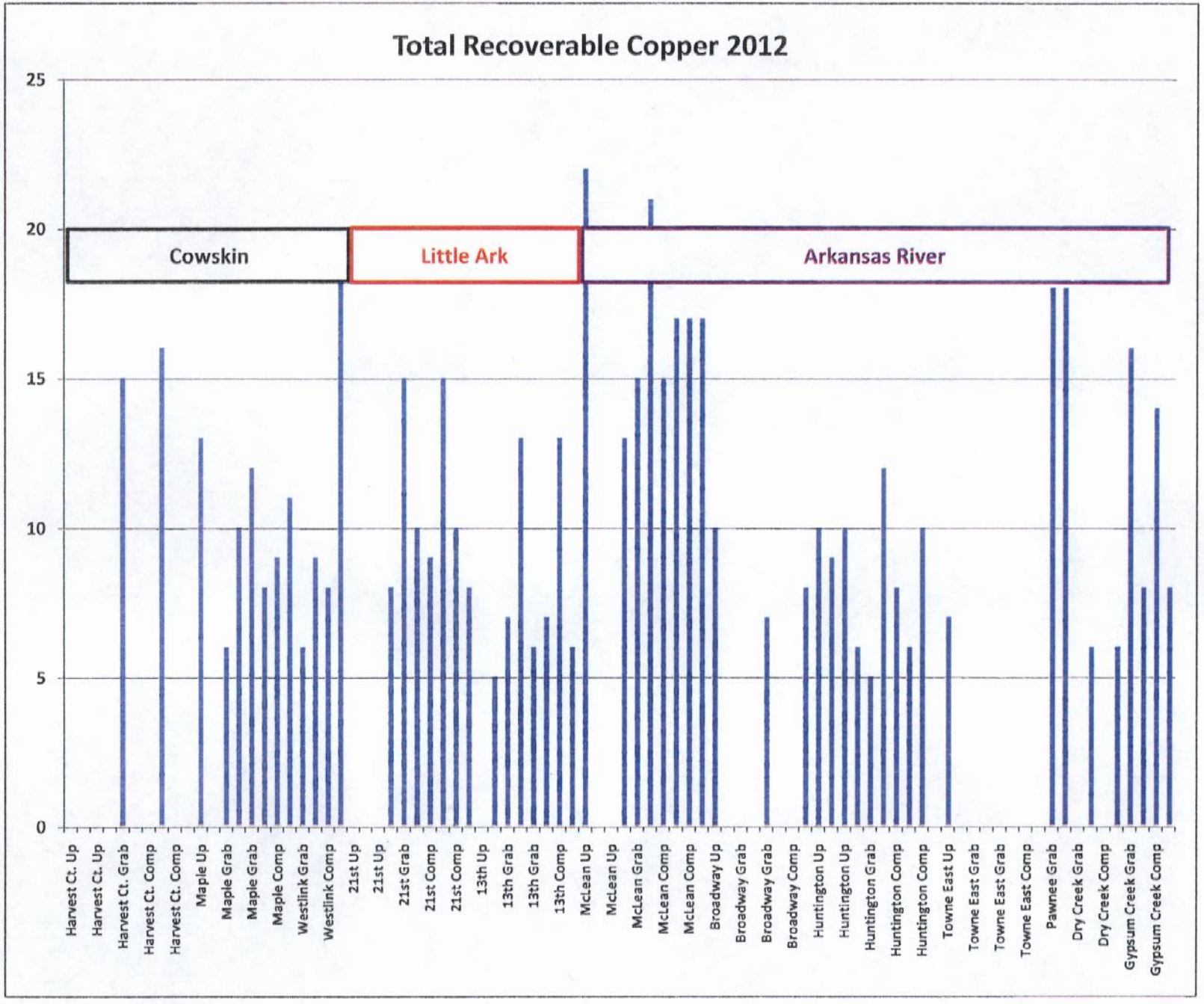
Gypsum Creek Comp


Total Recoverable Copper 2012
25
20
15
10
5
0
Cowskin
Little Ark
Arkansas River
Harvest Ct. Up
Harvest Ct. Up
Harvest Ct. Grab
Harvest Ct. Comp
Harvest Ct. Comp
Maple Up
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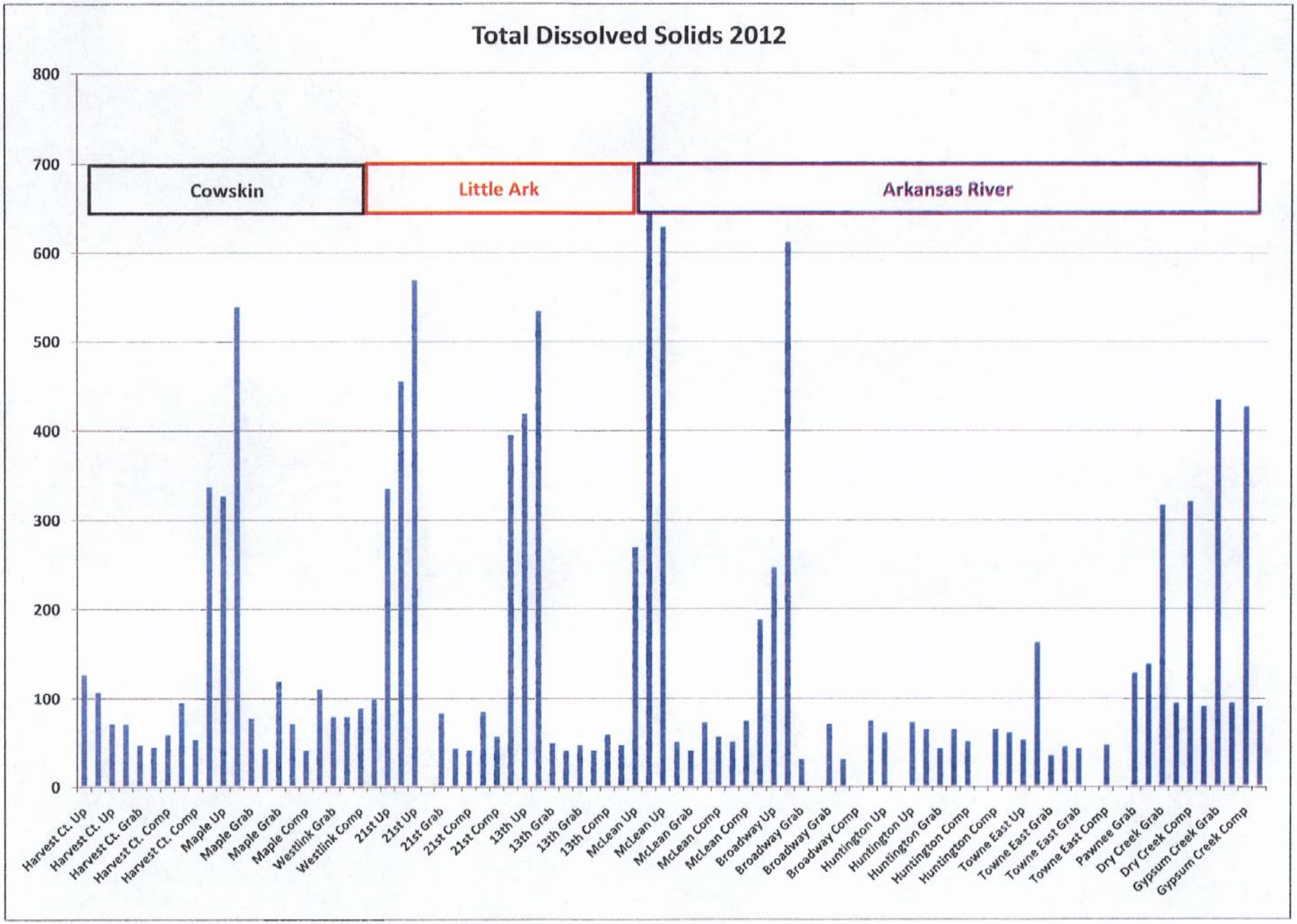
Gypsum Creek Grab
Gypsum Creek Comp


Total Dissolved Solids 2012
800
700
600
500
400
300
200
100
0
Cowskin
Little Ark
Arkansas River
Harvest Ct. Up
Harvest Ct. Up
Harvest Ct. Grab
Harvest Ct. Comp
Harvest Ct. Comp
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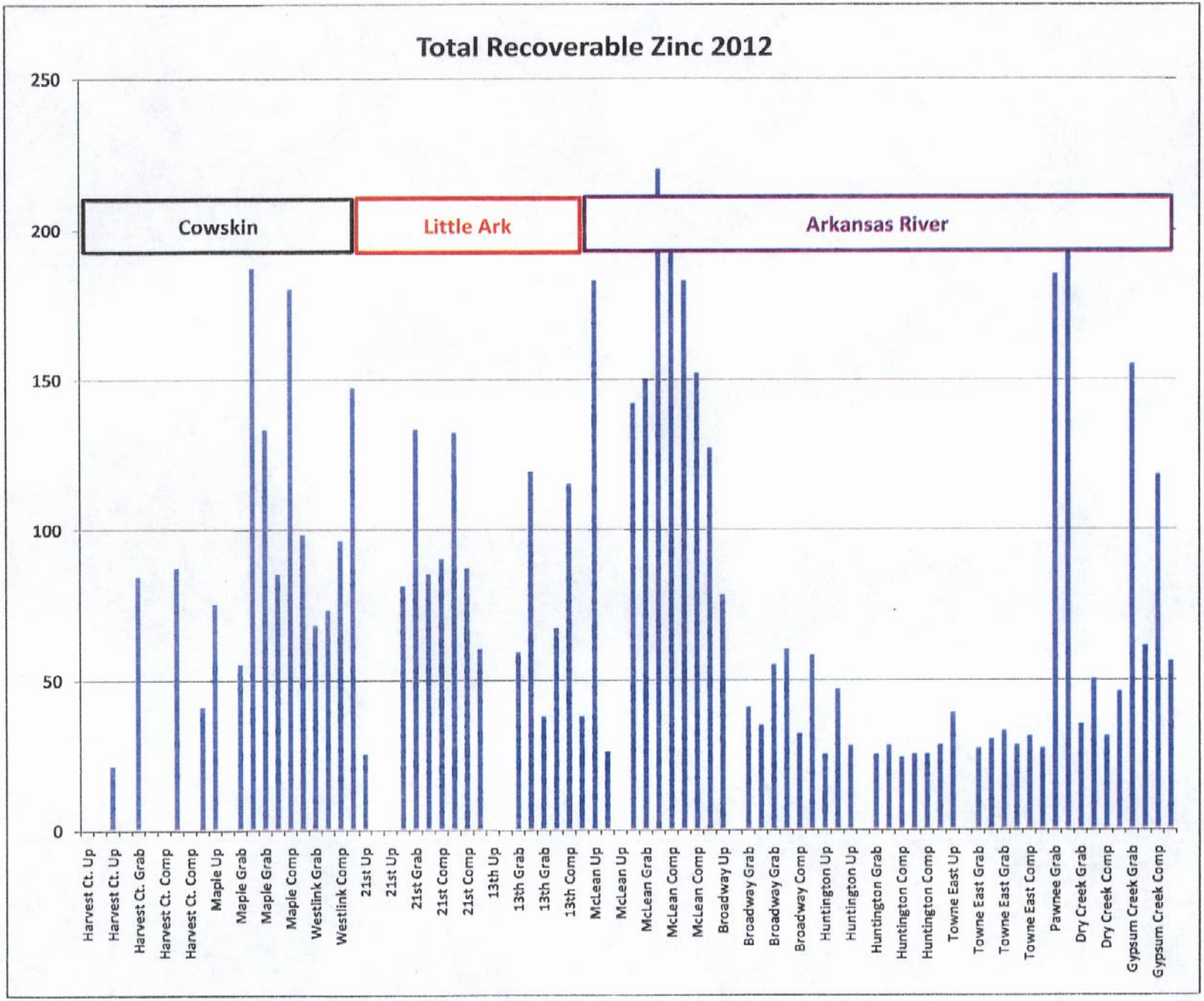
Gypsum Creek Comp


Total Recoverable Zinc 2012
250
200
150
100
50
0
Cowskin
Little Ark
Arkansas River
Harvest Ct. Up
Harvest Ct. Up
Harvest Ct. Grab
Harvest Ct. Comp
Harvest Ct. Comp
Maple Up
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Huntington Up
Huntington Up
Huntington Grab
Huntington Comp
Huntington Comp
Towne East Up
Towne East Grab
Towne East Grab
Towne East Comp
Pawnee Grab
Dry Creek Grab
Dry Creek Comp
Gypsum Creek Grab
Gypsum Creek Comp

Continental Analytical Services, Inc.

02/14/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 02/03/2012 14:25
Continental File No.: 8339
Continental Order No.: 101259
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 6 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12020416	Grotto Pool	Liquid	2/3/2012
12020417	Grotto Gate	Liquid	2/3/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/14/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101259

Lab Number: 12020416
Sample Description: Grotto Pool

Date Sampled: 02/03/2012
Time Sampled: 0635

Analysis	Concentration	Units	Book/Page
Solids, Total Suspended	39	mg/L	7059/736

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Solids, Total Suspended	N/A	02/10/12 1438	120210-1	120210-1	KJH	SM20th 2540D

Conclusion of Lab Number: 12020416

Lab Number: 12020417
Sample Description: Grotto Gate

Date Sampled: 02/03/2012
Time Sampled: 0635

Analysis	Concentration	Units	Book/Page
Solids, Total Suspended	107	mg/L	7059/736

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Solids, Total Suspended	N/A	02/10/12 1438	120210-1	120210-1	KJH	SM20th 2540D

Conclusion of Lab Number: 12020417

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/14/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101259

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

No analysis with a holding time of seventy-two hours or less was performed in this Continental order.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/14/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101259

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
CAS is accredited for all analytes.				

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/14/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101259

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL243	Solids, Total Suspended	120210-1	120210BLK1 02/10/12 14:34	120210LCS1 02/10/12	12020416MS 02/10/12 14:38

Lab numbers associated with this batch:
12020416 12020417

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/14/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101259

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120210-1	For sample analyzed on: 02/10/2012					Spiked sample: 12020416						
Solids, Total Suspended	ND(5)	N/A			mg/L	39 T	41 T	#		mg/L	5.0	18.2

Data Qualifiers:
N/A - Not Applicable

T - MS/MSD cannot be performed for this analysis. The MS result is the same as the sample result. The MSD result is a duplicate of the sample.
- Limits not available.

Continental Analytical Services, Inc.
525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information			Invoice Information		
Company Name: City of Wichita Sewage Treatment			Company Name: City of Wichita Sewage Treatment		
Address: 2305 E. 57th Street South			Address: 2305 E. 57th Street South		
City: Wichita	State: KS	Zip: 67216	City: Wichita	State: KS	Zip: 67216
Contact: Jim Hardesty	E-mail:		Contact: Jim Hardesty	E-mail:	
Phone Number: (316)303-8700	Fax Number: (316)303-8712		Phone Number: (316)303-8700	Fax Number: (316)303-8712	
Sampler's Name:(Printed) Justin Murphy	Sampler's Name:(Signature)		Purchase Order Number:		
File Number: 5611	Project Name: Stormwater				

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER:	PARAMETERS/CONTAINER TYPE: TSS	COMMENTS
Grotto Pool	WW	N	2/3/12	0635	G	1					1		X	
Grotto Gate	WW	N	2/3/12	0635	G	1					1		X	

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT (15 working days) Rush TAT (5 working days) Emergency TAT (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY	DATE: 2/3/12	TIME: 0635	RECEIVED BY:	DATE:	TIME:
RELINQUISHED BY	DATE:	TIME:	RECEIVED BY	DATE:	TIME:
RECEIVED AT LAB BY: Matthew Stafford	DATE: 2-3-12	TIME: 1425	SHIPPED VIA: AIRBILL:	SEAL #: SEAL DATE:	

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 101259

Client Name: Wichita CAS File No.: 8339

Sample ID's in cooler: See COC
Grab

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: _____ / (Client's Cooler) / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 2 / 3 / 12 14 : 35

Delivered By: UPS / FedX / AB Express / (Field Svcs) / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X **Seal No:** _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / (Foam) / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.5 Corrected Reading (°C) 0.9
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): 0.4

☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes (See below for discrepancies.)

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

☐ Chain of Custody not present - information taken from:
Cover Letter ☐ Container ☐
PO ☐ CAS Proj. Mgr. ☐
☐ Container label absent
☐ Chain of Custody incomplete [see detail below]
☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
☐ Date or Time sampled obtained from container label
☐ Chain of Custody missing sampler's name
☐ Chain of Custody missing matrix (sample type)
☐ Missing relinquished information: signature date time
☐ Sample excluded from Chain of Custody
☐ Sample listed on Chain of Custody, not received
☐ Sample description on container and Chain of Custody do not agree
☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement
[Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
☐ Broken or leaking containers (detail actions below)
☐ Sample container type or labeled chemical preservation inappropriate
☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: MWS Date Completed: 2-3-12

CITY OF WICHITA SEWAGE TREATMENT DIVISION
TOTAL SUSPENDED SOLIDS COMPOSITE SAMPLE BENCHSHEET
(SM 2540 D)

S.O.P. NO. : # 012
Revision NO : 12
Revision Date : 9/17/2010

MDL : 1.0 mg/l
Report Limit : 1.0 mg/l

RUN Date: 4/10/12 Analyst : RYT Time : 8:22 Am

Temp. in: 105 C Time in : 10:11 Am
Temp. out: 105 C Time out : 11:12 Am

Mettler Toledo AG 204 Balance : # 114293256
Millipore Lot # XENOMAX #31990 Opened: 3/27/12

Sample Date / Julian No.	SAMPLE POINT	NO.	CRUCIBLE WT.(GM)	LOADED WT.(GM)	RESIDUE WT.(GM)	SAMPLE VOL.(ML)	RESULT MG/L	
4/7/12	N. HIGH #1	1	29.7296	29.7318	0.0022	96.6	22.8	(97%)
97	N. HIGH #1 DUP	2	26.3151	26.3174	0.0023	98.0	23.5	x=23.2
4/7/12	N. HIGH #2	3	24.3539	24.3610	0.0071	98.0	72.4	(93%)
97	N. HIGH#2 DUP	4	25.6728	25.6794	0.0066	98.5	67.0	x=69.7
4/7/12	N. HIGH ATH FIELD	5	27.3890	27.3911	0.0021	32.0	65.6	(93%)
97	N. HIGH ATH FIELD DUP	6	26.3672	26.3697	0.0025	35.6	70.2	x=67.9
4/7/12	RIVERSIDE 1 A	7	26.6991	26.7107	0.0116	97.0	120	(99%)
97	RIVERSIDE 1 A DUP	8	31.1214	31.1331	0.0117	98.0	119	x=120
4/7/12	RIVERSIDE 1 B	9	26.2727	26.2778	0.0051	40.6	126	(100%)
97	RIVERSIDE 1 B DUP	10	27.8365	27.8418	0.0053	42.0	126	x=126
4/7/12	RIVERSIDE 2 A	11	23.7750	23.7800	0.0050	95.9	52.1	(96%)
97	RIVERSIDE 2 A DUP	12	25.7300	25.7349	0.0049	98.0	50.0	x=51.0
4/7/12	RIVERSIDE 2 B	13	27.2676	27.2731	0.0055	40.0	138	(99%)
97	RIVERSIDE 2 B DUP	14	24.8838	24.8899	0.0061	44.5	137	x=138
4/7/12	RIVERSIDE 3 A	15	26.8036	26.8161	0.0125	98.0	128	(96%)
97	RIVERSIDE 3 A DUP	16	25.0389	25.0490	0.0101	82.2	123	x=126
4/7/12	RIVERSIDE 3 B	17	30.9170	30.9230	0.0060	44.0	136	(99%)
97	RIVERSIDE 3 B DUP	18	25.5983	25.6051	0.0068	49.4	138	x=137
	BLANK	BLK	25.3675	25.3675	0.0000	100	<1.0	

4/10/12
JN

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00029
LOCATION CODE: COW@135W
DESCRIPTION: Cowskin Creek @ 135th West

Report Date: 02/22/2012
Date/Time Collected: 02/02/2012 09:15
Date/Time Received: 02/02/2012 10:40
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	139	mg/L	5	EPA 300.0	02/02/2012 15:40	KCARTER
Sulfate	120	mg/L	5	EPA 300.0	02/02/2012 15:40	KCARTER
Total Hardness Manual	214	mg/L	1	SM 2340 C	02/22/2012 11:29	KCARTER

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00030
LOCATION CODE: COW@37N
DESCRIPTION: Cowskin Creek @ 37th North

Report Date: 02/22/2012
Date/Time Collected: 02/02/2012 08:22
Date/Time Received: 02/02/2012 10:40
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Lower plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	155	mg/L	5	EPA 300.0	02/02/2012 15:59	KCARTER
Sulfate	114	mg/L	5	EPA 300.0	02/02/2012 15:59	KCARTER
Total Hardness Manual	208	mg/L	1	SM 2340 C	02/22/2012 11:29	KCARTER

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CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00031
LOCATION CODE: COW@PAWNEE
DESCRIPTION: Cowskin Creek @ Pawnee

Report Date: 02/22/2012
Date/Time Collected: 02/02/2012 10:00
Date/Time Received: 02/02/2012 10:40
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	140	mg/L	5	EPA 300.0	02/02/2012 16:17	KCARTER
Sulfate	77.0	mg/L	5	EPA 300.0	02/02/2012 16:17	KCARTER
Total Hardness Manual	208	mg/L	1	SM 2340 C	02/22/2012 11:29	KCARTER

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00032
LOCATION CODE: COW@K42
DESCRIPTION: Cowskin Creek @ K42

Report Date: 02/22/2012
Date/Time Collected: 02/02/2012 10:20
Date/Time Received: 02/02/2012 10:40
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	142	mg/L	5	EPA 300.0	02/02/2012 16:36	KCARTER
Sulfate	69.3	mg/L	5	EPA 300.0	02/02/2012 16:36	KCARTER
Total Hardness Manual	202	mg/L	1	SM 2340 C	02/22/2012 11:29	KCARTER

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

Chain of Custody Record and Analytical Request

In Lab: 1.6°C. ☑ Iced on Receipt ☑ Presevation Checked ☑ Temperature at Delivery

WICHITA MUNICIPAL WATER & SEWER DEPARTMENT LABORATORY E-60603
PRODUCTION & PUMPING DIVISION
1815 W. Pine St., Wichita KS 67203

RECEIVED FROM: ☑ PRETREATMENT SEWAGE TREATMENT DIVISION ☐ PRODUCTION & PUMPING DIVISION

Sampler(s): TABATHA KLING

Lab Log #	Location Code	Date	Time	Sample Info: No. of Containers	Type: G=Grab, TC= Time Comp. FC=Flow Comp	Preservation: H3PO4	H2SO4	HNO3	Ascorbic	NaOH	None	Anions: Nitrate-N	Cl/SO4	Water Chemistries: Alkalinity	Hardness	T-PO4-P	Spec. Conductivity	TSS	Turbidity	Other: Bacti	NH3-N	Organic: Atrazine	CN	Phenol	TOC	Metals: Ag Cd Cr Cu Fe Ni Pb Zn	As Be Mo Sb Se Tl	Ca K Mn Mg Na	Hg	Field pH or Comments: M	Q	S	INS	INV	CMF	CEP	LOC
C500																																				
028	BIG ARK @ 47TH	2-2-12	8:00A	1	G		✓								✓														✓							
"	BIG ARK @ 47TH		8:00A	1	G						✓		✓																✓							
029	COW @ 135TH		9:15A	1	G		✓								✓														✓							
"	COW @ 135TH		9:15A	1	G						✓		✓																✓							
030	COW @ 37TH		8:22A	1	G		✓								✓														✓							
"	COW @ 37TH		8:22A	1	G						✓		✓																✓							
031	COW @ PAWNEE		10:00A	1	G		✓								✓														✓							
"	COW @ PAWNEE		10:00A	1	G						✓		✓																✓							
032	COW @ K-42		10:20A	1	G		✓								✓														✓							
"	COW @ K-42	✓	10:20A	1	G						✓		✓																✓							

Comments:

CUSTODY RECORD:	Date	Time		Date	Time
Relinquished by: Tabatha K. Kling	2-2-12	10:40AM	Received by: Thom Nichols	2-2-12	1040
Print Name: TABATHA KLING			Print Name: TMN		
Relinquished by:			Received by:		
Print Name:			Print Name:		

Form: I:\Excel\123\Forms\COC Revision 11 08/08/07

Continental Analytical Services, Inc.

01/25/2012

City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date and Time Received: 01/11/2012 16:10
Continental File No.: 5611
Continental Order No.: 100787
Purchase Auth: BP800121

Dear Ms. Snapp:

This laboratory report containing the samples indicated below, includes 11 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12010825	COW @ K-42	Liquid	1/5/2012
12010826	COW @ PAWNEE	Liquid	1/5/2012
12010827	COW @ 37TH	Liquid	1/5/2012
12010828	COW @ 135TH	Liquid	1/5/2012
12010829	BIG ARK @ 47TH	Liquid	1/5/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 01/25/2012
Date Received: 01/11/2012
Continental File No: 5611
Continental Order No: 100787

Lab Number: 12010829
Sample Description: BIG ARK @ 47TH

Date Sampled: 01/05/2012
Time Sampled: 0750

Analysis	Concentration	Units	Book/Page
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	6854/418
Nitrate/Nitrite, as N (FIA)	1.8	mg/L	7061/254
Nitrogen (TKN + NO3/NO2), as N	1.8	mg/L	9999/845

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Kjeldahl Nitrogen, as N (T	01/16/12	01/17/12 1054	120116-1	120117-3	JND	EPA 351.2
Nitrate/Nitrite, as N (FIA	N/A	01/23/12 1603	120123-2	120123-4	KJH	SM 4500-NO3(F)
Nitrogen (TKN + NO3/NO2),	N/A	01/25/12 1411				Calculation

Conclusion of Lab Number: 12010829

Appendix

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 01/25/2012
Date Received: 01/11/2012
Continental File No: 5611
Continental Order No: 100787

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

No analysis with a holding time of seventy-two hours or less was performed in this Continental order.

Accreditation Summary

Client: City of Wichita Sewage Treatment
Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 01/25/2012
Date Received: 01/11/2012
Continental File No: 5611
Continental Order No: 100787

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and analysis performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Quality Control Report
Batch Summary

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 01/25/2012
Date Received: 01/11/2012
Continental File No: 5611
Continental Order No: 100787

Test	Testname	QC Batch	Method Blank	LCS	MS Lab No.
GL595	Kjeldahl Nitrogen, as N (TKN)	120116-1	120116BLK1 01/18/12 14:41	120116LCS1 01/18/12 14:44	12010726MS 01/18/12 14:55
Lab numbers associated with this batch: 12010825 12010826 12010827 12010828 12010829					
GL192	Nitrate/Nitrite, as N (FIA)	120123-2	120123BLK2 01/23/12 1547	120123LCS2 01/23/12 1548	12010707MS 01/23/12 1550
Lab numbers associated with this batch: 12010825 12010826 12010827 12010828 12010829					
GL343	Nitrogen (TKN + NO3/NO2), as N				
Lab numbers associated with this batch: 12010825 12010826 12010827 12010828 12010829					

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 01/25/2012
Date Received: 01/11/2012
Continental File No: 5611
Continental Order No: 100787

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120116-1	**For samples prepared on: 01/16/2012**					**Spiked sample: 12010726**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	120	#	4.0	mg/L	MN	MN	#	20.0	mg/L	**	#
QC Batch: 120123-2	**For sample analysed on: 01/23/2012**					**Spiked sample: 12010707**						
Nitrate/Nitrite, as N (FIA)	ND(0.1)	103	88.5-111	2.0	mg/L	MN	MN	81.6-116	40.0	mg/L	**	5.8

Data Qualifiers:

MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

- Limits not available.

** - RPD cannot be calculated.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 01/25/2012
Date Received: 01/11/2012
Continental File No: 5611
Continental Order No: 100787

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Nitrate/Nitrite, as N (FIA)	01/23/2012	120123-4	CCV recovery acceptable for this Instrument Batch.			
Nitrate/Nitrite, as N (FIA)	01/23/2012	120123-5	CCV recovery acceptable for this Instrument Batch.			
Nitrate/Nitrite, as N (FIA)	01/23/2012	120123-6	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	01/17/2012	120117-2	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	01/17/2012	120117-3	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	01/17/2012	120117-4	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CHAIN OF CUSTODY RECORD

Continental Order Number: 100787

PAGE ___ OF ___

PLEASE NOTE THE ATTACHED CONTINENTAL SAMPLE ACCEPTANCE POLICY

Client/Reporting Information	Invoice Information
Company Name: CITY OF WICHITA	Company Name: ← SAME
Address: 2305 E. 57TH S.	Address:
City: WICHITA State: KS Zip: 67216	City: State: Zip:
Contact: VICKIE SNAPP	Contact:
E-mail:	E-mail:
Phone Number: 316-303-8700 Fax Number:	Phone Number: Fax Number:

Sampler's Name:(Printed): TABATHA KLING
Sampler's Name:(Signature): Tabatha K Kling
Purchase Order Number:
Project or File Number:
Project Name:

Edits made to pr... sample rece... MG 1-12-12

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	OTHER:	PARAMETERS/CONTAINER TYPE: TKN / NO3	COMMENTS
COW@ K-42	(W)	O	1-5-12	10:00A	G	1				✓			✓	MTH
COW@ PAWNEE	O	O	1-5-12	9:45A	G	1				✓			✓	MTH
COW@ 37TH	O	O	1-5-12	9:10A	G	1				✓			✓	MTH
COW@ 135TH	O	O	1-5-12	9:00A	G	1				✓			✓	MTH
BIG ARK@ 47TH	O	O	1-5-12	7:50A	G	1				✓			✓	MTH

Shipping Order No: ___

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL= Oil/Organic Liquid, O=Other

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT: (15 working days) Rush TAT: (5 working days) Emergency TAT: (2-3 working days)

RELINQUISHED BY: Tabatha K Kling	DATE: 1-5-11	TIME: 11:10AM	RECEIVED BY: Tabatha D. Cam	DATE: 1-5-11	TIME: 11:10A
RELINQUISHED BY: Tabatha D. Cam	DATE: 1/11/12	TIME: 1340	RECEIVED BY:	DATE: 1-11-12	TIME: 1340
RECEIVED AT LAB BY: Pauletta Ong	DATE: 1/11/12 1-11-12	TIME: 1610 1610	SHIPPED VIA: AIRBILL:	SEAL #: SEAL DATE:	

White Copy to Laboratory

Yellow Copy to Client

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 100787

Client Name: Wichita **CAS File No.:** 5611

Sample ID's in cooler: Soil

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: 1901 / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 1 / 11 / 12 16 : 10

Delivered By: UPS / FedX / AB Express / (Field Svc) / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice (Ice) Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) -0.3 Corrected Reading (°C) 0.1
Temp. By: (Temp Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 5FF Thermo. Correction Factor (°C): 0.4
☐ Evidence of Cooling and date received = date sampled

mw 1-11-12

Sample Receipt Discrepancies: ☒ No ☐ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: mw Date Completed: 1-12-12

Continental Analytical Services, Inc.

02/20/2012

City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date and Time Received: 02/08/2012 :
Continental File No.: 5611
Continental Order No.: 101355
Purchase Auth: BP800121

Dear Ms. Snapp:

This laboratory report containing the samples indicated below, includes 11 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12020636	COW@37th	Liquid	2/2/2012
12020637	COW@135th	Liquid	2/2/2012
12020638	COW@PAWNEE	Liquid	2/2/2012
12020639	COW@K-42	Liquid	2/2/2012
12020640	BIG ARK@47th	Liquid	2/2/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 02/20/2012
Date Received: 02/08/2012
Continental File No: 5611
Continental Order No: 101355

Lab Number: 12020636
Sample Description: COW@37th

Date Sampled: 02/02/2012
Time Sampled: 0922

Analysis	Concentration	Units	Book/Page
Kjeldahl Nitrogen, as N (TKN)	1.8	mg/L	6854/443
Nitrate/Nitrite, as N (FIA)	2.7	mg/L	7061/273
Nitrogen (TKN + NO3/NO2), as N	4.5	mg/L	9999/887

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Kjeldahl Nitrogen, as N (T	02/14/12	02/16/12 1409	120214-2	120216-1	JND	EPA 351.2
Nitrate/Nitrite, as N (FIA	N/A	02/20/12 1450	120220-1	120220-1	KJH	SM 4500-NO3(F)
Nitrogen (TKN + NO3/NO2),	N/A	02/20/12 1641				Calculation

Conclusion of Lab Number: 12020636

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 02/20/2012
Date Received: 02/08/2012
Continental File No: 5611
Continental Order No: 101355

Lab Number: 12020637
Sample Description: COW@135th

Date Sampled: 02/02/2012
Time Sampled: 0915

Analysis	Concentration	Units	Book/Page
Kjeldahl Nitrogen, as N (TKN)	1.1	mg/L	6854/443
Nitrate/Nitrite, as N (FIA)	0.33	mg/L	7061/273
Nitrogen (TKN + NO3/NO2), as N	1.4	mg/L	9999/887

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Kjeldahl Nitrogen, as N (T	02/14/12	02/16/12 1411	120214-2	120216-1	JND	EPA 351.2
Nitrate/Nitrite, as N (FIA	N/A	02/20/12 1452	120220-1	120220-1	KJH	SM 4500-NO3(F)
Nitrogen (TKN + NO3/NO2),	N/A	02/20/12 1641				Calculation

Conclusion of Lab Number: 12020637

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 02/20/2012
Date Received: 02/08/2012
Continental File No: 5611
Continental Order No: 101355

Lab Number: 12020638
Sample Description: COW@PAWNEE

Date Sampled: 02/02/2012
Time Sampled: 1000

Analysis	Concentration	Units	Book/Page
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	6854/443
Nitrate/Nitrite, as N (FIA)	1.0	mg/L	7061/273
Nitrogen (TKN + NO3/NO2), as N	1.0	mg/L	9999/887

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Kjeldahl Nitrogen, as N (T	02/14/12	02/16/12 1413	120214-2	120216-1	JND	EPA 351.2
Nitrate/Nitrite, as N (FIA	N/A	02/20/12 1453	120220-1	120220-1	KJH	SM 4500-NO3(F)
Nitrogen (TKN + NO3/NO2),	N/A	02/20/12 1641				Calculation

Conclusion of Lab Number: 12020638

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 02/20/2012
Date Received: 02/08/2012
Continental File No: 5611
Continental Order No: 101355

Lab Number: 12020639
Sample Description: COW@K-42

Date Sampled: 02/02/2012
Time Sampled: 1020

Analysis	Concentration	Units	Book/Page
Kjeldahl Nitrogen, as N (TKN)	1.0	mg/L	6854/443
Nitrate/Nitrite, as N (FIA)	1.2	mg/L	7061/273
Nitrogen (TKN + NO3/NO2), as N	2.2	mg/L	9999/887

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Kjeldahl Nitrogen, as N (T	02/14/12	02/16/12 1415	120214-2	120216-1	JND	EPA 351.2
Nitrate/Nitrite, as N (FIA	N/A	02/20/12 1454	120220-1	120220-1	KJH	SM 4500-NO3(F)
Nitrogen (TKN + NO3/NO2),	N/A	02/20/12 1641				Calculation

Conclusion of Lab Number: 12020639

Appendix

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 02/20/2012
Date Received: 02/08/2012
Continental File No: 5611
Continental Order No: 101355

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

No analysis with a holding time of seventy-two hours or less was performed in this Continental order.

Accreditation Summary

Client: City of Wichita Sewage Treatment
Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 02/20/2012
Date Received: 02/08/2012
Continental File No: 5611
Continental Order No: 101355

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Quality Control Report
Batch Summary

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 02/20/2012
Date Received: 02/08/2012
Continental File No: 5611
Continental Order No: 101355

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL595	Kjeldahl Nitrogen, as N (TKN)	120214-2	120214BLK2 02/16/12 14:04	120214LCS2 02/16/12 14:07	12020666MS 02/16/12 14:35
Lab numbers associated with this batch: 12020636 12020637 12020638 12020639 12020640					
GL192	Nitrate/Nitrite, as N (FIA)	120220-1	120220BLK1 02/20/12 1443	120220LCS1 02/20/12 1445	12020747MS 02/20/12 1514
Lab numbers associated with this batch: 12020636 12020637 12020638 12020639 12020640					
GL343	Nitrogen (TKN + NO3/NO2), as N				
Lab numbers associated with this batch: 12020636 12020637 12020638 12020639 12020640					

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 02/20/2012
Date Received: 02/08/2012
Continental File No: 5611
Continental Order No: 101355

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120214-2	**For samples prepared on: 02/14/2012**					**Spiked sample: 12020666**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	106	85.0-115	4.0	mg/L	MN	MN	81.5-133	4.0	mg/L	**	18.3
QC Batch: 120220-1	**For sample analyzed on: 02/20/2012**					**Spiked sample: 12020747**						
Nitrate/Nitrite, as N (FIA)	ND(0.1)	101	88.5-111	2.0	mg/L	MN	MN	81.6-116	20.0	mg/L	**	5.8

Data Qualifiers:

MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 02/20/2012
Date Received: 02/08/2012
Continental File No: 5611
Continental Order No: 101355

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Nitrate/Nitrite, as N (FIA)	02/20/2012	120220-1	CCV recovery acceptable for this Instrument Batch.			
Nitrate/Nitrite, as N (FIA)	02/20/2012	120220-2	CCV recovery acceptable for this Instrument Batch.			
Nitrate/Nitrite, as N (FIA)	02/20/2012	120220-3	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/16/2012	120216-1	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/16/2012	120216-2	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/17/2012	120217-1	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/17/2012	120217-2	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CHAIN OF CUSTODY RECORD

Continental Order Number: 101355

PAGE ___ OF ___

PLEASE NOTE THE ATTACHED CONTINENTAL SAMPLE ACCEPTANCE POLICY

Client/Reporting Information	Invoice Information
Company Name: CITY OF WICHITA	Company Name: SAME
Address: 2305 E. 57TH S.	Address:
City: WICHITA State: KS Zip: 67216	City: State: Zip:
Contact: VICKIE SNAPP	Contact:
E-mail:	E-mail:
Phone Number: 316-303-8700 Fax Number:	Phone Number: Fax Number:
Sampler's Name:(Printed) TABATHA KLING	Sampler's Name:(Signature) Tabatha Kling
Project or File Number:	Project Name:
	Purchase Order Number:

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	OTHER:	PARAMETERS/CONTAINER TYPE: TKN/NO3	COMMENTS
COW @ 37TH	O	O	2-2-12	9:22A	G	1				✓			✓	MTH
COW @ 135TH	O	O	2-2-12	9:45A	G	1				✓			✓	MTH
COW @ PAWNEE	O	O	2-2-12	10:00A	G	1				✓			✓	MTH
COW @ K-42	O	O	2-2-12	10:20AM	G	1				✓			✓	MTH
BIG ARK @ 47TH	O	O	2-2-12	8:00A	G	1				✓			✓	MTH

Shipping Order No: _____

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL= Oil/Organic Liquid, O=Other

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT: (15 working days) Rush TAT: (5 working days) Emergency TAT: (2-3 working days)

RELINQUISHED BY: Tabatha Kling	DATE: 2-2-12	TIME: 1:34PM	RECEIVED BY:	DATE: 2/3/12	TIME: 13:34
RELINQUISHED BY:	DATE: 2/8/12	TIME: 1355	RECEIVED BY: 2-9-12 DR	DATE: 2-8-12	TIME: 1355
RECEIVED AT LAB BY:	DATE: 2-8-12	TIME: 1550	SHIPPED VIA: AIRBILL:	SEAL #: SEAL DATE:	

White Copy to Laboratory

Yellow Copy to Client

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 101355

Client Name: Wichita CAS File No.: 5611

Sample ID's in cooler: See COC

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: 2592 / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 2 / 8 / 12 15 : 50

Delivered By: UPS / FedX / AB Express / Field Svcs / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / N/A

Type of Packing Material: Blue Ice / Ice / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) -0.2 Corrected Reading (°C) 0.2
Temp. By: Temp. Blank Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 525 Thermo. Correction Factor (°C): 0.4

MWS 2-8-12 ☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes (See below for discrepancies.)

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: [signature] Date Completed: 2-8-12

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result
KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00028
LOCATION CODE: 47TH
DESCRIPTION: Arkansas River @ 47th St.

Report Date: 02/22/2012
Date/Time Collected: 02/02/2012 08:00
Date/Time Received: 02/02/2012 10:40
Sample Collector KLING, TABATHA

Site code: BRI **Sample Type:** **Sample Frequency: MTH**

Comments:

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	338	mg/L	5	EPA 300.0	02/02/2012 15:22	KCARTER
Sulfate	134	mg/L	5	EPA 300.0	02/02/2012 15:22	KCARTER
Total Hardness Manual	328	mg/L	1	SM 2340 C	02/22/2012 11:29	KCARTER

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

Chain of Custody Record and Analytical Request

In Lab: ☑ Iced on Receipt
Presevation Checked
Temperature at Delivery

WICHITA MUNICIPAL WATER & SEWER DEPARTMENT LABORATORY E-60603
PRODUCTION & PUMPING DIVISION
1815 W. Pine St., Wichita KS 67203

RECEIVED FROM: ☑ PRETREATMENT ☐ SEWAGE TREATMENT DIVISION ☐ PRODUCTION & PUMPING DIVISION

Sampler(s): TABATHA KLING

Lab Log #	Location Code	Date	Time	Sample Info: No. of Containers	Sample Info: Type: G=Grab, TC= Time Comp, FC=Flow Comp	Preservation: H3PO4	H2SO4	HNO3	Ascorbic	NaOH	None	Anions: Nitrate-N	Cl /SO4	Water Chemistries: Alkalinity	Hardness	T-PO4-P	Spec. Conductivity	TSS	Turbidity	Other: Bacti	NH3-N	Organic: Atrazine	CN	Phenol	TOC	Metals: Ag Cd Cr Cu Fe Ni Pb Zn	As Be Mo Sb Se Tl	Ca K Mn Mg Na	Hg	Field pH or Comments: M	Q	S	INS	INV	CMF	CEP	LOC
C28	BIG ARK @ 47TH		[illegible]	1	G		✓								✓																				
"	BIG ARK @ 47TH		8:00A	1	G						✓		✓																	✓						
C29	COW @ 135TH		9:15A	1	G		✓								✓																				
"	COW @ 135TH		9:15A	1	G						✓		✓																	✓						
C30	COW @ 37TH		[illegible]	1	G		✓								✓																				
"	COW @ 37TH		8:22A	1	G						✓		✓																	✓						
C31	COW @ PAWNEE		10:00A	1	G		✓								✓																				
"	COW @ PAWNEE		10:00A	1	G						✓		✓																	✓						
K42	COW @ K-42		10:20A	1	G		✓								✓																				
"	COW @ K-42	✓	10:20A	1	G						✓		✓																	✓						

Comments:

CUSTODY RECORD:	Date	Time		Date	Time
Relinquished by: Tabatha K...	[illegible]	10:40AM	Received by: [signature]		
Print Name: TABATHA KLING			Print Name: [illegible]		
Relinquished by:			Received by:		
Print Name:			Print Name:		

Form: I:\Excel\123\Forms\COC Revision 11 08/08/07

Continental Analytical Services, Inc.

02/20/2012

City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date and Time Received: 02/08/2012 :
Continental File No.: 5611
Continental Order No.: 101355
Purchase Auth: BP800121

Dear Ms. Snapp:

This laboratory report containing the samples indicated below, includes 11 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12020636	COW@37th	Liquid	2/2/2012
12020637	COW@135th	Liquid	2/2/2012
12020638	COW@PAWNEE	Liquid	2/2/2012
12020639	COW@K-42	Liquid	2/2/2012
12020640	BIG ARK@47th	Liquid	2/2/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 02/20/2012
Date Received: 02/08/2012
Continental File No: 5611
Continental Order No: 101355

Lab Number: 12020640
Sample Description: BIG ARK@47th

Date Sampled: 02/02/2012
Time Sampled: 0800

Analysis	Concentration	Units	Book/Page
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	6854/444
Nitrate/Nitrite, as N (FIA)	1.3	mg/L	7061/273
Nitrogen (TKN + NO3/NO2), as N	1.3	mg/L	9999/887

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Kjeldahl Nitrogen, as N (T	02/14/12	02/17/12 1526	120214-2	120217-1	JND	EPA 351.2
Nitrate/Nitrite, as N (FIA	N/A	02/20/12 1457	120220-1	120220-2	KJH	SM 4500-NO3(F)
Nitrogen (TKN + NO3/NO2),	N/A	02/20/12 1641				Calculation

Conclusion of Lab Number: 12020640

Appendix

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 02/20/2012
Date Received: 02/08/2012
Continental File No: 5611
Continental Order No: 101355

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

No analysis with a holding time of seventy-two hours or less was performed in this Continental order.

Accreditation Summary

Client: City of Wichita Sewage Treatment
Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 02/20/2012
Date Received: 02/08/2012
Continental File No: 5611
Continental Order No: 101355

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services. Inc.

Quality Control Report
Batch Summary

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 02/20/2012
Date Received: 02/08/2012
Continental File No: 5611
Continental Order No: 101355

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL595	Kjeldahl Nitrogen, as N (TKN)	120214-2	120214BLK2 02/16/12 14:04	120214LCS2 02/16/12 14:07	12020666MS 02/16/12 14:35
Lab numbers associated with this batch: 12020636 12020637 12020638 12020639 12020640					
GL192	Nitrate/Nitrite, as N (FIA)	120220-1	120220BLK1 02/20/12 1443	120220LCS1 02/20/12 1445	12020747MS 02/20/12 1514
Lab numbers associated with this batch: 12020636 12020637 12020638 12020639 12020640					
GL343	Nitrogen (TKN + NO3/NO2), as N				
Lab numbers associated with this batch: 12020636 12020637 12020638 12020639 12020640					

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 02/20/2012
Date Received: 02/08/2012
Continental File No: 5611
Continental Order No: 101355

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120214-2	**For samples prepared on: 02/14/2012**					**Spiked sample: 12020666**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	106	85.0-115	4.0	mg/L	MN	MN	81.5-133	4.0	mg/L	**	18.3
QC Batch: 120220-1	**For sample analyzed on: 02/20/2012**					**Spiked sample: 12020747**						
Nitrate/Nitrite, as N (FIA)	ND(0.1)	101	88.5-111	2.0	mg/L	MN	MN	81.6-116	20.0	mg/L	**	5.8

Data Qualifiers:
MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.
** - RPD cannot be calculated.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 02/20/2012
Date Received: 02/08/2012
Continental File No: 5611
Continental Order No: 101355

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Nitrate/Nitrite, as N (FIA)	02/20/2012	120220-1	CCV recovery acceptable for this Instrument Batch.			
Nitrate/Nitrite, as N (FIA)	02/20/2012	120220-2	CCV recovery acceptable for this Instrument Batch.			
Nitrate/Nitrite, as N (FIA)	02/20/2012	120220-3	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/16/2012	120216-1	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/16/2012	120216-2	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/17/2012	120217-1	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/17/2012	120217-2	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CHAIN OF CUSTODY RECORD

Continental Order Number: 101355

PAGE ___ OF ___

PLEASE NOTE THE ATTACHED CONTINENTAL SAMPLE ACCEPTANCE POLICY

Client/Reporting Information	Invoice Information
Company Name: CITY OF WICHITA	Company Name: SAME
Address: 2305 E. 57TH S.	Address:
City: WICHITA State: KS Zip: 67216	City: State: Zip:
Contact: VICKIE SNAPP	Contact:
E-mail:	E-mail:
Phone Number: 316-303-8700 Fax Number:	Phone Number: Fax Number:

Sampler's Name:(Printed): TABATHA KLING
Sampler's Name:(Signature): Tabatha Kling
Purchase Order Number:
Project or File Number:
Project Name:

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	OTHER:	PARAMETERS/CONTAINER TYPE: TKN/NO3	COMMENTS
COW @ 37TH	O	O	2-2-12	9:22A	G	1				✓			✓	MTH
COW @ 135TH	O	O	2-2-12	9:45A	G	1				✓			✓	MTH
COW @ PAWNEE	O	O	2-2-12	10:00A	G	1				✓			✓	MTH
COW @ K-42	O	O	2-2-12	10:20AM	G	1				✓			✓	MTH
BIG ARK @ 47TH	O	O	2-2-12	8:00A	G	1				✓			✓	MTH

Shipping Order No: _____

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL= Oil/Organic Liquid, O=Other

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT: (15 working days) Rush TAT: (5 working days) Emergency TAT: (2-3 working days)

RELINQUISHED BY: Tabatha Kling	DATE: 2-2-12	TIME: 1:34PM	RECEIVED BY:	DATE: 2/3/12	TIME: 13:34
RELINQUISHED BY:	DATE: 2/8/12	TIME: 1355	RECEIVED BY: 2-9-12 DR	DATE: 2-9-12	TIME: 1355
RECEIVED AT LAB BY:	DATE: 2-8-12	TIME: 1550	SHIPPED VIA: AIRBILL:	SEAL #: SEAL DATE:	

White Copy to Laboratory

Yellow Copy to Client

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 101355

Client Name: Wichita

CAS File No.: 5611

Sample ID's in cooler: See COC

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: 2592 / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 2 / 8 / 12 15 : 50

Delivered By: UPS / FedX / AB Express / Field Svcs / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / N/A

Type of Packing Material: Blue Ice / Ice / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) -0.2 Corrected Reading (°C) 0.2
Temp. By: Temp. Blank Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 535 Thermo. Correction Factor (°C): 0.4

MLS 2-8-12 ☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes (See below for discrepancies.)

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from:
  - Cover Letter ☐ Container ☐
  - PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: MLS Date Completed: 2-8-12

Continental Analytical Services, Inc.

01/25/2012

City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date and Time Received: 01/11/2012 16:10
Continental File No.: 5611
Continental Order No.: 100787
Purchase Auth: BP800121

Dear Ms. Snapp:

This laboratory report containing the samples indicated below, includes 11 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12010825	COW @ K-42	Liquid	1/5/2012
12010826	COW @ PAWNEE	Liquid	1/5/2012
12010827	COW @ 37TH	Liquid	1/5/2012
12010828	COW @ 135TH	Liquid	1/5/2012
12010829	BIG ARK @ 47TH	Liquid	1/5/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 01/25/2012
Date Received: 01/11/2012
Continental File No: 5611
Continental Order No: 100787

Lab Number: 12010825
Sample Description: COW @ K-42

Date Sampled: 01/05/2012
Time Sampled: 1000

Analysis	Concentration	Units	Book/Page
Kjeldahl Nitrogen, as N (TKN)	1.7	mg/L	6854/418
Nitrate/Nitrite, as N (FIA)	1.4	mg/L	7061/254
Nitrogen (TKN + NO3/NO2), as N	3.1	mg/L	9999/845

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Kjeldahl Nitrogen, as N (T	01/16/12	01/17/12 1042	120116-1	120117-2	JND	EPA 351.2
Nitrate/Nitrite, as N (FIA	N/A	01/23/12 1558	120123-2	120123-4	KJH	SM 4500-NO3(F)
Nitrogen (TKN + NO3/NO2),	N/A	01/25/12 1411				Calculation

Conclusion of Lab Number: 12010825

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 01/25/2012
Date Received: 01/11/2012
Continental File No: 5611
Continental Order No: 100787

Lab Number: 12010826
Sample Description: COW @ PAWNEE

Date Sampled: 01/05/2012
Time Sampled: 0945

Analysis	Concentration	Units	Book/Page
Kjeldahl Nitrogen, as N (TKN)	1.8	mg/L	6854/418
Nitrate/Nitrite, as N (FIA)	0.74	mg/L	7061/254
Nitrogen (TKN + NO3/NO2), as N	2.5	mg/L	9999/845

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Kjeldahl Nitrogen, as N (T	01/16/12	01/17/12 1048	120116-1	120117-3	JND	EPA 351.2
Nitrate/Nitrite, as N (FIA	N/A	01/23/12 1600	120123-2	120123-4	KJH	SM 4500-NO3(F)
Nitrogen (TKN + NO3/NO2),	N/A	01/25/12 1411				Calculation

Conclusion of Lab Number: 12010826

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 01/25/2012
Date Received: 01/11/2012
Continental File No: 5611
Continental Order No: 100787

Lab Number: 12010827
Sample Description: COW @ 37TH

Date Sampled: 01/05/2012
Time Sampled: 0910

Analysis	Concentration	Units	Book/Page
Kjeldahl Nitrogen, as N (TKN)	1.4	mg/L	6854/418
Nitrate/Nitrite, as N (FIA)	2.4	mg/L	7061/254
Nitrogen (TKN + NO3/NO2), as N	3.8	mg/L	9999/845

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Kjeldahl Nitrogen, as N (T	01/16/12	01/17/12 1050	120116-1	120117-3	JND	EPA 351.2
Nitrate/Nitrite, as N (FIA	N/A	01/23/12 1619	120123-2	120123-5	KJH	SM 4500-NO3(F)
Nitrogen (TKN + NO3/NO2),	N/A	01/25/12 1411				Calculation

Conclusion of Lab Number: 12010827

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 01/25/2012
Date Received: 01/11/2012
Continental File No: 5611
Continental Order No: 100787

Lab Number: 12010828
Sample Description: COW @ 135TH

Date Sampled: 01/05/2012
Time Sampled: 0900

Analysis	Concentration	Units	Book/Page
Kjeldahl Nitrogen, as N (TKN)	1.1	mg/L	6854/418
Nitrate/Nitrite, as N (FIA)	0.64	mg/L	7061/254
Nitrogen (TKN + NO3/NO2), as N	1.7	mg/L	9999/845

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Kjeldahl Nitrogen, as N (T	01/16/12	01/17/12 1052	120116-1	120117-3	JND	EPA 351.2
Nitrate/Nitrite, as N (FIA	N/A	01/23/12 1602	120123-2	120123-4	KJH	SM 4500-NO3(F)
Nitrogen (TKN + NO3/NO2),	N/A	01/25/12 1411				Calculation

Conclusion of Lab Number: 12010828

Appendix

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 01/25/2012
Date Received: 01/11/2012
Continental File No: 5611
Continental Order No: 100787

ND(), where reported, indicates the analyte was not **detected above the Limit of** Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

No analysis with a holding time of seventy-two hours or less was performed in this Continental order.

Accreditation Summary

Client: City of Wichita Sewage Treatment
Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 01/25/2012
Date Received: 01/11/2012
Continental File No: 5611
Continental Order No: 100787

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and analysis performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 01/25/2012
Date Received: 01/11/2012
Continental File No: 5611
Continental Order No: 100787

Test	Testname	QC Batch	Method Blank	LCS	MS Lab No.
GL595	Kjeldahl Nitrogen, as N (TKN)	120116-1	120116BLK1 01/18/12 14:41	120116LCS1 01/18/12 14:44	12010726MS 01/18/12 14:55
Lab numbers associated with this batch: 12010825 12010826 12010827 12010828 12010829					
GL192	Nitrate/Nitrite, as N (FIA)	120123-2	120123BLK2 01/23/12 1547	120123LCS2 01/23/12 1548	12010707MS 01/23/12 1550
Lab numbers associated with this batch: 12010825 12010826 12010827 12010828 12010829					
GL343	Nitrogen (TKN + NO3/NO2), as N				
Lab numbers associated with this batch: 12010825 12010826 12010827 12010828 12010829					

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 01/25/2012
Date Received: 01/11/2012
Continental File No: 5611
Continental Order No: 100787

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120116-1	**For samples prepared on: 01/16/2012**					**Spiked sample: 12010726**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	120	#	4.0	mg/L	MN	MN	#	20.0	mg/L	**	#
QC Batch: 120123-2	**For sample analysed on: 01/23/2012**					**Spiked sample: 12010707**						
Nitrate/Nitrite, as N (FIA)	ND(0.1)	103	88.5-111	2.0	mg/L	MN	MN	81.6-116	40.0	mg/L	**	5.8

Data Qualifiers:

MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

- Limits not available.

** - RPD cannot be calculated.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita Sewage Treatment
Attn: Vickie Snapp
2305 E. 57th Street South
Wichita, KS 67216

Date Reported: 01/25/2012
Date Received: 01/11/2012
Continental File No: 5611
Continental Order No: 100787

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Nitrate/Nitrite, as N (FIA)	01/23/2012	120123-4	CCV recovery acceptable for this Instrument Batch.			
Nitrate/Nitrite, as N (FIA)	01/23/2012	120123-5	CCV recovery acceptable for this Instrument Batch.			
Nitrate/Nitrite, as N (FIA)	01/23/2012	120123-6	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	01/17/2012	120117-2	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	01/17/2012	120117-3	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	01/17/2012	120117-4	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CHAIN OF CUSTODY RECORD

Continental Order Number: 100787

PAGE ___ OF ___

PLEASE NOTE THE ATTACHED CONTINENTAL SAMPLE ACCEPTANCE POLICY

Client/Reporting Information	Invoice Information
Company Name: CITY OF WICHITA	Company Name: ← SAME
Address: 2305 E. 57TH S.	Address:
City: WICHITA State: KS Zip: 67216	City: State: Zip:
Contact: VICKIE SNAPP	Contact:
E-mail:	E-mail:
Phone Number: 316-303-8700 Fax Number:	Phone Number: Fax Number:

Sampler's Name:(Printed): TABATHA KLING
Sampler's Name:(Signature): Tabatha King
Purchase Order Number:
Project or File Number:
Project Name:

Edits made to price ... sample receipt
MW 1-12-12

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	OTHER:	TKN / NO3							COMMENTS
COW @ K-42	W	O	1-5-12	10:30A	G	1				✓			✓							MTH
COW @ PAWNEE	O	O	1-5-12	9:45A	G	1				✓			✓							MTH
COW @ 37TH	O	O	1-5-12	9:10A	G	1				✓			✓							MTH
COW @ 135TH	O	O	1-5-12	8:40A	G	1				✓			✓							MTH
BIG ARK @ 47TH	O	O	1-5-12	7:50A	G	1				✓			✓							MTH

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL= Oil/Organic Liquid, O=Other

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charges)
Standard TAT: (15 working days) Rush TAT: (5 working days) Emergency TAT: (72-3 working days)

	DATE:	TIME:		DATE:	TIME:
RELINQUISHED BY: Tabatha King	1-5-11	11:10AM	RECEIVED BY: Tabby McCann	1-5-11	11:10A
RELINQUISHED BY: Tabby McCann	1/11/12	1390	RECEIVED BY:	1-11-12	1340
RECEIVED AT LAB BY: Paulette Gay	1/11/12 1-11-12	1610	SHIPPED VIA: AIRBILL:	SEAL #: SEAL DATE:	

White Copy to Laboratory

Yellow Copy to Client

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 100787

Client Name: Wichita

CAS File No.: 5611

Sample ID's in cooler: Soil

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: 1901 / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 1 / 11 / 12 16 : 10

Delivered By: UPS / FedX / AB Express / (Field Svcs) / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice (Ice) Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) -0.3 Corrected Reading (°C) 0.1
Temp. By: (Temp Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
MW 1-11-12 Thermo. ID No.: SFF Thermo. Correction Factor (°C): 0.4
☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

☐ Chain of Custody not present - information taken from:
Cover Letter ☐ Container ☐
PO ☐ CAS Proj. Mgr. ☐
☐ Container label absent
☐ Chain of Custody incomplete [see detail below]
☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
☐ Date or Time sampled obtained from container label
☐ Chain of Custody missing sampler's name
☐ Chain of Custody missing matrix (sample type)
☐ Missing relinquished information: signature date time
☐ Sample excluded from Chain of Custody
☐ Sample listed on Chain of Custody, not received
☐ Sample description on container and Chain of Custody do not agree
☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement
[Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
☐ Broken or leaking containers (detail actions below)
☐ Sample container type or labeled chemical preservation inappropriate
☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: MW Date Completed: 1-12-12

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00001
LOCATION CODE: COW@K42
DESCRIPTION: Cowskin Creek @ K42

Report Date: 01/06/2012
Date/Time Collected: 01/05/2012 10:00
Date/Time Received: 01/05/2012 10:25
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	92.8	mg/L	5	EPA 300.0	01/05/2012 12:26	KCARTER
Sulfate	54.7	mg/L	5	EPA 300.0	01/05/2012 12:26	KCARTER
Total Hardness Manual	152	mg/L	1	SM 2340 C	01/05/2012 15:40	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00002
LOCATION CODE: COW@PAWNEE
DESCRIPTION: Cowskin Creek @ Pawnee

Report Date: 01/06/2012
Date/Time Collected: 01/05/2012 09:45
Date/Time Received: 01/05/2012 10:25
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	47.1	mg/L	5	EPA 300.0	01/05/2012 12:44	KCARTER
Sulfate	42.6	mg/L	5	EPA 300.0	01/05/2012 12:44	KCARTER
Total Hardness Manual	159	mg/L	1	SM 2340 C	01/05/2012 15:40	PMILLS

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CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K[illegible] Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00003
LOCATION CODE: COW@37N
DESCRIPTION: Cowskin Creek @ 37th North

Report Date: 01/06/2012
Date/Time Collected: 01/05/2012 09:10
Date/Time Received: 01/05/2012 10:25
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Lower plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	155	mg/L	5	EPA 300.0	01/05/2012 13:03	KCARTER
Sulfate	70.0	mg/L	5	EPA 300.0	01/05/2012 13:03	KCARTER
Total Hardness Manual	185	mg/L	1	SM 2340 C	01/05/2012 15:40	PMILLS

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CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K[illegible] Certification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00004
LOCATION CODE: COW@135W
DESCRIPTION: Cowskin Creek @ 135th West

Report Date: 01/06/2012
Date/Time Collected: 01/05/2012 09:00
Date/Time Received: 01/05/2012 10:25
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	128	mg/L	5	EPA 300.0	01/05/2012 13:21	KCARTER
Sulfate	65.9	mg/L	5	EPA 300.0	01/05/2012 13:21	KCARTER
Total Hardness Manual	210	mg/L	1	SM 2340 C	01/05/2012 15:40	PMILLS

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CITY OF WICHITA

Chain of Custody Record and Analytical Request

In Lab: 5°C. ☑ Iced on Receipt ☑ Presevation Checked ☑ Temperature at Delivery

WICHITA MUNICIPAL WATER & SEWER DEPARTMENT LABORATORY E-60603
PRODUCTION & PUMPING DIVISION
1815 W. Pine St., Wichita KS 67203

RECEIVED FROM: ☑ PRETREATMENT SEWAGE TREATMENT DIVISION ☐ PRODUCTION & PUMPING DIVISION

Sampler(s): TABATHA KLING

Lab Log # CS000	Location Code	Date	Time	Sample Info: No. of Containers	Sample Info: Type: G=Grab, TC= Time Comp. FC=Flow Comp	Preservation: H3PO4	Preservation: H2SO4	Preservation: HNO3	Preservation: Ascorbic	Preservation: NaOH	Preservation: None	Anions: Nitrate-N	Anions: Cl /SO4	Water Chemistries: Alkalinity	Water Chemistries: Hardness	Water Chemistries: T-PO4-P	Water Chemistries: Spec. Conductivity	Water Chemistries: TSS	Water Chemistries: Turbidity	Other: Bacti	Other: NH3-N	Organic: Atrazine	Organic: CN	Organic: Phenol	Organic: TOC	Metals: Ag Cd Cr Cu Fe Ni Pb Zn	Metals: As Be Mo Sb Se Tl	Metals: Ca K Mn Mg Na	Metals: Hg	Field pH or Comments: M	Q	S	INS	INV	CMF	CEP	LOC
001	COW@ K-42	1-5-12	10:00AM	1	G		✓								✓															✓							
"	COW@ K-42	1-5-12	10:00AM	1	G						✓		✓																	✓							
002	COW@ PAWNEE	1-5-12	9:45AM	1	G		✓								✓															✓							
"	COW@ PAWNEE	1-5-12	9:45AM	1	G						✓		✓																	✓							
003	COW@ 37TH	1-5-12	9:10AM	1	G		✓								✓															✓							
"	COW@ 37TH	1-5-12	9:10AM	1	G						✓		✓																	✓							
004	COW@ 135TH	1-5-12	9:00AM	1	G		✓								✓															✓							
"	COW@ 135TH	1-5-12	9:00AM	1	G						✓		✓																	✓							
005	BIG ARK @ 47TH	1-5-12	7:50AM	1	G		✓								✓															✓							
"	BIG ARK @ 47TH	1-5-12	7:50AM	1	G						✓		✓																	✓							

Comments:

CUSTODY RECORD:	Date	Time		Date	Time
Relinquished by: Tabatha K Kling	1-5-12	10:25AM	Received by: Tina Sanchez	1-5-12	1025
Print Name: TABATHA KLING			Print Name: Tina		
Relinquished by:			Received by:		
Print Name:			Print Name:		

Form: I:\Excel\123\Forms\COC Revision 11 08/08/07

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00005
LOCATION CODE: 47TH
DESCRIPTION: Arkansas River @ 47th St.

Report Date: 01/06/2012
Date/Time Collected: 01/05/2012 07:50
Date/Time Received: 01/05/2012 10:25
Sample Collector KLING, TABATHA

Site code: BRI **Sample Type:** **Sample Frequency: MTH**

Comments:

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	314	mg/L	5	EPA 300.0	01/05/2012 13:40	KCARTER
Sulfate	121	mg/L	5	EPA 300.0	01/05/2012 13:40	KCARTER
Total Hardness Manual	294	mg/L	1	SM 2340 C	01/05/2012 15:40	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

Chain of Custody Record and Analytical Request

In Lab: 5°C. ☑ Iced on Receipt ☑ Presevation Checked ☑ Temperature at Delivery

WICHITA MUNICIPAL WATER & SEWER DEPARTMENT LABORATORY E-60603
PRODUCTION & PUMPING DIVISION
1815 W. Pine St., Wichita KS 67203

RECEIVED FROM: ☑ PRETREATMENT SEWAGE TREATMENT DIVISION ☐ PRODUCTION & PUMPING DIVISION

Sampler(s): TABATHA KLING

CS00

Lab Log #	Location Code	Date	Time	Sample Info: No. of Containers	Type: G=Grab, TC= Time Comp, FC=Flow Comp	Preservation: H3PO4	H2SO4	HNO3	Ascorbic	NaOH	None	Anions: Nitrate-N	Cl /SO4	Water Chemistries: Alkalinity	Hardness	T-PO4-P	Spec. Conductivity	TSS	Turbidity	Other: Bacti	NH3-N	Organic: Atrazine	CN	Phenol	TOC	Metals: Ag Cd Cr Cu Fe Ni Pb Zn	As Be Mo Sb Se Tl	Ca K Mn Mg Na	Hg	Field pH or Comments: M	Q	S	INS	INV	CMF	CEP	LOC
001	COW@ K-42	1-5-12	10:00AM	1	G		✓								✓															✓							
"	COW@ K-42	1-5-12	10:00AM	1	G						✓		✓																	✓							
002	COW@ PAWNEE	1-5-12	9:45AM	1	G		✓								✓															✓							
"	COW@ PAWNEE	1-5-12	9:45AM	1	G						✓		✓																	✓							
003	COW@ 37TH	1-5-12	9:10AM	1	G		✓								✓															✓							
"	COW@ 37TH	1-5-12	9:10AM	1	G						✓		✓																	✓							
004	COW@ 135TH	1-5-12	9:00AM	1	G		✓								✓															✓							
"	COW@ 135TH	1-5-12	9:00AM	1	G						✓		✓																	✓							
005	BIGARK@ 47TH	1-5-12	7:50AM	1	G		✓								✓															✓							
"	BIGARK@ 47TH	1-5-12	7:50AM	1	G						✓		✓																	✓							

Comments:

CUSTODY RECORD:	Date	Time		Date	Time
Relinquished by: Tabatha Kling	1-5-12	10:25AM	Received by: Tom	1-5-12	1025
Print Name: TABATHA KLING			Print Name:		
Relinquished by:			Received by:		
Print Name:			Print Name:		

Form: I:\Excel\123\Forms\COC Revision 11 08/08/07

Continental Analytical Services, Inc.

02/17/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 02/03/2012 14:25
Continental File No.: 8339
Continental Order No.: 101255
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 12 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12020404	13th and River-Grab	Liquid	2/3/2012
12020405	13th and River-Composite	Liquid	2/3/2012
12020406	13th and River-Upstream	Liquid	2/3/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101255

Lab Number: 12020404
Sample Description: 13th and River-Grab

Date Sampled: 02/03/2012
Time Sampled: 0645

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/90
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/88
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/90
Copper, Tot. Rec., ICP-MS	7	µg/L	7202/88
Hardness (Calculated)	19.0	mg/L as CaCO3	7157/194
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/90
Zinc, Tot. Rec., ICP-MS	59	µg/L	7202/88
Chloride	1.3	mg/L	7107/222
Solids, Total Dissolved	48	mg/L	7059/732
Solids, Total Suspended	26	mg/L	7059/736

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2153	120210-2	4IP3046	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1914	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2153	120210-2	4IP3046	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1914	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/07/12 1301	02/07/12 1912	120207-4	7IP4038	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2153	120210-2	4IP3046	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1914	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Chloride	N/A	02/08/12 1621	1IC2039	1IC2039	MLL	300.0
Solids, Total Dissolved	N/A	02/08/12 1413	120208-1	120208-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/10/12 1434	120210-1	120210-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12020404

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101255

Lab Number: 12020405
Sample Description: 13th and River-Composite

Date Sampled: 02/03/2012
Time Sampled: 0645

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM QC	µg/L	7202/87
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/88
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/87
Copper, Tot. Rec., ICP-MS	7	µg/L	7202/88
Hardness (Calculated)	20.6	mg/L as CaCO3	7157/192
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/87
Zinc, Tot. Rec., ICP-MS	67	µg/L	7202/88
BOD	ND(5)	mg/L	7060/353
Chloride	1.6	mg/L	7107/218
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	6854/436
Nitrate, as N	0.3	mg/L	7107/218
Nitrite, as N	ND(0.1)	mg/L	7107/218
Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L	9999/873
Phosphorus, Total, as P	ND(0.20)	mg/L	7061/272
Solids, Total Dissolved	40.	mg/L	7059/732
Solids, Total Suspended	31	mg/L	7059/736

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1735	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1920	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1735	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1920	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/06/12 1304	02/07/12 0010	120206-3	10IP4037	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1735	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1920	120208-1	3IP3040	JDL	200.8 Rev. 5.4
BOD	N/A	02/03/12 1800	120203-1	120203-1	ASK	SM 5210B
Chloride	N/A	02/03/12 2102	1IC2034	2IC2034	MLL	300.0
Kjeldahl Nitrogen, as N (T	02/06/12	02/07/12 1214	120206-2	120207-2	JND	EPA 351.2
Nitrate, as N	N/A	02/03/12 2102	1IC2034	2IC2034	MLL	300.0
Nitrite, as N	N/A	02/03/12 2102	1IC2034	2IC2034	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	02/10/12 0801				Calculation
Phosphorus, Total, as P	N/A	02/17/12 1416	120217-1	120217-1	KJH	SM 4500-P(B&F)(M
Solids, Total Dissolved	N/A	02/08/12 1414	120208-1	120208-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/10/12 1435	120210-1	120210-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12020405

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101255

Lab Number: 12020406
Sample Description: 13th and River-Upstream

Date Sampled: 02/03/2012
Time Sampled: 0645

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM QC	µg/L	7202/87
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/88
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/87
Copper, Tot. Rec., ICP-MS	8	µg/L	7202/88
Hardness (Calculated)	192	mg/L as CaCO3	7157/192
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/87
Zinc, Tot. Rec., ICP-MS	60.	µg/L	7202/88
BOD	ND(5)	mg/L	7060/353
Chloride	71	mg/L	7107/218
Kjeldahl Nitrogen, as N (TKN)	2.9	mg/L	6854/436
Nitrate, as N	0.6	mg/L	7107/218
Nitrite, as N	ND(0.1)	mg/L	7107/218
Nitrogen (TKN + NO3/NO2), as N	3.5	mg/L	9999/873
Phosphorus, Total, as P	0.28	mg/L	7061/272
Solids, Total Dissolved	394	mg/L	7059/732
Solids, Total Suspended	74	mg/L	7059/736

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1740	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1925	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1740	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1925	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/06/12 1304	02/07/12 0014	120206-3	10IP4037	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1740	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1925	120208-1	3IP3040	JDL	200.8 Rev. 5.4
BOD	N/A	02/03/12 1800	120203-1	120203-1	ASK	SM 5210B
Chloride	N/A	02/04/12 0329	1IC2034	4IC2034	MLL	300.0
Kjeldahl Nitrogen, as N (T	02/06/12	02/07/12 1216	120206-2	120207-2	JND	EPA 351.2
Nitrate, as N	N/A	02/04/12 0233	1IC2034	3IC2034	MLL	300.0
Nitrite, as N	N/A	02/04/12 0233	1IC2034	3IC2034	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	02/10/12 0801				Calculation
Phosphorus, Total, as P	N/A	02/17/12 1418	120217-1	120217-2	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	02/08/12 1414	120208-1	120208-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/10/12 1435	120210-1	120210-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12020406

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
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Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101255

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12020405	BOD	02/03/2012 0645	02/03/2012 1800	11:15
12020405	Nitrate, as N	02/03/2012 0645	02/03/2012 2102	14:17
12020405	Nitrite, as N	02/03/2012 0645	02/03/2012 2102	14:17
12020406	BOD	02/03/2012 0645	02/03/2012 1800	11:15
12020406	Nitrate, as N	02/03/2012 0645	02/04/2012 0233	19:48
12020406	Nitrite, as N	02/03/2012 0645	02/04/2012 0233	19:48

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

QC - QC data qualifiers were noted. See the Quality Control Report.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
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Continental File No: 8339
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NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Quality Control Report
Batch Summary

Client: City of Wichita
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455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
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Continental File No: 8339
Continental Order No: 101255

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120206-3	120206BLK3 02/06/12 23:10	120206LCS3 02/06/12 23:14	12020397MS 02/06/12 23:34
	Lab numbers associated with this batch: 12020405 12020406				
SL156	Cadmium, Dissolved, ICP-MS	120206-4	120206BLK4	120206LCS4	12020415MS
SL162	Copper, Dissolved, ICP-MS	120206-4	120206BLK4	120206LCS4	12020415MS
SL183	Zinc, Dissolved, ICP-MS	120206-4	120206BLK4 02/08/12 16:32	120206LCS4 02/08/12 16:37	12020415MS 02/08/12 18:27
	Lab numbers associated with this batch: 12020405 12020406				
SL323	Hardness (Calculated)	120207-4	120207BLK4 02/07/12 18:00	120207LCS4 02/07/12 18:12	12020348MS 02/07/12 18:36
	Lab numbers associated with this batch: 12020404				
SL006	Cadmium, Tot. Rec., ICP-MS	120208-1	120208BLK1	120208LCS1	12020401MS
SL012	Copper, Tot. Rec., ICP-MS	120208-1	120208BLK1	120208LCS1	12020401MS
SL033	Zinc, Tot. Rec., ICP-MS	120208-1	120208BLK1 02/09/12 18:17	120208LCS1 02/09/12 18:22	12020401MS 02/09/12 18:38
	Lab numbers associated with this batch: 12020404 12020405 12020406				
SL156	Cadmium, Dissolved, ICP-MS	120210-2	120210BLK2	120210LCS2	12020410MS
SL162	Copper, Dissolved, ICP-MS	120210-2	120210BLK2	120210LCS2	12020410MS
SL183	Zinc, Dissolved, ICP-MS	120210-2	120210BLK2 02/15/12 21:21	120210LCS2 02/15/12 21:26	12020410MS 02/15/12 22:19
	Lab numbers associated with this batch: 12020404				
GL123	BOD	120203-1	120203BLK1 02/03/12 18:00	120203LCS1 02/03/12 18:00	12020390MS 02/03/12 18:00
	Lab numbers associated with this batch: 12020405 12020406				
GL502	Chloride	1IC2034	BLK1IC2034 02/03/12 16:25	LCS1IC2034 02/03/12 16:44	12020330MS 02/03/12 17:20
	Lab numbers associated with this batch: 12020405 12020406				
GL502	Chloride	1IC2039	BLK1IC2039 02/08/12 14:12	LCS1IC2039 02/08/12 14:31	12020352MS 02/08/12 18:49
	Lab numbers associated with this batch: 12020404				
GL595	Kjeldahl Nitrogen, as N (TKN)	120206-2	120206BLK2 02/07/12 11:41	120206LCS2 02/07/12 11:43	12020351MS 02/07/12 16:29
	Lab numbers associated with this batch: 12020405 12020406				

Quality Control Report
Batch Summary

Client: City of Wichita
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455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101255

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL505	Nitrate, as N	1IC2034	BLK1IC2034	LCS1IC2034	12020330MS
GL503	Nitrite, as N	1IC2034	BLK1IC2034 02/03/12 16:25	LCS1IC2034 02/03/12 16:44	
	Lab numbers associated with this batch: 12020405 12020406				
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12020405 12020406				
GL218	Phosphorus, Total, as P	120217-1	120217BLK1 02/17/12 1409	120217LCS1 02/17/12 1410	12020397MS 02/17/12 1412
	Lab numbers associated with this batch: 12020405 12020406				
GL242	Solids, Total Dissolved	120208-1	120208BLK1 02/08/12 14:02	120208LCS1 02/08/12	12020376MS 02/08/12 14:03
	Lab numbers associated with this batch: 12020404 12020405 12020406				
GL243	Solids, Total Suspended	120210-1	120210BLK1 02/10/12 14:34	120210LCS1 02/10/12	12020416MS 02/10/12 14:38
	Lab numbers associated with this batch: 12020404 12020405 12020406				

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101255

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120203-1	For sample analyzed on: 02/03/2012					Spiked sample: 12020390						
BOD	ND(5)	81.3	70.5-110	198	mg/L	MN	MN	#		mg/L	**	13.2
QC Batch: 120206-2	For samples prepared on: 02/06/2012					Spiked sample: 12020351						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	104	85.0-115	4.0	mg/L	MN	MN	81.5-133	20.0	mg/L	**	18.3
QC Batch: 120206-3	For samples prepared on: 02/06/2012 1304					Spiked sample: 12020397						
Hardness (Calculated)	ND(5.0)	101	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120206-4	For samples prepared on: 02/06/2012 1426					Spiked sample: 12020415						
Cadmium, Dissolved, ICP-MS	ND(1)	104	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	92.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	102	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120207-4	For samples prepared on: 02/07/2012 1301					Spiked sample: 12020348						
Hardness (Calculated)	ND(5.0)	101	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120208-1	For sample analyzed on: 02/08/2012					Spiked sample: 12020376						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.2
QC Batch: 120208-1	For samples prepared on: 02/08/2012 0805					Spiked sample: 12020401						
Cadmium, Tot. Rec., ICP-MS	1 J	102	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	93.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	105	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120210-1	For sample analyzed on: 02/10/2012					Spiked sample: 12020416						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	18.2
QC Batch: 120210-2	For samples prepared on: 02/10/2012 0952					Spiked sample: 12020410						
Cadmium, Dissolved, ICP-MS	ND(1)	102	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	95.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	99.6	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120217-1	For sample analyzed on: 02/17/2012					Spiked sample: 12020397						
Phosphorus, Total, as P	ND(0.20)	95.5	90.0-110	2.0	mg/L	MN	MN	71.2-135	2.0	mg/L	**	21.2
QC Batch: 1IC2034	For sample analyzed on: 02/03/2012					Spiked sample:						
Nitrite, as N	ND(0.1)	95.1	90.0-110	2.0	mg/L	MN	MN	78.5-127			**	10.1
QC Batch: 1IC2034	For sample analyzed on: 02/03/2012					Spiked sample: 12020330						
Chloride	ND(1.0)	96.6	90.0-110	4.0	mg/L	MN	MN	82.1-126	80.0	mg/L	**	12.5
Nitrate, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	79.3-118	40.0	mg/L	**	12.1
QC Batch: 1IC2039	For sample analyzed on: 02/08/2012					Spiked sample: 12020352						
Chloride	ND(1.0)	96.7	90.0-110	4.0	mg/L	MN	MN	82.1-126	400	mg/L	**	12.5

Data Qualifiers:
MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

N/A - Not Applicable

J - The concentration or not detected (ND) value is below the Limit of Quantitation (LOQ) and is considered an estimated value.

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101255

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101255

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	02/08/2012	2IP3039	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/08/2012	3IP3039	100	111	µg/L	111 CH

Samples associated with this Continuing Calibration Verification:

Laboratory Number	Instrument Batch	Sample Description
12020405	2IP3039	13th and River-Composite
12020406	2IP3039	13th and River-Upstream

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Tot. Rec., ICP-MS	02/09/2012	3IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/15/2012	4IP3046	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/08/2012	2IP3039	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/08/2012	3IP3039	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	3IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/15/2012	4IP3046	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.			
BOD	02/03/2012	120203-1	CCV recovery acceptable for this Instrument Batch.			
BOD	02/03/2012	120203-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	02/17/2012	120217-1	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	02/17/2012	120217-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	02/17/2012	120217-3	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/04/2012	5IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/08/2012	1IC2039	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/08/2012	2IC2039	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/07/2012	120207-2	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/07/2012	120207-3	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	02/06/2012	10IP4037	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	02/07/2012	11IP4037	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	02/07/2012	7IP4038	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	02/07/2012	8IP4038	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	02/08/2012	2IP3039	CCV recovery acceptable for this Instrument Batch.			

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
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Continental Order No: 101255

Zinc, Dissolved, ICP-MS	02/08/2012	3IP3039	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	3IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/15/2012	4IP3046	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.

Data Qualifiers:
CH - The continuing calibration verification (CCV) standard recovery for this analyte was above the method or SOP limit. The reported concentration for this analyte may be biased high.

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO. 101255

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information			Invoice Information		
Company Name: City of Wichita Sewage Treatment			Company Name: City of Wichita Sewage Treatment		
Address: 2305 E. 57th Street South			Address: 2305 E. 57th Street South		
City: Wichita	State: KS	Zip: 67216	City: Wichita	State: KS	Zip: 67216
Contact: Jim Hardesty	E-mail:		Contact: Jim Hardesty	E-mail:	
Phone Number: (316)303-8700	Fax Number: (316)303-8712		Phone Number: (316)303-8700	Fax Number: (316)303-8712	

Sampler's Name:(Printed) Justin Murphy

Sampler's Name:(Signature)

Purchase Order Number:

File Number: 5611

Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER:	Total Metals 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P		COMMENTS 5 Gal. container to be poured off at lab as needed for required tests. Remaininig volume will be saved for organics if needed
13th and River-Grab	WW	N	2/3/12	0645	G	4			1	2	1		X	X							
13th and River-Composite	WW	N	2/3/12	0645	C	1					1				X						
13th and River-Upstream	WW	N	2/3/12	0645	G	4			1	1	2					X	X	X	X		

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT (15 working days) Rush TAT (5 working days) Emergency TAT (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY	DATE:	TIME:	RECEIVED BY	DATE:	TIME:
	2/3/12	1000			
RELINQUISHED BY	DATE:	TIME:	RECEIVED BY	DATE:	TIME:
RECEIVED AT LAB BY: Mark W. Stiland	DATE: 2-3-12	TIME: 1425	SHIPPED VIA: AIRBILL	SEAL #: SEAL DATE:	

H:\media\Wichita Stormwater COCs.xlsx\2/2/2012

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 101255

Client Name: Wichita **CAS File No.:** 8339

Sample ID's in cooler: 5 COC
13442 River

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: _____ / (Client's Cooler) / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 2/3/12 14:35

Delivered By: UPS / FedX / AB Express / (Field Svcs) / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X **Seal No:** _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / (Foam) / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.7 Corrected Reading (°C) 1.1
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): 0.4

☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes **(See below for discrepancies.)**

Note: **If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.**

☐ Chain of Custody not present - information taken from:
Cover Letter ☐ Container ☐
PO ☐ CAS Proj. Mgr. ☐
☐ Container label absent
☐ Chain of Custody incomplete [see detail below]
☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
☐ Date or Time sampled obtained from container label
☐ Chain of Custody missing sampler's name
☐ Chain of Custody missing matrix (sample type)
☐ Missing relinquished information: signature date time
☐ Sample excluded from Chain of Custody
☐ Sample listed on Chain of Custody, not received
☐ Sample description on container and Chain of Custody do not agree
☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement
[Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
☐ Broken or leaking containers (detail actions below)
☐ Sample container type or labeled chemical preservation inappropriate
☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: MJS **Date Completed:** 2-3-12

Continental Analytical Services, Inc.

04/27/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 04/12/2012 1620
Continental File No.: 8339
Continental Order No.: 102691
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 10 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12041003	13th and River-Grab	Liquid	4/12/2012
12041004	13th and River-Composite	Liquid	4/12/2012
12041005	13th and River-Upstream	Liquid	4/12/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102691

Lab Number: 12041003
Sample Description: 13th and River-Grab

Date Sampled: 04/12/2012
Time Sampled: 1050

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/122
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	7 DM	µg/L	7202/122
Copper, Tot. Rec., ICP-MS	13	µg/L	7202/123
Hardness (Calculated)	35.2	mg/L as CaCO3	7157/251
Zinc, Dissolved, ICP-MS	38 DM	µg/L	7202/122
Zinc, Tot. Rec., ICP-MS	119	µg/L	7202/123
Chloride	2.9	mg/L	7276/22
Solids, Total Dissolved	40.	mg/L	7059/856
Solids, Total Suspended	126	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2250	120416-2	2IP3107	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0023	120417-2	6IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2250	120416-2	2IP3107	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0023	120417-2	6IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/17/12 1131	04/17/12 2017	120417-5	6IP4108	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2250	120416-2	2IP3107	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0023	120417-2	6IP3109	KMW	200.8 Rev. 5.4
Chloride	N/A	04/26/12 1632	1IC1117	3IC1117	MLL	300.0
Solids, Total Dissolved	N/A	04/18/12 1500	120418-1	120418-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1326	120419-1	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041003

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102691

Lab Number: 12041004
Sample Description: 13th and River-Composite

Date Sampled: 04/12/2012
Time Sampled: 1050

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/122
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	7 DM	µg/L	7202/122
Copper, Tot. Rec., ICP-MS	13	µg/L	7202/123
Hardness (Calculated)	35.7	mg/L as CaCO3	7157/248
Zinc, Dissolved, ICP-MS	34 DM	µg/L	7202/122
Zinc, Tot. Rec., ICP-MS	115	µg/L	7202/123
BOD	25	mg/L	7060/412
Chloride	2.8	mg/L	7277/35
Kjeldahl Nitrogen, as N (TKN)	4.4	mg/L	6854/505
Nitrate, as N	0.6	mg/L	7277/35
Nitrite, as N	ND(0.1)	mg/L	7277/35
Nitrogen (TKN + NO3/NO2), as N	5.0	mg/L	9998/57
Phosphorus, Total, as P	0.87	mg/L	7061/315
Solids, Total Dissolved	58	mg/L	7059/856
Solids, Total Suspended	83	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2255	120416-2	2IP3107	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0039	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2255	120416-2	2IP3107	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0039	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/13/12 1234	04/14/12 0131	120413-5	11IP4104	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2255	120416-2	2IP3107	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0039	120417-2	7IP3109	KMW	200.8 Rev. 5.4
BOD	N/A	04/13/12 1455	120413-1	120413-1	MLL	SM 5210B
Chloride	N/A	04/13/12 0145	2IC2103	4IC2103	MLL	300.0
Kjeldahl Nitrogen, as N (T	04/17/12 1756	04/24/12 1050	120417-2	120424-2	JND	EPA 351.2
Nitrate, as N	N/A	04/13/12 0145	2IC2103	4IC2103	MLL	300.0
Nitrite, as N	N/A	04/13/12 0145	2IC2103	4IC2103	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	04/27/12 0831				Calculation
Phosphorus, Total, as P	N/A	04/26/12 1403	120426-1	120426-1	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	04/18/12 1500	120418-1	120418-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1326	120419-1	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041004

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102691

Lab Number: 12041005
Sample Description: 13th and River-Upstream

Date Sampled: 04/12/2012
Time Sampled: 1050

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/122
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/122
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/123
Hardness (Calculated)	252	mg/L as CaCO3	7157/248
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/122
Zinc, Tot. Rec., ICP-MS	ND(20)	µg/L	7202/123
BOD	8	mg/L	7060/412
Chloride	80.	mg/L	7277/35
Kjeldahl Nitrogen, as N (TKN)	1.4	mg/L	6854/505
Nitrate, as N	1.6	mg/L	7277/35
Nitrite, as N	ND(0.1)	mg/L	7277/35
Nitrogen (TKN + NO3/NO2), as N	3.0	mg/L	9998/57
Phosphorus, Total, as P	0.42	mg/L	7061/315
Solids, Total Dissolved	418	mg/L	7059/856
Solids, Total Suspended	75	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2311	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0044	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2311	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0044	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/13/12 1234	04/14/12 0135	120413-5	11IP4104	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2311	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0044	120417-2	7IP3109	KMW	200.8 Rev. 5.4
BOD	N/A	04/13/12 1455	120413-1	120413-1	MLL	SM 5210B
Chloride	N/A	04/13/12 0240	2IC2103	4IC2103	MLL	300.0
Kjeldahl Nitrogen, as N (T	04/17/12 1756	04/24/12 1052	120417-2	120424-2	JND	EPA 351.2
Nitrate, as N	N/A	04/13/12 0222	2IC2103	4IC2103	MLL	300.0
Nitrite, as N	N/A	04/13/12 0222	2IC2103	4IC2103	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	04/27/12 0831				Calculation
Phosphorus, Total, as P	N/A	04/26/12 1404	120426-1	120426-1	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	04/18/12 1501	120418-1	120418-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1326	120419-1	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041005

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102691

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12041004	BOD	04/12/2012 1050	04/13/2012 1455	28:05
12041004	Nitrate, as N	04/12/2012 1050	04/13/2012 0145	14:55
12041004	Nitrite, as N	04/12/2012 1050	04/13/2012 0145	14:55
12041005	BOD	04/12/2012 1050	04/13/2012 1455	28:05
12041005	Nitrate, as N	04/12/2012 1050	04/13/2012 0222	15:32
12041005	Nitrite, as N	04/12/2012 1050	04/13/2012 0222	15:32

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102691

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102691

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120413-5	120413BLK5 04/14/12 01:03	120413LCS5 04/14/12 01:16	12041017MS 04/14/12 02:16
	Lab numbers associated with this batch: 12041004 12041005				
SL156	Cadmium, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL162	Copper, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL183	Zinc, Dissolved, ICP-MS	120416-2	120416BLK2 04/16/12 22:18	120416LCS2 04/16/12 22:23	12041027MS 04/17/12 00:35
	Lab numbers associated with this batch: 12041003 12041004 12041005				
SL006	Cadmium, Tot. Rec., ICP-MS	120417-2	120417BLK2	120417LCS2	12040880MS
SL012	Copper, Tot. Rec., ICP-MS	120417-2	120417BLK2	120417LCS2	12040880MS
SL033	Zinc, Tot. Rec., ICP-MS	120417-2	120417BLK2 04/18/12 23:15	120417LCS2 04/18/12 23:20	12040880MS 04/18/12 23:41
	Lab numbers associated with this batch: 12041003 12041004 12041005				
SL323	Hardness (Calculated)	120417-5	120417BLK5 04/17/12 19:41	120417LCS5 04/17/12 19:45	12041000MS 04/17/12 20:05
	Lab numbers associated with this batch: 12041003				
GL123	BOD	120413-1	120413BLK1 04/13/12 14:55	120413LCS1 04/13/12 14:55	12040999MS 04/13/12 14:55
	Lab numbers associated with this batch: 12041004 12041005				
GL502	Chloride	1IC1117	BLK1IC1117 04/26/12 09:23	LCS1IC1117 04/26/12 10:07	12041939MS 04/26/12 16:05
	Lab numbers associated with this batch: 12041003				
GL502	Chloride	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
	Lab numbers associated with this batch: 12041004 12041005				
GL595	Kjeldahl Nitrogen, as N (TKN)	120417-2	120417BLK2 04/24/12 10:26	120417LCS2 04/24/12 10:29	12040969MS 04/24/12 10:35
	Lab numbers associated with this batch: 12041004 12041005				
GL505	Nitrate, as N	2IC2103	BLK2IC2103	LCS2IC2103	12041027MS
GL503	Nitrite, as N	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
	Lab numbers associated with this batch: 12041004 12041005				

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102691

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12041004 12041005				
GL218	Phosphorus, Total, as P	120426-1	120426BLK1 04/26/12 1359	120426LCS1 04/26/12 1400	12041012MS 04/26/12 1409
	Lab numbers associated with this batch: 12041004 12041005				
GL242	Solids, Total Dissolved	120418-1	120418BLK1 04/18/12 15:00	120418LCS1 04/18/12	12041006MS 04/18/12 15:01
	Lab numbers associated with this batch: 12041003 12041004 12041005				
GL243	Solids, Total Suspended	120419-1	120419BLK1 04/19/12 13:25	120419LCS1 04/19/12	12041002MS 04/19/12 13:25
	Lab numbers associated with this batch: 12041003 12041004 12041005				

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102691

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120413-1	**For sample analyzed on: 04/13/2012**					**Spiked sample: 12040999**						
BOD	ND(5)	85.6	75.3-109	198	mg/L	MN	MN	#		mg/L	**	16.4
QC Batch: 120413-5	**For samples prepared on: 04/13/2012 1234**					**Spiked sample: 12041017**						
Hardness (Calculated)	ND(5.0)	105	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120416-2	**For samples prepared on: 04/16/2012 0902**					**Spiked sample: 12041027**						
Cadmium, Dissolved, ICP-MS	ND(1)	96.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	93.0	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	99.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-2	**For samples prepared on: 04/17/2012 0756**					**Spiked sample: 12040880**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	100.	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	92.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-2	**For samples prepared on: 04/17/2012 1756**					**Spiked sample: 12040969**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	111	85.0-115	4.0	mg/L	MN	MN	81.2-133	20.0	mg/L	**	6.7
QC Batch: 120417-5	**For samples prepared on: 04/17/2012 1131**					**Spiked sample: 12041000**						
Hardness (Calculated)	ND(5.0)	104	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120418-1	**For sample analyzed on: 04/18/2012**					**Spiked sample: 12041006**						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120419-1	**For sample analyzed on: 04/19/2012**					**Spiked sample: 12041002**						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120426-1	**For sample analyzed on: 04/26/2012**					**Spiked sample: 12041012**						
Phosphorus, Total, as P	ND(0.2)	98.3	88.8-110	2.0	mg/L	MN	MN	80.5-117	2.0	mg/L	**	5.7
QC Batch: 1IC1117	**For sample analyzed on: 04/26/2012**					**Spiked sample: 12041939**						
Chloride	ND(1.0)	98.8	90.0-110	4.0	mg/L	MN	MN	75.1-131	40.0	mg/L	**	5.7
QC Batch: 2IC2103	**For sample analyzed on: 04/12/2012**					**Spiked sample: 12041027**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	4.0	mg/L	**	5.7
Nitrite, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	77.5-116	2.0	mg/L	**	10.2
Nitrate, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	81.7-121	2.0	mg/L	**	8.2

Data Qualifiers:
MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

N/A - Not Applicable

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102691

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	04/16/2012	2IP3107	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/16/2012	2IP3107	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-1	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-1	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-2	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/26/2012	3IC1117	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/26/2012	4IC1117	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/12/2012	4IC2103	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/12/2012	4IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/12/2012	4IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-2	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-3	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	11IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	12IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	6IP4108	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	7IP4108	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/16/2012	2IP3107	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information	Invoice Information
Company Name: City of Wichita Sewage Treatment	Company Name: City of Wichita Sewage Treatment
Address: 2305 E. 57th Street South	Address: 2305 E. 57th Street South
City: Wichita State: KS Zip: 67216	City: Wichita State: KS Zip: 67216
Contact: Jim Hardesty E-mail:	Contact: Jim Hardesty E-mail:
Phone Number: (316)303-8700 Fax Number: (316)303-8712	Phone Number: (316)303-8700 Fax Number: (316)303-8712
Sampler's Name:(Printed) Justin Morph Sampler's Name:(Signature)	Purchase Order Number:
File Number: 5611 Project Name: Stormwater	

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER	Total Metals 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P		COMMENTS 5 Gal. container to be poured off at lab as needed for required tests. Remainig volume will be saved for organics if needed
13th and River-Grab	WW	N	4/12/12	1050	G	4			1	2	1		X	X							
13th and River-Composite	WW	N	4/12/12	1050	C	1					1				X						
13th and River-Upstream	WW	N	4/12/12	1050	G	4			1	1	2					X	X	X	X		

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT (15 working days) Rush TAT (5 working days) Emergency TAT (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY	DATE: 4/12/12	TIME: 1500	RECEIVED BY	DATE:	TIME:
RELINQUISHED BY	DATE:	TIME:	RECEIVED BY	DATE:	TIME:
RECEIVED AT LAB BY:	DATE: 4-12-12	TIME: 1620	SHIPPED VIA: AIRBILL	SEAL #: SEAL DATE	

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 10269

Client Name: Wichita **CAS File No.:** 8339

Sample ID's in cooler: Surface
13th & River

Cooler 1 **of** 1 **for this CAS Order No.**

Cooler Identification: CAS Cooler #: 3270 / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 4 /12 /12 16 : 20

Delivered By: UPS / FedX / AB Express / Field Svcs / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 1.4 Corrected Reading (°C) 1.9
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
MW 4-12-12 Thermo. ID No.: 585 Thermo. Correction Factor (°C): 0.5
☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: _____ **Date Completed:** 4-12-12

Continental Analytical Services, Inc.

02/17/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 02/03/2012 14:25
Continental File No.: 8339
Continental Order No.: 101258
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 12 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12020413	21st and Hood-Grab	Liquid	2/3/2012
12020414	21st and Hood-Composite	Liquid	2/3/2012
12020415	21st and Hood-Upstream	Liquid	2/3/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101258

Lab Number: 12020413
Sample Description: 21st and Hood-Grab

Date Sampled: 02/03/2012
Time Sampled: 0810

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/90
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/88
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/90
Copper, Tot. Rec., ICP-MS	8	µg/L	7202/88
Hardness (Calculated)	27.8	mg/L as CaCO3	7157/196
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/90
Zinc, Tot. Rec., ICP-MS	81	µg/L	7202/88
Chloride	1.2	mg/L	7107/222
Solids, Total Dissolved	ND(30)	mg/L	7059/737
Solids, Total Suspended	50.	mg/L	7059/736

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2235	120210-2	5IP3046	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2147	120208-2	5IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2235	120210-2	5IP3046	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2147	120208-2	5IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/07/12 1301	02/09/12 1247	120207-4	3IP4040	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2235	120210-2	5IP3046	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2147	120208-2	5IP3040	JDL	200.8 Rev. 5.4
Chloride	N/A	02/08/12 1526	1IC2039	1IC2039	MLL	300.0
Solids, Total Dissolved	N/A	02/10/12 1516	120210-1	120210-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/10/12 1437	120210-1	120210-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12020413

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101258

Lab Number: 12020414
Sample Description: 21st and Hood-Composite

Date Sampled: 02/03/2012
Time Sampled: 0810

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM QC	µg/L	7202/87
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/88
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/87
Copper, Tot. Rec., ICP-MS	9	µg/L	7202/88
Hardness (Calculated)	32.4	mg/L as CaCO3	7157/192
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/87
Zinc, Tot. Rec., ICP-MS	90.	µg/L	7202/88
BOD	ND(5)	mg/L	7060/353
Chloride	1.3	mg/L	7107/218
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	6854/436
Nitrate, as N	0.2	mg/L	7107/218
Nitrite, as N	ND(0.1)	mg/L	7107/218
Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L	9999/873
Phosphorus, Total, as P	ND(0.20)	mg/L	7061/272
Solids, Total Dissolved	40.	mg/L	7059/737
Solids, Total Suspended	54	mg/L	7059/736

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1817	120206-4	3IP3039	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2152	120208-2	5IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1817	120206-4	3IP3039	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2152	120208-2	5IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/06/12 1304	02/07/12 0047	120206-3	11IP4037	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1817	120206-4	3IP3039	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2152	120208-2	5IP3040	JDL	200.8 Rev. 5.4
BOD	N/A	02/03/12 1800	120203-1	120203-1	ASK	SM 5210B
Chloride	N/A	02/03/12 2252	1IC2034	2IC2034	MLL	300.0
Kjeldahl Nitrogen, as N (T	02/06/12	02/07/12 1230	120206-2	120207-3	JND	EPA 351.2
Nitrate, as N	N/A	02/03/12 2252	1IC2034	2IC2034	MLL	300.0
Nitrite, as N	N/A	02/03/12 2252	1IC2034	2IC2034	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	02/10/12 0801				Calculation
Phosphorus, Total, as P	N/A	02/17/12 1422	120217-1	120217-2	KJH	SM 4500-P(B&P)(M)
Solids, Total Dissolved	N/A	02/10/12 1516	120210-1	120210-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/10/12 1437	120210-1	120210-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12020414

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101258

Lab Number: 12020415
Sample Description: 21st and Hood-Upstream

Date Sampled: 02/03/2012
Time Sampled: 0810

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM QC	µg/L	7202/87
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/88
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/87
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/88
Hardness (Calculated)	158	mg/L as CaCO3	7157/192
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/87
Zinc, Tot. Rec., ICP-MS	25	µg/L	7202/88
BOD	ND(5)	mg/L	7060/353
Chloride	63	mg/L	7107/218
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	6854/436
Nitrate, as N	0.9	mg/L	7107/218
Nitrite, as N	ND(0.1)	mg/L	7107/218
Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L	9999/873
Phosphorus, Total, as P	0.27	mg/L	7061/272
Solids, Total Dissolved	334	mg/L	7059/737
Solids, Total Suspended	121	mg/L	7059/736

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1822	120206-4	3IP3039	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 2012	120208-1	4IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1822	120206-4	3IP3039	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 2012	120208-1	4IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/06/12 1304	02/07/12 0053	120206-3	11IP4037	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1822	120206-4	3IP3039	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 2012	120208-1	4IP3040	JDL	200.8 Rev. 5.4
BOD	N/A	02/03/12 1800	120203-1	120203-1	ASK	SM 5210B
Chloride	N/A	02/04/12 0519	1IC2034	4IC2034	MLL	300.0
Kjeldahl Nitrogen, as N (T	02/06/12	02/07/12 1233	120206-2	120207-3	JND	EPA 351.2
Nitrate, as N	N/A	02/04/12 0501	1IC2034	4IC2034	MLL	300.0
Nitrite, as N	N/A	02/04/12 0501	1IC2034	4IC2034	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	02/10/12 0801				Calculation
Phosphorus, Total, as P	N/A	02/17/12 1423	120217-1	120217-2	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	02/10/12 1516	120210-1	120210-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/10/12 1437	120210-1	120210-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12020415

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101258

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12020414	BOD	02/03/2012 0810	02/03/2012 1800	9:50
12020414	Nitrate, as N	02/03/2012 0810	02/03/2012 2252	14:42
12020414	Nitrite, as N	02/03/2012 0810	02/03/2012 2252	14:42
12020415	BOD	02/03/2012 0810	02/03/2012 1800	9:50
12020415	Nitrate, as N	02/03/2012 0810	02/04/2012 0501	20:51
12020415	Nitrite, as N	02/03/2012 0810	02/04/2012 0501	20:51

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

QC - QC data qualifiers were noted. See the Quality Control Report.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101258

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101258

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120206-3	120206BLK3 02/06/12 23:10	120206LCS3 02/06/12 23:14	12020397MS 02/06/12 23:34
Lab numbers associated with this batch: 12020414 12020415					
SL156	Cadmium, Dissolved, ICP-MS	120206-4	120206BLK4	120206LCS4	12020415MS
SL162	Copper, Dissolved, ICP-MS	120206-4	120206BLK4	120206LCS4	12020415MS
SL183	Zinc, Dissolved, ICP-MS	120206-4	120206BLK4 02/08/12 16:32	120206LCS4 02/08/12 16:37	12020415MS 02/08/12 18:27
Lab numbers associated with this batch: 12020414 12020415					
SL323	Hardness (Calculated)	120207-4	120207BLK4 02/07/12 18:00	120207LCS4 02/07/12 18:12	12020348MS 02/07/12 18:36
Lab numbers associated with this batch: 12020413					
SL006	Cadmium, Tot. Rec., ICP-MS	120208-1	120208BLK1	120208LCS1	12020401MS
SL012	Copper, Tot. Rec., ICP-MS	120208-1	120208BLK1	120208LCS1	12020401MS
SL033	Zinc, Tot. Rec., ICP-MS	120208-1	120208BLK1 02/09/12 18:17	120208LCS1 02/09/12 18:22	12020401MS 02/09/12 18:38
Lab numbers associated with this batch: 12020415					
SL006	Cadmium, Tot. Rec., ICP-MS	120208-2	120208BLK2	120208LCS2	12020398MS
SL012	Copper, Tot. Rec., ICP-MS	120208-2	120208BLK2	120208LCS2	12020398MS
SL033	Zinc, Tot. Rec., ICP-MS	120208-2	120208BLK2 02/09/12 20:18	120208LCS2 02/09/12 20:23	12020398MS 02/09/12 21:00
Lab numbers associated with this batch: 12020413 12020414					
SL156	Cadmium, Dissolved, ICP-MS	120210-2	120210BLK2	120210LCS2	12020410MS
SL162	Copper, Dissolved, ICP-MS	120210-2	120210BLK2	120210LCS2	12020410MS
SL183	Zinc, Dissolved, ICP-MS	120210-2	120210BLK2 02/15/12 21:21	120210LCS2 02/15/12 21:26	12020410MS 02/15/12 22:19
Lab numbers associated with this batch: 12020413					
GL123	BOD	120203-1	120203BLK1 02/03/12 18:00	120203LCS1 02/03/12 18:00	12020390MS 02/03/12 18:00
Lab numbers associated with this batch: 12020414 12020415					
GL502	Chloride	1IC2034	BLK1IC2034 02/03/12 16:25	LCS1IC2034 02/03/12 16:44	12020330MS 02/03/12 17:20
Lab numbers associated with this batch: 12020414 12020415					
GL502	Chloride	1IC2039	BLK1IC2039 02/08/12 14:12	LCS1IC2039 02/08/12 14:31	12020352MS 02/08/12 18:49
Lab numbers associated with this batch: 12020413					

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101258

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL595	Kjeldahl Nitrogen, as N (TKN)	120206-2	120206BLK2 02/07/12 11:41	120206LCS2 02/07/12 11:43	12020351MS 02/07/12 16:29
	Lab numbers associated with this batch: 12020414 12020415				
GL505	Nitrate, as N	1IC2034	BLK1IC2034	LCS1IC2034	12020330MS
GL503	Nitrite, as N	1IC2034	BLK1IC2034 02/03/12 16:25	LCS1IC2034 02/03/12 16:44	
	Lab numbers associated with this batch: 12020414 12020415				
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12020414 12020415				
GL218	Phosphorus, Total, as P	120217-1	120217BLK1 02/17/12 1409	120217LCS1 02/17/12 1410	12020397MS 02/17/12 1412
	Lab numbers associated with this batch: 12020414 12020415				
GL242	Solids, Total Dissolved	120210-1	120210BLK1	120210LCS1	12020425MS
GL243	Solids, Total Suspended	120210-1	120210BLK1 02/10/12 14:34	120210LCS1 02/10/12	12020416MS 02/10/12 14:38
	Lab numbers associated with this batch: 12020413 12020414 12020415				

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101258

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120203-1	**For sample analyzed on: 02/03/2012**					**Spiked sample: 12020390**						
BOD	ND(5)	81.3	70.5-110	198	mg/L	MN	MN	#		mg/L	**	13.2
QC Batch: 120206-2	**For samples prepared on: 02/06/2012**					**Spiked sample: 12020351**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	104	85.0-115	4.0	mg/L	MN	MN	81.5-133	20.0	mg/L	**	18.3
QC Batch: 120206-3	**For samples prepared on: 02/06/2012 1304**					**Spiked sample: 12020397**						
Hardness (Calculated)	ND(5.0)	101	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120206-4	**For samples prepared on: 02/06/2012 1426**					**Spiked sample: 12020415**						
Cadmium, Dissolved, ICP-MS	ND(1)	104	85.0-115	500	µg/L	103	102	80.0-120	500	µg/L	1.0	20.0
Copper, Dissolved, ICP-MS	ND(5)	92.7	85.0-115	500	µg/L	92.2	91.8	80.0-120	500	µg/L	0.4	20.0
Zinc, Dissolved, ICP-MS	ND(20)	102	85.0-115	500	µg/L	99.7	99.4	80.0-120	500	µg/L	0.3	20.0
QC Batch: 120207-4	**For samples prepared on: 02/07/2012 1301**					**Spiked sample: 12020348**						
Hardness (Calculated)	ND(5.0)	101	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120208-1	**For samples prepared on: 02/08/2012 0805**					**Spiked sample: 12020401**						
Cadmium, Tot. Rec., ICP-MS	1 J	102	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	93.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	105	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120208-2	**For samples prepared on: 02/08/2012 0915**					**Spiked sample: 12020398**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	103	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	92.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	105	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120210-1	**For sample analyzed on: 02/10/2012**					**Spiked sample: 12020416**						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	18.2
QC Batch: 120210-1	**For sample analyzed on: 02/10/2012**					**Spiked sample: 12020425**						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.2
QC Batch: 120210-2	**For samples prepared on: 02/10/2012 0952**					**Spiked sample: 12020410**						
Cadmium, Dissolved, ICP-MS	ND(1)	102	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	95.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	99.6	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120217-1	**For sample analyzed on: 02/17/2012**					**Spiked sample: 12020397**						
Phosphorus, Total, as P	ND(0.20)	95.5	90.0-110	2.0	mg/L	MN	MN	71.2-135	2.0	mg/L	**	21.2
QC Batch: 1IC2034	**For sample analyzed on: 02/03/2012**					**Spiked sample:**						
Nitrite, as N	ND(0.1)	95.1	90.0-110	2.0	mg/L	MN	MN	78.5-127			**	10.1
QC Batch: 1IC2034	**For sample analyzed on: 02/03/2012**					**Spiked sample: 12020330**						
Chloride	ND(1.0)	96.6	90.0-110	4.0	mg/L	MN	MN	82.1-126	80.0	mg/L	**	12.5
Nitrate, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	79.3-118	40.0	mg/L	**	12.1
QC Batch: 1IC2039	**For sample analyzed on: 02/08/2012**					**Spiked sample: 12020352**						
Chloride	ND(1.0)	96.7	90.0-110	4.0	mg/L	MN	MN	82.1-126	400	mg/L	**	12.5

Data Qualifiers:
MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101258

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit

J - The concentration or not detected (ND) value is below the Limit of Quantitation (LOQ) and is considered an estimated value.

N/A - Not Applicable

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101258

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	02/08/2012	3IP3039	100	111	µg/L	111 CH

Samples associated with this Continuing Calibration Verification:

Laboratory Number	Instrument Batch	Sample Description
12020414	3IP3039	21st and Hood-Composite
12020415	3IP3039	21st and Hood-Upstream

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	02/08/2012	4IP3039	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	02/09/2012	5IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	02/09/2012	6IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/15/2012	6IP3046	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/08/2012	3IP3039	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/08/2012	4IP3039	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	5IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	6IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/15/2012	6IP3046	CCV recovery acceptable for this Instrument Batch.			
BOD	02/03/2012	120203-1	CCV recovery acceptable for this Instrument Batch.			
BOD	02/03/2012	120203-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	02/17/2012	120217-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	02/17/2012	120217-3	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/04/2012	5IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/08/2012	1IC2039	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/08/2012	2IC2039	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/04/2012	5IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/04/2012	5IC2034	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/07/2012	120207-3	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/07/2012	120207-4	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	02/07/2012	11IP4037	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	02/07/2012	12IP4037	CCV recovery acceptable for this Instrument Batch.			

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101258

Hardness (Calculated)	02/09/2012	3IP4040	CCV recovery acceptable for this Instrument Batch.
Hardness (Calculated)	02/09/2012	4IP4040	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/08/2012	3IP3039	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/08/2012	4IP3039	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	5IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	6IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/15/2012	6IP3046	CCV recovery acceptable for this Instrument Batch.

Data Qualifiers:
CH - The continuing calibration verification (CCV) standard recovery for this analyte was above the method or SOP limit. The reported concentration for this analyte may be biased high.

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO 101258
CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information	Invoice Information
Company Name: City of Wichita Sewage Treatment	Company Name: City of Wichita Sewage Treatment
Address: 2305 E. 57th Street South	Address: 2305 E. 57th Street South
City: Wichita State: KS Zip: 67216	City: Wichita State: KS Zip: 67216
Contact: Jim Hardesty E-mail:	Contact: Jim Hardesty E-mail:
Phone Number: (316)303-8700 Fax Number: (316)303-8712	Phone Number: (316)303-8700 Fax Number: (316)303-8712

Sampler's Name (Printed): Justin Murphy
Sampler's Name (Signature):
Purchase Order Number:
File Number: 5611
Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER	Total Metals 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardiness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P		COMMENTS 5 Gal. container to be poured off at lab as needed for required tests. Remaininig volume will be saved for organics if needed
21st and Hood-Grab	WW	N	2/3/12	0810	G	4			1	2	1		X	X							
21st and Hood-Composite	WW	N	2/3/12	0810	C	1					1				X						
21st and Hood-Upstream	WW	N	2/3/12	0810	G	4			1	1	2					X	X	X	X		

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT (15 working days) Rush TAT (5 working days) Emergency TAT (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	2/3/12	1000			
RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
RECEIVED AT LAB BY: Matthew Stilwell	DATE 2-3-12	TIME 1425	SHIPPED VIA AIRBILL	SEAL # SEAL DATE:	

H:\melis...\Wichita Stormwater COCs.xlsx\2/2/2012

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 101258

Client Name: Wichita CAS File No.: 8339

Sample ID's in cooler: 5 COC
21st & Hood

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: _____ / (Client's Cooler) / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 2/3/12 14:35

Delivered By: UPS / FedX / AB Express / (Field Svcs) / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / (Foam) / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.4 Corrected Reading (°C) 0.8
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 555 Thermo. Correction Factor (°C): 0.4
☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: MES Date Completed: 2-3-12

Continental
Analytical Services, Inc.

04/27/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 04/12/2012 1620
Continental File No.: 8339
Continental Order No.: 102694
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 11 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12041010	21st and Hood-Grab	Liquid	4/12/2012
12041011	21st and Hood-Composite	Liquid	4/12/2012
12041012	21st and Hood-Upstream	Liquid	4/12/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102694

Lab Number: 12041010
Sample Description: 21st and Hood-Grab

Date Sampled: 04/12/2012
Time Sampled: 1105

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/125
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	6 DM	µg/L	7202/125
Copper, Tot. Rec., ICP-MS	15	µg/L	7202/123
Hardness (Calculated)	66.6	mg/L as CaCO3	7157/251
Zinc, Dissolved, ICP-MS	38 DM	µg/L	7202/127
Zinc, Tot. Rec., ICP-MS	133	µg/L	7202/123
Chloride	6.2	mg/L	7276/22
Solids, Total Dissolved	82	mg/L	7059/856
Solids, Total Suspended	89	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2200	120419-4	6IP3114	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0105	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2200	120419-4	6IP3114	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0105	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/17/12 1131	04/17/12 2029	120417-5	6IP4108	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/19/12 1121	04/25/12 1241	120419-4	2IP3116	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0105	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Chloride	N/A	04/26/12 1645	1IC1117	3IC1117	MLL	300.0
Solids, Total Dissolved	N/A	04/18/12 1503	120418-1	120418-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1329	120419-1	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041010

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102694

Lab Number: 12041011
Sample Description: 21st and Hood-Composite

Date Sampled: 04/12/2012
Time Sampled: 1105

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/125
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/125
Copper, Dissolved, ICP-MS	5 DM	µg/L	7202/125
Copper, Tot. Rec., ICP-MS	15	µg/L	7202/124
Hardness (Calculated)	66.8	mg/L as CaCO3	7157/248
Zinc, Dissolved, ICP-MS	38 DM	µg/L	7202/127
Zinc, Tot. Rec., ICP-MS	132	µg/L	7202/124
BOD	23	mg/L	7060/412
Chloride	6.2	mg/L	7277/35
Kjeldahl Nitrogen, as N (TKN)	3.3	mg/L	6854/505
Nitrate, as N	0.6	mg/L	7277/35
Nitrite, as N	ND(0.1)	mg/L	7277/35
Nitrogen (TKN + NO3/NO2), as N	3.9	mg/L	9998/57
Phosphorus, Total, as P	0.44	mg/L	7061/315
Solids, Total Dissolved	84	mg/L	7059/856
Solids, Total Suspended	83	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2205	120419-4	6IP3114	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0756	04/23/12 1808	120417-2	2IP3114	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2205	120419-4	6IP3114	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0756	04/20/12 1754	120417-2	2IP3111	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/13/12 1234	04/14/12 0148	120413-5	11IP4104	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/19/12 1121	04/25/12 1247	120419-4	2IP3116	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0756	04/20/12 1754	120417-2	2IP3111	KMW	200.8 Rev. 5.4
BOD	N/A	04/13/12 1455	120413-1	120413-1	MLL	SM 5210B
Chloride	N/A	04/13/12 0449	2IC2103	5IC2103	MLL	300.0
Kjeldahl Nitrogen, as N (T	04/17/12 1756	04/24/12 1059	120417-2	120424-2	JND	EPA 351.2
Nitrate, as N	N/A	04/13/12 0449	2IC2103	5IC2103	MLL	300.0
Nitrite, as N	N/A	04/13/12 0449	2IC2103	5IC2103	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	04/27/12 0831				Calculation
Phosphorus, Total, as P	N/A	04/26/12 1406	120426-1	120426-1	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	04/18/12 1503	120418-1	120418-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1329	120419-1	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041011

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102694

Lab Number: 12041012
Sample Description: 21st and Hood-Upstream

Date Sampled: 04/12/2012
Time Sampled: 1105

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/122
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/122
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/123
Hardness (Calculated)	272	mg/L as CaCO3	7157/248
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/122
Zinc, Tot. Rec., ICP-MS	ND(20)	µg/L	7202/123
BOD	ND(5)	mg/L	7060/412
Chloride	87	mg/L	7277/35
Kjeldahl Nitrogen, as N (TKN)	1.6	mg/L	6854/505
Nitrate, as N	2.0	mg/L	7277/35
Nitrite, as N	ND(0.1)	mg/L	7277/35
Nitrogen (TKN + NO3/NO2), as N	3.6	mg/L	9998/57
Phosphorus, Total, as P	0.48 QC	mg/L	7061/315
Solids, Total Dissolved	454	mg/L	7059/856
Solids, Total Suspended	211	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2326	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0116	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2326	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0116	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/13/12 1234	04/14/12 0152	120413-5	11IP4104	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2326	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0116	120417-2	7IP3109	KMW	200.8 Rev. 5.4
BOD	N/A	04/13/12 1455	120413-1	120413-1	MLL	SM 5210B
Chloride	N/A	04/13/12 0545	2IC2103	5IC2103	MLL	300.0
Kjeldahl Nitrogen, as N (T	04/17/12 1756	04/24/12 1101	120417-2	120424-2	JND	EPA 351.2
Nitrate, as N	N/A	04/13/12 0526	2IC2103	5IC2103	MLL	300.0
Nitrite, as N	N/A	04/13/12 0526	2IC2103	5IC2103	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	04/27/12 0831				Calculation
Phosphorus, Total, as P	N/A	04/26/12 1408	120426-1	120426-2	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	04/18/12 1503	120418-1	120418-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1329	120419-1	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041012

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102694

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12041011	BOD	04/12/2012 1105	04/13/2012 1455	27:50
12041011	Nitrate, as N	04/12/2012 1105	04/13/2012 0449	17:44
12041011	Nitrite, as N	04/12/2012 1105	04/13/2012 0449	17:44
12041012	BOD	04/12/2012 1105	04/13/2012 1455	27:50
12041012	Nitrate, as N	04/12/2012 1105	04/13/2012 0526	18:21
12041012	Nitrite, as N	04/12/2012 1105	04/13/2012 0526	18:21

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

QC - QC data qualifiers were noted. See the Quality Control Report.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
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Continental File No: 8339
Continental Order No: 102694

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102694

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120413-5	120413BLK5 04/14/12 01:03	120413LCS5 04/14/12 01:16	12041017MS 04/14/12 02:16
	Lab numbers associated with this batch: 12041011 12041012				
SL156	Cadmium, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL162	Copper, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL183	Zinc, Dissolved, ICP-MS	120416-2	120416BLK2 04/16/12 22:18	120416LCS2 04/16/12 22:23	12041027MS 04/17/12 00:35
	Lab numbers associated with this batch: 12041012				
SL006	Cadmium, Tot. Rec., ICP-MS	120417-2	120417BLK2	120417LCS2	12040880MS
SL012	Copper, Tot. Rec., ICP-MS	120417-2	120417BLK2	120417LCS2	12040880MS
SL033	Zinc, Tot. Rec., ICP-MS	120417-2	120417BLK2 04/18/12 23:15	120417LCS2 04/18/12 23:20	12040880MS 04/18/12 23:41
	Lab numbers associated with this batch: 12041010 12041011 12041012				
SL323	Hardness (Calculated)	120417-5	120417BLK5 04/17/12 19:41	120417LCS5 04/17/12 19:45	12041000MS 04/17/12 20:05
	Lab numbers associated with this batch: 12041010				
SL156	Cadmium, Dissolved, ICP-MS	120419-4	120419BLK4	120419LCS4	12041016MS
SL162	Copper, Dissolved, ICP-MS	120419-4	120419BLK4	120419LCS4	12041016MS
SL183	Zinc, Dissolved, ICP-MS	120419-4	120419BLK4 04/23/12 21:17	120419LCS4 04/23/12 21:23	12041016MS 04/23/12 22:21
	Lab numbers associated with this batch: 12041010 12041011				
GL123	BOD	120413-1	120413BLK1 04/13/12 14:55	120413LCS1 04/13/12 14:55	12040999MS 04/13/12 14:55
	Lab numbers associated with this batch: 12041011 12041012				
GL502	Chloride	1IC1117	BLK1IC1117 04/26/12 09:23	LCS1IC1117 04/26/12 10:07	12041939MS 04/26/12 16:05
	Lab numbers associated with this batch: 12041010				
GL502	Chloride	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
	Lab numbers associated with this batch: 12041011 12041012				
GL595	Kjeldahl Nitrogen, as N (TKN)	120417-2	120417BLK2 04/24/12 10:26	120417LCS2 04/24/12 10:29	12040969MS 04/24/12 10:35
	Lab numbers associated with this batch: 12041011 12041012				

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
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City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102694

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL505	Nitrate, as N	2IC2103	BLK2IC2103	LCS2IC2103	12041027MS
GL503	Nitrite, as N	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
	Lab numbers associated with this batch: 12041011 12041012				
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12041011 12041012				
GL218	Phosphorus, Total, as P	120426-1	120426BLK1 04/26/12 1359	120426LCS1 04/26/12 1400	12041012MS 04/26/12 1409
	Lab numbers associated with this batch: 12041011 12041012				
GL242	Solids, Total Dissolved	120418-1	120418BLK1 04/18/12 15:00	120418LCS1 04/18/12	12041006MS 04/18/12 15:01
	Lab numbers associated with this batch: 12041010 12041011 12041012				
GL243	Solids, Total Suspended	120419-1	120419BLK1 04/19/12 13:25	120419LCS1 04/19/12	12041002MS 04/19/12 13:25
	Lab numbers associated with this batch: 12041010 12041011 12041012				

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102694

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120413-1	**For sample analyzed on: 04/13/2012**					**Spiked sample: 12040999**						
BOD	ND(5)	85.6	75.3-109	198	mg/L	MN	MN	#		mg/L	**	16.4
QC Batch: 120413-5	**For samples prepared on: 04/13/2012 1234**					**Spiked sample: 12041017**						
Hardness (Calculated)	ND(5.0)	105	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120416-2	**For samples prepared on: 04/16/2012 0902**					**Spiked sample: 12041027**						
Cadmium, Dissolved, ICP-MS	ND(1)	96.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	93.0	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	99.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-2	**For samples prepared on: 04/17/2012 0756**					**Spiked sample: 12040880**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	100.	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	92.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-2	**For samples prepared on: 04/17/2012 1756**					**Spiked sample: 12040969**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	111	85.0-115	4.0	mg/L	MN	MN	81.2-133	20.0	mg/L	**	6.7
QC Batch: 120417-5	**For samples prepared on: 04/17/2012 1131**					**Spiked sample: 12041000**						
Hardness (Calculated)	ND(5.0)	104	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120418-1	**For sample analyzed on: 04/18/2012**					**Spiked sample: 12041006**						
Solids, Total Dissolved	ND(10)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120419-1	**For sample analyzed on: 04/19/2012**					**Spiked sample: 12041002**						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120419-4	**For samples prepared on: 04/19/2012 1121**					**Spiked sample: 12041016**						
Cadmium, Dissolved, ICP-MS	ND(1)	98.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	91.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	94.6	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120426-1	**For sample analyzed on: 04/26/2012**					**Spiked sample: 12041012**						
Phosphorus, Total, as P	ND(0.2)	98.3	88.8-110	2.0	mg/L	63.8 ML	53.8 MZ	80.5-117	2.0	mg/L	17.0	5.7
QC Batch: 1IC1117	**For sample analyzed on: 04/26/2012**					**Spiked sample: 12041939**						
Chloride	ND(1.0)	98.8	90.0-110	4.0	mg/L	MN	MN	75.1-131	40.0	mg/L	**	5.7
QC Batch: 2IC2103	**For sample analyzed on: 04/12/2012**					**Spiked sample: 12041027**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	4.0	mg/L	**	5.7
Nitrite, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	77.5-116	2.0	mg/L	**	10.7
Nitrate, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	81.7-121	2.0	mg/L	**	8.2

Data Qualifiers:
MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

N/A - Not Applicable

ML - The matrix spike and/or matrix spike duplicate recovery for this analyte was below the method or laboratory control limit. See LCS data for the basis for acceptance of this sample. The reported sample concentration is estimated.

MZ - The MSD recovery and the MS/MSD precision for this analyte were outside of method or laboratory control limits. See LCS data for the basis for

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102694

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit

acceptance of this sample. Reported sample concentration is estimated.

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102694

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Tot. Rec., ICP-MS	04/23/2012	2IP3114	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	04/23/2012	3IP3114	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/23/2012	6IP3114	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/20/2012	2IP3111	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/20/2012	3IP3111	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/23/2012	6IP3114	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-1	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-1	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-3	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/26/2012	3IC1117	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/26/2012	4IC1117	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/13/2012	6IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/13/2012	6IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/13/2012	6IC2103	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-2	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-3	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	11IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	12IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	6IP4108	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	7IP4108	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/20/2012	2IP3111	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/25/2012	2IP3116	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/20/2012	3IP3111	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/25/2012	3IP3116	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Lontinental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information	Invoice Information
Company Name: City of Wichita Sewage Treatment	Company Name: City of Wichita Sewage Treatment
Address: 2305 E. 57th Street South	Address: 2305 E. 57th Street South
City: Wichita State: KS Zip: 67216	City: Wichita State: KS Zip: 67216
Contact: Jim Hardesty E-mail:	Contact: Jim Hardesty E-mail:
Phone Number: (316)303-8700 Fax Number: (316)303-8712	Phone Number: (316)303-8700 Fax Number: (316)303-8712

Sampler's Name:(Printed) Justin Murph

Sampler's Name:(Signature)

Purchase Order Number:

File Number: 5611

Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER	Total Metals 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P		COMMENTS 5 Gal. container to be poured off at lab as needed for required tests. Remaininig volume will be saved for organics if needed
21st and Hood-Grab	WW	N	4/12/12	1105	G	4			1	2	1		X	X							
21st and Hood-Composite	WW	N	4/12/12	1105	C	1					1				X						
21st and Hood-Upstream	WW	N	4/12/12	1105	G	4			1	1	2					X	X	X	X		

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT (15 working days) Rush TAT (5 working days) Emergency TAT. (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY	DATE. 4/12/12	TIME. 1500	RECEIVED BY	DATE.	TIME.
RELINQUISHED BY	DATE.	TIME.	RECEIVED BY	DATE.	TIME.
RECEIVED AT LAB BY	DATE. 4-12-12	TIME 1600	SHIPPED VIA: AIRBILL.	SEAL #: SEAL DATE.	

H:\melissa\...\Wichita Stormwater COC's.xlsx\04/12/2012

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 10294

Client Name: Wichita **CAS File No.:** 8339

Sample ID's in cooler: 5 - COC
2 1st 2 Hood

Cooler 1 **of** 1 **for this CAS Order No.**

Cooler Identification: CAS Cooler #: 1462 / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 4 / 12 / 12 16 : 20

Delivered By: UPS / FedX / AB Express / (Field Svcs) / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 1.1 Corrected Reading (°C) 1.6
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
mhs 4-12-12 Thermo. ID No.: 585 Thermo. Correction Factor (°C): 0.5
☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

☐ Chain of Custody not present - information taken from:
Cover Letter ☐ Container ☐
PO ☐ CAS Proj. Mgr. ☐
☐ Container label absent
☐ Chain of Custody incomplete [see detail below]
☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
☐ Date or Time sampled obtained from container label
☐ Chain of Custody missing sampler's name
☐ Chain of Custody missing matrix (sample type)
☐ Missing relinquished information: signature date time
☐ Sample excluded from Chain of Custody
☐ Sample listed on Chain of Custody, not received
☐ Sample description on container and Chain of Custody do not agree
☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement
[Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
☐ Broken or leaking containers (detail actions below)
☐ Sample container type or labeled chemical preservation inappropriate
☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: _____ **Date Completed:** 4-12-12

NAME	ORDERNO	LABNO	SAMPLE	DATESAM	TIMES	TESTNAME	RESULT	UNITS	BATCH	DATECOM	TESTCODE
City of Wichita	102717	12041073	13th and River	4/12/2012	1050	E. Coli	649 HT	MPN/100 mL	120413-1	4/13/2012	GL347
City of Wichita	106025	12090930	13th and River	9/13/2012	1530	E. Coli	6000	MPN/100 mL	120913-2	9/13/2012	GL347
City of Wichita	101255	12020405	13th and River - Composite	2/3/2012	0645	BOD	ND(5)	mg/L	120203-1	2/3/2012	GL123
City of Wichita	102691	12041004	13th and River - Composite	4/12/2012	1050	BOD	25	mg/L	120413-1	4/13/2012	GL123
City of Wichita	106033	12090978	13th and River - Composite	9/13/2012	1530	BOD	10.	mg/L	120915-1	9/15/2012	GL123
City of Wichita	101255	12020405	13th and River - Composite	2/3/2012	0645	Phosphorus, Total, as P	ND(0.20)	mg/L	120217-1	2/17/2012	GL218
City of Wichita	102691	12041004	13th and River - Composite	4/12/2012	1050	Phosphorus, Total, as P	0.87	mg/L	120426-1	4/26/2012	GL218
City of Wichita	106033	12090978	13th and River - Composite	9/13/2012	1530	Phosphorus, Total, as P	0.21	mg/L	120924-1	9/24/2012	GL218
City of Wichita	101255	12020405	13th and River - Composite	2/3/2012	0645	Solids, Total Dissolved	40.	mg/L	120208-1	2/8/2012	GL242
City of Wichita	102691	12041004	13th and River - Composite	4/12/2012	1050	Solids, Total Dissolved	58	mg/L	120418-1	4/18/2012	GL242
City of Wichita	106033	12090978	13th and River - Composite	9/13/2012	1530	Solids, Total Dissolved	46	mg/L	120919-1	9/19/2012	GL242
City of Wichita	101255	12020405	13th and River - Composite	2/3/2012	0645	Solids, Total Suspended	31	mg/L	120210-1	2/10/2012	GL243
City of Wichita	102691	12041004	13th and River - Composite	4/12/2012	1050	Solids, Total Suspended	83	mg/L	120419-1	4/19/2012	GL243
City of Wichita	106033	12090978	13th and River - Composite	9/13/2012	1530	Solids, Total Suspended	23	mg/L	120919-3	9/19/2012	GL243
City of Wichita	101255	12020405	13th and River - Composite	2/3/2012	0645	Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L		2/10/2012	GL343
City of Wichita	102691	12041004	13th and River - Composite	4/12/2012	1050	Nitrogen (TKN + NO3/NO2), as N	5.0	mg/L		4/27/2012	GL343
City of Wichita	106033	12090978	13th and River - Composite	9/13/2012	1530	Nitrogen (TKN + NO3/NO2), as N	1.7	mg/L		9/26/2012	GL343
City of Wichita	101255	12020405	13th and River - Composite	2/3/2012	0645	Chloride	1.6	mg/L	1IC2034	2/3/2012	GL502
City of Wichita	102691	12041004	13th and River - Composite	4/12/2012	1050	Chloride	2.8	mg/L	2IC2103	4/13/2012	GL502
City of Wichita	106033	12090978	13th and River - Composite	9/13/2012	1530	Chloride	2.9	mg/L	1IC2258	9/14/2012	GL502
City of Wichita	101255	12020405	13th and River - Composite	2/3/2012	0645	Nitrite, as N	ND(0.1)	mg/L	1IC2034	2/3/2012	GL503
City of Wichita	102691	12041004	13th and River - Composite	4/12/2012	1050	Nitrite, as N	ND(0.1)	mg/L	2IC2103	4/13/2012	GL503
City of Wichita	106033	12090978	13th and River - Composite	9/13/2012	1530	Nitrite, as N	ND(0.1)	mg/L	1IC2258	9/14/2012	GL503
City of Wichita	101255	12020405	13th and River - Composite	2/3/2012	0645	Nitrate, as N	0.3	mg/L	1IC2034	2/3/2012	GL505
City of Wichita	102691	12041004	13th and River - Composite	4/12/2012	1050	Nitrate, as N	0.6	mg/L	2IC2103	4/13/2012	GL505
City of Wichita	106033	12090978	13th and River - Composite	9/13/2012	1530	Nitrate, as N	0.4	mg/L	1IC2258	9/14/2012	GL505
City of Wichita	101255	12020405	13th and River - Composite	2/3/2012	0645	Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	120206-2	2/7/2012	GL595
City of Wichita	102691	12041004	13th and River - Composite	4/12/2012	1050	Kjeldahl Nitrogen, as N (TKN)	4.4	mg/L	120417-2	4/24/2012	GL595
City of Wichita	106033	12090978	13th and River - Composite	9/13/2012	1530	Kjeldahl Nitrogen, as N (TKN)	1.3	mg/L	120924-1	9/25/2012	GL595
City of Wichita	101255	12020405	13th and River - Composite	2/3/2012	0645	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120208-1	2/9/2012	SL006
City of Wichita	102691	12041004	13th and River - Composite	4/12/2012	1050	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-2	4/19/2012	SL006
City of Wichita	106033	12090978	13th and River - Composite	9/13/2012	1530	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120919-6	9/26/2012	SL006
City of Wichita	101255	12020405	13th and River - Composite	2/3/2012	0645	Copper, Tot. Rec., ICP-MS	7	ug/L	120208-1	2/9/2012	SL012
City of Wichita	102691	12041004	13th and River - Composite	4/12/2012	1050	Copper, Tot. Rec., ICP-MS	13	ug/L	120417-2	4/19/2012	SL012
City of Wichita	106033	12090978	13th and River - Composite	9/13/2012	1530	Copper, Tot. Rec., ICP-MS	6	ug/L	120919-6	9/26/2012	SL012
City of Wichita	101255	12020405	13th and River - Composite	2/3/2012	0645	Zinc, Tot. Rec., ICP-MS	67	ug/L	120208-1	2/9/2012	SL033
City of Wichita	102691	12041004	13th and River - Composite	4/12/2012	1050	Zinc, Tot. Rec., ICP-MS	115	ug/L	120417-2	4/19/2012	SL033
City of Wichita	106033	12090978	13th and River - Composite	9/13/2012	1530	Zinc, Tot. Rec., ICP-MS	38	ug/L	120919-6	9/26/2012	SL033
City of Wichita	101255	12020405	13th and River - Composite	2/3/2012	0645	Cadmium, Dissolved, ICP-MS	ND(1) DM QC	ug/L	120206-4	2/8/2012	SL156
City of Wichita	102691	12041004	13th and River - Composite	4/12/2012	1050	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120416-2	4/16/2012	SL156
City of Wichita	106033	12090978	13th and River - Composite	9/13/2012	1530	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120920-5	9/26/2012	SL156
City of Wichita	101255	12020405	13th and River - Composite	2/3/2012	0645	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120206-4	2/8/2012	SL162
City of Wichita	102691	12041004	13th and River - Composite	4/12/2012	1050	Copper, Dissolved, ICP-MS	7 DM	ug/L	120416-2	4/16/2012	SL162
City of Wichita	106033	12090978	13th and River - Composite	9/13/2012	1530	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120920-5	9/26/2012	SL162
City of Wichita	101255	12020405	13th and River - Composite	2/3/2012	0645	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120206-4	2/8/2012	SL183
City of Wichita	102691	12041004	13th and River - Composite	4/12/2012	1050	Zinc, Dissolved, ICP-MS	34 DM	ug/L	120416-2	4/16/2012	SL183
City of Wichita	106033	12090978	13th and River - Composite	9/13/2012	1530	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120920-5	9/26/2012	SL183
City of Wichita	101255	12020405	13th and River - Composite	2/3/2012	0645	Hardness (Calculated)	20.6	mg/L as CaCO3	120206-3	2/7/2012	SL323
City of Wichita	102691	12041004	13th and River - Composite	4/12/2012	1050	Hardness (Calculated)	35.7	mg/L as CaCO3	120413-5	4/14/2012	SL323
City of Wichita	106033	12090978	13th and River - Composite	9/13/2012	1530	Hardness (Calculated)	22.5	mg/L as CaCO3	120917-3	9/17/2012	SL323
City of Wichita	101255	12020404	13th and River - Grab	2/3/2012	0645	Solids, Total Dissolved	48	mg/L	120208-1	2/8/2012	GL242
City of Wichita	102691	12041003	13th and River - Grab	4/12/2012	1050	Solids, Total Dissolved	40.	mg/L	120418-1	4/18/2012	GL242
City of Wichita	106033	12090977	13th and River - Grab	9/13/2012	1530	Solids, Total Dissolved	46	mg/L	120919-1	9/19/2012	GL242
City of Wichita	101255	12020404	13th and River - Grab	2/3/2012	0645	Solids, Total Suspended	26	mg/L	120210-1	2/10/2012	GL243
City of Wichita	102691	12041003	13th and River - Grab	4/12/2012	1050	Solids, Total Suspended	126	mg/L	120419-1	4/19/2012	GL243
City of Wichita	106033	12090977	13th and River - Grab	9/13/2012	1530	Solids, Total Suspended	61	mg/L	120919-3	9/19/2012	GL243
City of Wichita	101255	12020404	13th and River - Grab	2/3/2012	0645	Chloride	1.3	mg/L	1IC2039	2/8/2012	GL502
City of Wichita	102691	12041003	13th and River - Grab	4/12/2012	1050	Chloride	2.9	mg/L	1IC1117	4/26/2012	GL502
City of Wichita	106033	12090977	13th and River - Grab	9/13/2012	1530	Chloride	2.7	mg/L	2IC2258	9/15/2012	GL502
City of Wichita	101255	12020404	13th and River - Grab	2/3/2012	0645	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120208-1	2/9/2012	SL006
City of Wichita	102691	12041003	13th and River - Grab	4/12/2012	1050	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-2	4/19/2012	SL006
City of Wichita	106033	12090977	13th and River - Grab	9/13/2012	1530	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120919-6	9/26/2012	SL006
City of Wichita	101255	12020404	13th and River - Grab	2/3/2012	0645	Copper, Tot. Rec., ICP-MS	7	ug/L	120208-1	2/9/2012	SL012
City of Wichita	102691	12041003	13th and River - Grab	4/12/2012	1050	Copper, Tot. Rec., ICP-MS	13	ug/L	120417-2	4/19/2012	SL012
City of Wichita	106033	12090977	13th and River - Grab	9/13/2012	1530	Copper, Tot. Rec., ICP-MS	6	ug/L	120919-6	9/26/2012	SL012
City of Wichita	101255	12020404	13th and River - Grab	2/3/2012	0645	Zinc, Tot. Rec., ICP-MS	59	ug/L	120208-1	2/9/2012	SL033
City of Wichita	102691	12041003	13th and River - Grab	4/12/2012	1050	Zinc, Tot. Rec., ICP-MS	119	ug/L	120417-2	4/19/2012	SL033
City of Wichita	106033	12090977	13th and River - Grab	9/13/2012	1530	Zinc, Tot. Rec., ICP-MS	38	ug/L	120919-6	9/26/2012	SL033
City of Wichita	101255	12020404	13th and River - Grab	2/3/2012	0645	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120210-2	2/15/2012	SL156
City of Wichita	102691	12041003	13th and River - Grab	4/12/2012	1050	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120416-2	4/16/2012	SL156
City of Wichita	106033	12090977	13th and River - Grab	9/13/2012	1530	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120920-5	9/26/2012	SL156
City of Wichita	101255	12020404	13th and River - Grab	2/3/2012	0645	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120210-2	2/15/2012	SL162
City of Wichita	102691	12041003	13th and River - Grab	4/12/2012	1050	Copper, Dissolved, ICP-MS	7 DM	ug/L	120416-2	4/16/2012	SL162
City of Wichita	106033	12090977	13th and River - Grab	9/13/2012	1530	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120920-5	9/26/2012	SL162
City of Wichita	101255	12020404	13th and River - Grab	2/3/2012	0645	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120210-2	2/15/2012	SL183
City of Wichita	102691	12041003	13th and River - Grab	4/12/2012	1050	Zinc, Dissolved, ICP-MS	38 DM	ug/L	120416-2	4/16/2012	SL183
City of Wichita	106033	12090977	13th and River - Grab	9/13/2012	1530	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120920-5	9/26/2012	SL183
City of Wichita	101255	12020404	13th and River - Grab	2/3/2012	0645	Hardness (Calculated)	19.0	mg/L as CaCO3	120207-4	2/7/2012	SL323
City of Wichita	102691	12041003	13th and River - Grab	4/12/2012	1050	Hardness (Calculated)	35.2	mg/L as CaCO3	120417-5	4/17/2012	SL323
City of Wichita	106033	12090977	13th and River - Grab	9/13/2012	1530	Hardness (Calculated)	25.5	mg/L as CaCO3	120917-3	9/17/2012	SL323
City of Wichita	101255	12020406	13th and River - Upstream	2/3/2012	0645	BOD	ND(5)	mg/L	120203-1	2/3/2012	GL123
City of Wichita	102691	12041005	13th and River - Upstream	4/12/2012	1050	BOD	8	mg/L	120413-1	4/13/2012	GL123
City of Wichita	106033	12090979	13th and River - Upstream	9/13/2012	1535	BOD	ND(5)	mg/L	120915-1	9/15/2012	GL123
City of Wichita	101255	12020406	13th and River - Upstream	2/3/2012	0645	Phosphorus, Total, as P	0.28	mg/L	120217-1	2/17/2012	GL218
City of Wichita	102691	12041005	13th and River - Upstream	4/12/2012	1050	Phosphorus, Total, as P	0.42	mg/L	120426-1	4/26/2012	GL218
City of Wichita	106033	12090979	13th and River - Upstream	9/13/2012	1535	Phosphorus, Total, as P	0.25	mg/L	120924-1	9/24/2012	GL218
City of Wichita	101255	12020406	13th and River - Upstream	2/3/2012	0645	Solids, Total Dissolved	394	mg/L	120208-1	2/8/2012	GL242
City of Wichita	102691	12041005	13th and River - Upstream	4/12/2012	1050	Solids, Total Dissolved	418	mg/L	120418-1	4/18/2012	GL242
City of Wichita	106033	12090979	13th and River - Upstream	9/13/2012	1535	Solids, Total Dissolved	534	mg/L	120920-1	9/20/2012	GL242
City of Wichita	101255	12020406	13th and River - Upstream	2/3/2012	0645	Solids, Total Suspended	74	mg/L	120210-1	2/10/2012	GL243
City of Wichita	102691	12041005	13th and River - Upstream	4/12/2012	1050	Solids, Total Suspended	75	mg/L	120419-1	4/19/2012	GL243
City of Wichita	106033	12090979	13th and River - Upstream	9/13/2012	1535	Solids, Total Suspended	56	mg/L	120919-4	9/19/2012	GL243
City of Wichita	101255	12020406	13th and River - Upstream	2/3/2012	0645	Nitrogen (TKN + NO3/NO2), as N	3.5	mg/L		2/10/2012	GL343

NAME	ORDERNO	LABNO	SAMPLE	DATESAM	TIMES	TESTNAME	RESULT	UNITS	BATCH	DATECOM	TESTCODE
City of Wichita	102691	12041005	13th and River - Upstream	4/12/2012	1050	Nitrogen (TKN + NO3/NO2), as N	3.0	mg/L		4/27/2012	GL343
City of Wichita	106033	12090979	13th and River - Upstream	9/13/2012	1535	Nitrogen (TKN + NO3/NO2), as N	1.5	mg/L		9/26/2012	GL343
City of Wichita	102717	12041074	13th and River - Upstream	4/12/2012	1050	E. Coli	579 HT	MPN/100 mL	120413-1	4/13/2012	GL347
City of Wichita	106025	12090931	13th and River - Upstream	9/13/2012	1535	E. Coli	131	MPN/100 mL	120913-2	9/13/2012	GL347
City of Wichita	101255	12020406	13th and River - Upstream	2/3/2012	0645	Chloride	71	mg/L	1IC2034	2/4/2012	GL502
City of Wichita	102691	12041005	13th and River - Upstream	4/12/2012	1050	Chloride	80.	mg/L	2IC2103	4/13/2012	GL502
City of Wichita	106033	12090979	13th and River - Upstream	9/13/2012	1535	Chloride	112	mg/L	1IC2258	9/14/2012	GL502
City of Wichita	101255	12020406	13th and River - Upstream	2/3/2012	0645	Nitrite, as N	ND(0.1)	mg/L	1IC2034	2/4/2012	GL503
City of Wichita	102691	12041005	13th and River - Upstream	4/12/2012	1050	Nitrite, as N	ND(0.1)	mg/L	2IC2103	4/13/2012	GL503
City of Wichita	106033	12090979	13th and River - Upstream	9/13/2012	1535	Nitrite, as N	ND(0.1)	mg/L	1IC2258	9/14/2012	GL503
City of Wichita	101255	12020406	13th and River - Upstream	2/3/2012	0645	Nitrate, as N	0.6	mg/L	1IC2034	2/4/2012	GL505
City of Wichita	102691	12041005	13th and River - Upstream	4/12/2012	1050	Nitrate, as N	1.6	mg/L	2IC2103	4/13/2012	GL505
City of Wichita	106033	12090979	13th and River - Upstream	9/13/2012	1535	Nitrate, as N	0.1	mg/L	1IC2258	9/14/2012	GL505
City of Wichita	101255	12020406	13th and River - Upstream	2/3/2012	0645	Kjeldahl Nitrogen, as N (TKN)	2.9	mg/L	120206-2	2/7/2012	GL595
City of Wichita	102691	12041005	13th and River - Upstream	4/12/2012	1050	Kjeldahl Nitrogen, as N (TKN)	1.4	mg/L	120417-2	4/24/2012	GL595
City of Wichita	106033	12090979	13th and River - Upstream	9/13/2012	1535	Kjeldahl Nitrogen, as N (TKN)	1.4	mg/L	120924-1	9/25/2012	GL595
City of Wichita	101255	12020406	13th and River - Upstream	2/3/2012	0645	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120208-1	2/9/2012	SL006
City of Wichita	102691	12041005	13th and River - Upstream	4/12/2012	1050	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-2	4/19/2012	SL006
City of Wichita	106033	12090979	13th and River - Upstream	9/13/2012	1535	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120919-5	9/26/2012	SL006
City of Wichita	101255	12020406	13th and River - Upstream	2/3/2012	0645	Copper, Tot. Rec., ICP-MS	8	ug/L	120208-1	2/9/2012	SL012
City of Wichita	102691	12041005	13th and River - Upstream	4/12/2012	1050	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120417-2	4/19/2012	SL012
City of Wichita	106033	12090979	13th and River - Upstream	9/13/2012	1535	Copper, Tot. Rec., ICP-MS	5	ug/L	120919-5	9/26/2012	SL012
City of Wichita	101255	12020406	13th and River - Upstream	2/3/2012	0645	Zinc, Tot. Rec., ICP-MS	60.	ug/L	120208-1	2/9/2012	SL033
City of Wichita	102691	12041005	13th and River - Upstream	4/12/2012	1050	Zinc, Tot. Rec., ICP-MS	ND(20)	ug/L	120417-2	4/19/2012	SL033
City of Wichita	106033	12090979	13th and River - Upstream	9/13/2012	1535	Zinc, Tot. Rec., ICP-MS	ND(20)	ug/L	120919-5	9/26/2012	SL033
City of Wichita	101255	12020406	13th and River - Upstream	2/3/2012	0645	Cadmium, Dissolved, ICP-MS	ND(1) DM QC	ug/L	120206-4	2/8/2012	SL156
City of Wichita	102691	12041005	13th and River - Upstream	4/12/2012	1050	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120416-2	4/16/2012	SL156
City of Wichita	106033	12090979	13th and River - Upstream	9/13/2012	1535	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120918-4	9/25/2012	SL156
City of Wichita	101255	12020406	13th and River - Upstream	2/3/2012	0645	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120206-4	2/8/2012	SL162
City of Wichita	102691	12041005	13th and River - Upstream	4/12/2012	1050	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120416-2	4/16/2012	SL162
City of Wichita	106033	12090979	13th and River - Upstream	9/13/2012	1535	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120918-4	9/25/2012	SL162
City of Wichita	101255	12020406	13th and River - Upstream	2/3/2012	0645	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120206-4	2/8/2012	SL183
City of Wichita	102691	12041005	13th and River - Upstream	4/12/2012	1050	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120416-2	4/16/2012	SL183
City of Wichita	106033	12090979	13th and River - Upstream	9/13/2012	1535	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120918-4	9/25/2012	SL183
City of Wichita	101255	12020406	13th and River - Upstream	2/3/2012	0645	Hardness (Calculated)	192	mg/L as CaCO3	120206-3	2/7/2012	SL323
City of Wichita	102691	12041005	13th and River - Upstream	4/12/2012	1050	Hardness (Calculated)	252	mg/L as CaCO3	120413-5	4/14/2012	SL323
City of Wichita	106033	12090979	13th and River - Upstream	9/13/2012	1535	Hardness (Calculated)	225	mg/L as CaCO3	120921-7	9/24/2012	SL323
City of Wichita	102717	12041075	21st and Hood	4/12/2012	1105	E. Coli	5700 HT	MPN/100 mL	120413-1	4/13/2012	GL347
City of Wichita	106025	12090932	21st and Hood	9/13/2012	1515	E. Coli	10200	MPN/100 mL	120913-2	9/13/2012	GL347
City of Wichita	101258	12020414	21st and Hood - Composite	2/3/2012	0810	BOD	ND(5)	mg/L	120203-1	2/3/2012	GL123
City of Wichita	102694	12041011	21st and Hood - Composite	4/12/2012	1105	BOD	23	mg/L	120413-1	4/13/2012	GL123
City of Wichita	106034	12090981	21st and Hood - Composite	9/13/2012	1515	BOD	9	mg/L	120915-1	9/15/2012	GL123
City of Wichita	101258	12020414	21st and Hood - Composite	2/3/2012	0810	Phosphorus, Total, as P	ND(0.20)	mg/L	120217-1	2/17/2012	GL218
City of Wichita	102694	12041011	21st and Hood - Composite	4/12/2012	1105	Phosphorus, Total, as P	0.44	mg/L	120426-1	4/26/2012	GL218
City of Wichita	106034	12090981	21st and Hood - Composite	9/13/2012	1515	Phosphorus, Total, as P	0.21	mg/L	120924-1	9/24/2012	GL218
City of Wichita	101258	12020414	21st and Hood - Composite	2/3/2012	0810	Solids, Total Dissolved	40.	mg/L	120210-1	2/10/2012	GL242
City of Wichita	102694	12041011	21st and Hood - Composite	4/12/2012	1105	Solids, Total Dissolved	84	mg/L	120418-1	4/18/2012	GL242
City of Wichita	106034	12090981	21st and Hood - Composite	9/13/2012	1515	Solids, Total Dissolved	56	mg/L	120920-1	9/20/2012	GL242
City of Wichita	101258	12020414	21st and Hood - Composite	2/3/2012	0810	Solids, Total Suspended	54	mg/L	120210-1	2/10/2012	GL243
City of Wichita	102694	12041011	21st and Hood - Composite	4/12/2012	1105	Solids, Total Suspended	83	mg/L	120419-1	4/19/2012	GL243
City of Wichita	106034	12090981	21st and Hood - Composite	9/13/2012	1515	Solids, Total Suspended	59	mg/L	120919-4	9/19/2012	GL243
City of Wichita	101258	12020414	21st and Hood - Composite	2/3/2012	0810	Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L		2/10/2012	GL343
City of Wichita	102694	12041011	21st and Hood - Composite	4/12/2012	1105	Nitrogen (TKN + NO3/NO2), as N	3.9	mg/L		4/27/2012	GL343
City of Wichita	106034	12090981	21st and Hood - Composite	9/13/2012	1515	Nitrogen (TKN + NO3/NO2), as N	1.7	mg/L		9/26/2012	GL343
City of Wichita	101258	12020414	21st and Hood - Composite	2/3/2012	0810	Chloride	1.3	mg/L	1IC2034	2/3/2012	GL502
City of Wichita	102694	12041011	21st and Hood - Composite	4/12/2012	1105	Chloride	5.2	mg/L	2IC2103	4/13/2012	GL502
City of Wichita	106034	12090981	21st and Hood - Composite	9/13/2012	1515	Chloride	2.6	mg/L	2IC2258	9/14/2012	GL502
City of Wichita	101258	12020414	21st and Hood - Composite	2/3/2012	0810	Nitrite, as N	ND(0.1)	mg/L	1IC2034	2/3/2012	GL503
City of Wichita	102694	12041011	21st and Hood - Composite	4/12/2012	1105	Nitrite, as N	ND(0.1)	mg/L	2IC2103	4/13/2012	GL503
City of Wichita	106034	12090981	21st and Hood - Composite	9/13/2012	1515	Nitrite, as N	ND(0.1)	mg/L	2IC2258	9/14/2012	GL503
City of Wichita	101258	12020414	21st and Hood - Composite	2/3/2012	0810	Nitrate, as N	0.2	mg/L	1IC2034	2/3/2012	GL505
City of Wichita	102694	12041011	21st and Hood - Composite	4/12/2012	1105	Nitrate, as N	0.6	mg/L	2IC2103	4/13/2012	GL505
City of Wichita	106034	12090981	21st and Hood - Composite	9/13/2012	1515	Nitrate, as N	0.3	mg/L	2IC2258	9/14/2012	GL505
City of Wichita	101258	12020414	21st and Hood - Composite	2/3/2012	0810	Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	120206-2	2/7/2012	GL595
City of Wichita	102694	12041011	21st and Hood - Composite	4/12/2012	1105	Kjeldahl Nitrogen, as N (TKN)	3.3	mg/L	120417-2	4/24/2012	GL595
City of Wichita	106034	12090981	21st and Hood - Composite	9/13/2012	1515	Kjeldahl Nitrogen, as N (TKN)	1.4	mg/L	120924-1	9/25/2012	GL595
City of Wichita	101258	12020414	21st and Hood - Composite	2/3/2012	0810	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120208-2	2/9/2012	SL006
City of Wichita	102694	12041011	21st and Hood - Composite	4/12/2012	1105	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-2	4/23/2012	SL006
City of Wichita	106034	12090981	21st and Hood - Composite	9/13/2012	1515	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120919-5	9/26/2012	SL006
City of Wichita	101258	12020414	21st and Hood - Composite	2/3/2012	0810	Copper, Tot. Rec., ICP-MS	9	ug/L	120208-2	2/9/2012	SL012
City of Wichita	102694	12041011	21st and Hood - Composite	4/12/2012	1105	Copper, Tot. Rec., ICP-MS	15	ug/L	120417-2	4/20/2012	SL012
City of Wichita	106034	12090981	21st and Hood - Composite	9/13/2012	1515	Copper, Tot. Rec., ICP-MS	10.	ug/L	120919-5	9/26/2012	SL012
City of Wichita	101258	12020414	21st and Hood - Composite	2/3/2012	0810	Zinc, Tot. Rec., ICP-MS	90.	ug/L	120208-2	2/9/2012	SL033
City of Wichita	102694	12041011	21st and Hood - Composite	4/12/2012	1105	Zinc, Tot. Rec., ICP-MS	132	ug/L	120417-2	4/20/2012	SL033
City of Wichita	106034	12090981	21st and Hood - Composite	9/13/2012	1515	Zinc, Tot. Rec., ICP-MS	87	ug/L	120919-5	9/26/2012	SL033
City of Wichita	101258	12020414	21st and Hood - Composite	2/3/2012	0810	Cadmium, Dissolved, ICP-MS	ND(1) DM QC	ug/L	120206-4	2/8/2012	SL156
City of Wichita	102694	12041011	21st and Hood - Composite	4/12/2012	1105	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120419-4	4/23/2012	SL156
City of Wichita	106034	12090981	21st and Hood - Composite	9/13/2012	1515	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120920-5	9/26/2012	SL156
City of Wichita	101258	12020414	21st and Hood - Composite	2/3/2012	0810	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120206-4	2/8/2012	SL162
City of Wichita	102694	12041011	21st and Hood - Composite	4/12/2012	1105	Copper, Dissolved, ICP-MS	5 DM	ug/L	120419-4	4/23/2012	SL162
City of Wichita	106034	12090981	21st and Hood - Composite	9/13/2012	1515	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120920-5	9/26/2012	SL162
City of Wichita	101258	12020414	21st and Hood - Composite	2/3/2012	0810	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120206-4	2/8/2012	SL183
City of Wichita	102694	12041011	21st and Hood - Composite	4/12/2012	1105	Zinc, Dissolved, ICP-MS	38 DM	ug/L	120419-4	4/25/2012	SL183
City of Wichita	106034	12090981	21st and Hood - Composite	9/13/2012	1515	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120920-5	9/26/2012	SL183
City of Wichita	101258	12020414	21st and Hood - Composite	2/3/2012	0810	Hardness (Calculated)	32.4	mg/L as CaCO3	120206-3	2/7/2012	SL323
City of Wichita	102694	12041011	21st and Hood - Composite	4/12/2012	1105	Hardness (Calculated)	66.8	mg/L as CaCO3	120413-5	4/14/2012	SL323
City of Wichita	106034	12090981	21st and Hood - Composite	9/13/2012	1515	Hardness (Calculated)	34.0	mg/L as CaCO3	120914-5	9/14/2012	SL323
City of Wichita	101258	12020413	21st and Hood - Grab	2/3/2012	0810	Solids, Total Dissolved	ND(30)	mg/L	120210-1	2/10/2012	GL242
City of Wichita	102694	12041010	21st and Hood - Grab	4/12/2012	1105	Solids, Total Dissolved	82	mg/L	120418-1	4/18/2012	GL242
City of Wichita	106034	12090980	21st and Hood - Grab	9/13/2012	1515	Solids, Total Dissolved	42	mg/L	120920-1	9/20/2012	GL242
City of Wichita	101258	12020413	21st and Hood - Grab	2/3/2012	0810	Solids, Total Suspended	50.	mg/L	120210-1	2/10/2012	GL243
City of Wichita	102694	12041010	21st and Hood - Grab	4/12/2012	1105	Solids, Total Suspended	89	mg/L	120419-1	4/19/2012	GL243
City of Wichita	106034	12090980	21st and Hood - Grab	9/13/2012	1515	Solids, Total Suspended	49	mg/L	120919-4	9/19/2012	GL243

NAME	ORDERNO	LABNO	SAMPLE	DATESAM	TIMES	TESTNAME	RESULT	UNITS	BATCH	DATECOM	TESTCODE
City of Wichita	101258	12020413	21st and Hood - Grab	2/3/2012	0810	Chloride	1.2	mg/L	1IC2039	2/8/2012	GL502
City of Wichita	102694	12041010	21st and Hood - Grab	4/12/2012	1105	Chloride	6.2	mg/L	1IC1117	4/26/2012	GL502
City of Wichita	106034	12090980	21st and Hood - Grab	9/13/2012	1515	Chloride	1.4	mg/L	2IC2258	9/15/2012	GL502
City of Wichita	101258	12020413	21st and Hood - Grab	2/3/2012	0810	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120208-2	2/9/2012	SL006
City of Wichita	102694	12041010	21st and Hood - Grab	4/12/2012	1105	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-2	4/19/2012	SL006
City of Wichita	106034	12090980	21st and Hood - Grab	9/13/2012	1515	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120919-6	9/26/2012	SL006
City of Wichita	101258	12020413	21st and Hood - Grab	2/3/2012	0810	Copper, Tot. Rec., ICP-MS	8	ug/L	120208-2	2/9/2012	SL012
City of Wichita	102694	12041010	21st and Hood - Grab	4/12/2012	1105	Copper, Tot. Rec., ICP-MS	15	ug/L	120417-2	4/19/2012	SL012
City of Wichita	106034	12090980	21st and Hood - Grab	9/13/2012	1515	Copper, Tot. Rec., ICP-MS	10	ug/L	120919-6	9/26/2012	SL012
City of Wichita	101258	12020413	21st and Hood - Grab	2/3/2012	0810	Zinc, Tot. Rec., ICP-MS	81	ug/L	120208-2	2/9/2012	SL033
City of Wichita	102694	12041010	21st and Hood - Grab	4/12/2012	1105	Zinc, Tot. Rec., ICP-MS	133	ug/L	120417-2	4/19/2012	SL033
City of Wichita	106034	12090980	21st and Hood - Grab	9/13/2012	1515	Zinc, Tot. Rec., ICP-MS	85	ug/L	120919-6	9/26/2012	SL033
City of Wichita	101258	12020413	21st and Hood - Grab	2/3/2012	0810	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120210-2	2/15/2012	SL156
City of Wichita	102694	12041010	21st and Hood - Grab	4/12/2012	1105	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120419-4	4/23/2012	SL156
City of Wichita	106034	12090980	21st and Hood - Grab	9/13/2012	1515	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120920-5	9/26/2012	SL156
City of Wichita	101258	12020413	21st and Hood - Grab	2/3/2012	0810	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120210-2	2/15/2012	SL162
City of Wichita	102694	12041010	21st and Hood - Grab	4/12/2012	1105	Copper, Dissolved, ICP-MS	6 DM	ug/L	120419-4	4/23/2012	SL162
City of Wichita	106034	12090980	21st and Hood - Grab	9/13/2012	1515	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120920-5	9/26/2012	SL162
City of Wichita	101258	12020413	21st and Hood - Grab	2/3/2012	0810	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120210-2	2/15/2012	SL183
City of Wichita	102694	12041010	21st and Hood - Grab	4/12/2012	1105	Zinc, Dissolved, ICP-MS	38 DM	ug/L	120419-4	4/25/2012	SL183
City of Wichita	106034	12090980	21st and Hood - Grab	9/13/2012	1515	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120920-5	9/26/2012	SL183
City of Wichita	101258	12020413	21st and Hood - Grab	2/3/2012	0810	Hardness (Calculated)	27.8	mg/L as CaCO3	120207-4	2/9/2012	SL323
City of Wichita	102694	12041010	21st and Hood - Grab	4/12/2012	1105	Hardness (Calculated)	66.6	mg/L as CaCO3	120417-5	4/17/2012	SL323
City of Wichita	106034	12090980	21st and Hood - Grab	9/13/2012	1515	Hardness (Calculated)	34	mg/L as CaCO3	120917-3	9/17/2012	SL323
City of Wichita	101258	12020415	21st and Hood - Upstream	2/3/2012	0810	BOD	ND(5)	mg/L	120203-1	2/3/2012	GL123
City of Wichita	102694	12041012	21st and Hood - Upstream	4/12/2012	1105	BOD	ND(5)	mg/L	120413-1	4/13/2012	GL123
City of Wichita	106034	12090982	21st and Hood - Upstream	9/13/2012	1520	BOD	6	mg/L	120915-1	9/15/2012	GL123
City of Wichita	101258	12020415	21st and Hood - Upstream	2/3/2012	0810	Phosphorus, Total, as P	0.27	mg/L	120217-1	2/17/2012	GL218
City of Wichita	102694	12041012	21st and Hood - Upstream	4/12/2012	1105	Phosphorus, Total, as P	0.48 QC	mg/L	120426-1	4/26/2012	GL218
City of Wichita	106034	12090982	21st and Hood - Upstream	9/13/2012	1520	Phosphorus, Total, as P	ND(0.20)	mg/L	120924-1	9/24/2012	GL218
City of Wichita	101258	12020415	21st and Hood - Upstream	2/3/2012	0810	Solids, Total Dissolved	334	mg/L	120210-1	2/10/2012	GL242
City of Wichita	102694	12041012	21st and Hood - Upstream	4/12/2012	1105	Solids, Total Dissolved	454	mg/L	120418-1	4/18/2012	GL242
City of Wichita	106034	12090982	21st and Hood - Upstream	9/13/2012	1520	Solids, Total Dissolved	568	mg/L	120920-1	9/20/2012	GL242
City of Wichita	101258	12020415	21st and Hood - Upstream	2/3/2012	0810	Solids, Total Suspended	121	mg/L	120210-1	2/10/2012	GL243
City of Wichita	102694	12041012	21st and Hood - Upstream	4/12/2012	1105	Solids, Total Suspended	211	mg/L	120419-1	4/19/2012	GL243
City of Wichita	106034	12090982	21st and Hood - Upstream	9/13/2012	1520	Solids, Total Suspended	101	mg/L	120919-4	9/19/2012	GL243
City of Wichita	101258	12020415	21st and Hood - Upstream	2/3/2012	0810	Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L		2/10/2012	GL343
City of Wichita	102694	12041012	21st and Hood - Upstream	4/12/2012	1105	Nitrogen (TKN + NO3/NO2), as N	3.6	mg/L		4/27/2012	GL343
City of Wichita	106034	12090982	21st and Hood - Upstream	9/13/2012	1520	Nitrogen (TKN + NO3/NO2), as N	2.0	mg/L		9/26/2012	GL343
City of Wichita	102717	12041076	21st and Hood - Upstream	4/12/2012	1105	E. Coli	727 HT	MPN/100 mL	120413-1	4/13/2012	GL347
City of Wichita	106025	12090933	21st and Hood - Upstream	9/13/2012	1520	E. Coli	579	MPN/100 mL	120913-2	9/13/2012	GL347
City of Wichita	101258	12020415	21st and Hood - Upstream	2/3/2012	0810	Chloride	53	mg/L	1IC2034	2/4/2012	GL502
City of Wichita	102694	12041012	21st and Hood - Upstream	4/12/2012	1105	Chloride	87	mg/L	2IC2103	4/13/2012	GL502
City of Wichita	106034	12090982	21st and Hood - Upstream	9/13/2012	1520	Chloride	129	mg/L	2IC2258	9/14/2012	GL502
City of Wichita	101258	12020415	21st and Hood - Upstream	2/3/2012	0810	Nitrite, as N	ND(0.1)	mg/L	1IC2034	2/4/2012	GL503
City of Wichita	102694	12041012	21st and Hood - Upstream	4/12/2012	1105	Nitrite, as N	ND(0.1)	mg/L	2IC2103	4/13/2012	GL503
City of Wichita	106034	12090982	21st and Hood - Upstream	9/13/2012	1520	Nitrite, as N	ND(0.1)	mg/L	2IC2258	9/14/2012	GL503
City of Wichita	101258	12020415	21st and Hood - Upstream	2/3/2012	0810	Nitrate, as N	0.9	mg/L	1IC2034	2/4/2012	GL505
City of Wichita	102694	12041012	21st and Hood - Upstream	4/12/2012	1105	Nitrate, as N	2.0	mg/L	2IC2103	4/13/2012	GL505
City of Wichita	106034	12090982	21st and Hood - Upstream	9/13/2012	1520	Nitrate, as N	0.4	mg/L	2IC2258	9/14/2012	GL505
City of Wichita	101258	12020415	21st and Hood - Upstream	2/3/2012	0810	Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	120206-2	2/7/2012	GL595
City of Wichita	102694	12041012	21st and Hood - Upstream	4/12/2012	1105	Kjeldahl Nitrogen, as N (TKN)	1.6	mg/L	120417-2	4/24/2012	GL595
City of Wichita	106034	12090982	21st and Hood - Upstream	9/13/2012	1520	Kjeldahl Nitrogen, as N (TKN)	1.6	mg/L	120924-1	9/25/2012	GL595
City of Wichita	101258	12020415	21st and Hood - Upstream	2/3/2012	0810	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120208-1	2/9/2012	SL006
City of Wichita	102694	12041012	21st and Hood - Upstream	4/12/2012	1105	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-2	4/19/2012	SL006
City of Wichita	106034	12090982	21st and Hood - Upstream	9/13/2012	1520	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120919-6	9/26/2012	SL006
City of Wichita	101258	12020415	21st and Hood - Upstream	2/3/2012	0810	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120208-1	2/9/2012	SL012
City of Wichita	102694	12041012	21st and Hood - Upstream	4/12/2012	1105	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120417-2	4/19/2012	SL012
City of Wichita	106034	12090982	21st and Hood - Upstream	9/13/2012	1520	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120919-6	9/26/2012	SL012
City of Wichita	101258	12020415	21st and Hood - Upstream	2/3/2012	0810	Zinc, Tot. Rec., ICP-MS	25	ug/L	120208-1	2/9/2012	SL033
City of Wichita	102694	12041012	21st and Hood - Upstream	4/12/2012	1105	Zinc, Tot. Rec., ICP-MS	ND(20)	ug/L	120417-2	4/19/2012	SL033
City of Wichita	106034	12090982	21st and Hood - Upstream	9/13/2012	1520	Zinc, Tot. Rec., ICP-MS	ND(20)	ug/L	120919-6	9/26/2012	SL033
City of Wichita	101258	12020415	21st and Hood - Upstream	2/3/2012	0810	Cadmium, Dissolved, ICP-MS	ND(1) DM QC	ug/L	120206-4	2/8/2012	SL156
City of Wichita	102694	12041012	21st and Hood - Upstream	4/12/2012	1105	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120416-2	4/16/2012	SL156
City of Wichita	106034	12090982	21st and Hood - Upstream	9/13/2012	1520	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120918-4	9/25/2012	SL156
City of Wichita	101258	12020415	21st and Hood - Upstream	2/3/2012	0810	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120206-4	2/8/2012	SL162
City of Wichita	102694	12041012	21st and Hood - Upstream	4/12/2012	1105	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120416-2	4/16/2012	SL162
City of Wichita	106034	12090982	21st and Hood - Upstream	9/13/2012	1520	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120918-4	9/25/2012	SL162
City of Wichita	101258	12020415	21st and Hood - Upstream	2/3/2012	0810	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120206-4	2/8/2012	SL183
City of Wichita	102694	12041012	21st and Hood - Upstream	4/12/2012	1105	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120416-2	4/16/2012	SL183
City of Wichita	106034	12090982	21st and Hood - Upstream	9/13/2012	1520	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120918-4	9/25/2012	SL183
City of Wichita	101258	12020415	21st and Hood - Upstream	2/3/2012	0810	Hardness (Calculated)	158	mg/L as CaCO3	120206-3	2/7/2012	SL323
City of Wichita	102694	12041012	21st and Hood - Upstream	4/12/2012	1105	Hardness (Calculated)	272	mg/L as CaCO3	120413-5	4/14/2012	SL323
City of Wichita	106034	12090982	21st and Hood - Upstream	9/13/2012	1520	Hardness (Calculated)	244	mg/L as CaCO3	120921-7	9/24/2012	SL323
City of Wichita	102717	12041079	Broadway	4/12/2012	1145	E. Coli	5000 HT	MPN/100 mL	120413-1	4/13/2012	GL347
City of Wichita	106025	12090924	Broadway	9/13/2012	1430	E. Coli	141000	MPN/100 mL	120913-1	9/13/2012	GL347
City of Wichita	101253	12020399	Broadway - Composite	2/3/2012	0545	BOD	ND(5)	mg/L	120203-1	2/3/2012	GL123
City of Wichita	102696	12041017	Broadway - Composite	4/12/2012	1145	BOD	ND(5)	mg/L	120413-1	4/13/2012	GL123
City of Wichita	106027	12090960	Broadway - Composite	9/13/2012	1430	BOD	14	mg/L	120914-2	9/14/2012	GL123
City of Wichita	101253	12020399	Broadway - Composite	2/3/2012	0545	Phosphorus, Total, as P	ND(0.20)	mg/L	120217-1	2/17/2012	GL218
City of Wichita	102696	12041017	Broadway - Composite	4/12/2012	1145	Phosphorus, Total, as P	ND(0.2)	mg/L	120426-1	4/26/2012	GL218
City of Wichita	106027	12090960	Broadway - Composite	9/13/2012	1430	Phosphorus, Total, as P	ND(0.20)	mg/L	120920-2	9/20/2012	GL218
City of Wichita	101253	12020399	Broadway - Composite	2/3/2012	0545	Solids, Total Dissolved	30.	mg/L	120208-1	2/8/2012	GL242
City of Wichita	102696	12041017	Broadway - Composite	4/12/2012	1145	Solids, Total Dissolved	ND(30)	mg/L	120419-1	4/19/2012	GL242
City of Wichita	106027	12090960	Broadway - Composite	9/13/2012	1430	Solids, Total Dissolved	74	mg/L	120919-1	9/19/2012	GL242
City of Wichita	101253	12020399	Broadway - Composite	2/3/2012	0545	Solids, Total Suspended	26	mg/L	120209-1	2/9/2012	GL243
City of Wichita	102696	12041017	Broadway - Composite	4/12/2012	1145	Solids, Total Suspended	13	mg/L	120419-1	4/19/2012	GL243
City of Wichita	106027	12090960	Broadway - Composite	9/13/2012	1430	Solids, Total Suspended	23	mg/L	120919-3	9/19/2012	GL243
City of Wichita	101253	12020399	Broadway - Composite	2/3/2012	0545	Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L		2/10/2012	GL343
City of Wichita	102696	12041017	Broadway - Composite	4/12/2012	1145	Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L		4/27/2012	GL343
City of Wichita	106027	12090960	Broadway - Composite	9/13/2012	1430	Nitrogen (TKN + NO3/NO2), as N	2.6	mg/L		9/26/2012	GL343
City of Wichita	101253	12020399	Broadway - Composite	2/3/2012	0545	Chloride	2.0	mg/L	1IC2034	2/3/2012	GL502
City of Wichita	102696	12041017	Broadway - Composite	4/12/2012	1145	Chloride	1.2	mg/L	2IC2103	4/13/2012	GL502

NAME	ORDERNO	LABNO	SAMPLE	DATESAM	TIMES	TESTNAME	RESULT	UNITS	BATCH	DATECOM	TESTCODE
City of Wichita	106027	12090960	Broadway - Composite	9/13/2012	1430	Chloride	3.2	mg/L	1IC2258	9/14/2012	GL502
City of Wichita	101253	12020399	Broadway - Composite	2/3/2012	0545	Nitrite, as N	ND(0.1)	mg/L	1IC2034	2/3/2012	GL503
City of Wichita	102696	12041017	Broadway - Composite	4/12/2012	1145	Nitrite, as N	ND(0.1)	mg/L	2IC2103	4/13/2012	GL503
City of Wichita	106027	12090960	Broadway - Composite	9/13/2012	1430	Nitrite, as N	ND(0.1)	mg/L	1IC2258	9/14/2012	GL503
City of Wichita	101253	12020399	Broadway - Composite	2/3/2012	0545	Nitrate, as N	0.1	mg/L	1IC2034	2/3/2012	GL505
City of Wichita	102696	12041017	Broadway - Composite	4/12/2012	1145	Nitrate, as N	0.2	mg/L	2IC2103	4/13/2012	GL505
City of Wichita	106027	12090960	Broadway - Composite	9/13/2012	1430	Nitrate, as N	0.7	mg/L	1IC2258	9/14/2012	GL505
City of Wichita	101253	12020399	Broadway - Composite	2/3/2012	0545	Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	120206-2	2/7/2012	GL595
City of Wichita	102696	12041017	Broadway - Composite	4/12/2012	1145	Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	120417-2	4/24/2012	GL595
City of Wichita	106027	12090960	Broadway - Composite	9/13/2012	1430	Kjeldahl Nitrogen, as N (TKN)	1.9	mg/L	120924-1	9/25/2012	GL595
City of Wichita	101253	12020399	Broadway - Composite	2/3/2012	0545	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120208-2	2/9/2012	SL006
City of Wichita	102696	12041017	Broadway - Composite	4/12/2012	1145	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-1	4/18/2012	SL006
City of Wichita	106027	12090960	Broadway - Composite	9/13/2012	1430	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120920-6	9/27/2012	SL006
City of Wichita	101253	12020399	Broadway - Composite	2/3/2012	0545	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120208-2	2/9/2012	SL012
City of Wichita	102696	12041017	Broadway - Composite	4/12/2012	1145	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120417-1	4/18/2012	SL012
City of Wichita	106027	12090960	Broadway - Composite	9/13/2012	1430	Copper, Tot. Rec., ICP-MS	8	ug/L	120920-6	9/27/2012	SL012
City of Wichita	101253	12020399	Broadway - Composite	2/3/2012	0545	Zinc, Tot. Rec., ICP-MS	60.	ug/L	120208-2	2/9/2012	SL033
City of Wichita	102696	12041017	Broadway - Composite	4/12/2012	1145	Zinc, Tot. Rec., ICP-MS	32	ug/L	120417-1	4/18/2012	SL033
City of Wichita	106027	12090960	Broadway - Composite	9/13/2012	1430	Zinc, Tot. Rec., ICP-MS	58	ug/L	120920-6	9/27/2012	SL033
City of Wichita	101253	12020399	Broadway - Composite	2/3/2012	0545	Cadmium, Dissolved, ICP-MS	ND(1) DM QC	ug/L	120206-4	2/8/2012	SL156
City of Wichita	102696	12041017	Broadway - Composite	4/12/2012	1145	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120416-2	4/16/2012	SL156
City of Wichita	106027	12090960	Broadway - Composite	9/13/2012	1430	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120918-4	9/25/2012	SL156
City of Wichita	101253	12020399	Broadway - Composite	2/3/2012	0545	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120206-4	2/8/2012	SL162
City of Wichita	102696	12041017	Broadway - Composite	4/12/2012	1145	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120416-2	4/16/2012	SL162
City of Wichita	106027	12090960	Broadway - Composite	9/13/2012	1430	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120918-4	9/25/2012	SL162
City of Wichita	101253	12020399	Broadway - Composite	2/3/2012	0545	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120206-4	2/8/2012	SL183
City of Wichita	102696	12041017	Broadway - Composite	4/12/2012	1145	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120416-2	4/16/2012	SL183
City of Wichita	106027	12090960	Broadway - Composite	9/13/2012	1430	Zinc, Dissolved, ICP-MS	26 DM	ug/L	120918-4	9/25/2012	SL183
City of Wichita	101253	12020399	Broadway - Composite	2/3/2012	0545	Hardness (Calculated)	14.1	mg/L as CaCO3	120206-3	2/6/2012	SL323
City of Wichita	102696	12041017	Broadway - Composite	4/12/2012	1145	Hardness (Calculated)	16.5	mg/L as CaCO3	120413-5	4/14/2012	SL323
City of Wichita	106027	12090960	Broadway - Composite	9/13/2012	1430	Hardness (Calculated)	35.2	mg/L as CaCO3	120914-5	9/14/2012	SL323
City of Wichita	101253	12020398	Broadway - Grab	2/3/2012	0545	Hexane Extractable Material	ND(5.0)	mg/L	120216-1	2/16/2012	GL188
City of Wichita	102696	12041016	Broadway - Grab	4/12/2012	1145	Hexane Extractable Material	ND(5.0)	mg/L	120501-1	5/1/2012	GL188
City of Wichita	106027	12090959	Broadway - Grab	9/13/2012	1430	Hexane Extractable Material	ND(5.0)	mg/L	120920-1	9/20/2012	GL188
City of Wichita	101253	12020398	Broadway - Grab	2/3/2012	0545	Solids, Total Dissolved	30.	mg/L	120208-1	2/8/2012	GL242
City of Wichita	102696	12041016	Broadway - Grab	4/12/2012	1145	Solids, Total Dissolved	ND(30)	mg/L	120419-1	4/19/2012	GL242
City of Wichita	106027	12090959	Broadway - Grab	9/13/2012	1430	Solids, Total Dissolved	70.	mg/L	120919-1	9/19/2012	GL242
City of Wichita	101253	12020398	Broadway - Grab	2/3/2012	0545	Solids, Total Suspended	11	mg/L	120209-1	2/9/2012	GL243
City of Wichita	102696	12041016	Broadway - Grab	4/12/2012	1145	Solids, Total Suspended	39	mg/L	120419-1	4/19/2012	GL243
City of Wichita	106027	12090959	Broadway - Grab	9/13/2012	1430	Solids, Total Suspended	32	mg/L	120919-3	9/19/2012	GL243
City of Wichita	101253	12020398	Broadway - Grab	2/3/2012	0545	Chloride	1.6	mg/L	1IC2039	2/8/2012	GL502
City of Wichita	102696	12041016	Broadway - Grab	4/12/2012	1145	Chloride	ND(1.0)	mg/L	1IC1117	4/26/2012	GL502
City of Wichita	106027	12090959	Broadway - Grab	9/13/2012	1430	Chloride	2.4	mg/L	2IC2258	9/15/2012	GL502
City of Wichita	101253	12020398	Broadway - Grab	2/3/2012	0545	Cadmium, Tot. Rec., ICP-MS	1	ug/L	120208-2	2/9/2012	SL006
City of Wichita	102696	12041016	Broadway - Grab	4/12/2012	1145	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-1	4/18/2012	SL006
City of Wichita	106027	12090959	Broadway - Grab	9/13/2012	1430	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120919-6	9/26/2012	SL006
City of Wichita	101253	12020398	Broadway - Grab	2/3/2012	0545	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120208-2	2/9/2012	SL012
City of Wichita	102696	12041016	Broadway - Grab	4/12/2012	1145	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120417-1	4/18/2012	SL012
City of Wichita	106027	12090959	Broadway - Grab	9/13/2012	1430	Copper, Tot. Rec., ICP-MS	7	ug/L	120919-6	9/26/2012	SL012
City of Wichita	101253	12020398	Broadway - Grab	2/3/2012	0545	Zinc, Tot. Rec., ICP-MS	41	ug/L	120208-2	2/9/2012	SL033
City of Wichita	102696	12041016	Broadway - Grab	4/12/2012	1145	Zinc, Tot. Rec., ICP-MS	35	ug/L	120417-1	4/18/2012	SL033
City of Wichita	106027	12090959	Broadway - Grab	9/13/2012	1430	Zinc, Tot. Rec., ICP-MS	55	ug/L	120919-6	9/26/2012	SL033
City of Wichita	101253	12020398	Broadway - Grab	2/3/2012	0545	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120210-2	2/15/2012	SL156
City of Wichita	102696	12041016	Broadway - Grab	4/12/2012	1145	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120419-4	4/23/2012	SL156
City of Wichita	106027	12090959	Broadway - Grab	9/13/2012	1430	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120918-4	9/25/2012	SL156
City of Wichita	101253	12020398	Broadway - Grab	2/3/2012	0545	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120210-2	2/15/2012	SL162
City of Wichita	102696	12041016	Broadway - Grab	4/12/2012	1145	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120419-4	4/23/2012	SL162
City of Wichita	106027	12090959	Broadway - Grab	9/13/2012	1430	Copper, Dissolved, ICP-MS	5 DM	ug/L	120918-4	9/25/2012	SL162
City of Wichita	101253	12020398	Broadway - Grab	2/3/2012	0545	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120210-2	2/15/2012	SL183
City of Wichita	102696	12041016	Broadway - Grab	4/12/2012	1145	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120419-4	4/23/2012	SL183
City of Wichita	106027	12090959	Broadway - Grab	9/13/2012	1430	Zinc, Dissolved, ICP-MS	22 DM	ug/L	120918-4	9/25/2012	SL183
City of Wichita	101253	12020398	Broadway - Grab	2/3/2012	0545	Hardness (Calculated)	12.7	mg/L as CaCO3	120207-4	2/7/2012	SL323
City of Wichita	102696	12041016	Broadway - Grab	4/12/2012	1145	Hardness (Calculated)	18.7	mg/L as CaCO3	120417-5	4/17/2012	SL323
City of Wichita	106027	12090959	Broadway - Grab	9/13/2012	1430	Hardness (Calculated)	36.1	mg/L as CaCO3	120917-3	9/17/2012	SL323
City of Wichita	101253	12020400	Broadway - Upstream	2/3/2012	0545	BOD	7	mg/L	120203-1	2/3/2012	GL123
City of Wichita	102696	12041018	Broadway - Upstream	4/12/2012	1145	BOD	9	mg/L	120413-2	4/13/2012	GL123
City of Wichita	106027	12090961	Broadway - Upstream	9/13/2012	1435	BOD	8	mg/L	120914-2	9/14/2012	GL123
City of Wichita	101253	12020400	Broadway - Upstream	2/3/2012	0545	Phosphorus, Total, as P	0.36	mg/L	120217-1	2/17/2012	GL218
City of Wichita	102696	12041018	Broadway - Upstream	4/12/2012	1145	Phosphorus, Total, as P	ND(0.2)	mg/L	120426-1	4/26/2012	GL218
City of Wichita	106027	12090961	Broadway - Upstream	9/13/2012	1435	Phosphorus, Total, as P	0.22	mg/L	120920-2	9/20/2012	GL218
City of Wichita	101253	12020400	Broadway - Upstream	2/3/2012	0545	Solids, Total Dissolved	188	mg/L	120208-1	2/8/2012	GL242
City of Wichita	102696	12041018	Broadway - Upstream	4/12/2012	1145	Solids, Total Dissolved	246	mg/L	120419-1	4/19/2012	GL242
City of Wichita	106027	12090961	Broadway - Upstream	9/13/2012	1435	Solids, Total Dissolved	612	mg/L	120919-1	9/19/2012	GL242
City of Wichita	101253	12020400	Broadway - Upstream	2/3/2012	0545	Solids, Total Suspended	210.	mg/L	120209-1	2/9/2012	GL243
City of Wichita	102696	12041018	Broadway - Upstream	4/12/2012	1145	Solids, Total Suspended	131	mg/L	120419-1	4/19/2012	GL243
City of Wichita	106027	12090961	Broadway - Upstream	9/13/2012	1435	Solids, Total Suspended	13	mg/L	120919-3	9/19/2012	GL243
City of Wichita	101253	12020400	Broadway - Upstream	2/3/2012	0545	Nitrogen (TKN + NO3/NO2), as N	2.3	mg/L		2/10/2012	GL343
City of Wichita	102696	12041018	Broadway - Upstream	4/12/2012	1145	Nitrogen (TKN + NO3/NO2), as N	2.7	mg/L		4/27/2012	GL343
City of Wichita	106027	12090961	Broadway - Upstream	9/13/2012	1435	Nitrogen (TKN + NO3/NO2), as N	1.4	mg/L		9/26/2012	GL343
City of Wichita	102717	12041080	Broadway - Upstream	4/12/2012	1145	E. Coli	7700 HT	MPN/100 mL	120413-1	4/13/2012	GL347
City of Wichita	106025	12090925	Broadway - Upstream	9/13/2012	1435	E. Coli	2420	MPN/100 mL	120913-1	9/13/2012	GL347
City of Wichita	101253	12020400	Broadway - Upstream	2/3/2012	0545	Chloride	50.	mg/L	1IC2034	2/4/2012	GL502
City of Wichita	102696	12041018	Broadway - Upstream	4/12/2012	1145	Chloride	86	mg/L	2IC2103	4/13/2012	GL502
City of Wichita	106027	12090961	Broadway - Upstream	9/13/2012	1435	Chloride	143	mg/L	1IC2258	9/14/2012	GL502
City of Wichita	101253	12020400	Broadway - Upstream	2/3/2012	0545	Nitrite, as N	ND(0.1)	mg/L	1IC2034	2/4/2012	GL503
City of Wichita	102696	12041018	Broadway - Upstream	4/12/2012	1145	Nitrite, as N	ND(0.1)	mg/L	2IC2103	4/13/2012	GL503
City of Wichita	106027	12090961	Broadway - Upstream	9/13/2012	1435	Nitrite, as N	ND(0.1)	mg/L	1IC2258	9/14/2012	GL503
City of Wichita	101253	12020400	Broadway - Upstream	2/3/2012	0545	Nitrate, as N	0.5	mg/L	1IC2034	2/4/2012	GL505
City of Wichita	102696	12041018	Broadway - Upstream	4/12/2012	1145	Nitrate, as N	0.6	mg/L	2IC2103	4/13/2012	GL505
City of Wichita	106027	12090961	Broadway - Upstream	9/13/2012	1435	Nitrate, as N	0.4	mg/L	1IC2258	9/14/2012	GL505
City of Wichita	101253	12020400	Broadway - Upstream	2/3/2012	0545	Kjeldahl Nitrogen, as N (TKN)	1.8	mg/L	120206-2	2/7/2012	GL595
City of Wichita	102696	12041018	Broadway - Upstream	4/12/2012	1145	Kjeldahl Nitrogen, as N (TKN)	2.1	mg/L	120417-2	4/24/2012	GL595
City of Wichita	106027	12090961	Broadway - Upstream	9/13/2012	1435	Kjeldahl Nitrogen, as N (TKN)	1.0	mg/L	120924-1	9/25/2012	GL595

NAME	ORDERNO	LABNO	SAMPLE	DATESAM	TIMES	TESTNAME	RESULT	UNITS	BATCH	DATECOM	TESTCODE
City of Wichita	101253	12020400	Broadway - Upstream	2/3/2012	0545	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120208-2	2/9/2012	SL006
City of Wichita	102696	12041018	Broadway - Upstream	4/12/2012	1145	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-1	4/18/2012	SL006
City of Wichita	106027	12090961	Broadway - Upstream	9/13/2012	1435	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120920-6	9/27/2012	SL006
City of Wichita	101253	12020400	Broadway - Upstream	2/3/2012	0545	Copper, Tot. Rec., ICP-MS	17	ug/L	120208-2	2/9/2012	SL012
City of Wichita	102696	12041018	Broadway - Upstream	4/12/2012	1145	Copper, Tot. Rec., ICP-MS	10	ug/L	120417-1	4/18/2012	SL012
City of Wichita	106027	12090961	Broadway - Upstream	9/13/2012	1435	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120920-6	9/27/2012	SL012
City of Wichita	101253	12020400	Broadway - Upstream	2/3/2012	0545	Zinc, Tot. Rec., ICP-MS	127	ug/L	120208-2	2/9/2012	SL033
City of Wichita	102696	12041018	Broadway - Upstream	4/12/2012	1145	Zinc, Tot. Rec., ICP-MS	78	ug/L	120417-1	4/18/2012	SL033
City of Wichita	106027	12090961	Broadway - Upstream	9/13/2012	1435	Zinc, Tot. Rec., ICP-MS	ND(20)	ug/L	120920-6	9/27/2012	SL033
City of Wichita	101253	12020400	Broadway - Upstream	2/3/2012	0545	Cadmium, Dissolved, ICP-MS	ND(1) DM QC	ug/L	120206-4	2/8/2012	SL156
City of Wichita	102696	12041018	Broadway - Upstream	4/12/2012	1145	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120416-2	4/16/2012	SL156
City of Wichita	106027	12090961	Broadway - Upstream	9/13/2012	1435	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120918-4	9/25/2012	SL156
City of Wichita	101253	12020400	Broadway - Upstream	2/3/2012	0545	Copper, Dissolved, ICP-MS	6 DM	ug/L	120206-4	2/8/2012	SL162
City of Wichita	102696	12041018	Broadway - Upstream	4/12/2012	1145	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120416-2	4/16/2012	SL162
City of Wichita	106027	12090961	Broadway - Upstream	9/13/2012	1435	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120918-4	9/25/2012	SL162
City of Wichita	101253	12020400	Broadway - Upstream	2/3/2012	0545	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120206-4	2/8/2012	SL183
City of Wichita	102696	12041018	Broadway - Upstream	4/12/2012	1145	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120416-2	4/16/2012	SL183
City of Wichita	106027	12090961	Broadway - Upstream	9/13/2012	1435	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120918-4	9/25/2012	SL183
City of Wichita	101253	12020400	Broadway - Upstream	2/3/2012	0545	Hardness (Calculated)	113	mg/L as CaCO3	120206-3	2/6/2012	SL323
City of Wichita	102696	12041018	Broadway - Upstream	4/12/2012	1145	Hardness (Calculated)	125	mg/L as CaCO3	120417-5	4/17/2012	SL323
City of Wichita	106027	12090961	Broadway - Upstream	9/13/2012	1435	Hardness (Calculated)	276	mg/L as CaCO3	120917-3	9/17/2012	SL323
City of Wichita	102717	12041071	Cowskin and Maple	4/12/2012	1030	E. Coli	14700 HT	MPN/100 mL	120413-1	4/13/2012	GL347
City of Wichita	106025	12090934	Cowskin and Maple	9/13/2012	1415	E. Coli	43500	MPN/100 mL	120913-2	9/13/2012	GL347
City of Wichita	101257	12020411	Cowskin and Maple - Composite	2/3/2012	0745	BOD	6	mg/L	120203-1	2/3/2012	GL123
City of Wichita	102690	12041001	Cowskin and Maple - Composite	4/12/2012	1030	BOD	12	mg/L	120413-1	4/13/2012	GL123
City of Wichita	106032	12090975	Cowskin and Maple - Composite	9/13/2012	1415	BOD	13	mg/L	120915-1	9/15/2012	GL123
City of Wichita	101257	12020411	Cowskin and Maple - Composite	2/3/2012	0745	Phosphorus, Total, as P	ND(0.20)	mg/L	120217-1	2/17/2012	GL218
City of Wichita	102690	12041001	Cowskin and Maple - Composite	4/12/2012	1030	Phosphorus, Total, as P	0.31	mg/L	120426-1	4/26/2012	GL218
City of Wichita	106032	12090975	Cowskin and Maple - Composite	9/13/2012	1415	Phosphorus, Total, as P	0.25	mg/L	120924-1	9/24/2012	GL218
City of Wichita	101257	12020411	Cowskin and Maple - Composite	2/3/2012	0745	Solids, Total Dissolved	70	mg/L	120210-1	2/10/2012	GL242
City of Wichita	102690	12041001	Cowskin and Maple - Composite	4/12/2012	1030	Solids, Total Dissolved	40	mg/L	120416-1	4/16/2012	GL242
City of Wichita	106032	12090975	Cowskin and Maple - Composite	9/13/2012	1415	Solids, Total Dissolved	110.	mg/L	120919-1	9/19/2012	GL242
City of Wichita	101257	12020411	Cowskin and Maple - Composite	2/3/2012	0745	Solids, Total Suspended	36	mg/L	120210-1	2/10/2012	GL243
City of Wichita	102690	12041001	Cowskin and Maple - Composite	4/12/2012	1030	Solids, Total Suspended	104	mg/L	120418-1	4/18/2012	GL243
City of Wichita	106032	12090975	Cowskin and Maple - Composite	9/13/2012	1415	Solids, Total Suspended	63	mg/L	120919-3	9/19/2012	GL243
City of Wichita	101257	12020411	Cowskin and Maple - Composite	2/3/2012	0745	Nitrogen (TKN + NO3/NO2), as N	2.0	mg/L		2/10/2012	GL343
City of Wichita	102690	12041001	Cowskin and Maple - Composite	4/12/2012	1030	Nitrogen (TKN + NO3/NO2), as N	2.6	mg/L		4/27/2012	GL343
City of Wichita	106032	12090975	Cowskin and Maple - Composite	9/13/2012	1415	Nitrogen (TKN + NO3/NO2), as N	2.3	mg/L		9/26/2012	GL343
City of Wichita	101257	12020411	Cowskin and Maple - Composite	2/3/2012	0745	Chloride	4.3	mg/L	1IC2034	2/3/2012	GL502
City of Wichita	102690	12041001	Cowskin and Maple - Composite	4/12/2012	1030	Chloride	3.5	mg/L	2IC2103	4/13/2012	GL502
City of Wichita	106032	12090975	Cowskin and Maple - Composite	9/13/2012	1415	Chloride	7.8	mg/L	1IC2258	9/14/2012	GL502
City of Wichita	101257	12020411	Cowskin and Maple - Composite	2/3/2012	0745	Nitrite, as N	ND(0.1)	mg/L	1IC2034	2/3/2012	GL503
City of Wichita	102690	12041001	Cowskin and Maple - Composite	4/12/2012	1030	Nitrite, as N	ND(0.1)	mg/L	2IC2103	4/13/2012	GL503
City of Wichita	106032	12090975	Cowskin and Maple - Composite	9/13/2012	1415	Nitrite, as N	ND(0.1)	mg/L	1IC2258	9/14/2012	GL503
City of Wichita	101257	12020411	Cowskin and Maple - Composite	2/3/2012	0745	Nitrate, as N	0.6	mg/L	1IC2034	2/3/2012	GL505
City of Wichita	102690	12041001	Cowskin and Maple - Composite	4/12/2012	1030	Nitrate, as N	0.5	mg/L	2IC2103	4/13/2012	GL505
City of Wichita	106032	12090975	Cowskin and Maple - Composite	9/13/2012	1415	Nitrate, as N	0.6	mg/L	1IC2258	9/14/2012	GL505
City of Wichita	101257	12020411	Cowskin and Maple - Composite	2/3/2012	0745	Kjeldahl Nitrogen, as N (TKN)	1.4	mg/L	120206-2	2/7/2012	GL595
City of Wichita	102690	12041001	Cowskin and Maple - Composite	4/12/2012	1030	Kjeldahl Nitrogen, as N (TKN)	2.1	mg/L	120417-2	4/24/2012	GL595
City of Wichita	106032	12090975	Cowskin and Maple - Composite	9/13/2012	1415	Kjeldahl Nitrogen, as N (TKN)	1.7	mg/L	120924-1	9/25/2012	GL595
City of Wichita	101257	12020411	Cowskin and Maple - Composite	2/3/2012	0745	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120208-1	2/9/2012	SL006
City of Wichita	102690	12041001	Cowskin and Maple - Composite	4/12/2012	1030	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-2	4/19/2012	SL006
City of Wichita	106032	12090975	Cowskin and Maple - Composite	9/13/2012	1415	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120919-5	9/26/2012	SL006
City of Wichita	101257	12020411	Cowskin and Maple - Composite	2/3/2012	0745	Copper, Tot. Rec., ICP-MS	8	ug/L	120208-1	2/9/2012	SL012
City of Wichita	102690	12041001	Cowskin and Maple - Composite	4/12/2012	1030	Copper, Tot. Rec., ICP-MS	9	ug/L	120417-2	4/19/2012	SL012
City of Wichita	106032	12090975	Cowskin and Maple - Composite	9/13/2012	1415	Copper, Tot. Rec., ICP-MS	11	ug/L	120919-5	9/26/2012	SL012
City of Wichita	101257	12020411	Cowskin and Maple - Composite	2/3/2012	0745	Zinc, Tot. Rec., ICP-MS	85	ug/L	120208-1	2/9/2012	SL033
City of Wichita	102690	12041001	Cowskin and Maple - Composite	4/12/2012	1030	Zinc, Tot. Rec., ICP-MS	180.	ug/L	120417-2	4/19/2012	SL033
City of Wichita	106032	12090975	Cowskin and Maple - Composite	9/13/2012	1415	Zinc, Tot. Rec., ICP-MS	98	ug/L	120919-5	9/26/2012	SL033
City of Wichita	101257	12020411	Cowskin and Maple - Composite	2/3/2012	0745	Cadmium, Dissolved, ICP-MS	ND(1) DM QC	ug/L	120206-4	2/8/2012	SL156
City of Wichita	102690	12041001	Cowskin and Maple - Composite	4/12/2012	1030	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120416-2	4/16/2012	SL156
City of Wichita	106032	12090975	Cowskin and Maple - Composite	9/13/2012	1415	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120920-5	9/26/2012	SL156
City of Wichita	101257	12020411	Cowskin and Maple - Composite	2/3/2012	0745	Copper, Dissolved, ICP-MS	7 DM	ug/L	120206-4	2/8/2012	SL162
City of Wichita	102690	12041001	Cowskin and Maple - Composite	4/12/2012	1030	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120416-2	4/16/2012	SL162
City of Wichita	106032	12090975	Cowskin and Maple - Composite	9/13/2012	1415	Copper, Dissolved, ICP-MS	5 DM	ug/L	120920-5	9/26/2012	SL162
City of Wichita	101257	12020411	Cowskin and Maple - Composite	2/3/2012	0745	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120206-4	2/8/2012	SL183
City of Wichita	102690	12041001	Cowskin and Maple - Composite	4/12/2012	1030	Zinc, Dissolved, ICP-MS	25 DM	ug/L	120416-2	4/16/2012	SL183
City of Wichita	106032	12090975	Cowskin and Maple - Composite	9/13/2012	1415	Zinc, Dissolved, ICP-MS	25 DM	ug/L	120920-5	9/26/2012	SL183
City of Wichita	101257	12020411	Cowskin and Maple - Composite	2/3/2012	0745	Hardness (Calculated)	28.3	mg/L as CaCO3	120206-3	2/7/2012	SL323
City of Wichita	102690	12041001	Cowskin and Maple - Composite	4/12/2012	1030	Hardness (Calculated)	36.1	mg/L as CaCO3	120413-5	4/14/2012	SL323
City of Wichita	106032	12090975	Cowskin and Maple - Composite	9/13/2012	1415	Hardness (Calculated)	51.5	mg/L as CaCO3	120917-3	9/17/2012	SL323
City of Wichita	101257	12020410	Cowskin and Maple - Grab	2/3/2012	0745	Solids, Total Dissolved	76	mg/L	120210-1	2/10/2012	GL242
City of Wichita	102690	12041000	Cowskin and Maple - Grab	4/12/2012	1030	Solids, Total Dissolved	42	mg/L	120416-1	4/16/2012	GL242
City of Wichita	106032	12090974	Cowskin and Maple - Grab	9/13/2012	1415	Solids, Total Dissolved	118	mg/L	120919-1	9/19/2012	GL242
City of Wichita	101257	12020410	Cowskin and Maple - Grab	2/3/2012	0745	Solids, Total Suspended	28	mg/L	120210-1	2/10/2012	GL243
City of Wichita	102690	12041000	Cowskin and Maple - Grab	4/12/2012	1030	Solids, Total Suspended	108	mg/L	120418-1	4/18/2012	GL243
City of Wichita	106032	12090974	Cowskin and Maple - Grab	9/13/2012	1415	Solids, Total Suspended	59	mg/L	120919-3	9/19/2012	GL243
City of Wichita	101257	12020410	Cowskin and Maple - Grab	2/3/2012	0745	Chloride	4.0	mg/L	1IC2039	2/8/2012	GL502
City of Wichita	102690	12041000	Cowskin and Maple - Grab	4/12/2012	1030	Chloride	2.8	mg/L	1IC1116	4/25/2012	GL502
City of Wichita	106032	12090974	Cowskin and Maple - Grab	9/13/2012	1415	Chloride	8.0	mg/L	2IC2258	9/15/2012	GL502
City of Wichita	101257	12020410	Cowskin and Maple - Grab	2/3/2012	0745	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120208-1	2/9/2012	SL006
City of Wichita	102690	12041000	Cowskin and Maple - Grab	4/12/2012	1030	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-1	4/18/2012	SL006
City of Wichita	106032	12090974	Cowskin and Maple - Grab	9/13/2012	1415	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120920-5	9/27/2012	SL006
City of Wichita	101257	12020410	Cowskin and Maple - Grab	2/3/2012	0745	Copper, Tot. Rec., ICP-MS	6	ug/L	120208-1	2/9/2012	SL012
City of Wichita	102690	12041000	Cowskin and Maple - Grab	4/12/2012	1030	Copper, Tot. Rec., ICP-MS	10.	ug/L	120417-1	4/18/2012	SL012
City of Wichita	106032	12090974	Cowskin and Maple - Grab	9/13/2012	1415	Copper, Tot. Rec., ICP-MS	12	ug/L	120920-5	9/27/2012	SL012
City of Wichita	101257	12020410	Cowskin and Maple - Grab	2/3/2012	0745	Zinc, Tot. Rec., ICP-MS	55	ug/L	120208-1	2/9/2012	SL033
City of Wichita	102690	12041000	Cowskin and Maple - Grab	4/12/2012	1030	Zinc, Tot. Rec., ICP-MS	187	ug/L	120417-1	4/18/2012	SL033
City of Wichita	106032	12090974	Cowskin and Maple - Grab	9/13/2012	1415	Zinc, Tot. Rec., ICP-MS	133	ug/L	120920-5	9/27/2012	SL033
City of Wichita	101257	12020410	Cowskin and Maple - Grab	2/3/2012	0745	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120210-2	2/15/2012	SL156
City of Wichita	102690	12041000	Cowskin and Maple - Grab	4/12/2012	1030	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120416-2	4/16/2012	SL156
City of Wichita	106032	12090974	Cowskin and Maple - Grab	9/13/2012	1415	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120920-5	9/26/2012	SL156
City of Wichita	101257	12020410	Cowskin and Maple - Grab	2/3/2012	0745	Copper, Dissolved, ICP-MS	9 DM	ug/L	120210-2	2/15/2012	SL162

NAME	ORDERNO	LABNO	SAMPLE	DATESAM	TIMES	TESTNAME	RESULT	UNITS	BATCH	DATECOM	TESTCODE
City of Wichita	102690	12041000	Cowskin and Maple - Grab	4/12/2012	1030	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120416-2	4/16/2012	SL162
City of Wichita	106032	12090974	Cowskin and Maple - Grab	9/13/2012	1415	Copper, Dissolved, ICP-MS	5 DM	ug/L	120920-5	9/26/2012	SL162
City of Wichita	101257	12020410	Cowskin and Maple - Grab	2/3/2012	0745	Zinc, Dissolved, ICP-MS	23 DM	ug/L	120210-2	2/15/2012	SL183
City of Wichita	102690	12041000	Cowskin and Maple - Grab	4/12/2012	1030	Zinc, Dissolved, ICP-MS	29 DM	ug/L	120416-2	4/16/2012	SL183
City of Wichita	106032	12090974	Cowskin and Maple - Grab	9/13/2012	1415	Zinc, Dissolved, ICP-MS	22 DM	ug/L	120920-5	9/26/2012	SL183
City of Wichita	101257	12020410	Cowskin and Maple - Grab	2/3/2012	0745	Hardness (Calculated)	27.1	mg/L as CaCO3	120207-4	2/7/2012	SL323
City of Wichita	102690	12041000	Cowskin and Maple - Grab	4/12/2012	1030	Hardness (Calculated)	38.4	mg/L as CaCO3	120417-5	4/17/2012	SL323
City of Wichita	106032	12090974	Cowskin and Maple - Grab	9/13/2012	1415	Hardness (Calculated)	53.6	mg/L as CaCO3	120917-3	9/17/2012	SL323
City of Wichita	101257	12020412	Cowskin and Maple - Upstream	2/3/2012	0745	BOD	ND(5)	mg/L	120203-1	2/3/2012	GL123
City of Wichita	102690	12041002	Cowskin and Maple - Upstream	4/12/2012	1030	BOD	7	mg/L	120413-1	4/13/2012	GL123
City of Wichita	106032	12090976	Cowskin and Maple - Upstream	9/13/2012	1420	BOD	ND(5)	mg/L	120915-1	9/15/2012	GL123
City of Wichita	101257	12020412	Cowskin and Maple - Upstream	2/3/2012	0745	Phosphorus, Total, as P	0.3	mg/L	120217-1	2/17/2012	GL218
City of Wichita	102690	12041002	Cowskin and Maple - Upstream	4/12/2012	1030	Phosphorus, Total, as P	ND(0.2)	mg/L	120426-1	4/26/2012	GL218
City of Wichita	106032	12090976	Cowskin and Maple - Upstream	9/13/2012	1420	Phosphorus, Total, as P	0.40	mg/L	120924-1	9/24/2012	GL218
City of Wichita	101257	12020412	Cowskin and Maple - Upstream	2/3/2012	0745	Solids, Total Dissolved	336	mg/L	120210-1	2/10/2012	GL242
City of Wichita	102690	12041002	Cowskin and Maple - Upstream	4/12/2012	1030	Solids, Total Dissolved	326	mg/L	120418-1	4/18/2012	GL242
City of Wichita	106032	12090976	Cowskin and Maple - Upstream	9/13/2012	1420	Solids, Total Dissolved	538	mg/L	120919-1	9/19/2012	GL242
City of Wichita	101257	12020412	Cowskin and Maple - Upstream	2/3/2012	0745	Solids, Total Suspended	50.	mg/L	120210-1	2/10/2012	GL243
City of Wichita	102690	12041002	Cowskin and Maple - Upstream	4/12/2012	1030	Solids, Total Suspended	431	mg/L	120419-1	4/19/2012	GL243
City of Wichita	106032	12090976	Cowskin and Maple - Upstream	9/13/2012	1420	Solids, Total Suspended	106	mg/L	120919-3	9/19/2012	GL243
City of Wichita	101257	12020412	Cowskin and Maple - Upstream	2/3/2012	0745	Nitrogen (TKN + NO3/NO2), as N	2.1	mg/L		2/10/2012	GL343
City of Wichita	102690	12041002	Cowskin and Maple - Upstream	4/12/2012	1030	Nitrogen (TKN + NO3/NO2), as N	2.8	mg/L		4/27/2012	GL343
City of Wichita	106032	12090976	Cowskin and Maple - Upstream	9/13/2012	1420	Nitrogen (TKN + NO3/NO2), as N	1.3	mg/L		9/26/2012	GL343
City of Wichita	102717	12041072	Cowskin and Maple - Upstream	4/12/2012	1030	E. Coli	866 HT	MPN/100 mL	120413-1	4/13/2012	GL347
City of Wichita	106025	12090935	Cowskin and Maple - Upstream	9/13/2012	1420	E. Coli	127	MPN/100 mL	120913-2	9/13/2012	GL347
City of Wichita	101257	12020412	Cowskin and Maple - Upstream	2/3/2012	0745	Chloride	69	mg/L	1IC2034	2/4/2012	GL502
City of Wichita	102690	12041002	Cowskin and Maple - Upstream	4/12/2012	1030	Chloride	52	mg/L	2IC2103	4/13/2012	GL502
City of Wichita	106032	12090976	Cowskin and Maple - Upstream	9/13/2012	1420	Chloride	103	mg/L	1IC2258	9/14/2012	GL502
City of Wichita	101257	12020412	Cowskin and Maple - Upstream	2/3/2012	0745	Nitrite, as N	ND(0.1)	mg/L	1IC2034	2/4/2012	GL503
City of Wichita	102690	12041002	Cowskin and Maple - Upstream	4/12/2012	1030	Nitrite, as N	ND(0.1)	mg/L	2IC2103	4/13/2012	GL503
City of Wichita	106032	12090976	Cowskin and Maple - Upstream	9/13/2012	1420	Nitrite, as N	ND(0.1)	mg/L	1IC2258	9/14/2012	GL503
City of Wichita	101257	12020412	Cowskin and Maple - Upstream	2/3/2012	0745	Nitrate, as N	1.0	mg/L	1IC2034	2/4/2012	GL505
City of Wichita	102690	12041002	Cowskin and Maple - Upstream	4/12/2012	1030	Nitrate, as N	0.7	mg/L	2IC2103	4/13/2012	GL505
City of Wichita	106032	12090976	Cowskin and Maple - Upstream	9/13/2012	1420	Nitrate, as N	ND(0.1)	mg/L	1IC2258	9/14/2012	GL505
City of Wichita	101257	12020412	Cowskin and Maple - Upstream	2/3/2012	0745	Kjeldahl Nitrogen, as N (TKN)	1.1	mg/L	120206-2	2/7/2012	GL595
City of Wichita	102690	12041002	Cowskin and Maple - Upstream	4/12/2012	1030	Kjeldahl Nitrogen, as N (TKN)	2.1	mg/L	120417-2	4/24/2012	GL595
City of Wichita	106032	12090976	Cowskin and Maple - Upstream	9/13/2012	1420	Kjeldahl Nitrogen, as N (TKN)	1.3	mg/L	120924-1	9/25/2012	GL595
City of Wichita	101257	12020412	Cowskin and Maple - Upstream	2/3/2012	0745	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120208-1	2/9/2012	SL006
City of Wichita	102690	12041002	Cowskin and Maple - Upstream	4/12/2012	1030	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-1	4/18/2012	SL006
City of Wichita	106032	12090976	Cowskin and Maple - Upstream	9/13/2012	1420	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120919-6	9/26/2012	SL006
City of Wichita	101257	12020412	Cowskin and Maple - Upstream	2/3/2012	0745	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120208-1	2/9/2012	SL012
City of Wichita	102690	12041002	Cowskin and Maple - Upstream	4/12/2012	1030	Copper, Tot. Rec., ICP-MS	13	ug/L	120417-1	4/18/2012	SL012
City of Wichita	106032	12090976	Cowskin and Maple - Upstream	9/13/2012	1420	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120919-6	9/26/2012	SL012
City of Wichita	101257	12020412	Cowskin and Maple - Upstream	2/3/2012	0745	Zinc, Tot. Rec., ICP-MS	41	ug/L	120208-1	2/9/2012	SL033
City of Wichita	102690	12041002	Cowskin and Maple - Upstream	4/12/2012	1030	Zinc, Tot. Rec., ICP-MS	75	ug/L	120417-1	4/18/2012	SL033
City of Wichita	106032	12090976	Cowskin and Maple - Upstream	9/13/2012	1420	Zinc, Tot. Rec., ICP-MS	ND(20)	ug/L	120919-6	9/26/2012	SL033
City of Wichita	101257	12020412	Cowskin and Maple - Upstream	2/3/2012	0745	Cadmium, Dissolved, ICP-MS	ND(1) DM QC	ug/L	120206-4	2/8/2012	SL156
City of Wichita	102690	12041002	Cowskin and Maple - Upstream	4/12/2012	1030	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120416-2	4/16/2012	SL156
City of Wichita	106032	12090976	Cowskin and Maple - Upstream	9/13/2012	1420	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120918-4	9/25/2012	SL156
City of Wichita	101257	12020412	Cowskin and Maple - Upstream	2/3/2012	0745	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120206-4	2/8/2012	SL162
City of Wichita	102690	12041002	Cowskin and Maple - Upstream	4/12/2012	1030	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120416-2	4/16/2012	SL162
City of Wichita	106032	12090976	Cowskin and Maple - Upstream	9/13/2012	1420	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120918-4	9/25/2012	SL162
City of Wichita	101257	12020412	Cowskin and Maple - Upstream	2/3/2012	0745	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120206-4	2/8/2012	SL183
City of Wichita	102690	12041002	Cowskin and Maple - Upstream	4/12/2012	1030	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120416-2	4/16/2012	SL183
City of Wichita	106032	12090976	Cowskin and Maple - Upstream	9/13/2012	1420	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120918-4	9/25/2012	SL183
City of Wichita	101257	12020412	Cowskin and Maple - Upstream	2/3/2012	0745	Hardness (Calculated)	120.	mg/L as CaCO3	120206-3	2/7/2012	SL323
City of Wichita	102690	12041002	Cowskin and Maple - Upstream	4/12/2012	1030	Hardness (Calculated)	173	mg/L as CaCO3	120413-5	4/14/2012	SL323
City of Wichita	106032	12090976	Cowskin and Maple - Upstream	9/13/2012	1420	Hardness (Calculated)	178	mg/L as CaCO3	120921-7	9/24/2012	SL323
City of Wichita	102717	12041085	Dry Creek	4/12/2012	1245	E. Coli	2600 HT	MPN/100 mL	120413-1	4/13/2012	GL347
City of Wichita	106025	12090936	Dry Creek	9/13/2012	1545	E. Coli	8800	MPN/100 mL	120913-2	9/13/2012	GL347
City of Wichita	102692	12041007	Dry Creek - Composite	4/12/2012	1245	BOD	ND(5)	mg/L	120413-1	4/13/2012	GL123
City of Wichita	106038	12090990	Dry Creek - Composite	9/13/2012	1545	BOD	8	mg/L	120915-1	9/15/2012	GL123
City of Wichita	102692	12041007	Dry Creek - Composite	4/12/2012	1245	Phosphorus, Total, as P	0.21	mg/L	120426-1	4/26/2012	GL218
City of Wichita	106038	12090990	Dry Creek - Composite	9/13/2012	1545	Phosphorus, Total, as P	0.24	mg/L	120924-1	9/24/2012	GL218
City of Wichita	102692	12041007	Dry Creek - Composite	4/12/2012	1245	Solids, Total Dissolved	320.	mg/L	120418-1	4/18/2012	GL242
City of Wichita	106038	12090990	Dry Creek - Composite	9/13/2012	1545	Solids, Total Dissolved	90.	mg/L	120920-1	9/20/2012	GL242
City of Wichita	102692	12041007	Dry Creek - Composite	4/12/2012	1245	Solids, Total Suspended	60.	mg/L	120419-1	4/19/2012	GL243
City of Wichita	106038	12090990	Dry Creek - Composite	9/13/2012	1545	Solids, Total Suspended	134	mg/L	120919-4	9/19/2012	GL243
City of Wichita	102692	12041007	Dry Creek - Composite	4/12/2012	1245	Nitrogen (TKN + NO3/NO2), as N	1.7	mg/L		4/27/2012	GL343
City of Wichita	106038	12090990	Dry Creek - Composite	9/13/2012	1545	Nitrogen (TKN + NO3/NO2), as N	1.6	mg/L		9/26/2012	GL343
City of Wichita	102692	12041007	Dry Creek - Composite	4/12/2012	1245	Chloride	47.7	mg/L	2IC2103	4/13/2012	GL502
City of Wichita	106038	12090990	Dry Creek - Composite	9/13/2012	1545	Chloride	3.0	mg/L	2IC2258	9/15/2012	GL502
City of Wichita	102692	12041007	Dry Creek - Composite	4/12/2012	1245	Nitrite, as N	ND(0.1)	mg/L	2IC2103	4/13/2012	GL503
City of Wichita	106038	12090990	Dry Creek - Composite	9/13/2012	1545	Nitrite, as N	ND(0.1)	mg/L	2IC2258	9/15/2012	GL503
City of Wichita	102692	12041007	Dry Creek - Composite	4/12/2012	1245	Nitrate, as N	0.3	mg/L	2IC2103	4/13/2012	GL505
City of Wichita	106038	12090990	Dry Creek - Composite	9/13/2012	1545	Nitrate, as N	0.3	mg/L	2IC2258	9/15/2012	GL505
City of Wichita	102692	12041007	Dry Creek - Composite	4/12/2012	1245	Kjeldahl Nitrogen, as N (TKN)	1.4	mg/L	120417-2	4/24/2012	GL595
City of Wichita	106038	12090990	Dry Creek - Composite	9/13/2012	1545	Kjeldahl Nitrogen, as N (TKN)	1.3	mg/L	120924-1	9/26/2012	GL595
City of Wichita	102692	12041007	Dry Creek - Composite	4/12/2012	1245	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-2	4/19/2012	SL006
City of Wichita	106038	12090990	Dry Creek - Composite	9/13/2012	1545	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120920-6	9/27/2012	SL006
City of Wichita	102692	12041007	Dry Creek - Composite	4/12/2012	1245	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120417-2	4/19/2012	SL012
City of Wichita	106038	12090990	Dry Creek - Composite	9/13/2012	1545	Copper, Tot. Rec., ICP-MS	6	ug/L	120920-6	9/27/2012	SL012
City of Wichita	102692	12041007	Dry Creek - Composite	4/12/2012	1245	Zinc, Tot. Rec., ICP-MS	31	ug/L	120417-2	4/19/2012	SL033
City of Wichita	106038	12090990	Dry Creek - Composite	9/13/2012	1545	Zinc, Tot. Rec., ICP-MS	46	ug/L	120920-6	9/27/2012	SL033
City of Wichita	102692	12041007	Dry Creek - Composite	4/12/2012	1245	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120416-2	4/16/2012	SL156
City of Wichita	106038	12090990	Dry Creek - Composite	9/13/2012	1545	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120920-5	9/26/2012	SL156
City of Wichita	102692	12041007	Dry Creek - Composite	4/12/2012	1245	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120416-2	4/16/2012	SL162
City of Wichita	106038	12090990	Dry Creek - Composite	9/13/2012	1545	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120920-5	9/26/2012	SL162
City of Wichita	102692	12041007	Dry Creek - Composite	4/12/2012	1245	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120416-2	4/16/2012	SL183
City of Wichita	106038	12090990	Dry Creek - Composite	9/13/2012	1545	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120920-5	9/26/2012	SL183
City of Wichita	102692	12041007	Dry Creek - Composite	4/12/2012	1245	Hardness (Calculated)	219	mg/L as CaCO3	120413-5	4/14/2012	SL323
City of Wichita	106038	12090990	Dry Creek - Composite	9/13/2012	1545	Hardness (Calculated)	51.2	mg/L as CaCO3	120914-5	9/14/2012	SL323
City of Wichita	102692	12041006	Dry Creek - Grab	4/12/2012	1245	Solids, Total Dissolved	316	mg/L	120418-1	4/18/2012	GL242

NAME	ORDERNO	LABNO	SAMPLE	DATESAM	TIMES	TESTNAME	RESULT	UNITS	BATCH	DATECOM	TESTCODE
City of Wichita	106038	12090989	Dry Creek - Grab	9/13/2012	1545	Solids, Total Dissolved	94	mg/L	120920-1	9/20/2012	GL242
City of Wichita	102692	12041006	Dry Creek - Grab	4/12/2012	1245	Solids, Total Suspended	80.	mg/L	120419-1	4/19/2012	GL243
City of Wichita	106038	12090989	Dry Creek - Grab	9/13/2012	1545	Solids, Total Suspended	101	mg/L	120919-4	9/19/2012	GL243
City of Wichita	102692	12041006	Dry Creek - Grab	4/12/2012	1245	Chloride	47	mg/L	1IC2122	5/1/2012	GL502
City of Wichita	106038	12090989	Dry Creek - Grab	9/13/2012	1545	Chloride	2.6	mg/L	2IC2258	9/15/2012	GL502
City of Wichita	102692	12041006	Dry Creek - Grab	4/12/2012	1245	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-2	4/19/2012	SL006
City of Wichita	106038	12090989	Dry Creek - Grab	9/13/2012	1545	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120920-6	9/27/2012	SL006
City of Wichita	102692	12041006	Dry Creek - Grab	4/12/2012	1245	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120417-2	4/19/2012	SL012
City of Wichita	106038	12090989	Dry Creek - Grab	9/13/2012	1545	Copper, Tot. Rec., ICP-MS	6	ug/L	120920-6	9/27/2012	SL012
City of Wichita	102692	12041006	Dry Creek - Grab	4/12/2012	1245	Zinc, Tot. Rec., ICP-MS	35	ug/L	120417-2	4/19/2012	SL033
City of Wichita	106038	12090989	Dry Creek - Grab	9/13/2012	1545	Zinc, Tot. Rec., ICP-MS	50.	ug/L	120920-6	9/27/2012	SL033
City of Wichita	102692	12041006	Dry Creek - Grab	4/12/2012	1245	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120419-4	4/23/2012	SL156
City of Wichita	106038	12090989	Dry Creek - Grab	9/13/2012	1545	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120920-5	9/26/2012	SL156
City of Wichita	102692	12041006	Dry Creek - Grab	4/12/2012	1245	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120419-4	4/23/2012	SL162
City of Wichita	106038	12090989	Dry Creek - Grab	9/13/2012	1545	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120920-5	9/26/2012	SL162
City of Wichita	102692	12041006	Dry Creek - Grab	4/12/2012	1245	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120419-4	4/23/2012	SL183
City of Wichita	106038	12090989	Dry Creek - Grab	9/13/2012	1545	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120920-5	9/26/2012	SL183
City of Wichita	102692	12041006	Dry Creek - Grab	4/12/2012	1245	Hardness (Calculated)	221	mg/L as CaCO3	120417-5	4/17/2012	SL323
City of Wichita	106038	12090989	Dry Creek - Grab	9/13/2012	1545	Hardness (Calculated)	53	mg/L as CaCO3	120917-3	9/17/2012	SL323
City of Wichita	101259	12020417	Grotto Gate	2/3/2012	0635	Solids, Total Suspended	107	mg/L	120210-1	2/10/2012	GL243
City of Wichita	101259	12020415	Grotto Pool	2/3/2012	0635	Solids, Total Suspended	39	mg/L	120210-1	2/10/2012	GL243
City of Wichita	102717	12041086	Gypsum Creek	4/12/2012	1255	E. Coli	3400 HT	MPN/100 mL	120413-1	4/13/2012	GL347
City of Wichita	106025	12090940	Gypsum Creek	9/13/2012	1555	E. Coli	19200	MPN/100 mL	120913-2	9/13/2012	GL347
City of Wichita	102693	12041009	Gypsum Creek - Composite	4/12/2012	1255	BOD	9	mg/L	120413-1	4/13/2012	GL123
City of Wichita	106035	12090984	Gypsum Creek - Composite	9/13/2012	1555	BOD	9	mg/L	120915-1	9/15/2012	GL123
City of Wichita	102693	12041009	Gypsum Creek - Composite	4/12/2012	1255	Phosphorus, Total, as P	ND(0.2)	mg/L	120426-1	4/26/2012	GL218
City of Wichita	106035	12090984	Gypsum Creek - Composite	9/13/2012	1555	Phosphorus, Total, as P	0.31	mg/L	120924-1	9/24/2012	GL218
City of Wichita	102693	12041009	Gypsum Creek - Composite	4/12/2012	1255	Solids, Total Dissolved	425	mg/L	120418-1	4/18/2012	GL242
City of Wichita	106035	12090984	Gypsum Creek - Composite	9/13/2012	1555	Solids, Total Dissolved	90.	mg/L	120920-1	9/20/2012	GL242
City of Wichita	102693	12041009	Gypsum Creek - Composite	4/12/2012	1255	Solids, Total Suspended	638	mg/L	120419-1	4/19/2012	GL243
City of Wichita	106035	12090984	Gypsum Creek - Composite	9/13/2012	1555	Solids, Total Suspended	98	mg/L	120919-4	9/19/2012	GL243
City of Wichita	102693	12041009	Gypsum Creek - Composite	4/12/2012	1255	Nitrogen (TKN + NO3/NO2), as N	2.7	mg/L		4/27/2012	GL343
City of Wichita	106035	12090984	Gypsum Creek - Composite	9/13/2012	1555	Nitrogen (TKN + NO3/NO2), as N	2.2	mg/L		9/26/2012	GL343
City of Wichita	102693	12041009	Gypsum Creek - Composite	4/12/2012	1255	Chloride	67	mg/L	2IC2103	4/13/2012	GL502
City of Wichita	106035	12090984	Gypsum Creek - Composite	9/13/2012	1555	Chloride	3.3	mg/L	2IC2258	9/14/2012	GL502
City of Wichita	102693	12041009	Gypsum Creek - Composite	4/12/2012	1255	Nitrite, as N	ND(0.1)	mg/L	2IC2103	4/13/2012	GL503
City of Wichita	106035	12090984	Gypsum Creek - Composite	9/13/2012	1555	Nitrite, as N	ND(0.1)	mg/L	2IC2258	9/14/2012	GL503
City of Wichita	102693	12041009	Gypsum Creek - Composite	4/12/2012	1255	Nitrate, as N	0.3	mg/L	2IC2103	4/13/2012	GL505
City of Wichita	106035	12090984	Gypsum Creek - Composite	9/13/2012	1555	Nitrate, as N	0.5	mg/L	2IC2258	9/14/2012	GL505
City of Wichita	102693	12041009	Gypsum Creek - Composite	4/12/2012	1255	Kjeldahl Nitrogen, as N (TKN)	2.4	mg/L	120417-2	4/24/2012	GL595
City of Wichita	106035	12090984	Gypsum Creek - Composite	9/13/2012	1555	Kjeldahl Nitrogen, as N (TKN)	1.7	mg/L	120924-1	9/25/2012	GL595
City of Wichita	102693	12041009	Gypsum Creek - Composite	4/12/2012	1255	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-2	4/19/2012	SL006
City of Wichita	106035	12090984	Gypsum Creek - Composite	9/13/2012	1555	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120919-5	9/26/2012	SL006
City of Wichita	102693	12041009	Gypsum Creek - Composite	4/12/2012	1255	Copper, Tot. Rec., ICP-MS	14	ug/L	120417-2	4/19/2012	SL012
City of Wichita	106035	12090984	Gypsum Creek - Composite	9/13/2012	1555	Copper, Tot. Rec., ICP-MS	8	ug/L	120919-5	9/26/2012	SL012
City of Wichita	102693	12041009	Gypsum Creek - Composite	4/12/2012	1255	Zinc, Tot. Rec., ICP-MS	118	ug/L	120417-2	4/19/2012	SL033
City of Wichita	106035	12090984	Gypsum Creek - Composite	9/13/2012	1555	Zinc, Tot. Rec., ICP-MS	56	ug/L	120919-5	9/26/2012	SL033
City of Wichita	102693	12041009	Gypsum Creek - Composite	4/12/2012	1255	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120416-2	4/16/2012	SL156
City of Wichita	106035	12090984	Gypsum Creek - Composite	9/13/2012	1555	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120920-5	9/26/2012	SL156
City of Wichita	102693	12041009	Gypsum Creek - Composite	4/12/2012	1255	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120416-2	4/16/2012	SL162
City of Wichita	106035	12090984	Gypsum Creek - Composite	9/13/2012	1555	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120920-5	9/26/2012	SL162
City of Wichita	102693	12041009	Gypsum Creek - Composite	4/12/2012	1255	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120416-2	4/16/2012	SL183
City of Wichita	106035	12090984	Gypsum Creek - Composite	9/13/2012	1555	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120920-5	9/26/2012	SL183
City of Wichita	102693	12041009	Gypsum Creek - Composite	4/12/2012	1255	Hardness (Calculated)	318	mg/L as CaCO3	120413-5	4/14/2012	SL323
City of Wichita	106035	12090984	Gypsum Creek - Composite	9/13/2012	1555	Hardness (Calculated)	56.2	mg/L as CaCO3	120914-5	9/14/2012	SL323
City of Wichita	102693	12041008	Gypsum Creek - Grab	4/12/2012	1255	Solids, Total Dissolved	434	mg/L	120418-1	4/18/2012	GL242
City of Wichita	106035	12090983	Gypsum Creek - Grab	9/13/2012	1555	Solids, Total Dissolved	94	mg/L	120920-1	9/20/2012	GL242
City of Wichita	102693	12041008	Gypsum Creek - Grab	4/12/2012	1255	Solids, Total Suspended	1410	mg/L	120419-1	4/19/2012	GL243
City of Wichita	106035	12090983	Gypsum Creek - Grab	9/13/2012	1555	Solids, Total Suspended	99	mg/L	120919-4	9/19/2012	GL243
City of Wichita	102693	12041008	Gypsum Creek - Grab	4/12/2012	1255	Chloride	65	mg/L	1IC2122	5/1/2012	GL502
City of Wichita	106035	12090983	Gypsum Creek - Grab	9/13/2012	1555	Chloride	3.1	mg/L	2IC2258	9/15/2012	GL502
City of Wichita	102693	12041008	Gypsum Creek - Grab	4/12/2012	1255	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-1	4/18/2012	SL006
City of Wichita	106035	12090983	Gypsum Creek - Grab	9/13/2012	1555	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120919-6	9/26/2012	SL006
City of Wichita	102693	12041008	Gypsum Creek - Grab	4/12/2012	1255	Copper, Tot. Rec., ICP-MS	15	ug/L	120417-1	4/18/2012	SL012
City of Wichita	106035	12090983	Gypsum Creek - Grab	9/13/2012	1555	Copper, Tot. Rec., ICP-MS	8	ug/L	120919-6	9/26/2012	SL012
City of Wichita	102693	12041008	Gypsum Creek - Grab	4/12/2012	1255	Zinc, Tot. Rec., ICP-MS	155	ug/L	120417-1	4/18/2012	SL033
City of Wichita	106035	12090983	Gypsum Creek - Grab	9/13/2012	1555	Zinc, Tot. Rec., ICP-MS	61	ug/L	120919-6	9/26/2012	SL033
City of Wichita	102693	12041008	Gypsum Creek - Grab	4/12/2012	1255	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120419-4	4/23/2012	SL156
City of Wichita	106035	12090983	Gypsum Creek - Grab	9/13/2012	1555	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120920-5	9/26/2012	SL156
City of Wichita	102693	12041008	Gypsum Creek - Grab	4/12/2012	1255	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120419-4	4/23/2012	SL162
City of Wichita	106035	12090983	Gypsum Creek - Grab	9/13/2012	1555	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120920-5	9/26/2012	SL162
City of Wichita	102693	12041008	Gypsum Creek - Grab	4/12/2012	1255	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120419-4	4/23/2012	SL183
City of Wichita	106035	12090983	Gypsum Creek - Grab	9/13/2012	1555	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120920-5	9/26/2012	SL183
City of Wichita	102693	12041008	Gypsum Creek - Grab	4/12/2012	1255	Hardness (Calculated)	352	mg/L as CaCO3	120417-5	4/17/2012	SL323
City of Wichita	106035	12090983	Gypsum Creek - Grab	9/13/2012	1555	Hardness (Calculated)	59.5	mg/L as CaCO3	120917-3	9/17/2012	SL323
City of Wichita	102717	12041069	Harvest Ct.	4/12/2012	1015	E. Coli	4400 HT	MPN/100 mL	120413-1	4/13/2012	GL347
City of Wichita	106025	12090928	Harvest Ct.	9/13/2012	1445	E. Coli	816	MPN/100 mL	120913-1	9/13/2012	GL347
City of Wichita	101256	12020408	Harvest Ct. - Composite	2/3/2012	0730	BOD	ND(5)	mg/L	120203-1	2/3/2012	GL123
City of Wichita	102698	12041023	Harvest Ct. - Composite	4/12/2012	1015	BOD	61	mg/L	120413-2	4/13/2012	GL123
City of Wichita	106031	12090972	Harvest Ct. - Composite	9/13/2012	1445	BOD	7	mg/L	120915-1	9/15/2012	GL123
City of Wichita	101256	12020408	Harvest Ct. - Composite	2/3/2012	0730	Phosphorus, Total, as P	0.33	mg/L	120217-1	2/17/2012	GL218
City of Wichita	102698	12041023	Harvest Ct. - Composite	4/12/2012	1015	Phosphorus, Total, as P	1.4	mg/L	120426-1	4/26/2012	GL218
City of Wichita	106031	12090972	Harvest Ct. - Composite	9/13/2012	1445	Phosphorus, Total, as P	0.24	mg/L	120924-1	9/24/2012	GL218
City of Wichita	101256	12020408	Harvest Ct. - Composite	2/3/2012	0730	Solids, Total Dissolved	58	mg/L	120210-1	2/10/2012	GL242
City of Wichita	102698	12041023	Harvest Ct. - Composite	4/12/2012	1015	Solids, Total Dissolved	94	mg/L	120419-1	4/19/2012	GL242
City of Wichita	106031	12090972	Harvest Ct. - Composite	9/13/2012	1445	Solids, Total Dissolved	52	mg/L	120919-1	9/19/2012	GL242
City of Wichita	101256	12020408	Harvest Ct. - Composite	2/3/2012	0730	Solids, Total Suspended	31	mg/L	120210-1	2/10/2012	GL243
City of Wichita	102698	12041023	Harvest Ct. - Composite	4/12/2012	1015	Solids, Total Suspended	145	mg/L	120419-2	4/19/2012	GL243
City of Wichita	106031	12090972	Harvest Ct. - Composite	9/13/2012	1445	Solids, Total Suspended	17	mg/L	120919-3	9/19/2012	GL243
City of Wichita	101256	12020408	Harvest Ct. - Composite	2/3/2012	0730	Nitrogen (TKN + NO3/NO2), as N	1.5	mg/L		2/10/2012	GL343
City of Wichita	102698	12041023	Harvest Ct. - Composite	4/12/2012	1015	Nitrogen (TKN + NO3/NO2), as N	9.6	mg/L		4/27/2012	GL343
City of Wichita	106031	12090972	Harvest Ct. - Composite	9/13/2012	1445	Nitrogen (TKN + NO3/NO2), as N	1.7	mg/L		9/26/2012	GL343
City of Wichita	101256	12020408	Harvest Ct. - Composite	2/3/2012	0730	Chloride	2.7	mg/L	1IC2034	2/3/2012	GL502

NAME	ORDERNO	LABNO	SAMPLE	DATESAM	TIMES	TESTNAME	RESULT	UNITS	BATCH	DATECOM	TESTCODE
City of Wichita	102698	12041023	Harvest Ct. - Composite	4/12/2012	1015	Chloride	6.6	mg/L	2IC2103	4/13/2012	GL502
City of Wichita	106031	12090972	Harvest Ct. - Composite	9/13/2012	1445	Chloride	3.5	mg/L	1IC2258	9/14/2012	GL502
City of Wichita	101256	12020408	Harvest Ct. - Composite	2/3/2012	0730	Nitrite, as N	ND(0.1)	mg/L	1IC2034	2/3/2012	GL503
City of Wichita	102698	12041023	Harvest Ct. - Composite	4/12/2012	1015	Nitrite, as N	ND(0.1)	mg/L	2IC2103	4/13/2012	GL503
City of Wichita	106031	12090972	Harvest Ct. - Composite	9/13/2012	1445	Nitrite, as N	ND(0.1)	mg/L	1IC2258	9/14/2012	GL503
City of Wichita	101256	12020408	Harvest Ct. - Composite	2/3/2012	0730	Nitrate, as N	0.4	mg/L	1IC2034	2/3/2012	GL505
City of Wichita	102698	12041023	Harvest Ct. - Composite	4/12/2012	1015	Nitrate, as N	1.1	mg/L	2IC2103	4/13/2012	GL505
City of Wichita	106031	12090972	Harvest Ct. - Composite	9/13/2012	1445	Nitrate, as N	0.4	mg/L	1IC2258	9/14/2012	GL505
City of Wichita	101256	12020408	Harvest Ct. - Composite	2/3/2012	0730	Kjeldahl Nitrogen, as N (TKN)	1.1	mg/L	120206-2	2/7/2012	GL595
City of Wichita	102698	12041023	Harvest Ct. - Composite	4/12/2012	1015	Kjeldahl Nitrogen, as N (TKN)	8.5	mg/L	120417-2	4/24/2012	GL595
City of Wichita	106031	12090972	Harvest Ct. - Composite	9/13/2012	1445	Kjeldahl Nitrogen, as N (TKN)	1.3	mg/L	120924-1	9/25/2012	GL595
City of Wichita	101256	12020408	Harvest Ct. - Composite	2/3/2012	0730	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120208-1	2/9/2012	SL006
City of Wichita	102698	12041023	Harvest Ct. - Composite	4/12/2012	1015	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-2	4/19/2012	SL006
City of Wichita	106031	12090972	Harvest Ct. - Composite	9/13/2012	1445	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120920-6	9/27/2012	SL006
City of Wichita	101256	12020408	Harvest Ct. - Composite	2/3/2012	0730	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120208-1	2/9/2012	SL012
City of Wichita	102698	12041023	Harvest Ct. - Composite	4/12/2012	1015	Copper, Tot. Rec., ICP-MS	16	ug/L	120417-2	4/19/2012	SL012
City of Wichita	106031	12090972	Harvest Ct. - Composite	9/13/2012	1445	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120920-6	9/27/2012	SL012
City of Wichita	101256	12020408	Harvest Ct. - Composite	2/3/2012	0730	Zinc, Tot. Rec., ICP-MS	ND(20)	ug/L	120208-1	2/9/2012	SL033
City of Wichita	102698	12041023	Harvest Ct. - Composite	4/12/2012	1015	Zinc, Tot. Rec., ICP-MS	87	ug/L	120417-2	4/19/2012	SL033
City of Wichita	106031	12090972	Harvest Ct. - Composite	9/13/2012	1445	Zinc, Tot. Rec., ICP-MS	ND(20)	ug/L	120920-6	9/27/2012	SL033
City of Wichita	101256	12020408	Harvest Ct. - Composite	2/3/2012	0730	Cadmium, Dissolved, ICP-MS	ND(1) DM QC	ug/L	120206-4	2/8/2012	SL156
City of Wichita	102698	12041023	Harvest Ct. - Composite	4/12/2012	1015	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120416-2	4/17/2012	SL156
City of Wichita	106031	12090972	Harvest Ct. - Composite	9/13/2012	1445	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120920-5	9/26/2012	SL156
City of Wichita	101256	12020408	Harvest Ct. - Composite	2/3/2012	0730	Copper, Dissolved, ICP-MS	6 DM	ug/L	120206-4	2/8/2012	SL162
City of Wichita	102698	12041023	Harvest Ct. - Composite	4/12/2012	1015	Copper, Dissolved, ICP-MS	11 DM	ug/L	120416-2	4/17/2012	SL162
City of Wichita	106031	12090972	Harvest Ct. - Composite	9/13/2012	1445	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120920-5	9/26/2012	SL162
City of Wichita	101256	12020408	Harvest Ct. - Composite	2/3/2012	0730	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120206-4	2/8/2012	SL183
City of Wichita	102698	12041023	Harvest Ct. - Composite	4/12/2012	1015	Zinc, Dissolved, ICP-MS	42 DM	ug/L	120416-2	4/17/2012	SL183
City of Wichita	106031	12090972	Harvest Ct. - Composite	9/13/2012	1445	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120920-5	9/26/2012	SL183
City of Wichita	101256	12020408	Harvest Ct. - Composite	2/3/2012	0730	Hardness (Calculated)	23.8	mg/L as CaCO3	120206-3	2/7/2012	SL323
City of Wichita	102698	12041023	Harvest Ct. - Composite	4/12/2012	1015	Hardness (Calculated)	42.4	mg/L as CaCO3	120413-5	4/14/2012	SL323
City of Wichita	106031	12090972	Harvest Ct. - Composite	9/13/2012	1445	Hardness (Calculated)	30.3	mg/L as CaCO3	120914-5	9/14/2012	SL323
City of Wichita	101256	12020407	Harvest Ct. - Grab	2/3/2012	0730	Solids, Total Dissolved	70.	mg/L	120208-1	2/8/2012	GL242
City of Wichita	102698	12041022	Harvest Ct. - Grab	4/12/2012	1015	Solids, Total Dissolved	46	mg/L	120419-1	4/19/2012	GL242
City of Wichita	106031	12090971	Harvest Ct. - Grab	9/13/2012	1445	Solids, Total Dissolved	44	mg/L	120919-1	9/19/2012	GL242
City of Wichita	101256	12020407	Harvest Ct. - Grab	2/3/2012	0730	Solids, Total Suspended	28	mg/L	120210-1	2/10/2012	GL243
City of Wichita	102698	12041022	Harvest Ct. - Grab	4/12/2012	1015	Solids, Total Suspended	166	mg/L	120419-2	4/19/2012	GL243
City of Wichita	106031	12090971	Harvest Ct. - Grab	9/13/2012	1445	Solids, Total Suspended	24	mg/L	120919-3	9/19/2012	GL243
City of Wichita	101256	12020407	Harvest Ct. - Grab	2/3/2012	0730	Chlorice	2.8	mg/L	1IC2039	2/8/2012	GL502
City of Wichita	102698	12041022	Harvest Ct. - Grab	4/12/2012	1015	Chlorice	4.5	mg/L	1IC2122	5/1/2012	GL502
City of Wichita	106031	12090971	Harvest Ct. - Grab	9/13/2012	1445	Chlorice	3.1	mg/L	2IC2258	9/15/2012	GL502
City of Wichita	101256	12020407	Harvest Ct. - Grab	2/3/2012	0730	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120208-1	2/9/2012	SL006
City of Wichita	102698	12041022	Harvest Ct. - Grab	4/12/2012	1015	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-1	4/18/2012	SL006
City of Wichita	106031	12090971	Harvest Ct. - Grab	9/13/2012	1445	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120920-6	9/27/2012	SL006
City of Wichita	101256	12020407	Harvest Ct. - Grab	2/3/2012	0730	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120208-1	2/9/2012	SL012
City of Wichita	102698	12041022	Harvest Ct. - Grab	4/12/2012	1015	Copper, Tot. Rec., ICP-MS	15	ug/L	120417-1	4/18/2012	SL012
City of Wichita	106031	12090971	Harvest Ct. - Grab	9/13/2012	1445	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120920-6	9/27/2012	SL012
City of Wichita	101256	12020407	Harvest Ct. - Grab	2/3/2012	0730	Zinc, Tot. Rec., ICP-MS	ND(20)	ug/L	120208-1	2/9/2012	SL033
City of Wichita	102698	12041022	Harvest Ct. - Grab	4/12/2012	1015	Zinc, Tot. Rec., ICP-MS	84	ug/L	120417-1	4/18/2012	SL033
City of Wichita	106031	12090971	Harvest Ct. - Grab	9/13/2012	1445	Zinc, Tot. Rec., ICP-MS	ND(20)	ug/L	120920-6	9/27/2012	SL033
City of Wichita	101256	12020407	Harvest Ct. - Grab	2/3/2012	0730	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120210-2	2/15/2012	SL156
City of Wichita	102698	12041022	Harvest Ct. - Grab	4/12/2012	1015	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120419-4	4/23/2012	SL156
City of Wichita	106031	12090971	Harvest Ct. - Grab	9/13/2012	1445	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120920-5	9/26/2012	SL156
City of Wichita	101256	12020407	Harvest Ct. - Grab	2/3/2012	0730	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120210-2	2/15/2012	SL162
City of Wichita	102698	12041022	Harvest Ct. - Grab	4/12/2012	1015	Copper, Dissolved, ICP-MS	11 DM	ug/L	120419-4	4/23/2012	SL162
City of Wichita	106031	12090971	Harvest Ct. - Grab	9/13/2012	1445	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120920-5	9/26/2012	SL162
City of Wichita	101256	12020407	Harvest Ct. - Grab	2/3/2012	0730	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120210-2	2/15/2012	SL183
City of Wichita	102698	12041022	Harvest Ct. - Grab	4/12/2012	1015	Zinc, Dissolved, ICP-MS	30 DM	ug/L	120419-4	4/25/2012	SL183
City of Wichita	106031	12090971	Harvest Ct. - Grab	9/13/2012	1445	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120920-5	9/26/2012	SL183
City of Wichita	101256	12020407	Harvest Ct. - Grab	2/3/2012	0730	Hardness (Calculated)	22.5	mg/L as CaCO3	120207-4	2/7/2012	SL323
City of Wichita	102698	12041022	Harvest Ct. - Grab	4/12/2012	1015	Hardness (Calculated)	45.2	mg/L as CaCO3	120417-5	4/17/2012	SL323
City of Wichita	106031	12090971	Harvest Ct. - Grab	9/13/2012	1445	Hardness (Calculated)	30.2	mg/L as CaCO3	120917-3	9/17/2012	SL323
City of Wichita	101256	12020409	Harvest Ct. - Upstream	2/3/2012	0730	BOD	6	mg/L	120203-1	2/3/2012	GL123
City of Wichita	102698	12041024	Harvest Ct. - Upstream	4/12/2012	1015	BOD	ND(5)	mg/L	120413-2	4/13/2012	GL123
City of Wichita	106031	12090973	Harvest Ct. - Upstream	9/13/2012	1450	BOD	8	mg/L	120915-1	9/15/2012	GL123
City of Wichita	101256	12020409	Harvest Ct. - Upstream	2/3/2012	0730	Phosphorus, Total, as P	0.25	mg/L	120217-1	2/17/2012	GL218
City of Wichita	102698	12041024	Harvest Ct. - Upstream	4/12/2012	1015	Phosphorus, Total, as P	0.25	mg/L	120426-1	4/26/2012	GL218
City of Wichita	106031	12090973	Harvest Ct. - Upstream	9/13/2012	1450	Phosphorus, Total, as P	0.25	mg/L	120924-1	9/24/2012	GL218
City of Wichita	101256	12020409	Harvest Ct. - Upstream	2/3/2012	0730	Solids, Total Dissolved	126	mg/L	120210-1	2/10/2012	GL242
City of Wichita	102698	12041024	Harvest Ct. - Upstream	4/12/2012	1015	Solids, Total Dissolved	106	mg/L	120419-1	4/19/2012	GL242
City of Wichita	106031	12090973	Harvest Ct. - Upstream	9/13/2012	1450	Solids, Total Dissolved	70.	mg/L	120919-1	9/19/2012	GL242
City of Wichita	101256	12020409	Harvest Ct. - Upstream	2/3/2012	0730	Solids, Total Suspended	58	mg/L	120210-1	2/10/2012	GL243
City of Wichita	102698	12041024	Harvest Ct. - Upstream	4/12/2012	1015	Solids, Total Suspended	12	mg/L	120419-2	4/19/2012	GL243
City of Wichita	106031	12090973	Harvest Ct. - Upstream	9/13/2012	1450	Solids, Total Suspended	18	mg/L	120919-3	9/19/2012	GL243
City of Wichita	101256	12020409	Harvest Ct. - Upstream	2/3/2012	0730	Nitrogen (TKN + NO3/NO2), as N	2.3	mg/L		2/10/2012	GL343
City of Wichita	102698	12041024	Harvest Ct. - Upstream	4/12/2012	1015	Nitrogen (TKN + NO3/NO2), as N	1.7	mg/L		4/27/2012	GL343
City of Wichita	106031	12090973	Harvest Ct. - Upstream	9/13/2012	1450	Nitrogen (TKN + NO3/NO2), as N	1.9	mg/L		9/26/2012	GL343
City of Wichita	102717	12041070	Harvest Ct. - Upstream	4/12/2012	1015	E. Coli	105 HT	MPN/100 mL	120413-1	4/13/2012	GL347
City of Wichita	106025	12090929	Harvest Ct. - Upstream	9/13/2012	1450	E. Coli	1730 QC	MPN/100 mL	120913-2	9/13/2012	GL347
City of Wichita	101256	12020409	Harvest Ct. - Upstream	2/3/2012	0730	Chloride	9.8	mg/L	1IC2034	2/4/2012	GL502
City of Wichita	102698	12041024	Harvest Ct. - Upstream	4/12/2012	1015	Chloride	11.3	mg/L	2IC2103	4/13/2012	GL502
City of Wichita	106031	12090973	Harvest Ct. - Upstream	9/13/2012	1450	Chloride	5.5	mg/L	1IC2258	9/14/2012	GL502
City of Wichita	101256	12020409	Harvest Ct. - Upstream	2/3/2012	0730	Nitrite, as N	ND(0.1)	mg/L	1IC2034	2/4/2012	GL503
City of Wichita	102698	12041024	Harvest Ct. - Upstream	4/12/2012	1015	Nitrite, as N	ND(0.1)	mg/L	2IC2103	4/13/2012	GL503
City of Wichita	106031	12090973	Harvest Ct. - Upstream	9/13/2012	1450	Nitrite, as N	ND(0.1)	mg/L	1IC2258	9/14/2012	GL503
City of Wichita	101256	12020409	Harvest Ct. - Upstream	2/3/2012	0730	Nitrate, as N	ND(0.1)	mg/L	1IC2034	2/4/2012	GL505
City of Wichita	102698	12041024	Harvest Ct. - Upstream	4/12/2012	1015	Nitrate, as N	0.3	mg/L	2IC2103	4/13/2012	GL505
City of Wichita	106031	12090973	Harvest Ct. - Upstream	9/13/2012	1450	Nitrate, as N	0.3	mg/L	1IC2258	9/14/2012	GL505
City of Wichita	101256	12020409	Harvest Ct. - Upstream	2/3/2012	0730	Kjeldahl Nitrogen, as N (TKN)	2.3	mg/L	120206-2	2/7/2012	GL595
City of Wichita	102698	12041024	Harvest Ct. - Upstream	4/12/2012	1015	Kjeldahl Nitrogen, as N (TKN)	1.4	mg/L	120417-2	4/24/2012	GL595
City of Wichita	106031	12090973	Harvest Ct. - Upstream	9/13/2012	1450	Kjeldahl Nitrogen, as N (TKN)	1.6	mg/L	120924-1	9/25/2012	GL595
City of Wichita	101256	12020409	Harvest Ct. - Upstream	2/3/2012	0730	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120208-1	2/9/2012	SL006
City of Wichita	102698	12041024	Harvest Ct. - Upstream	4/12/2012	1015	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-1	4/18/2012	SL006

NAME	ORDERNO	LABNO	SAMPLE	DATESAM	TIMES	TESTNAME	RESULT	UNITS	BATCH	DATECOM	TESTCODE
City of Wichita	106031	12090973	Harvest Ct. - Upstream	9/13/2012	1450	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120919-5	9/26/2012	SL006
City of Wichita	101256	12020409	Harvest Ct. - Upstream	2/3/2012	0730	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120208-1	2/9/2012	SL012
City of Wichita	102698	12041024	Harvest Ct. - Upstream	4/12/2012	1015	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120417-1	4/18/2012	SL012
City of Wichita	106031	12090973	Harvest Ct. - Upstream	9/13/2012	1450	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120919-5	9/26/2012	SL012
City of Wichita	101256	12020409	Harvest Ct. - Upstream	2/3/2012	0730	Zinc, Tot. Rec., ICP-MS	ND(20)	ug/L	120208-1	2/9/2012	SL033
City of Wichita	102698	12041024	Harvest Ct. - Upstream	4/12/2012	1015	Zinc, Tot. Rec., ICP-MS	ND(20)	ug/L	120417-1	4/18/2012	SL033
City of Wichita	106031	12090973	Harvest Ct. - Upstream	9/13/2012	1450	Zinc, Tot. Rec., ICP-MS	21	ug/L	120919-5	9/26/2012	SL033
City of Wichita	101256	12020409	Harvest Ct. - Upstream	2/3/2012	0730	Cadmium, Dissolved, ICP-MS	ND(1) DM QC	ug/L	120206-4	2/8/2012	SL156
City of Wichita	102698	12041024	Harvest Ct. - Upstream	4/12/2012	1015	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120416-2	4/17/2012	SL156
City of Wichita	106031	12090973	Harvest Ct. - Upstream	9/13/2012	1450	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120918-4	9/25/2012	SL156
City of Wichita	101256	12020409	Harvest Ct. - Upstream	2/3/2012	0730	Copper, Dissolved, ICP-MS	6 DM	ug/L	120206-4	2/8/2012	SL162
City of Wichita	102698	12041024	Harvest Ct. - Upstream	4/12/2012	1015	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120416-2	4/17/2012	SL162
City of Wichita	106031	12090973	Harvest Ct. - Upstream	9/13/2012	1450	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120918-4	9/25/2012	SL162
City of Wichita	101256	12020409	Harvest Ct. - Upstream	2/3/2012	0730	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120206-4	2/8/2012	SL183
City of Wichita	102698	12041024	Harvest Ct. - Upstream	4/12/2012	1015	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120416-2	4/17/2012	SL183
City of Wichita	106031	12090973	Harvest Ct. - Upstream	9/13/2012	1450	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120918-4	9/25/2012	SL183
City of Wichita	101256	12020409	Harvest Ct. - Upstream	2/3/2012	0730	Hardness (Calculated)	63.4	mg/L as CaCO3	120206-3	2/7/2012	SL323
City of Wichita	102698	12041024	Harvest Ct. - Upstream	4/12/2012	1015	Hardness (Calculated)	86.7	mg/L as CaCO3	120417-5	4/17/2012	SL323
City of Wichita	106031	12090973	Harvest Ct. - Upstream	9/13/2012	1450	Hardness (Calculated)	36.0	mg/L as CaCO3	120921-7	9/24/2012	SL323
City of Wichita	102717	12041081	Huntington	4/12/2012	1205	E. Coli	13100 HT	MPN/100 mL	120413-1	4/13/2012	GL347
City of Wichita	106025	12090922	Huntington	9/13/2012	1615	E. Coli	980.	MPN/100 mL	120913-1	9/13/2012	GL347
City of Wichita	101251	12020393	Huntington - Composite	2/3/2012	0515	BOD	5	mg/L	120203-1	2/3/2012	GL123
City of Wichita	102699	12041026	Huntington - Composite	4/12/2012	1205	BOD	7	mg/L	120413-2	4/13/2012	GL123
City of Wichita	106028	12090963	Huntington - Composite	9/13/2012	1615	BOD	10.	mg/L	120914-2	9/14/2012	GL123
City of Wichita	101251	12020393	Huntington - Composite	2/3/2012	0515	Phosphorus, Total, as P	0.22	mg/L	120211-1	2/11/2012	GL218
City of Wichita	102699	12041026	Huntington - Composite	4/12/2012	1205	Phosphorus, Total, as P	0.26	mg/L	120426-1	4/25/2012	GL218
City of Wichita	106028	12090963	Huntington - Composite	9/13/2012	1615	Phosphorus, Total, as P	0.26	mg/L	120920-2	9/20/2012	GL218
City of Wichita	101251	12020393	Huntington - Composite	2/3/2012	0515	Solids, Total Dissolved	50.	mg/L	120208-1	2/8/2012	GL242
City of Wichita	102699	12041026	Huntington - Composite	4/12/2012	1205	Solids, Total Dissolved	ND(30)	mg/L	120419-1	4/19/2012	GL242
City of Wichita	106028	12090963	Huntington - Composite	9/13/2012	1615	Solids, Total Dissolved	54	mg/L	120919-1	9/19/2012	GL242
City of Wichita	101251	12020393	Huntington - Composite	2/3/2012	0515	Solids, Total Suspended	20.	mg/L	120209-1	2/9/2012	GL243
City of Wichita	102699	12041026	Huntington - Composite	4/12/2012	1205	Solids, Total Suspended	29	mg/L	120419-2	4/19/2012	GL243
City of Wichita	106028	12090963	Huntington - Composite	9/13/2012	1615	Solids, Total Suspended	36	mg/L	120919-3	9/19/2012	GL243
City of Wichita	101251	12020393	Huntington - Composite	2/3/2012	0515	Nitrogen (TKN + NO3/NO2), as N	2.0	mg/L		2/10/2012	GL343
City of Wichita	102699	12041026	Huntington - Composite	4/12/2012	1205	Nitrogen (TKN + NO3/NO2), as N	2.5	mg/L		5/7/2012	GL343
City of Wichita	106028	12090963	Huntington - Composite	9/13/2012	1615	Nitrogen (TKN + NO3/NO2), as N	2.2	mg/L		9/26/2012	GL343
City of Wichita	101251	12020393	Huntington - Composite	2/3/2012	0515	Chloride	5.2	mg/L	1IC2034	2/3/2012	GL502
City of Wichita	102699	12041026	Huntington - Composite	4/12/2012	1205	Chloride	1.9	mg/L	2IC2103	4/13/2012	GL502
City of Wichita	106028	12090963	Huntington - Composite	9/13/2012	1615	Chloride	3.9	mg/L	1IC2258	9/14/2012	GL502
City of Wichita	101251	12020393	Huntington - Composite	2/3/2012	0515	Nitrite, as N	ND(0.1)	mg/L	1IC2034	2/3/2012	GL503
City of Wichita	102699	12041026	Huntington - Composite	4/12/2012	1205	Nitrite, as N	ND(0.1)	mg/L	2IC2103	4/13/2012	GL503
City of Wichita	106028	12090963	Huntington - Composite	9/13/2012	1615	Nitrite, as N	ND(0.1)	mg/L	1IC2258	9/14/2012	GL503
City of Wichita	101251	12020393	Huntington - Composite	2/3/2012	0515	Nitrate, as N	0.8	mg/L	1IC2034	2/3/2012	GL505
City of Wichita	102699	12041026	Huntington - Composite	4/12/2012	1205	Nitrate, as N	0.4	mg/L	2IC2103	4/13/2012	GL505
City of Wichita	106028	12090963	Huntington - Composite	9/13/2012	1615	Nitrate, as N	0.5	mg/L	1IC2258	9/14/2012	GL505
City of Wichita	101251	12020393	Huntington - Composite	2/3/2012	0515	Kjeldahl Nitrogen, as N (TKN)	1.2	mg/L	120206-2	2/7/2012	GL595
City of Wichita	102699	12041026	Huntington - Composite	4/12/2012	1205	Kjeldahl Nitrogen, as N (TKN)	2.1	mg/L	120423-2	5/2/2012	GL595
City of Wichita	106028	12090963	Huntington - Composite	9/13/2012	1615	Kjeldahl Nitrogen, as N (TKN)	1.7	mg/L	120924-1	9/25/2012	GL595
City of Wichita	101251	12020393	Huntington - Composite	2/3/2012	0515	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120208-2	2/9/2012	SL006
City of Wichita	102699	12041026	Huntington - Composite	4/12/2012	1205	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-1	4/18/2012	SL006
City of Wichita	106028	12090963	Huntington - Composite	9/13/2012	1615	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120919-5	9/26/2012	SL006
City of Wichita	101251	12020393	Huntington - Composite	2/3/2012	0515	Copper, Tot. Rec., ICP-MS	8	ug/L	120208-2	2/9/2012	SL012
City of Wichita	102699	12041026	Huntington - Composite	4/12/2012	1205	Copper, Tot. Rec., ICP-MS	6	ug/L	120417-1	4/18/2012	SL012
City of Wichita	106028	12090963	Huntington - Composite	9/13/2012	1615	Copper, Tot. Rec., ICP-MS	10.	ug/L	120919-5	9/26/2012	SL012
City of Wichita	101251	12020393	Huntington - Composite	2/3/2012	0515	Zinc, Tot. Rec., ICP-MS	24	ug/L	120208-2	2/9/2012	SL033
City of Wichita	102699	12041026	Huntington - Composite	4/12/2012	1205	Zinc, Tot. Rec., ICP-MS	25	ug/L	120417-1	4/18/2012	SL033
City of Wichita	106028	12090963	Huntington - Composite	9/13/2012	1615	Zinc, Tot. Rec., ICP-MS	25	ug/L	120919-5	9/26/2012	SL033
City of Wichita	101251	12020393	Huntington - Composite	2/3/2012	0515	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120206-4	2/8/2012	SL156
City of Wichita	102699	12041026	Huntington - Composite	4/12/2012	1205	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120416-2	4/17/2012	SL156
City of Wichita	106028	12090963	Huntington - Composite	9/13/2012	1615	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120918-4	9/25/2012	SL156
City of Wichita	101251	12020393	Huntington - Composite	2/3/2012	0515	Copper, Dissolved, ICP-MS	8 DM	ug/L	120206-4	2/8/2012	SL162
City of Wichita	102699	12041026	Huntington - Composite	4/12/2012	1205	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120416-2	4/17/2012	SL162
City of Wichita	106028	12090963	Huntington - Composite	9/13/2012	1615	Copper, Dissolved, ICP-MS	6 DM	ug/L	120918-4	9/25/2012	SL162
City of Wichita	101251	12020393	Huntington - Composite	2/3/2012	0515	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120206-4	2/8/2012	SL183
City of Wichita	102699	12041026	Huntington - Composite	4/12/2012	1205	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120416-2	4/17/2012	SL183
City of Wichita	106028	12090963	Huntington - Composite	9/13/2012	1615	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120918-4	9/25/2012	SL183
City of Wichita	101251	12020393	Huntington - Composite	2/3/2012	0515	Hardness (Calculated)	23.3	mg/L as CaCO3	120206-3	2/6/2012	SL323
City of Wichita	102699	12041026	Huntington - Composite	4/12/2012	1205	Hardness (Calculated)	23.0	mg/L as CaCO3	120413-5	4/14/2012	SL323
City of Wichita	106028	12090963	Huntington - Composite	9/13/2012	1615	Hardness (Calculated)	30.9	mg/L as CaCO3	120914-5	9/14/2012	SL323
City of Wichita	101251	12020392	Huntington - Grab	2/3/2012	0515	Hexane Extractable Material	ND(5.0)	mg/L	120208-1	2/8/2012	GL188
City of Wichita	102699	12041025	Huntington - Grab	4/12/2012	1205	Hexane Extractable Material	ND(5.0)	mg/L	120503-1	5/3/2012	GL188
City of Wichita	106028	12090962	Huntington - Grab	9/13/2012	1615	Hexane Extractable Material	ND(5.0)	mg/L	120920-1	9/20/2012	GL188
City of Wichita	101251	12020392	Huntington - Grab	2/3/2012	0515	Solids, Total Dissolved	54	mg/L	120208-1	2/8/2012	GL242
City of Wichita	102699	12041025	Huntington - Grab	4/12/2012	1205	Solids, Total Dissolved	42	mg/L	120419-1	4/19/2012	GL242
City of Wichita	106028	12090962	Huntington - Grab	9/13/2012	1615	Solids, Total Dissolved	54	mg/L	120919-1	9/19/2012	GL242
City of Wichita	101251	12020392	Huntington - Grab	2/3/2012	0515	Solids, Total Suspended	16	mg/L	120209-1	2/9/2012	GL243
City of Wichita	102699	12041025	Huntington - Grab	4/12/2012	1205	Solids, Total Suspended	41	mg/L	120419-2	4/19/2012	GL243
City of Wichita	106028	12090962	Huntington - Grab	9/13/2012	1615	Solids, Total Suspended	41	mg/L	120919-3	9/19/2012	GL243
City of Wichita	101251	12020392	Huntington - Grab	2/3/2012	0515	Chloride	4.9	mg/L	1IC2039	2/8/2012	GL502
City of Wichita	102699	12041025	Huntington - Grab	4/12/2012	1205	Chloride	2.3	mg/L	1IC2122	5/1/2012	GL502
City of Wichita	106028	12090962	Huntington - Grab	9/13/2012	1615	Chloride	3.5	mg/L	2IC2258	9/15/2012	GL502
City of Wichita	101251	12020392	Huntington - Grab	2/3/2012	0515	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120208-2	2/9/2012	SL006
City of Wichita	102699	12041025	Huntington - Grab	4/12/2012	1205	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-2	4/19/2012	SL006
City of Wichita	106028	12090962	Huntington - Grab	9/13/2012	1615	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120919-6	9/26/2012	SL006
City of Wichita	101251	12020392	Huntington - Grab	2/3/2012	0515	Copper, Tot. Rec., ICP-MS	6	ug/L	120208-2	2/9/2012	SL012
City of Wichita	102699	12041025	Huntington - Grab	4/12/2012	1205	Copper, Tot. Rec., ICP-MS	5	ug/L	120417-2	4/19/2012	SL012
City of Wichita	106028	12090962	Huntington - Grab	9/13/2012	1615	Copper, Tot. Rec., ICP-MS	12	ug/L	120919-6	9/26/2012	SL012
City of Wichita	101251	12020392	Huntington - Grab	2/3/2012	0515	Zinc, Tot. Rec., ICP-MS	ND(20)	ug/L	120208-2	2/9/2012	SL033
City of Wichita	102699	12041025	Huntington - Grab	4/12/2012	1205	Zinc, Tot. Rec., ICP-MS	25	ug/L	120417-2	4/19/2012	SL033
City of Wichita	106028	12090962	Huntington - Grab	9/13/2012	1615	Zinc, Tot. Rec., ICP-MS	28	ug/L	120919-6	9/26/2012	SL033
City of Wichita	101251	12020392	Huntington - Grab	2/3/2012	0515	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120210-2	2/15/2012	SL156
City of Wichita	102699	12041025	Huntington - Grab	4/12/2012	1205	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120419-4	4/23/2012	SL156
City of Wichita	106028	12090962	Huntington - Grab	9/13/2012	1615	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120918-4	9/25/2012	SL156

NAME	ORDERNO	LABNO	SAMPLE	DATESAM	TIMES	TESTNAME	RESULT	UNITS	BATCH	DATECOM	TESTCODE
City of Wichita	101251	12020392	Huntington - Grab	2/3/2012	0515	Copper, Dissolved, ICP-MS	5 DM	ug/L	120210-2	2/15/2012	SL162
City of Wichita	102699	12041025	Huntington - Grab	4/12/2012	1205	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120419-4	4/23/2012	SL162
City of Wichita	106028	12090962	Huntington - Grab	9/13/2012	1615	Copper, Dissolved, ICP-MS	6 DM	ug/L	120918-4	9/25/2012	SL162
City of Wichita	101251	12020392	Huntington - Grab	2/3/2012	0515	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120210-2	2/15/2012	SL183
City of Wichita	102699	12041025	Huntington - Grab	4/12/2012	1205	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120419-4	4/23/2012	SL183
City of Wichita	106028	12090962	Huntington - Grab	9/13/2012	1615	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120918-4	9/25/2012	SL183
City of Wichita	101251	12020392	Huntington - Grab	2/3/2012	0515	Hardness (Calculated)	23.4	mg/L as CaCO3	120207-4	2/7/2012	SL323
City of Wichita	102699	12041025	Huntington - Grab	4/12/2012	1205	Hardness (Calculated)	25.8	mg/L as CaCO3	120417-5	4/17/2012	SL323
City of Wichita	106028	12090962	Huntington - Grab	9/13/2012	1615	Hardness (Calculated)	31.1	mg/L as CaCO3	120917-3	9/17/2012	SL323
City of Wichita	101251	12020394	Huntington - Upstream	2/3/2012	0515	BOD	ND(5)	mg/L	120203-1	2/3/2012	GL123
City of Wichita	102699	12041027	Huntington - Upstream	4/12/2012	1205	BOD	7	mg/L	120413-2	4/13/2012	GL123
City of Wichita	106028	12090964	Huntington - Upstream	9/13/2012	1620	BOD	11	mg/L	120914-2	9/14/2012	GL123
City of Wichita	101251	12020394	Huntington - Upstream	2/3/2012	0515	Phosphorus, Total, as P	ND(0.2)	mg/L	120211-1	2/11/2012	GL218
City of Wichita	102699	12041027	Huntington - Upstream	4/12/2012	1205	Phosphorus, Total, as P	0.21	mg/L	120426-1	4/26/2012	GL218
City of Wichita	106028	12090964	Huntington - Upstream	9/13/2012	1620	Phosphorus, Total, as P	0.22	mg/L	120920-2	9/20/2012	GL218
City of Wichita	101251	12020394	Huntington - Upstream	2/3/2012	0515	Solids, Total Dissolved	60.	mg/L	120208-1	2/8/2012	GL242
City of Wichita	102699	12041027	Huntington - Upstream	4/12/2012	1205	Solids, Total Dissolved	ND(30)	mg/L	120419-1	4/19/2012	GL242
City of Wichita	106028	12090964	Huntington - Upstream	9/13/2012	1620	Solids, Total Dissolved	72	mg/L	120919-1	9/19/2012	GL242
City of Wichita	101251	12020394	Huntington - Upstream	2/3/2012	0515	Solids, Total Suspended	15	mg/L	120209-1	2/9/2012	GL243
City of Wichita	102699	12041027	Huntington - Upstream	4/12/2012	1205	Solids, Total Suspended	34	mg/L	120419-2	4/19/2012	GL243
City of Wichita	106028	12090964	Huntington - Upstream	9/13/2012	1620	Solids, Total Suspended	41	mg/L	120919-3	9/19/2012	GL243
City of Wichita	101251	12020394	Huntington - Upstream	2/3/2012	0515	Nitrogen (TKN + NO3/NO2), as N	1.9	mg/L		2/10/2012	GL343
City of Wichita	102699	12041027	Huntington - Upstream	4/12/2012	1205	Nitrogen (TKN + NO3/NO2), as N	2.0	mg/L		5/7/2012	GL343
City of Wichita	106028	12090964	Huntington - Upstream	9/13/2012	1620	Nitrogen (TKN + NO3/NO2), as N	2.2	mg/L		9/26/2012	GL343
City of Wichita	102717	12041082	Huntington - Upstream	4/12/2012	1205	E. Coli	14000 HT	MPN/100 mL	120413-1	4/13/2012	GL347
City of Wichita	106025	12090923	Huntington - Upstream	9/13/2012	1620	E. Coli	2420	MPN/100 mL	120913-1	9/13/2012	GL347
City of Wichita	101251	12020394	Huntington - Upstream	2/3/2012	0515	Chloride	6.0	mg/L	1IC2034	2/4/2012	GL502
City of Wichita	102699	12041027	Huntington - Upstream	4/12/2012	1205	Chloride	2.9	mg/L	2IC2103	4/13/2012	GL502
City of Wichita	106028	12090964	Huntington - Upstream	9/13/2012	1620	Chloride	4.0	mg/L	1IC2258	9/14/2012	GL502
City of Wichita	101251	12020394	Huntington - Upstream	2/3/2012	0515	Nitrite, as N	ND(0.1)	mg/L	1IC2034	2/4/2012	GL503
City of Wichita	102699	12041027	Huntington - Upstream	4/12/2012	1205	Nitrite, as N	ND(0.1)	mg/L	2IC2103	4/13/2012	GL503
City of Wichita	106028	12090964	Huntington - Upstream	9/13/2012	1620	Nitrite, as N	ND(0.1)	mg/L	1IC2258	9/14/2012	GL503
City of Wichita	101251	12020394	Huntington - Upstream	2/3/2012	0515	Nitrate, as N	0.8	mg/L	1IC2034	2/4/2012	GL505
City of Wichita	102699	12041027	Huntington - Upstream	4/12/2012	1205	Nitrate, as N	0.3	mg/L	2IC2103	4/13/2012	GL505
City of Wichita	106028	12090964	Huntington - Upstream	9/13/2012	1620	Nitrate, as N	0.5	mg/L	1IC2258	9/14/2012	GL505
City of Wichita	101251	12020394	Huntington - Upstream	2/3/2012	0515	Kjeldahl Nitrogen, as N (TKN)	1.1	mg/L	120206-2	2/7/2012	GL595
City of Wichita	102699	12041027	Huntington - Upstream	4/12/2012	1205	Kjeldahl Nitrogen, as N (TKN)	1.7	mg/L	120423-2	5/2/2012	GL595
City of Wichita	106028	12090964	Huntington - Upstream	9/13/2012	1620	Kjeldahl Nitrogen, as N (TKN)	1.7	mg/L	120924-1	9/25/2012	GL595
City of Wichita	101251	12020394	Huntington - Upstream	2/3/2012	0515	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120208-2	2/9/2012	SL006
City of Wichita	102699	12041027	Huntington - Upstream	4/12/2012	1205	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-1	4/18/2012	SL006
City of Wichita	106028	12090964	Huntington - Upstream	9/13/2012	1620	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120919-6	9/26/2012	SL006
City of Wichita	101251	12020394	Huntington - Upstream	2/3/2012	0515	Copper, Tot. Rec., ICP-MS	10.	ug/L	120208-2	2/9/2012	SL012
City of Wichita	102699	12041027	Huntington - Upstream	4/12/2012	1205	Copper, Tot. Rec., ICP-MS	9	ug/L	120417-1	4/18/2012	SL012
City of Wichita	106028	12090964	Huntington - Upstream	9/13/2012	1620	Copper, Tot. Rec., ICP-MS	10.	ug/L	120919-6	9/26/2012	SL012
City of Wichita	101251	12020394	Huntington - Upstream	2/3/2012	0515	Zinc, Tot. Rec., ICP-MS	25	ug/L	120208-2	2/9/2012	SL033
City of Wichita	102699	12041027	Huntington - Upstream	4/12/2012	1205	Zinc, Tot. Rec., ICP-MS	47	ug/L	120417-1	4/18/2012	SL033
City of Wichita	106028	12090964	Huntington - Upstream	9/13/2012	1620	Zinc, Tot. Rec., ICP-MS	28	ug/L	120919-6	9/26/2012	SL033
City of Wichita	101251	12020394	Huntington - Upstream	2/3/2012	0515	Cadmium, Dissolved, ICP-MS	ND(1) DM QC	ug/L	120206-4	2/8/2012	SL156
City of Wichita	102699	12041027	Huntington - Upstream	4/12/2012	1205	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120416-2	4/17/2012	SL156
City of Wichita	106028	12090964	Huntington - Upstream	9/13/2012	1620	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120918-4	9/25/2012	SL156
City of Wichita	101251	12020394	Huntington - Upstream	2/3/2012	0515	Copper, Dissolved, ICP-MS	9 DM	ug/L	120206-4	2/8/2012	SL162
City of Wichita	102699	12041027	Huntington - Upstream	4/12/2012	1205	Copper, Dissolved, ICP-MS	12 DM	ug/L	120416-2	4/17/2012	SL162
City of Wichita	106028	12090964	Huntington - Upstream	9/13/2012	1620	Copper, Dissolved, ICP-MS	6 DM	ug/L	120918-4	9/25/2012	SL162
City of Wichita	101251	12020394	Huntington - Upstream	2/3/2012	0515	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120206-4	2/8/2012	SL183
City of Wichita	102699	12041027	Huntington - Upstream	4/12/2012	1205	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120416-2	4/17/2012	SL183
City of Wichita	106028	12090964	Huntington - Upstream	9/13/2012	1620	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120918-4	9/25/2012	SL183
City of Wichita	101251	12020394	Huntington - Upstream	2/3/2012	0515	Hardness (Calculated)	26.5	mg/L as CaCO3	120206-3	2/5/2012	SL323
City of Wichita	102699	12041027	Huntington - Upstream	4/12/2012	1205	Hardness (Calculated)	28.7	mg/L as CaCO3	120417-5	4/17/2012	SL323
City of Wichita	106028	12090964	Huntington - Upstream	9/13/2012	1620	Hardness (Calculated)	32.8	mg/L as CaCO3	120917-3	9/17/2012	SL323
City of Wichita	102717	12041077	McLean	4/12/2012	1130	E. Coli	3200 HT	MPN/100 mL	120413-1	4/13/2012	GL347
City of Wichita	106025	12090926	McLean	9/13/2012	1455	E. Coli	1550	MPN/100 mL	120913-1	9/13/2012	GL347
City of Wichita	101254	12020402	McLean - Composite	2/3/2012	0600	BOD	ND(5)	mg/L	120203-1	2/3/2012	GL123
City of Wichita	102697	12041020	McLean - Composite	4/12/2012	1130	BOD	ND(5)	mg/L	120413-2	4/13/2012	GL123
City of Wichita	106029	12090966	McLean - Composite	9/13/2012	1455	BOD	9	mg/L	120914-2	9/14/2012	GL123
City of Wichita	101254	12020402	McLean - Composite	2/3/2012	0600	Phosphorus, Total, as P	ND(0.20)	mg/L	120217-1	2/17/2012	GL218
City of Wichita	102697	12041020	McLean - Composite	4/12/2012	1130	Phosphorus, Total, as P	ND(0.2)	mg/L	120426-1	4/26/2012	GL218
City of Wichita	106029	12090966	McLean - Composite	9/13/2012	1455	Phosphorus, Total, as P	ND(0.20)	mg/L	120920-2	9/20/2012	GL218
City of Wichita	101254	12020402	McLean - Composite	2/3/2012	0600	Solids, Total Dissolved	56	mg/L	120208-1	2/8/2012	GL242
City of Wichita	102697	12041020	McLean - Composite	4/12/2012	1130	Solids, Total Dissolved	50.	mg/L	120419-1	4/19/2012	GL242
City of Wichita	106029	12090966	McLean - Composite	9/13/2012	1455	Solids, Total Dissolved	74	mg/L	120919-1	9/19/2012	GL242
City of Wichita	101254	12020402	McLean - Composite	2/3/2012	0600	Solids, Total Suspended	79	mg/L	120210-1	2/10/2012	GL243
City of Wichita	102697	12041020	McLean - Composite	4/12/2012	1130	Solids, Total Suspended	72	mg/L	120419-1	4/19/2012	GL243
City of Wichita	106029	12090966	McLean - Composite	9/13/2012	1455	Solids, Total Suspended	53	mg/L	120919-3	9/19/2012	GL243
City of Wichita	101254	12020402	McLean - Composite	2/3/2012	0600	Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L		2/10/2012	GL343
City of Wichita	102697	12041020	McLean - Composite	4/12/2012	1130	Nitrogen (TKN + NO3/NO2), as N	1.7	mg/L		4/27/2012	GL343
City of Wichita	106029	12090966	McLean - Composite	9/13/2012	1455	Nitrogen (TKN + NO3/NO2), as N	1.8	mg/L		9/26/2012	GL343
City of Wichita	101254	12020402	McLean - Composite	2/3/2012	0600	Chloride	4.5	mg/L	1IC2034	2/3/2012	GL502
City of Wichita	102697	12041020	McLean - Composite	4/12/2012	1130	Chloride	2.7	mg/L	2IC2103	4/13/2012	GL502
City of Wichita	106029	12090966	McLean - Composite	9/13/2012	1455	Chloride	10.2	mg/L	1IC2258	9/14/2012	GL502
City of Wichita	101254	12020402	McLean - Composite	2/3/2012	0600	Nitrite, as N	ND(0.1)	mg/L	1IC2034	2/3/2012	GL503
City of Wichita	102697	12041020	McLean - Composite	4/12/2012	1130	Nitrite, as N	ND(0.1)	mg/L	2IC2103	4/13/2012	GL503
City of Wichita	106029	12090966	McLean - Composite	9/13/2012	1455	Nitrite, as N	ND(0.1)	mg/L	1IC2258	9/14/2012	GL503
City of Wichita	101254	12020402	McLean - Composite	2/3/2012	0600	Nitrate, as N	0.4	mg/L	1IC2034	2/3/2012	GL505
City of Wichita	102697	12041020	McLean - Composite	4/12/2012	1130	Nitrate, as N	0.6	mg/L	2IC2103	4/13/2012	GL505
City of Wichita	106029	12090966	McLean - Composite	9/13/2012	1455	Nitrate, as N	0.3	mg/L	1IC2258	9/14/2012	GL505
City of Wichita	101254	12020402	McLean - Composite	2/3/2012	0600	Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	120206-2	2/7/2012	GL595
City of Wichita	102697	12041020	McLean - Composite	4/12/2012	1130	Kjeldahl Nitrogen, as N (TKN)	1.1	mg/L	120417-2	4/24/2012	GL595
City of Wichita	106029	12090966	McLean - Composite	9/13/2012	1455	Kjeldahl Nitrogen, as N (TKN)	1.5	mg/L	120924-1	9/25/2012	GL595
City of Wichita	101254	12020402	McLean - Composite	2/3/2012	0600	Cadmium, Tot. Rec., ICP-MS	2	ug/L	120208-2	2/9/2012	SL006
City of Wichita	102697	12041020	McLean - Composite	4/12/2012	1130	Cadmium, Tot. Rec., ICP-MS	4	ug/L	120417-2	4/19/2012	SL006
City of Wichita	106029	12090966	McLean - Composite	9/13/2012	1455	Cadmium, Tot. Rec., ICP-MS	2	ug/L	120919-5	9/26/2012	SL006
City of Wichita	101254	12020402	McLean - Composite	2/3/2012	0600	Copper, Tot. Rec., ICP-MS	15	ug/L	120208-2	2/9/2012	SL012
City of Wichita	102697	12041020	McLean - Composite	4/12/2012	1130	Copper, Tot. Rec., ICP-MS	17	ug/L	120417-2	4/19/2012	SL012

NAME	ORDERNO	LABNO	SAMPLE	DATESAM	TIMES	TESTNAME	RESULT	UNITS	BATCH	DATECOM	TESTCODE
City of Wichita	106029	12090966	McLean - Composite	9/13/2012	1455	Copper, Tot. Rec., ICP-MS	17	ug/L	120919-6	9/26/2012	SL012
City of Wichita	101254	12020402	McLean - Composite	2/3/2012	0600	Zinc, Tot. Rec., ICP-MS	192	ug/L	120208-2	2/9/2012	SL033
City of Wichita	102697	12041020	McLean - Composite	4/12/2012	1130	Zinc, Tot. Rec., ICP-MS	183	ug/L	120417-2	4/19/2012	SL033
City of Wichita	106029	12090966	McLean - Composite	9/13/2012	1455	Zinc, Tot. Rec., ICP-MS	152	ug/L	120919-6	9/26/2012	SL033
City of Wichita	101254	12020402	McLean - Composite	2/3/2012	0600	Cadmium, Dissolved, ICP-MS	ND(1) DM QC	ug/L	120206-4	2/8/2012	SL156
City of Wichita	102697	12041020	McLean - Composite	4/12/2012	1130	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120416-2	4/16/2012	SL156
City of Wichita	106029	12090966	McLean - Composite	9/13/2012	1455	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120918-4	9/25/2012	SL156
City of Wichita	101254	12020402	McLean - Composite	2/3/2012	0600	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120206-4	2/8/2012	SL162
City of Wichita	102697	12041020	McLean - Composite	4/12/2012	1130	Copper, Dissolved, ICP-MS	6 DM	ug/L	120416-2	4/16/2012	SL162
City of Wichita	106029	12090966	McLean - Composite	9/13/2012	1455	Copper, Dissolved, ICP-MS	7 DM	ug/L	120918-4	9/25/2012	SL162
City of Wichita	101254	12020402	McLean - Composite	2/3/2012	0600	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120206-4	2/8/2012	SL183
City of Wichita	102697	12041020	McLean - Composite	4/12/2012	1130	Zinc, Dissolved, ICP-MS	21 DM	ug/L	120416-2	4/16/2012	SL183
City of Wichita	106029	12090966	McLean - Composite	9/13/2012	1455	Zinc, Dissolved, ICP-MS	30 DM	ug/L	120918-4	9/25/2012	SL183
City of Wichita	101254	12020402	McLean - Composite	2/3/2012	0600	Hardness (Calculated)	51.0	mg/L as CaCO3	120206-3	2/7/2012	SL323
City of Wichita	102697	12041020	McLean - Composite	4/12/2012	1130	Hardness (Calculated)	57.3	mg/L as CaCO3	120413-5	4/14/2012	SL323
City of Wichita	106029	12090966	McLean - Composite	9/13/2012	1455	Hardness (Calculated)	40.	mg/L as CaCO3	120917-3	9/17/2012	SL323
City of Wichita	101254	12020401	McLean - Grab	2/3/2012	0600	Hexane Extractable Material	ND(5.0)	mg/L	120216-1	2/16/2012	GL188
City of Wichita	102697	12041019	McLean - Grab	4/12/2012	1130	Hexane Extractable Material	ND(5.0)	mg/L	120501-1	5/1/2012	GL188
City of Wichita	106029	12090965	McLean - Grab	9/13/2012	1455	Hexane Extractable Material	ND(5.0)	mg/L	120920-1	9/20/2012	GL188
City of Wichita	101254	12020401	McLean - Grab	2/3/2012	0600	Solids, Total Dissolved	50.	mg/L	120208-1	2/8/2012	GL242
City of Wichita	102697	12041019	McLean - Grab	4/12/2012	1130	Solids, Total Dissolved	40.	mg/L	120419-1	4/19/2012	GL242
City of Wichita	106029	12090965	McLean - Grab	9/13/2012	1455	Solids, Total Dissolved	72	mg/L	120919-1	9/19/2012	GL242
City of Wichita	101254	12020401	McLean - Grab	2/3/2012	0600	Solids, Total Suspended	51	mg/L	120209-1	2/9/2012	GL243
City of Wichita	102697	12041019	McLean - Grab	4/12/2012	1130	Solids, Total Suspended	61	mg/L	120419-1	4/19/2012	GL243
City of Wichita	106029	12090965	McLean - Grab	9/13/2012	1455	Solids, Total Suspended	78	mg/L	120919-3	9/19/2012	GL243
City of Wichita	101254	12020401	McLean - Grab	2/3/2012	0600	Chloride	4.2	mg/L	1IC2039	2/8/2012	GL502
City of Wichita	102697	12041019	McLean - Grab	4/12/2012	1130	Chloride	2.4	mg/L	1IC1117	4/26/2012	GL502
City of Wichita	106029	12090965	McLean - Grab	9/13/2012	1455	Chloride	9.6	mg/L	2IC2258	9/15/2012	GL502
City of Wichita	101254	12020401	McLean - Grab	2/3/2012	0600	Cadmium, Tot. Rec., ICP-MS	3 B	ug/L	120208-1	2/9/2012	SL006
City of Wichita	102697	12041019	McLean - Grab	4/12/2012	1130	Cadmium, Tot. Rec., ICP-MS	3	ug/L	120417-1	4/18/2012	SL006
City of Wichita	106029	12090965	McLean - Grab	9/13/2012	1455	Cadmium, Tot. Rec., ICP-MS	2	ug/L	120919-6	9/26/2012	SL006
City of Wichita	101254	12020401	McLean - Grab	2/3/2012	0600	Copper, Tot. Rec., ICP-MS	13	ug/L	120208-1	2/9/2012	SL012
City of Wichita	102697	12041019	McLean - Grab	4/12/2012	1130	Copper, Tot. Rec., ICP-MS	15	ug/L	120417-1	4/18/2012	SL012
City of Wichita	106029	12090965	McLean - Grab	9/13/2012	1455	Copper, Tot. Rec., ICP-MS	21	ug/L	120919-6	9/26/2012	SL012
City of Wichita	101254	12020401	McLean - Grab	2/3/2012	0600	Zinc, Tot. Rec., ICP-MS	142	ug/L	120208-1	2/9/2012	SL033
City of Wichita	102697	12041019	McLean - Grab	4/12/2012	1130	Zinc, Tot. Rec., ICP-MS	150.	ug/L	120417-1	4/18/2012	SL033
City of Wichita	106029	12090965	McLean - Grab	9/13/2012	1455	Zinc, Tot. Rec., ICP-MS	220.	ug/L	120919-6	9/26/2012	SL033
City of Wichita	101254	12020401	McLean - Grab	2/3/2012	0600	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120210-2	2/15/2012	SL156
City of Wichita	102697	12041019	McLean - Grab	4/12/2012	1130	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120419-4	4/23/2012	SL156
City of Wichita	106029	12090965	McLean - Grab	9/13/2012	1455	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120918-4	9/25/2012	SL156
City of Wichita	101254	12020401	McLean - Grab	2/3/2012	0600	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120210-2	2/15/2012	SL162
City of Wichita	102697	12041019	McLean - Grab	4/12/2012	1130	Copper, Dissolved, ICP-MS	7 DM	ug/L	120419-4	4/23/2012	SL162
City of Wichita	106029	12090965	McLean - Grab	9/13/2012	1455	Copper, Dissolved, ICP-MS	7 DM	ug/L	120918-4	9/25/2012	SL162
City of Wichita	101254	12020401	McLean - Grab	2/3/2012	0600	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120210-2	2/15/2012	SL183
City of Wichita	102697	12041019	McLean - Grab	4/12/2012	1130	Zinc, Dissolved, ICP-MS	23 DM	ug/L	120419-4	4/25/2012	SL183
City of Wichita	106029	12090965	McLean - Grab	9/13/2012	1455	Zinc, Dissolved, ICP-MS	26 DM	ug/L	120918-4	9/25/2012	SL183
City of Wichita	101254	12020401	McLean - Grab	2/3/2012	0600	Hardness (Calculated)	34.9	mg/L as CaCO3	120207-4	2/7/2012	SL323
City of Wichita	102697	12041019	McLean - Grab	4/12/2012	1130	Hardness (Calculated)	48.4	mg/L as CaCO3	120417-5	4/17/2012	SL323
City of Wichita	106029	12090965	McLean - Grab	9/13/2012	1455	Hardness (Calculated)	47.9	mg/L as CaCO3	120917-3	9/17/2012	SL323
City of Wichita	101254	12020403	McLean - Upstream	2/3/2012	0600	BOD	9	mg/L	120203-1	2/3/2012	GL123
City of Wichita	102697	12041021	McLean - Upstream	4/12/2012	1130	BOD	ND(5)	mg/L	120413-2	4/13/2012	GL123
City of Wichita	106029	12090967	McLean - Upstream	9/13/2012	1500	BOD	ND(5)	mg/L	120914-2	9/14/2012	GL123
City of Wichita	101254	12020403	McLean - Upstream	2/3/2012	0600	Phosphorus, Total, as P	0.47	mg/L	120217-1	2/17/2012	GL218
City of Wichita	102697	12041021	McLean - Upstream	4/12/2012	1130	Phosphorus, Total, as P	ND(0.2)	mg/L	120426-1	4/26/2012	GL218
City of Wichita	106029	12090967	McLean - Upstream	9/13/2012	1500	Phosphorus, Total, as P	ND(0.20)	mg/L	120920-2	9/20/2012	GL218
City of Wichita	101254	12020403	McLean - Upstream	2/3/2012	0600	Solids, Total Dissolved	268	mg/L	120208-1	2/8/2012	GL242
City of Wichita	102697	12041021	McLean - Upstream	4/12/2012	1130	Solids, Total Dissolved	880.	mg/L	120419-1	4/19/2012	GL242
City of Wichita	106029	12090967	McLean - Upstream	9/13/2012	1500	Solids, Total Dissolved	628	mg/L	120919-1	9/19/2012	GL242
City of Wichita	101254	12020403	McLean - Upstream	2/3/2012	0600	Solids, Total Suspended	222	mg/L	120210-1	2/10/2012	GL243
City of Wichita	102697	12041021	McLean - Upstream	4/12/2012	1130	Solids, Total Suspended	96	mg/L	120419-1	4/19/2012	GL243
City of Wichita	106029	12090967	McLean - Upstream	9/13/2012	1500	Solids, Total Suspended	31	mg/L	120919-3	9/19/2012	GL243
City of Wichita	101254	12020403	McLean - Upstream	2/3/2012	0600	Nitrogen (TKN + NO3/NO2), as N	4.3	mg/L		2/10/2012	GL343
City of Wichita	102697	12041021	McLean - Upstream	4/12/2012	1130	Nitrogen (TKN + NO3/NO2), as N	2.3	mg/L		4/27/2012	GL343
City of Wichita	106029	12090967	McLean - Upstream	9/13/2012	1500	Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L		9/26/2012	GL343
City of Wichita	102717	12041078	McLean - Upstream	4/12/2012	1130	E. Coli	1730 HT	MPN/100 mL	120413-1	4/13/2012	GL347
City of Wichita	106025	12090927	McLean - Upstream	9/13/2012	1500	E. Coli	3800	MPN/100 mL	120913-1	9/13/2012	GL347
City of Wichita	101254	12020403	McLean - Upstream	2/3/2012	0600	Chloride	78	mg/L	1IC2034	2/4/2012	GL502
City of Wichita	102697	12041021	McLean - Upstream	4/12/2012	1130	Chloride	361	mg/L	2IC2103	4/13/2012	GL502
City of Wichita	106029	12090967	McLean - Upstream	9/13/2012	1500	Chloride	150.	mg/L	1IC2258	9/14/2012	GL502
City of Wichita	101254	12020403	McLean - Upstream	2/3/2012	0600	Nitrite, as N	ND(0.1)	mg/L	1IC2034	2/4/2012	GL503
City of Wichita	102697	12041021	McLean - Upstream	4/12/2012	1130	Nitrite, as N	ND(0.1)	mg/L	2IC2103	4/13/2012	GL503
City of Wichita	106029	12090967	McLean - Upstream	9/13/2012	1500	Nitrite, as N	ND(0.1)	mg/L	1IC2258	9/14/2012	GL503
City of Wichita	101254	12020403	McLean - Upstream	2/3/2012	0600	Nitrate, as N	0.6	mg/L	1IC2034	2/4/2012	GL505
City of Wichita	102697	12041021	McLean - Upstream	4/12/2012	1130	Nitrate, as N	0.9	mg/L	2IC2103	4/13/2012	GL505
City of Wichita	106029	12090967	McLean - Upstream	9/13/2012	1500	Nitrate, as N	0.5	mg/L	1IC2258	9/14/2012	GL505
City of Wichita	101254	12020403	McLean - Upstream	2/3/2012	0600	Kjeldahl Nitrogen, as N (TKN)	3.7	mg/L	120206-2	2/7/2012	GL595
City of Wichita	102697	12041021	McLean - Upstream	4/12/2012	1130	Kjeldahl Nitrogen, as N (TKN)	1.4	mg/L	120417-2	4/24/2012	GL595
City of Wichita	106029	12090967	McLean - Upstream	9/13/2012	1500	Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	120924-1	9/25/2012	GL595
City of Wichita	101254	12020403	McLean - Upstream	2/3/2012	0600	Cadmium, Tot. Rec., ICP-MS	1 B	ug/L	120208-1	2/9/2012	SL006
City of Wichita	102697	12041021	McLean - Upstream	4/12/2012	1130	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-1	4/18/2012	SL006
City of Wichita	106029	12090967	McLean - Upstream	9/13/2012	1500	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120919-6	9/26/2012	SL006
City of Wichita	101254	12020403	McLean - Upstream	2/3/2012	0600	Copper, Tot. Rec., ICP-MS	22	ug/L	120208-1	2/9/2012	SL012
City of Wichita	102697	12041021	McLean - Upstream	4/12/2012	1130	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120417-1	4/18/2012	SL012
City of Wichita	106029	12090967	McLean - Upstream	9/13/2012	1500	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120919-6	9/26/2012	SL012
City of Wichita	101254	12020403	McLean - Upstream	2/3/2012	0600	Zinc, Tot. Rec., ICP-MS	183	ug/L	120208-1	2/9/2012	SL033
City of Wichita	102697	12041021	McLean - Upstream	4/12/2012	1130	Zinc, Tot. Rec., ICP-MS	26	ug/L	120417-1	4/18/2012	SL033
City of Wichita	106029	12090967	McLean - Upstream	9/13/2012	1500	Zinc, Tot. Rec., ICP-MS	ND(20)	ug/L	120919-6	9/26/2012	SL033
City of Wichita	101254	12020403	McLean - Upstream	2/3/2012	0600	Cadmium, Dissolved, ICP-MS	ND(1) DM QC	ug/L	120206-4	2/8/2012	SL156
City of Wichita	102697	12041021	McLean - Upstream	4/12/2012	1130	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120416-2	4/16/2012	SL156
City of Wichita	106029	12090967	McLean - Upstream	9/13/2012	1500	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120918-4	9/25/2012	SL156
City of Wichita	101254	12020403	McLean - Upstream	2/3/2012	0600	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120206-4	2/8/2012	SL162
City of Wichita	102697	12041021	McLean - Upstream	4/12/2012	1130	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120416-2	4/16/2012	SL162
City of Wichita	106029	12090967	McLean - Upstream	9/13/2012	1500	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120918-4	9/25/2012	SL162

NAME	ORDERNO	LABNO	SAMPLE	DATESAM	TIMES	TESTNAME	RESULT	UNITS	BATCH	DATECOM	TESTCODE
City of Wichita	101254	12020403	McLean - Upstream	2/3/2012	0600	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120206-4	2/8/2012	SL183
City of Wichita	102697	12041021	McLean - Upstream	4/12/2012	1130	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120416-2	4/16/2012	SL183
City of Wichita	106029	12090967	McLean - Upstream	9/13/2012	1500	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120918-4	9/25/2012	SL183
City of Wichita	101254	12020403	McLean - Upstream	2/3/2012	0600	Hardness (Calculated)	132	mg/L as CaCO3	120206-3	2/7/2012	SL323
City of Wichita	102697	12041021	McLean - Upstream	4/12/2012	1130	Hardness (Calculated)	259	mg/L as CaCO3	120417-5	4/17/2012	SL323
City of Wichita	106029	12090967	McLean - Upstream	9/13/2012	1500	Hardness (Calculated)	299	mg/L as CaCO3	120917-3	9/17/2012	SL323
City of Wichita	106025	12090942	Pawnee and Canal	9/13/2012	1515	E. Coli	155000	MPN/100 mL	120913-2	9/13/2012	GL347
City of Wichita	106036	12090986	Pawnee and Canal - Composite	9/13/2012	1515	BOD	22	mg/L	120915-1	9/15/2012	GL123
City of Wichita	106036	12090986	Pawnee and Canal - Composite	9/13/2012	1515	Phosphorus, Total, as P	0.40	mg/L	120924-1	9/24/2012	GL218
City of Wichita	106036	12090986	Pawnee and Canal - Composite	9/13/2012	1515	Solids, Total Dissolved	138	mg/L	120920-1	9/20/2012	GL242
City of Wichita	106036	12090986	Pawnee and Canal - Composite	9/13/2012	1515	Solids, Total Suspended	96	mg/L	120919-4	9/19/2012	GL243
City of Wichita	106036	12090986	Pawnee and Canal - Composite	9/13/2012	1515	Nitrogen (TKN + NO3/NO2), as N	3.4	mg/L		9/26/2012	GL343
City of Wichita	106036	12090986	Pawnee and Canal - Composite	9/13/2012	1515	Chloride	10.9	mg/L	2IC2258	9/14/2012	GL502
City of Wichita	106036	12090986	Pawnee and Canal - Composite	9/13/2012	1515	Nitrite, as N	ND(0.1)	mg/L	2IC2258	9/14/2012	GL503
City of Wichita	106036	12090986	Pawnee and Canal - Composite	9/13/2012	1515	Nitrate, as N	0.6	mg/L	2IC2258	9/14/2012	GL505
City of Wichita	106036	12090986	Pawnee and Canal - Composite	9/13/2012	1515	Kjeldahl Nitrogen, as N (TKN)	2.8	mg/L	120924-1	9/25/2012	GL595
City of Wichita	106036	12090986	Pawnee and Canal - Composite	9/13/2012	1515	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120920-6	9/27/2012	SL006
City of Wichita	106036	12090986	Pawnee and Canal - Composite	9/13/2012	1515	Copper, Tot. Rec., ICP-MS	18	ug/L	120920-6	9/27/2012	SL012
City of Wichita	106036	12090986	Pawnee and Canal - Composite	9/13/2012	1515	Zinc, Tot. Rec., ICP-MS	192	ug/L	120920-6	9/27/2012	SL033
City of Wichita	106036	12090986	Pawnee and Canal - Composite	9/13/2012	1515	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120920-5	9/26/2012	SL156
City of Wichita	106036	12090986	Pawnee and Canal - Composite	9/13/2012	1515	Copper, Dissolved, ICP-MS	6 DM	ug/L	120920-5	9/26/2012	SL152
City of Wichita	106036	12090986	Pawnee and Canal - Composite	9/13/2012	1515	Zinc, Dissolved, ICP-MS	45 DM	ug/L	120920-5	9/26/2012	SL183
City of Wichita	106036	12090986	Pawnee and Canal - Composite	9/13/2012	1515	Hardness (Calculated)	73.0	mg/L as CaCO3	120917-3	9/17/2012	SL323
City of Wichita	106036	12090985	Pawnee and Canal - Grab	9/13/2012	1515	Solids, Total Dissolved	128	mg/L	120920-1	9/20/2012	GL242
City of Wichita	106036	12090985	Pawnee and Canal - Grab	9/13/2012	1515	Solids, Total Suspended	79	mg/L	120919-4	9/19/2012	GL243
City of Wichita	106036	12090985	Pawnee and Canal - Grab	9/13/2012	1515	Chloride	11.1	mg/L	2IC2258	9/15/2012	GL502
City of Wichita	106036	12090985	Pawnee and Canal - Grab	9/13/2012	1515	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120920-6	9/27/2012	SL006
City of Wichita	106036	12090985	Pawnee and Canal - Grab	9/13/2012	1515	Copper, Tot. Rec., ICP-MS	18	ug/L	120920-6	9/27/2012	SL012
City of Wichita	106036	12090985	Pawnee and Canal - Grab	9/13/2012	1515	Zinc, Tot. Rec., ICP-MS	185	ug/L	120920-6	9/27/2012	SL033
City of Wichita	106036	12090985	Pawnee and Canal - Grab	9/13/2012	1515	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120920-5	9/26/2012	SL156
City of Wichita	106036	12090985	Pawnee and Canal - Grab	9/13/2012	1515	Copper, Dissolved, ICP-MS	6 DM	ug/L	120920-5	9/26/2012	SL152
City of Wichita	106036	12090985	Pawnee and Canal - Grab	9/13/2012	1515	Zinc, Dissolved, ICP-MS	48 DM	ug/L	120920-5	9/26/2012	SL183
City of Wichita	106036	12090985	Pawnee and Canal - Grab	9/13/2012	1515	Hardness (Calculated)	69.9	mg/L as CaCO3	120917-3	9/17/2012	SL323
City of Wichita	102717	12041083	Towne East	4/12/2012	1210	E. Coli	1410 HT	MPN/100 mL	120413-1	4/13/2012	GL347
City of Wichita	106025	12090920	Towne East	9/13/2012	1630	E. Coli	2400	MPN/100 mL	120913-1	9/13/2012	GL347
City of Wichita	101252	12020396	Towne East - Composite	2/3/2012	0525	BOD	ND(5)	mg/L	120203-1	2/3/2012	GL123
City of Wichita	102695	12041014	Towne East - Composite	4/12/2012	1210	BOD	ND(5)	mg/L	120413-1	4/13/2012	GL123
City of Wichita	106030	12090969	Towne East - Composite	9/13/2012	1630	BOD	ND(5)	mg/L	120914-2	9/14/2012	GL123
City of Wichita	101252	12020396	Towne East - Composite	2/3/2012	0525	Phosphorus, Total, as P	ND(0.2)	mg/L	120211-1	2/11/2012	GL218
City of Wichita	102695	12041014	Towne East - Composite	4/12/2012	1210	Phosphorus, Total, as P	ND(0.2)	mg/L	120426-1	4/26/2012	GL218
City of Wichita	106030	12090969	Towne East - Composite	9/13/2012	1630	Phosphorus, Total, as P	ND(0.20)	mg/L	120920-2	9/20/2012	GL218
City of Wichita	101252	12020396	Towne East - Composite	2/3/2012	0525	Solids, Total Dissolved	ND(30)	mg/L	120208-1	2/8/2012	GL242
City of Wichita	102695	12041014	Towne East - Composite	4/12/2012	1210	Solids, Total Dissolved	46	mg/L	120418-1	4/18/2012	GL242
City of Wichita	106030	12090969	Towne East - Composite	9/13/2012	1630	Solids, Total Dissolved	50. QC	mg/L	120919-1	9/19/2012	GL242
City of Wichita	101252	12020396	Towne East - Composite	2/3/2012	0525	Solids, Total Suspended	14	mg/L	120209-1	2/9/2012	GL243
City of Wichita	102695	12041014	Towne East - Composite	4/12/2012	1210	Solids, Total Suspended	41	mg/L	120419-1	4/19/2012	GL243
City of Wichita	106030	12090969	Towne East - Composite	9/13/2012	1630	Solids, Total Suspended	15	mg/L	120919-3	9/19/2012	GL243
City of Wichita	101252	12020396	Towne East - Composite	2/3/2012	0525	Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L		2/10/2012	GL343
City of Wichita	102695	12041014	Towne East - Composite	4/12/2012	1210	Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L		4/27/2012	GL343
City of Wichita	106030	12090969	Towne East - Composite	9/13/2012	1630	Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L		9/26/2012	GL343
City of Wichita	101252	12020396	Towne East - Composite	2/3/2012	0525	Chloride	2.1	mg/L	1IC2034	2/3/2012	GL502
City of Wichita	102695	12041014	Towne East - Composite	4/12/2012	1210	Chloride	5.3	mg/L	2IC2103	4/13/2012	GL502
City of Wichita	106030	12090969	Towne East - Composite	9/13/2012	1630	Chloride	5.1	mg/L	1IC2258	9/14/2012	GL502
City of Wichita	101252	12020396	Towne East - Composite	2/3/2012	0525	Nitrite, as N	ND(0.1)	mg/L	1IC2034	2/3/2012	GL503
City of Wichita	102695	12041014	Towne East - Composite	4/12/2012	1210	Nitrite, as N	ND(0.1)	mg/L	2IC2103	4/13/2012	GL503
City of Wichita	106030	12090969	Towne East - Composite	9/13/2012	1630	Nitrite, as N	ND(0.1)	mg/L	1IC2258	9/14/2012	GL503
City of Wichita	101252	12020396	Towne East - Composite	2/3/2012	0525	Nitrate, as N	0.2	mg/L	1IC2034	2/3/2012	GL505
City of Wichita	102695	12041014	Towne East - Composite	4/12/2012	1210	Nitrate, as N	0.2	mg/L	2IC2103	4/13/2012	GL505
City of Wichita	106030	12090969	Towne East - Composite	9/13/2012	1630	Nitrate, as N	0.2	mg/L	1IC2258	9/14/2012	GL505
City of Wichita	101252	12020396	Towne East - Composite	2/3/2012	0525	Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	120206-2	2/7/2012	GL595
City of Wichita	102695	12041014	Towne East - Composite	4/12/2012	1210	Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	120417-2	4/24/2012	GL595
City of Wichita	106030	12090969	Towne East - Composite	9/13/2012	1630	Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	120924-1	9/25/2012	GL595
City of Wichita	101252	12020396	Towne East - Composite	2/3/2012	0525	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120208-2	2/9/2012	SL006
City of Wichita	102695	12041014	Towne East - Composite	4/12/2012	1210	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-1	4/18/2012	SL006
City of Wichita	106030	12090969	Towne East - Composite	9/13/2012	1630	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120919-6	9/26/2012	SL006
City of Wichita	101252	12020396	Towne East - Composite	2/3/2012	0525	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120208-2	2/9/2012	SL012
City of Wichita	102695	12041014	Towne East - Composite	4/12/2012	1210	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120417-1	4/18/2012	SL012
City of Wichita	106030	12090969	Towne East - Composite	9/13/2012	1630	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120919-6	9/26/2012	SL012
City of Wichita	101252	12020396	Towne East - Composite	2/3/2012	0525	Zinc, Tot. Rec., ICP-MS	28	ug/L	120208-2	2/9/2012	SL033
City of Wichita	102695	12041014	Towne East - Composite	4/12/2012	1210	Zinc, Tot. Rec., ICP-MS	31	ug/L	120417-1	4/18/2012	SL033
City of Wichita	106030	12090969	Towne East - Composite	9/13/2012	1630	Zinc, Tot. Rec., ICP-MS	27	ug/L	120919-6	9/26/2012	SL033
City of Wichita	101252	12020396	Towne East - Composite	2/3/2012	0525	Cadmium, Dissolved, ICP-MS	ND(1) DM QC	ug/L	120206-4	2/8/2012	SL156
City of Wichita	102695	12041014	Towne East - Composite	4/12/2012	1210	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120416-2	4/16/2012	SL156
City of Wichita	106030	12090969	Towne East - Composite	9/13/2012	1630	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120918-4	9/25/2012	SL156
City of Wichita	101252	12020396	Towne East - Composite	2/3/2012	0525	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120206-4	2/8/2012	SL152
City of Wichita	102695	12041014	Towne East - Composite	4/12/2012	1210	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120416-2	4/16/2012	SL152
City of Wichita	106030	12090969	Towne East - Composite	9/13/2012	1630	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120918-4	9/25/2012	SL152
City of Wichita	101252	12020396	Towne East - Composite	2/3/2012	0525	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120206-4	2/8/2012	SL183
City of Wichita	102695	12041014	Towne East - Composite	4/12/2012	1210	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120416-2	4/16/2012	SL183
City of Wichita	106030	12090969	Towne East - Composite	9/13/2012	1630	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120918-4	9/25/2012	SL183
City of Wichita	101252	12020396	Towne East - Composite	2/3/2012	0525	Hardness (Calculated)	20.4	mg/L as CaCO3	120206-3	2/6/2012	SL323
City of Wichita	102695	12041014	Towne East - Composite	4/12/2012	1210	Hardness (Calculated)	28.0	mg/L as CaCO3	120413-5	4/14/2012	SL323
City of Wichita	106030	12090969	Towne East - Composite	9/13/2012	1630	Hardness (Calculated)	27.5	mg/L as CaCO3	120914-5	9/14/2012	SL323
City of Wichita	101252	12020395	Towne East - Grab	2/3/2012	0525	Hexane Extractable Material	ND(5.0)	mg/L	120216-1	2/16/2012	GL188
City of Wichita	102695	12041013	Towne East - Grab	4/12/2012	1210	Hexane Extractable Material	ND(5.0)	mg/L	120501-1	5/1/2012	GL188
City of Wichita	106030	12090968	Towne East - Grab	9/13/2012	1630	Hexane Extractable Material	ND(5.0)	mg/L	120920-1	9/20/2012	GL188
City of Wichita	101252	12020395	Towne East - Grab	2/3/2012	0525	Solids, Total Dissolved	34	mg/L	120208-1	2/8/2012	GL242
City of Wichita	102695	12041013	Towne East - Grab	4/12/2012	1210	Solids, Total Dissolved	44	mg/L	120418-1	4/18/2012	GL242
City of Wichita	106030	12090968	Towne East - Grab	9/13/2012	1630	Solids, Total Dissolved	42	mg/L	120919-1	9/19/2012	GL242
City of Wichita	101252	12020395	Towne East - Grab	2/3/2012	0525	Solids, Total Suspended	14	mg/L	120209-1	2/9/2012	GL243
City of Wichita	102695	12041013	Towne East - Grab	4/12/2012	1210	Solids, Total Suspended	81	mg/L	120419-1	4/19/2012	GL243
City of Wichita	106030	12090968	Towne East - Grab	9/13/2012	1630	Solids, Total Suspended	10.	mg/L	120919-3	9/19/2012	GL243
City of Wichita	101252	12020395	Towne East - Grab	2/3/2012	0525	Chloride	2.0	mg/L	1IC2039	2/8/2012	GL502

NAME	ORDERNO	LABNO	SAMPLE	DATESAM	TIMES	TESTNAME	RESULT	UNITS	BATCH	DATECOM	TESTCODE
City of Wichita	102695	12041013	Towne East - Grab	4/12/2012	1210	Chloride	5.3	mg/L	1IC1117	4/26/2012	GL502
City of Wichita	106030	12090968	Towne East - Grab	9/13/2012	1630	Chloride	2.1	mg/L	2IC2258	9/15/2012	GL502
City of Wichita	101252	12020395	Towne East - Grab	2/3/2012	0525	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120208-1	2/9/2012	SL006
City of Wichita	102695	12041013	Towne East - Grab	4/12/2012	1210	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-2	4/19/2012	SL006
City of Wichita	106030	12090968	Towne East - Grab	9/13/2012	1630	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120920-6	9/27/2012	SL006
City of Wichita	101252	12020395	Towne East - Grab	2/3/2012	0525	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120208-1	2/9/2012	SL012
City of Wichita	102695	12041013	Towne East - Grab	4/12/2012	1210	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120417-2	4/19/2012	SL012
City of Wichita	106030	12090968	Towne East - Grab	9/13/2012	1630	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120920-6	9/27/2012	SL012
City of Wichita	101252	12020395	Towne East - Grab	2/3/2012	0525	Zinc, Tot. Rec., ICP-MS	27	ug/L	120208-1	2/9/2012	SL033
City of Wichita	102695	12041013	Towne East - Grab	4/12/2012	1210	Zinc, Tot. Rec., ICP-MS	30.	ug/L	120417-2	4/19/2012	SL033
City of Wichita	106030	12090968	Towne East - Grab	9/13/2012	1630	Zinc, Tot. Rec., ICP-MS	33	ug/L	120920-6	9/27/2012	SL033
City of Wichita	101252	12020395	Towne East - Grab	2/3/2012	0525	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120210-2	2/15/2012	SL156
City of Wichita	102695	12041013	Towne East - Grab	4/12/2012	1210	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120419-4	4/23/2012	SL156
City of Wichita	106030	12090968	Towne East - Grab	9/13/2012	1630	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120918-4	9/25/2012	SL156
City of Wichita	101252	12020395	Towne East - Grab	2/3/2012	0525	Copper, Dissolved, ICP-MS	6 DM	ug/L	120210-2	2/15/2012	SL162
City of Wichita	102695	12041013	Towne East - Grab	4/12/2012	1210	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120419-4	4/23/2012	SL162
City of Wichita	106030	12090968	Towne East - Grab	9/13/2012	1630	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120918-4	9/25/2012	SL162
City of Wichita	101252	12020395	Towne East - Grab	2/3/2012	0525	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120210-2	2/15/2012	SL183
City of Wichita	102695	12041013	Towne East - Grab	4/12/2012	1210	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120419-4	4/23/2012	SL183
City of Wichita	106030	12090968	Towne East - Grab	9/13/2012	1630	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120918-4	9/25/2012	SL183
City of Wichita	101252	12020395	Towne East - Grab	2/3/2012	0525	Hardness (Calculated)	20.3	mg/L as CaCO3	120207-4	2/7/2012	SL323
City of Wichita	102695	12041013	Towne East - Grab	4/12/2012	1210	Hardness (Calculated)	29.6	mg/L as CaCO3	120417-5	4/17/2012	SL323
City of Wichita	106030	12090968	Towne East - Grab	9/13/2012	1630	Hardness (Calculated)	25.0	mg/L as CaCO3	120917-3	9/17/2012	SL323
City of Wichita	101252	12020397	Towne East - Upstream	2/3/2012	0525	BOD	ND(5)	mg/L	120203-1	2/3/2012	GL123
City of Wichita	102695	12041015	Towne East - Upstream	4/12/2012	1210	BOD	7	mg/L	120413-1	4/13/2012	GL123
City of Wichita	106030	12090970	Towne East - Upstream	9/13/2012	1635	BOD	6	mg/L	120914-2	9/14/2012	GL123
City of Wichita	101252	12020397	Towne East - Upstream	2/3/2012	0525	Phosphorus, Total, as P	ND(0.20)	mg/L	120217-1	2/17/2012	GL218
City of Wichita	102695	12041015	Towne East - Upstream	4/12/2012	1210	Phosphorus, Total, as P	ND(0.2)	mg/L	120426-1	4/26/2012	GL218
City of Wichita	106030	12090970	Towne East - Upstream	9/13/2012	1635	Phosphorus, Total, as P	ND(0.20)	mg/L	120920-2	9/20/2012	GL218
City of Wichita	101252	12020397	Towne East - Upstream	2/3/2012	0525	Solids, Total Dissolved	60.	mg/L	120208-1	2/8/2012	GL242
City of Wichita	102695	12041015	Towne East - Upstream	4/12/2012	1210	Solids, Total Dissolved	52	mg/L	120419-1	4/19/2012	GL242
City of Wichita	106030	12090970	Towne East - Upstream	9/13/2012	1635	Solids, Total Dissolved	162	mg/L	120919-1	9/19/2012	GL242
City of Wichita	101252	12020397	Towne East - Upstream	2/3/2012	0525	Solids, Total Suspended	24	mg/L	120209-1	2/9/2012	GL243
City of Wichita	102695	12041015	Towne East - Upstream	4/12/2012	1210	Solids, Total Suspended	46	mg/L	120419-1	4/19/2012	GL243
City of Wichita	106030	12090970	Towne East - Upstream	9/13/2012	1635	Solids, Total Suspended	6	mg/L	120919-3	9/19/2012	GL243
City of Wichita	101252	12020397	Towne East - Upstream	2/3/2012	0525	Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L		2/10/2012	GL343
City of Wichita	102695	12041015	Towne East - Upstream	4/12/2012	1210	Nitrogen (TKN + NO3/NO2), as N	2.2	mg/L		4/27/2012	GL343
City of Wichita	106030	12090970	Towne East - Upstream	9/13/2012	1635	Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L		9/26/2012	GL343
City of Wichita	102717	12041084	Towne East - Upstream	4/12/2012	1210	E. Coli	5600 HT	MPN/100 mL	120413-1	4/13/2012	GL347
City of Wichita	106025	12090921	Towne East - Upstream	9/13/2012	1635	E. Coli	378	MPN/100 mL	120913-1	9/13/2012	GL347
City of Wichita	101252	12020397	Towne East - Upstream	2/3/2012	0525	Chloride	11.7	mg/L	1IC2034	2/4/2012	GL502
City of Wichita	102695	12041015	Towne East - Upstream	4/12/2012	1210	Chloride	6.3	mg/L	2IC2103	4/13/2012	GL502
City of Wichita	106030	12090970	Towne East - Upstream	9/13/2012	1635	Chloride	51	mg/L	2IC2261	9/18/2012	GL502
City of Wichita	101252	12020397	Towne East - Upstream	2/3/2012	0525	Nitrite, as N	ND(0.1)	mg/L	1IC2034	2/4/2012	GL503
City of Wichita	102695	12041015	Towne East - Upstream	4/12/2012	1210	Nitrite, as N	ND(0.1)	mg/L	2IC2103	4/13/2012	GL503
City of Wichita	106030	12090970	Towne East - Upstream	9/13/2012	1635	Nitrite, as N	ND(0.1)	mg/L	1IC2258	9/14/2012	GL503
City of Wichita	101252	12020397	Towne East - Upstream	2/3/2012	0525	Nitrate, as N	0.5	mg/L	1IC2034	2/4/2012	GL505
City of Wichita	102695	12041015	Towne East - Upstream	4/12/2012	1210	Nitrate, as N	0.3	mg/L	2IC2103	4/13/2012	GL505
City of Wichita	106030	12090970	Towne East - Upstream	9/13/2012	1635	Nitrate, as N	0.2	mg/L	1IC2258	9/14/2012	GL505
City of Wichita	101252	12020397	Towne East - Upstream	2/3/2012	0525	Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	120206-2	2/7/2012	GL595
City of Wichita	102695	12041015	Towne East - Upstream	4/12/2012	1210	Kjeldahl Nitrogen, as N (TKN)	1.9	mg/L	120417-2	4/24/2012	GL595
City of Wichita	106030	12090970	Towne East - Upstream	9/13/2012	1635	Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	120924-1	9/25/2012	GL595
City of Wichita	101252	12020397	Towne East - Upstream	2/3/2012	0525	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120208-2	2/9/2012	SL006
City of Wichita	102695	12041015	Towne East - Upstream	4/12/2012	1210	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-2	4/19/2012	SL006
City of Wichita	106030	12090970	Towne East - Upstream	9/13/2012	1635	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120919-6	9/26/2012	SL006
City of Wichita	101252	12020397	Towne East - Upstream	2/3/2012	0525	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120208-2	2/9/2012	SL012
City of Wichita	102695	12041015	Towne East - Upstream	4/12/2012	1210	Copper, Tot. Rec., ICP-MS	7	ug/L	120417-2	4/19/2012	SL012
City of Wichita	106030	12090970	Towne East - Upstream	9/13/2012	1635	Copper, Tot. Rec., ICP-MS	ND(5)	ug/L	120919-6	9/26/2012	SL012
City of Wichita	101252	12020397	Towne East - Upstream	2/3/2012	0525	Zinc, Tot. Rec., ICP-MS	28	ug/L	120208-2	2/9/2012	SL033
City of Wichita	102695	12041015	Towne East - Upstream	4/12/2012	1210	Zinc, Tot. Rec., ICP-MS	39	ug/L	120417-2	4/19/2012	SL033
City of Wichita	106030	12090970	Towne East - Upstream	9/13/2012	1635	Zinc, Tot. Rec., ICP-MS	ND(20)	ug/L	120919-6	9/26/2012	SL033
City of Wichita	101252	12020397	Towne East - Upstream	2/3/2012	0525	Cadmium, Dissolved, ICP-MS	ND(1) DM QC	ug/L	120206-4	2/8/2012	SL156
City of Wichita	102695	12041015	Towne East - Upstream	4/12/2012	1210	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120416-2	4/16/2012	SL156
City of Wichita	106030	12090970	Towne East - Upstream	9/13/2012	1635	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120918-4	9/25/2012	SL156
City of Wichita	101252	12020397	Towne East - Upstream	2/3/2012	0525	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120206-4	2/8/2012	SL162
City of Wichita	102695	12041015	Towne East - Upstream	4/12/2012	1210	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120416-2	4/16/2012	SL162
City of Wichita	106030	12090970	Towne East - Upstream	9/13/2012	1635	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120918-4	9/25/2012	SL162
City of Wichita	101252	12020397	Towne East - Upstream	2/3/2012	0525	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120206-4	2/8/2012	SL183
City of Wichita	102695	12041015	Towne East - Upstream	4/12/2012	1210	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120416-2	4/16/2012	SL183
City of Wichita	106030	12090970	Towne East - Upstream	9/13/2012	1635	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120918-4	9/25/2012	SL183
City of Wichita	101252	12020397	Towne East - Upstream	2/3/2012	0525	Hardness (Calculated)	29.9	mg/L as CaCO3	120206-3	2/6/2012	SL323
City of Wichita	102695	12041015	Towne East - Upstream	4/12/2012	1210	Hardness (Calculated)	38.9	mg/L as CaCO3	120413-5	4/14/2012	SL323
City of Wichita	106030	12090970	Towne East - Upstream	9/13/2012	1635	Hardness (Calculated)	61.1	mg/L as CaCO3	120921-7	9/24/2012	SL323
City of Wichita	102717	12041087	Westlink	4/12/2012	1315	E. Coli	3100 HT	MPN/100 mL	120413-1	4/13/2012	GL347
City of Wichita	106025	12090938	Westlink	9/13/2012	1430	E. Coli	980.	MPN/100 mL	120913-2	9/13/2012	GL347
City of Wichita	102689	12040999	Westlink - Composite	4/12/2012	1315	BOD	13	mg/L	120413-1	4/13/2012	GL123
City of Wichita	106037	12090988	Westlink - Composite	9/13/2012	1430	BOD	39	mg/L	120915-1	9/15/2012	GL123
City of Wichita	102689	12040999	Westlink - Composite	4/12/2012	1315	Phosphorus, Total, as P	0.44	mg/L	120426-1	4/26/2012	GL218
City of Wichita	106037	12090988	Westlink - Composite	9/13/2012	1430	Phosphorus, Total, as P	0.90	mg/L	120924-1	9/24/2012	GL218
City of Wichita	102689	12040999	Westlink - Composite	4/12/2012	1315	Solids, Total Dissolved	88	mg/L	120416-1	4/16/2012	GL242
City of Wichita	106037	12090988	Westlink - Composite	9/13/2012	1430	Solids, Total Dissolved	98	mg/L	120920-1	9/20/2012	GL242
City of Wichita	102689	12040999	Westlink - Composite	4/12/2012	1315	Solids, Total Suspended	141	mg/L	120418-1	4/18/2012	GL243
City of Wichita	106037	12090988	Westlink - Composite	9/13/2012	1430	Solids, Total Suspended	360.	mg/L	120919-4	9/19/2012	GL243
City of Wichita	102689	12040999	Westlink - Composite	4/12/2012	1315	Nitrogen (TKN + NO3/NO2), as N	3.1	mg/L		4/27/2012	GL343
City of Wichita	106037	12090988	Westlink - Composite	9/13/2012	1430	Nitrogen (TKN + NO3/NO2), as N	8.4	mg/L		9/26/2012	GL343
City of Wichita	102689	12040999	Westlink - Composite	4/12/2012	1315	Chloride	6.5	mg/L	2IC2103	4/12/2012	GL502
City of Wichita	106037	12090988	Westlink - Composite	9/13/2012	1430	Chloride	4.6	mg/L	2IC2258	9/14/2012	GL502
City of Wichita	102689	12040999	Westlink - Composite	4/12/2012	1315	Nitrite, as N	ND(0.1)	mg/L	2IC2103	4/12/2012	GL503
City of Wichita	106037	12090988	Westlink - Composite	9/13/2012	1430	Nitrite, as N	ND(0.1)	mg/L	2IC2258	9/14/2012	GL503
City of Wichita	102689	12040999	Westlink - Composite	4/12/2012	1315	Nitrate, as N	0.4	mg/L	2IC2103	4/12/2012	GL505
City of Wichita	106037	12090988	Westlink - Composite	9/13/2012	1430	Nitrate, as N	0.5	mg/L	2IC2258	9/14/2012	GL505
City of Wichita	102689	12040999	Westlink - Composite	4/12/2012	1315	Kjeldahl Nitrogen, as N (TKN)	2.7	mg/L	120417-2	4/24/2012	GL595
City of Wichita	106037	12090988	Westlink - Composite	9/13/2012	1430	Kjeldahl Nitrogen, as N (TKN)	7.9	mg/L	120924-1	9/25/2012	GL595

NAME	ORDERNO	LABNO	SAMPLE	DATESAM	TIMES	TESTNAME	RESULT	UNITS	BATCH	DATECOM	TESTCODE
City of Wichita	102689	12040999	Westlink - Composite	4/12/2012	1315	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-1	4/23/2012	SL006
City of Wichita	106037	12090988	Westlink - Composite	9/13/2012	1430	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120920-6	9/27/2012	SL006
City of Wichita	102689	12040999	Westlink - Composite	4/12/2012	1315	Copper, Tot. Rec., ICP-MS	8	ug/L	120417-1	4/20/2012	SL012
City of Wichita	106037	12090988	Westlink - Composite	9/13/2012	1430	Copper, Tot. Rec., ICP-MS	20	ug/L	120920-6	9/27/2012	SL012
City of Wichita	102689	12040999	Westlink - Composite	4/12/2012	1315	Zinc, Tot. Rec., ICP-MS	96	ug/L	120417-1	4/20/2012	SL033
City of Wichita	106037	12090988	Westlink - Composite	9/13/2012	1430	Zinc, Tot. Rec., ICP-MS	147	ug/L	120920-6	9/27/2012	SL033
City of Wichita	102689	12040999	Westlink - Composite	4/12/2012	1315	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120416-2	4/16/2012	SL156
City of Wichita	106037	12090988	Westlink - Composite	9/13/2012	1430	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120920-5	9/26/2012	SL156
City of Wichita	102689	12040999	Westlink - Composite	4/12/2012	1315	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120416-2	4/16/2012	SL162
City of Wichita	106037	12090988	Westlink - Composite	9/13/2012	1430	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120920-5	9/26/2012	SL162
City of Wichita	102689	12040999	Westlink - Composite	4/12/2012	1315	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120416-2	4/16/2012	SL183
City of Wichita	106037	12090988	Westlink - Composite	9/13/2012	1430	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120920-5	9/26/2012	SL183
City of Wichita	102689	12040999	Westlink - Composite	4/12/2012	1315	Hardness (Calculated)	42.2	mg/L as CaCO3	120413-5	4/14/2012	SL323
City of Wichita	106037	12090988	Westlink - Composite	9/13/2012	1430	Hardness (Calculated)	57.3	mg/L as CaCO3	120914-5	9/14/2012	SL323
City of Wichita	102689	12040998	Westlink - Grab	4/12/2012	1315	Solids, Total Dissolved	78	mg/L	120416-1	4/16/2012	GL242
City of Wichita	106037	12090987	Westlink - Grab	9/13/2012	1430	Solids, Total Dissolved	78	mg/L	120920-1	9/20/2012	GL242
City of Wichita	102689	12040998	Westlink - Grab	4/12/2012	1315	Solids, Total Suspended	109	mg/L	120418-1	4/18/2012	GL243
City of Wichita	106037	12090987	Westlink - Grab	9/13/2012	1430	Solids, Total Suspended	25	mg/L	120919-4	9/19/2012	GL243
City of Wichita	102689	12040998	Westlink - Grab	4/12/2012	1315	Chloride	5.9	mg/L	1IC1116	4/25/2012	GL502
City of Wichita	106037	12090987	Westlink - Grab	9/13/2012	1430	Chloride	3.8	mg/L	2IC2258	9/15/2012	GL502
City of Wichita	102689	12040998	Westlink - Grab	4/12/2012	1315	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120417-2	4/19/2012	SL006
City of Wichita	106037	12090987	Westlink - Grab	9/13/2012	1430	Cadmium, Tot. Rec., ICP-MS	ND(1)	ug/L	120920-6	9/27/2012	SL006
City of Wichita	102689	12040998	Westlink - Grab	4/12/2012	1315	Copper, Tot. Rec., ICP-MS	6	ug/L	120417-2	4/19/2012	SL012
City of Wichita	106037	12090987	Westlink - Grab	9/13/2012	1430	Copper, Tot. Rec., ICP-MS	9	ug/L	120920-6	9/27/2012	SL012
City of Wichita	102689	12040998	Westlink - Grab	4/12/2012	1315	Zinc, Tot. Rec., ICP-MS	58	ug/L	120417-2	4/19/2012	SL033
City of Wichita	106037	12090987	Westlink - Grab	9/13/2012	1430	Zinc, Tot. Rec., ICP-MS	73	ug/L	120920-6	9/27/2012	SL033
City of Wichita	102689	12040998	Westlink - Grab	4/12/2012	1315	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120419-4	4/23/2012	SL156
City of Wichita	106037	12090987	Westlink - Grab	9/13/2012	1430	Cadmium, Dissolved, ICP-MS	ND(1) DM	ug/L	120920-5	9/26/2012	SL156
City of Wichita	102689	12040998	Westlink - Grab	4/12/2012	1315	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120430-3	5/1/2012	SL162
City of Wichita	106037	12090987	Westlink - Grab	9/13/2012	1430	Copper, Dissolved, ICP-MS	ND(5) DM	ug/L	120920-5	9/26/2012	SL162
City of Wichita	102689	12040998	Westlink - Grab	4/12/2012	1315	Zinc, Dissolved, ICP-MS	46 DM	ug/L	120419-4	4/25/2012	SL183
City of Wichita	106037	12090987	Westlink - Grab	9/13/2012	1430	Zinc, Dissolved, ICP-MS	ND(20) DM	ug/L	120920-5	9/26/2012	SL183
City of Wichita	102689	12040998	Westlink - Grab	4/12/2012	1315	Hardness (Calculated)	38.6	mg/L as CaCO3	120417-5	4/17/2012	SL323
City of Wichita	106037	12090987	Westlink - Grab	9/13/2012	1430	Hardness (Calculated)	35.8	mg/L as CaCO3	120917-3	9/17/2012	SL323

Continental Analytical Services, Inc.

09/27/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 09/13/2012 1930
Continental File No.: 8339
Continental Order No.: 106029
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 10 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12090965	McLean - Grab	Liquid	9/13/2012
12090966	McLean - Composite	Liquid	9/13/2012
12090967	McLean - Upstream	Liquid	9/13/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106029

Lab Number: 12090965
Sample Description: McLean - Grab

Date Sampled: 09/13/2012
Time Sampled: 1455

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/221
Cadmium, Tot. Rec., ICP-MS	2	µg/L	7202/222
Copper, Dissolved, ICP-MS	7 DM	µg/L	7202/221
Copper, Tot. Rec., ICP-MS	21	µg/L	7202/222
Hardness (Calculated)	47.9	mg/L as CaCO3	7157/381
Zinc, Dissolved, ICP-MS	26 DM	µg/L	7202/221
Zinc, Tot. Rec., ICP-MS	220.	µg/L	7202/222
Chloride	9.6	mg/L	7277/105
Hexane Extractable Material	ND(5.0)	mg/L	7198/131
Solids, Total Dissolved	72	mg/L	7320/77
Solids, Total Suspended	78	mg/L	7320/76

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1755	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1823	120919-6	5IP3270	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1755	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1823	120919-6	5IP3270	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/17/12 1240	09/17/12 1902	120917-3	8IP4261	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1755	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1823	120919-6	5IP3270	KMW	200.8 Rev. 5.4
Chloride	N/A	09/15/12 0128	2IC2258	5IC2258	MLL	300.0
Hexane Extractable Materia	09/20/12	09/20/12 0829	120920-1	120920-1	JND	1664 Rev. A
Solids, Total Dissolved	N/A	09/19/12 1458	120919-1	120919-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1401	120919-3	120919-3	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B
HEM Preparation Method						1664

Conclusion of Lab Number: 12090965

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106029

Lab Number: 12090966
Sample Description: McLean - Composite

Date Sampled: 09/13/2012
Time Sampled: 1455

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/221
Cadmium, Tot. Rec., ICP-MS	2	µg/L	7202/222
Copper, Dissolved, ICP-MS	7 DM	µg/L	7202/221
Copper, Tot. Rec., ICP-MS	17	µg/L	7202/222
Hardness (Calculated)	40.	mg/L as CaCO3	7157/381
Zinc, Dissolved, ICP-MS	30 DM	µg/L	7202/221
Zinc, Tot. Rec., ICP-MS	152	µg/L	7202/222
BOD	9	mg/L	7060/542
Chloride	10.2	mg/L	7277/105
Kjeldahl Nitrogen, as N (TKN)	1.5	mg/L	6854/634
Nitrate, as N	0.3	mg/L	7277/105
Nitrite, as N	ND(0.1)	mg/L	7277/105
Nitrogen (TKN + NO3/NO2), as N	1.8	mg/L	9998/600
Phosphorus, Total, as P	ND(0.20)	mg/L	7321/32
Solids, Total Dissolved	74	mg/L	7320/77
Solids, Total Suspended	53	mg/L	7320/76

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1811	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1839	120919-6	6IP3270	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1811	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1839	120919-6	6IP3270	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/17/12 1240	09/17/12 1906	120917-3	8IP4261	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1811	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1839	120919-6	6IP3270	KMW	200.8 Rev. 5.4
BOD	N/A	09/14/12 1755	120914-2	120914-5	ASK	5210B-2001
Chloride	N/A	09/14/12 1519	1IC2258	2IC2258	MLL	300.0
Kjeldahl Nitrogen, as N (T	09/24/12 1045	09/25/12 1149	120924-1	120925-1	JND	EPA 351.2
Nitrate, as N	N/A	09/14/12 1519	1IC2258	2IC2258	MLL	300.0
Nitrite, as N	N/A	09/14/12 1519	1IC2258	2IC2258	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	09/26/12 0808			CJB	Calculation
Phosphorus, Total, as P	N/A	09/20/12 1632	120920-2	120920-4	KJH	4500-P(B&G)-1999
Solids, Total Dissolved	N/A	09/19/12 1458	120919-1	120919-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1401	120919-3	120919-3	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090966

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106029

Lab Number: 12090967
Sample Description: McLean - Upstream

Date Sampled: 09/13/2012
Time Sampled: 1500

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/221
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/222
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/221
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/222
Hardness (Calculated)	299	mg/L as CaCO3	7157/381
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/221
Zinc, Tot. Rec., ICP-MS	ND(20)	µg/L	7202/222
BOD	ND(5)	mg/L	7060/542
Chloride	150.	mg/L	7277/105
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	6854/634
Nitrate, as N	0.5	mg/L	7277/105
Nitrite, as N	ND(0.1)	mg/L	7277/105
Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L	9998/600
Phosphorus, Total, as P	ND(0.20)	mg/L	7321/32
Solids, Total Dissolved	628	mg/L	7320/77
Solids, Total Suspended	31	mg/L	7320/76

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1816	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1844	120919-6	6IP3270	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1816	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1844	120919-6	6IP3270	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/17/12 1240	09/17/12 1910	120917-3	8IP4261	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1816	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1844	120919-6	6IP3270	KMW	200.8 Rev. 5.4
BOD	N/A	09/14/12 1755	120914-2	120914-5	ASK	5210B-2001
Chloride	N/A	09/14/12 1907	1IC2258	3IC2258	MLL	300.0
Kjeldahl Nitrogen, as N (T	09/24/12 1045	09/25/12 1151	120924-1	120925-1	JND	EPA 351.2
Nitrate, as N	N/A	09/14/12 1534	1IC2258	2IC2258	MLL	300.0
Nitrite, as N	N/A	09/14/12 1534	1IC2258	2IC2258	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	09/26/12 0808			CJB	Calculation
Phosphorus, Total, as P	N/A	09/20/12 1633	120920-2	120920-4	KJH	4500-P(B&G)-1999
Solids, Total Dissolved	N/A	09/19/12 1458	120919-1	120919-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1401	120919-3	120919-3	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090967

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106029

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12090966	BOD	09/13/2012 1455	09/14/2012 1755	27:00
12090966	Nitrate, as N	09/13/2012 1455	09/14/2012 1519	24:24
12090966	Nitrite, as N	09/13/2012 1455	09/14/2012 1519	24:24
12090967	BOD	09/13/2012 1500	09/14/2012 1755	26:55
12090967	Nitrate, as N	09/13/2012 1500	09/14/2012 1534	24:34
12090967	Nitrite, as N	09/13/2012 1500	09/14/2012 1534	24:34

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106029

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106029

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120917-3	120917BLK3 09/17/12 18:30	120917LCS3 09/17/12 18:34	12090971MS 09/17/12 19:22
	Lab numbers associated with this batch: 12090965 12090966 12090967				
SL156	Cadmium, Dissolved, ICP-MS	120918-4	120918BLK4	120918LCS4	12090967MS
SL162	Copper, Dissolved, ICP-MS	120918-4	120918BLK4	120918LCS4	12090967MS
SL183	Zinc, Dissolved, ICP-MS	120918-4	120918BLK4 09/25/12 17:07	120918LCS4 09/25/12 17:13	12090967MS 09/25/12 18:21
	Lab numbers associated with this batch: 12090965 12090966 12090967				
SL006	Cadmium, Tot. Rec., ICP-MS	120919-6	120919BLK6	120919LCS6	12090967MS
SL012	Copper, Tot. Rec., ICP-MS	120919-6	120919BLK6	120919LCS6	12090967MS
SL033	Zinc, Tot. Rec., ICP-MS	120919-6	120919BLK6 09/26/12 17:56	120919LCS6 09/26/12 18:02	12090967MS 09/26/12 18:49
	Lab numbers associated with this batch: 12090965 12090966 12090967				
GL123	BOD	120914-2	120914BLK2 09/14/12 17:55	120914LCS2 09/14/12 17:55	12090966MS 09/14/12 17:55
	Lab numbers associated with this batch: 12090966 12090967				
GL502	Chloride	1IC2258	BLK1IC2258 09/14/12 11:16	LCS1IC2258 09/14/12 11:31	12090960MS 09/14/12 12:17
	Lab numbers associated with this batch: 12090966 12090967				
GL502	Chloride	2IC2258	BLK2IC2258 09/14/12 20:54	LCS2IC2258 09/14/12 21:09	12090823MS 09/15/12 04:46
	Lab numbers associated with this batch: 12090965				
GL188	Hexane Extractable Material	120920-1	120920BLK1 09/20/12 08:25	120920LCS1 09/20/12 08:26	12090520MS 09/20/12 08:26
	Lab numbers associated with this batch: 12090965				
GL595	Kjeldahl Nitrogen, as N (TKN)	120924-1	120924BLK1 09/25/12 11:36	120924LCS1 09/25/12 11:38	12090979MS 09/25/12 12:15
	Lab numbers associated with this batch: 12090966 12090967				
GL505	Nitrate, as N	1IC2258	BLK1IC2258	LCS1IC2258	12090960MS
GL503	Nitrite, as N	1IC2258	BLK1IC2258 09/14/12 11:16	LCS1IC2258 09/14/12 11:31	12090960MS 09/14/12 12:17
	Lab numbers associated with this batch: 12090966 12090967				

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106029

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12090966 12090967				
GL218	Phosphorus, Total, as P	120920-2	120920BLK2 09/20/12 1623	120920LCS2 09/20/12 1624	12090963MS 09/20/12 1630
	Lab numbers associated with this batch: 12090966 12090967				
GL242	Solids, Total Dissolved	120919-1	120919BLK1 09/19/12 14:55	120919LCS1 09/19/12	12090969MS 09/19/12 14:59
	Lab numbers associated with this batch: 12090965 12090966 12090967				
GL243	Solids, Total Suspended	120919-3	120919BLK3 09/19/12 13:58	120919LCS3 09/19/12	12090960MS 09/19/12 13:59
	Lab numbers associated with this batch: 12090965 12090966 12090967				

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106029

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120914-2	**For sample analyzed on: 09/14/2012**					**Spiked sample: 12090966**						
BOD	ND(5)	91.5	84.6-115	198	mg/L	9 T	9 T	#		mg/L	0.0	16.4
QC Batch: 120917-3	**For samples prepared on: 09/17/2012 1240**					**Spiked sample: 12090971**						
Hardness (Calculated)	ND(5.0)	99.7	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120918-6	**For samples prepared on: 09/18/2012 1227**					**Spiked sample: 12090967**						
Cadmium, Dissolved, ICP-MS	ND(1)	94.5	85.0-115	500	µg/L	89.0	88.7	80.0-120	500	µg/L	0.3	20.0
Copper, Dissolved, ICP-MS	ND(5)	90.5	85.0-115	500	µg/L	90.0	90.1	80.0-120	500	µg/L	0.1	20.0
Zinc, Dissolved, ICP-MS	ND(20)	96.2	85.0-115	500	µg/L	86.8	86.9	80.0-120	500	µg/L	0.1	20.0
QC Batch: 120919-1	**For sample analyzed on: 09/19/2012**					**Spiked sample: 12090969**						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120919-3	**For sample analyzed on: 09/19/2012**					**Spiked sample: 12090960**						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120919-6	**For samples prepared on: 09/19/2012 1113**					**Spiked sample: 12090967**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	95.4	85.0-115	500	µg/L	93.7	93.5	80.0-120	500	µg/L	0.2	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	89.2	85.0-115	500	µg/L	88.7	88.6	80.0-120	500	µg/L	0.1	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	99.3	99.2	80.0-120	500	µg/L	0.1	20.0
QC Batch: 120920-1	**For samples prepared on: 09/20/2012**					**Spiked sample: 12090520**						
Hexane Extractable Material	ND(1.4)	91.0	78.0-114	40.0	mg/L	MN	MN	78.0-114	40.0	mg/L	**	18.0
QC Batch: 120920-2	**For sample analyzed on: 09/20/2012**					**Spiked sample: 12090963**						
Phosphorus, Total, as P	ND(0.20)	104	88.8-110	2.0	mg/L	MN	MN	80.5-117	2.0	mg/L	**	5.7
QC Batch: 120924-1	**For samples prepared on: 09/24/2012 10:45**					**Spiked sample: 12090979**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	113	85.0-115	4.0	mg/L	MN	MN	81.2-133	4.0	mg/L	**	6.7
QC Batch: 1IC2258	**For sample analyzed on: 09/14/2012**					**Spiked sample: 12090960**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	4.0	mg/L	**	5.7
Nitrite, as N	ND(0.1)	99.9	90.0-110	2.0	mg/L	MN	MN	77.5-116	2.0	mg/L	**	10.2
Nitrate, as N	ND(0.1)	104	90.0-110	2.0	mg/L	MN	MN	81.7-121	2.0	mg/L	**	8.2
QC Batch: 2IC2258	**For sample analyzed on: 09/14/2012**					**Spiked sample: 12090823**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	40.0	mg/L	**	5.7

Data Qualifiers:

T - MS/MSD cannot be performed for this analysis. The MS result is the same as the sample result. The MSD result is a duplicate of the sample.

MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

\# - Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106029

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	09/25/2012	4IP3269	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/25/2012	5IP3269	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/25/2012	6IP3269	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/25/2012	4IP3269	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/25/2012	5IP3269	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/25/2012	6IP3269	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			
BOD	09/14/2012	120914-5	CCV recovery acceptable for this Instrument Batch.			
BOD	09/14/2012	120914-6	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	09/20/2012	120920-1	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	09/20/2012	120920-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/20/2012	120920-4	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/20/2012	120920-5	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	2IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	4IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	5IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/15/2012	6IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	2IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	2IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-1	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-2	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	8IP4261	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	9IP4261	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/25/2012	4IP3269	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/25/2012	5IP3269	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/25/2012	6IP3269	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO 18624
CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information	Invoice Information
Company Name: City of Wichita Sewage Treatment	Company Name: City of Wichita Sewage Treatment
Address: 2305 E. 57th Street South	Address: 2305 E. 57th Street South
City: Wichita State: KS Zip: 67216	City: Wichita State: KS Zip: 67216
Contact: Jim Hardesty E-mail:	Contact: Jim Hardesty E-mail:
Phone Number: (316)303-8700 Fax Number: (316)303-8712	Phone Number: (316)303-8700 Fax Number: (316)303-8712

Sampler's Name:(Printed) Justin Murphy
Sampler's Name:(Signature)
Purchase Order Number:
File Number: 5611
Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER:	Cadmium, Copper, Zinc - Total Recoverable 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Hexane Extractable Material 2 - 1000ml Amber Glass - H2SO4	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P	COMMENTS 5 Gal. container to be poured off at lab as needed for required tests. Remaininig volume will be saved for organics if needed
McLean-Grab	WW	N	9/13/12	1455	G	4			1	2	1		X	X	X						
McLean-Composite	WW	N	9/13/12	1455	C	1					1					X					
McLean-Upstream	WW	N	9/13/12	1500	G	4			1	1	2						X	X	X	X	

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT: (15 working days) Rush TAT: (5 working days) Emergency TAT: (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY:	DATE: 9/15/12	TIME: 730pm	RECEIVED BY:	DATE:	TIME:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
RECEIVED AT LAB BY:	DATE: 9/13/12	TIME: 18:30	SHIPPED VIA: / AIRBILL:	SEAL #: / SEAL DATE:	

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 108029

Client Name: City of Wichita

CAS File No.: 8339

Sample ID's in cooler: McLean

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: McClean & Walker / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 9 / 13 / 12 19 : 30

Delivered By: UPS / FedX / AB Express / Field Svcs / Mail / (Walk-in) / Other: _____

Custody Seal: Present: Intact / Broken (Absent) Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.4 Corrected Reading (°C) 0.9
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): +0.5
☒ Evidence of Cooling and date received = date sampled

AB 9/13/12

Sample Receipt Discrepancies: ☒ No ☐ Yes (See below for discrepancies.)

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: AB Date Completed: 9-14-12

Continental Analytical Services, Inc.

09/27/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 09/13/2012 1930
Continental File No.: 8339
Continental Order No.: 106033
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 12 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12090977	13th and River - Grab	Liquid	9/13/2012
12090978	13th and River - Composite	Liquid	9/13/2012
12090979	13th and River - Upstream	Liquid	9/13/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106033

Lab Number: 12090977
Sample Description: 13th and River - Grab

Date Sampled: 09/13/2012
Time Sampled: 1530

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/222
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/222
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/222
Copper, Tot. Rec., ICP-MS	6	µg/L	7202/222
Hardness (Calculated)	25.5	mg/L as CaCO3	7157/381
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/222
Zinc, Tot. Rec., ICP-MS	38	µg/L	7202/222
Chloride	2.7	mg/L	7277/105
Solids, Total Dissolved	46	mg/L	7320/77
Solids, Total Suspended	61	mg/L	7320/76

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2102	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1926	120919-6	6IP3270	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2102	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1926	120919-6	6IP3270	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/17/12 1240	09/17/12 1950	120917-3	9IP4261	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2102	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1926	120919-6	6IP3270	KMW	200.8 Rev. 5.4
Chloride	N/A	09/15/12 0259	2IC2258	6IC2258	MLL	300.0
Solids, Total Dissolved	N/A	09/19/12 1502	120919-1	120919-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1404	120919-3	120919-3	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090977

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106033

Lab Number: 12090978
Sample Description: 13th and River - Composite

Date Sampled: 09/13/2012
Time Sampled: 1530

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/222
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/222
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/222
Copper, Tot. Rec., ICP-MS	6	µg/L	7202/222
Hardness (Calculated)	22.5	mg/L as CaCO3	7157/381
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/222
Zinc, Tot. Rec., ICP-MS	38	µg/L	7202/222
BOD	10.	mg/L	7060/543
Chloride	2.9	mg/L	7277/105
Kjeldahl Nitrogen, as N (TKN)	1.3	mg/L	6854/634
Nitrate, as N	0.4	mg/L	7277/105
Nitrite, as N	ND(0.1)	mg/L	7277/105
Nitrogen (TKN + NO3/NO2), as N	1.7	mg/L	9998/600
Phosphorus, Total, as P	0.21	mg/L	7321/34
Solids, Total Dissolved	46	mg/L	7320/77
Solids, Total Suspended	23	mg/L	7320/76

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2107	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1942	120919-6	7IP3270	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2107	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1942	120919-6	7IP3270	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/17/12 1240	09/17/12 1954	120917-3	9IP4261	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2107	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1942	120919-6	7IP3270	KMW	200.8 Rev. 5.4
BOD	N/A	09/15/12 1311	120915-1	120915-1	ASK	5210B-2001
Chloride	N/A	09/14/12 1751	1IC2258	3IC2258	MLL	300.0
Kjeldahl Nitrogen, as N (T	09/24/12 1045	09/25/12 1210	120924-1	120925-2	JND	EPA 351.2
Nitrate, as N	N/A	09/14/12 1751	1IC2258	3IC2258	MLL	300.0
Nitrite, as N	N/A	09/14/12 1751	1IC2258	3IC2258	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	09/26/12 0808			CJB	Calculation
Phosphorus, Total, as P	N/A	09/24/12 1458	120924-1	120924-1	KJH	4500-P(B&G)-1999
Solids, Total Dissolved	N/A	09/19/12 1503	120919-1	120919-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1404	120919-3	120919-3	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090978

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106033

Lab Number: 12090979
Sample Description: 13th and River - Upstream

Date Sampled: 09/13/2012
Time Sampled: 1535

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/221
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/222
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/221
Copper, Tot. Rec., ICP-MS	5	µg/L	7202/222
Hardness (Calculated)	225	mg/L as CaCO3	7157/388
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/221
Zinc, Tot. Rec., ICP-MS	ND(20)	µg/L	7202/222
BOD	ND(5)	mg/L	7060/543
Chloride	112	mg/L	7277/105
Kjeldahl Nitrogen, as N (TKN)	1.4	mg/L	6854/634
Nitrate, as N	0.1	mg/L	7277/105
Nitrite, as N	ND(0.1)	mg/L	7277/105
Nitrogen (TKN + NO3/NO2), as N	1.5	mg/L	9998/600
Phosphorus, Total, as P	0.25	mg/L	7321/34
Solids, Total Dissolved	534	mg/L	7320/81
Solids, Total Suspended	56	mg/L	7320/78

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1914	120918-4	6IP3269	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/19/12 1021	09/26/12 1740	120919-5	5IP3270	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1914	120918-4	6IP3269	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/19/12 1021	09/26/12 1740	120919-5	5IP3270	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/21/12 1215	09/24/12 2100	120921-7	6IP4268	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1914	120918-4	6IP3269	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/19/12 1021	09/26/12 1740	120919-5	5IP3270	KMW	200.8 Rev. 5.4
BOD	N/A	09/15/12 1311	120915-1	120915-1	ASK	5210B-2001
Chloride	N/A	09/14/12 2039	1IC2258	4IC2258	MLL	300.0
Kjeldahl Nitrogen, as N (T	09/24/12 1045	09/25/12 1212	120924-1	120925-2	JND	EPA 351.2
Nitrate, as N	N/A	09/14/12 1807	1IC2258	3IC2258	MLL	300.0
Nitrite, as N	N/A	09/14/12 1807	1IC2258	3IC2258	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	09/26/12 0808			CJB	Calculation
Phosphorus, Total, as P	N/A	09/24/12 1459	120924-1	120924-1	KJH	4500-P(B&G)-1999
Solids, Total Dissolved	N/A	09/20/12 1632	120920-1	120920-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1621	120919-4	120919-4	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090979

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106033

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12090978	BOD	09/13/2012 1530	09/15/2012 1311	45:41
12090978	Nitrate, as N	09/13/2012 1530	09/14/2012 1751	26:21
12090978	Nitrite, as N	09/13/2012 1530	09/14/2012 1751	26:21
12090979	BOD	09/13/2012 1535	09/15/2012 1311	45:36
12090979	Nitrate, as N	09/13/2012 1535	09/14/2012 1807	26:32
12090979	Nitrite, as N	09/13/2012 1535	09/14/2012 1807	26:32

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106033

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106033

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120917-3	120917BLK3 09/17/12 18:30	120917LCS3 09/17/12 18:34	12090971MS 09/17/12 19:22
Lab numbers associated with this batch: 12090977 12090978					
SL156	Cadmium, Dissolved, ICP-MS	120918-4	120918BLK4	120918LCS4	12090967MS
SL162	Copper, Dissolved, ICP-MS	120918-4	120918BLK4	120918LCS4	12090967MS
SL183	Zinc, Dissolved, ICP-MS	120918-4	120918BLK4 09/25/12 17:07	120918LCS4 09/25/12 17:13	12090967MS 09/25/12 18:21
Lab numbers associated with this batch: 12090979					
SL006	Cadmium, Tot. Rec., ICP-MS	120919-5	120919BLK5	120919LCS5	
SL012	Copper, Tot. Rec., ICP-MS	120919-5	120919BLK5	120919LCS5	
SL033	Zinc, Tot. Rec., ICP-MS	120919-5	120919BLK5 09/26/12 16:58	120919LCS5 09/26/12 17:03	
Lab numbers associated with this batch: 12090979					
SL006	Cadmium, Tot. Rec., ICP-MS	120919-6	120919BLK6	120919LCS6	12090967MS
SL012	Copper, Tot. Rec., ICP-MS	120919-6	120919BLK6	120919LCS6	12090967MS
SL033	Zinc, Tot. Rec., ICP-MS	120919-6	120919BLK6 09/26/12 17:56	120919LCS6 09/26/12 18:02	12090967MS 09/26/12 18:49
Lab numbers associated with this batch: 12090977 12090978					
SL156	Cadmium, Dissolved, ICP-MS	120920-5	120920BLK5	120920LCS5	12090972MS
SL162	Copper, Dissolved, ICP-MS	120920-5	120920BLK5	120920LCS5	12090972MS
SL183	Zinc, Dissolved, ICP-MS	120920-5	120920BLK5 09/26/12 20:03	120920LCS5 09/26/12 20:09	12090972MS 09/26/12 20:25
Lab numbers associated with this batch: 12090977 12090978					
SL323	Hardness (Calculated)	120921-7	120921BLK7 09/24/12 20:20	120921LCS7 09/24/12 20:32	12090970MS 09/24/12 20:40
Lab numbers associated with this batch: 12090979					
GL123	BOD	120915-1	120915BLK1 09/15/12 13:11	120915LCS1 09/15/12 13:11	12090972MS 09/15/12 13:11
Lab numbers associated with this batch: 12090978 12090979					
GL502	Chloride	1IC2258	BLK1IC2258 09/14/12 11:16	LCS1IC2258 09/14/12 11:31	12090960MS 09/14/12 12:17
Lab numbers associated with this batch: 12090978 12090979					
GL502	Chloride	2IC2258	BLK2IC2258 09/14/12 20:54	LCS2IC2258 09/14/12 21:09	12090823MS 09/15/12 04:46
Lab numbers associated with this batch: 12090977					

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106033

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL595	Kjeldahl Nitrogen, as N (TKN)	120924-1	120924BLK1 09/25/12 11:36	120924LCS1 09/25/12 11:38	12090979MS 09/25/12 12:15
	Lab numbers associated with this batch: 12090978 12090979				
GL505	Nitrate, as N	1IC2258	BLK1IC2258	LCS1IC2258	12090960MS
GL503	Nitrite, as N	1IC2258	BLK1IC2258 09/14/12 11:16	LCS1IC2258 09/14/12 11:31	12090960MS 09/14/12 12:17
	Lab numbers associated with this batch: 12090978 12090979				
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12090978 12090979				
GL218	Phosphorus, Total, as P	120924-1	120924BLK1 09/24/12 1452	120924LCS1 09/24/12 1453	12090972MS 09/24/12 1454
	Lab numbers associated with this batch: 12090978 12090979				
GL242	Solids, Total Dissolved	120919-1	120919BLK1 09/19/12 14:55	120919LCS1 09/19/12	12090969MS 09/19/12 14:59
	Lab numbers associated with this batch: 12090977 12090978				
GL242	Solids, Total Dissolved	120920-1	120920BLK1 09/20/12 16:31	120920LCS1 09/20/12	12090979MS 09/20/12 16:32
	Lab numbers associated with this batch: 12090979				
GL243	Solids, Total Suspended	120919-3	120919BLK3 09/19/12 13:58	120919LCS3 09/19/12	12090960MS 09/19/12 13:59
	Lab numbers associated with this batch: 12090977 12090978				
GL243	Solids, Total Suspended	120919-4	120919BLK4 09/19/12 16:20	120919LCS4 09/19/12	12090981MS 09/19/12 16:21
	Lab numbers associated with this batch: 12090979				

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106033

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120915-1	For sample analyzed on: 09/15/2012					Spiked sample: 12090972						
BOD	ND(5)	99.4	84.6-115	198	mg/L	MN	MN	#		mg/L	**	16.4
QC Batch: 120917-3	For samples prepared on: 09/17/2012 1240					Spiked sample: 12090971						
Hardness (Calculated)	ND(5.0)	99.7	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120918-4	For samples prepared on: 09/18/2012 1227					Spiked sample: 12090967						
Cadmium, Dissolved, ICP-MS	ND(1)	94.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	90.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	96.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120919-1	For sample analyzed on: 09/19/2012					Spiked sample: 12090969						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120919-3	For sample analyzed on: 09/19/2012					Spiked sample: 12090960						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120919-4	For sample analyzed on: 09/19/2012					Spiked sample: 12090981						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120919-5	For samples prepared on: 09/19/2012 1021					Spiked sample:						
Cadmium, Tot. Rec., ICP-MS	ND(1)	97.7	85.0-115	500	µg/L	MN	MN	80.0-120			**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	90.2	85.0-115	500	µg/L	MN	MN	80.0-120			**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	103	85.0-115	500	µg/L	MN	MN	80.0-120			**	20.0
QC Batch: 120919-6	For samples prepared on: 09/19/2012 1113					Spiked sample: 12090967						
Cadmium, Tot. Rec., ICP-MS	ND(1)	95.4	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	89.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120920-1	For sample analyzed on: 09/20/2012					Spiked sample: 12090979						
Solids, Total Dissolved	ND(30)	N/A			mg/L	534 T	536 T	#		mg/L	0.4	5.9
QC Batch: 120920-5	For samples prepared on: 09/20/2012 1014					Spiked sample: 12090972						
Cadmium, Dissolved, ICP-MS	ND(1)	90.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	85.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	96.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120921-7	For samples prepared on: 09/21/2012 1215					Spiked sample: 12090970						
Hardness (Calculated)	ND(5.0)	90.4	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120924-1	For sample analyzed on: 09/24/2012					Spiked sample: 12090972						
Phosphorus, Total, as P	ND(0.20)	101	88.8-110	2.0	mg/L	MN	MN	80.5-117	2.0	mg/L	**	5.7
QC Batch: 120924-1	For samples prepared on: 09/24/2012 10:45					Spiked sample: 12090979						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	113	85.0-115	4.0	mg/L	95.0	91.0	81.2-133	4.0	mg/L	4.3	6.7
QC Batch: 1IC2258	For sample analyzed on: 09/14/2012					Spiked sample: 12090960						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	4.0	mg/L	**	5.7
Nitrite, as N	ND(0.1)	99.9	90.0-110	2.0	mg/L	MN	MN	77.5-116	2.0	mg/L	**	10.2
Nitrate, as N	ND(0.1)	104	90.0-110	2.0	mg/L	MN	MN	81.7-121	2.0	mg/L	**	8.2
QC Batch: 2IC2258	For sample analyzed on: 09/14/2012					Spiked sample: 12090823						

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106033

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 2IC2258	**For sample analyzed on: 09/14/2012**					**Spiked sample: 12090823**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	40.0	mg/L	**	5.7

Data Qualifiers:

MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

T - MS/MSD cannot be performed for this analysis. The MS result is the same as the sample result. The MSD result is a duplicate of the sample.

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106033

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/25/2012	6IP3269	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/25/2012	7IP3269	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/25/2012	6IP3269	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/25/2012	7IP3269	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.			
BOD	09/15/2012	120915-1	CCV recovery acceptable for this Instrument Batch.			
BOD	09/15/2012	120915-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/24/2012	120924-1	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/24/2012	120924-2	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	4IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	5IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/15/2012	6IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/15/2012	7IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	4IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	4IC2258	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-2	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-3	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	10IP4261	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/24/2012	6IP4268	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/24/2012	7IP4268	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	9IP4261	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/25/2012	6IP3269	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/25/2012	7IP3269	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.			

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Quality Control Report
Continuing Calibration Data Summary

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106033

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.
525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO. 10003

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information	Invoice Information
Company Name: City of Wichita Sewage Treatment	Company Name: City of Wichita Sewage Treatment
Address: 2305 E. 57th Street South	Address: 2305 E. 57th Street South
City: Wichita State: KS Zip: 67216	City: Wichita State: KS Zip: 67216
Contact: Jim Hardesty E-mail:	Contact: Jim Hardesty E-mail:
Phone Number: (316)303-8700 Fax Number: (316)303-8712	Phone Number: (316)303-8700 Fax Number: (316)303-8712
Sampler's Name:(Printed) Justin Murphy	Sampler's Name:(Signature)
File Number: 5611	Project Name: Stormwater
Purchase Order Number:	

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER:	Total Metals 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P		COMMENTS 5 Gal. container to be poured off at lab as needed for required tests. Remaininig volume will be saved for organics if needed
13th and River-Grab	WW	N	9/13/12	1530	G	4			1	2	1		X	X							
13th and River-Composite	WW	N	9/13/12	1530	C	1					1				X						
13th and River-Upstream	WW	N	9/13/12	1535	G	4			1	1	2					X	X	X	X		

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT: (15 working days) Rush TAT: (5 working days) Emergency TAT: (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY: Kathryn	DATE: 9/13/12	TIME: 730pm	RECEIVED BY:	DATE:	TIME:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
RECEIVED AT LAB BY: Jenny J. Greene	DATE: 9/13/12	TIME: 1930	SHIPPED VIA: AIRBILL:	SEAL #: SEAL DATE:	

J:\Amelia\C... ...ta Stormwater COCs.xlsx\9/13/2012

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 180B33

Client Name: City of Wichita

CAS File No.: 8339

Sample ID's in cooler: 13th & River

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: 3270 / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 9 / 13 / 12 19 : 30

Delivered By: UPS / FedX / AB Express / Field Svcs / Mail / (Walk-In) / Other: _____

Custody Seal: Present: Intact / Broken (Absent:) Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 1.2 Corrected Reading (°C) 1.7
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): +0.5
☒ Evidence of Cooling and date received = date sampled

AB 9/13/12

Sample Receipt Discrepancies: ☒ No ☐ Yes (See below for discrepancies.)

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: AB Date Completed: 9.14.12

Continental Analytical Services, Inc.

09/27/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 09/13/2012 1930
Continental File No.: 8339
Continental Order No.: 106034
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 12 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12090980	21st and Hood - Grab	Liquid	9/13/2012
12090981	21st and Hood - Composite	Liquid	9/13/2012
12090982	21st and Hood - Upstream	Liquid	9/13/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106034

Lab Number: 12090980
Sample Description: 21st and Hood - Grab

Date Sampled: 09/13/2012
Time Sampled: 1515

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/222
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/222
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/222
Copper, Tot. Rec., ICP-MS	10	µg/L	7202/222
Hardness (Calculated)	34	mg/L as CaCO3	7157/381
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/222
Zinc, Tot. Rec., ICP-MS	85	µg/L	7202/222
Chloride	1.4	mg/L	7277/105
Solids, Total Dissolved	42	mg/L	7320/81
Solids, Total Suspended	49	mg/L	7320/78

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2113	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1948	120919-6	7IP3270	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2113	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1948	120919-6	7IP3270	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/17/12 1240	09/17/12 1958	120917-3	9IP4261	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2113	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1948	120919-6	7IP3270	KMW	200.8 Rev. 5.4
Chloride	N/A	09/15/12 0314	2IC2258	6IC2258	MLL	300.0
Solids, Total Dissolved	N/A	09/20/12 1632	120920-1	120920-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1621	120919-4	120919-4	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090980

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106034

Lab Number: 12090981
Sample Description: 21st and Hood - Composite

Date Sampled: 09/13/2012
Time Sampled: 1515

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/222
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/222
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/222
Copper, Tot. Rec., ICP-MS	10.	µg/L	7202/222
Hardness (Calculated)	34.0	mg/L as CaCO3	7157/379
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/222
Zinc, Tot. Rec., ICP-MS	87	µg/L	7202/222
BOD	9	mg/L	7060/543
Chloride	2.6	mg/L	7277/105
Kjeldahl Nitrogen, as N (TKN)	1.4	mg/L	6854/634
Nitrate, as N	0.3	mg/L	7277/105
Nitrite, as N	ND(0.1)	mg/L	7277/105
Nitrogen (TKN + NO3/NO2), as N	1.7	mg/L	9998/600
Phosphorus, Total, as P	0.21	mg/L	7321/34
Solids, Total Dissolved	56	mg/L	7320/81
Solids, Total Suspended	59	mg/L	7320/78

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2118	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/19/12 1021	09/26/12 1746	120919-5	5IP3270	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2118	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/19/12 1021	09/26/12 1746	120919-5	5IP3270	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/14/12 1344	09/14/12 1934	120914-5	8IP4258	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2118	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/19/12 1021	09/26/12 1746	120919-5	5IP3270	KMW	200.8 Rev. 5.4
BOD	N/A	09/15/12 1311	120915-1	120915-1	ASK	5210B-2001
Chloride	N/A	09/14/12 2124	2IC2258	4IC2258	MLL	300.0
Kjeldahl Nitrogen, as N (T	09/24/12 1045	09/25/12 1223	120924-1	120925-3	JND	EPA 351.2
Nitrate, as N	N/A	09/14/12 2124	2IC2258	4IC2258	MLL	300.0
Nitrite, as N	N/A	09/14/12 2124	2IC2258	4IC2258	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	09/26/12 0808			CJB	Calculation
Phosphorus, Total, as P	N/A	09/24/12 1501	120924-1	120924-2	KJH	4500-P(B&G)-1999
Solids, Total Dissolved	N/A	09/20/12 1633	120920-1	120920-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1621	120919-4	120919-4	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090981

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106034

Lab Number: 12090982
Sample Description: 21st and Hood - Upstream

Date Sampled: 09/13/2012
Time Sampled: 1520

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/221
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/222
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/221
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/222
Hardness (Calculated)	244	mg/L as CaCO3	7157/388
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/221
Zinc, Tot. Rec., ICP-MS	ND(20)	µg/L	7202/222
BOD	6	mg/L	7060/543
Chloride	129	mg/L	7277/105
Kjeldahl Nitrogen, as N (TKN)	1.6	mg/L	6854/634
Nitrate, as N	0.4	mg/L	7277/105
Nitrite, as N	ND(0.1)	mg/L	7277/105
Nitrogen (TKN + NO3/NO2), as N	2.0	mg/L	9998/600
Phosphorus, Total, as P	ND(0.20)	mg/L	7321/34
Solids, Total Dissolved	568	mg/L	7320/81
Solids, Total Suspended	101	mg/L	7320/78

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1920	120918-4	6IP3269	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1953	120919-6	7IP3270	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1920	120918-4	6IP3269	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1953	120919-6	7IP3270	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/21/12 1215	09/24/12 2104	120921-7	6IP4268	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1920	120918-4	6IP3269	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1953	120919-6	7IP3270	KMW	200.8 Rev. 5.4
BOD	N/A	09/15/12 1311	120915-1	120915-1	ASK	5210B-2001
Chloride	N/A	09/14/12 2210	2IC2258	4IC2258	MLL	300.0
Kjeldahl Nitrogen, as N (T	09/24/12 1045	09/25/12 1225	120924-1	120925-3	JND	EPA 351.2
Nitrate, as N	N/A	09/14/12 2155	2IC2258	4IC2258	MLL	300.0
Nitrite, as N	N/A	09/14/12 2155	2IC2258	4IC2258	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	09/26/12 0808			CJB	Calculation
Phosphorus, Total, as P	N/A	09/24/12 1502	120924-1	120924-2	KJH	4500-P(B&G)-1999
Solids, Total Dissolved	N/A	09/20/12 1633	120920-1	120920-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1622	120919-4	120919-4	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090982

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106034

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12090981	BOD	09/13/2012 1515	09/15/2012 1311	45:56
12090981	Nitrate, as N	09/13/2012 1515	09/14/2012 2124	30:09
12090981	Nitrite, as N	09/13/2012 1515	09/14/2012 2124	30:09
12090982	BOD	09/13/2012 1520	09/15/2012 1311	45:51
12090982	Nitrate, as N	09/13/2012 1520	09/14/2012 2155	30:35
12090982	Nitrite, as N	09/13/2012 1520	09/14/2012 2155	30:35

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106034

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Quality Control Report
Batch Summary

Client: City of Wichita
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City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106034

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120914-5	120914BLK5 09/14/12 18:30	120914LCS5 09/14/12 18:34	12091073MS 09/14/12 20:07
Lab numbers associated with this batch: 12090981					
SL323	Hardness (Calculated)	120917-3	120917BLK3 09/17/12 18:30	120917LCS3 09/17/12 18:34	12090971MS 09/17/12 19:22
Lab numbers associated with this batch: 12090980					
SL156	Cadmium, Dissolved, ICP-MS	120918-4	120918BLK4	120918LCS4	12090967MS
SL162	Copper, Dissolved, ICP-MS	120918-4	120918BLK4	120918LCS4	12090967MS
SL183	Zinc, Dissolved, ICP-MS	120918-4	120918BLK4 09/25/12 17:07	120918LCS4 09/25/12 17:13	12090967MS 09/25/12 18:21
Lab numbers associated with this batch: 12090982					
SL006	Cadmium, Tot. Rec., ICP-MS	120919-5	120919BLK5	120919LCS5	
SL012	Copper, Tot. Rec., ICP-MS	120919-5	120919BLK5	120919LCS5	
SL033	Zinc, Tot. Rec., ICP-MS	120919-5	120919BLK5 09/26/12 16:58	120919LCS5 09/26/12 17:03	
Lab numbers associated with this batch: 12090981					
SL006	Cadmium, Tot. Rec., ICP-MS	120919-6	120919BLK6	120919LCS6	12090967MS
SL012	Copper, Tot. Rec., ICP-MS	120919-6	120919BLK6	120919LCS6	12090967MS
SL033	Zinc, Tot. Rec., ICP-MS	120919-6	120919BLK6 09/26/12 17:56	120919LCS6 09/26/12 18:02	12090967MS 09/26/12 18:49
Lab numbers associated with this batch: 12090980 12090982					
SL156	Cadmium, Dissolved, ICP-MS	120920-5	120920BLK5	120920LCS5	12090972MS
SL162	Copper, Dissolved, ICP-MS	120920-5	120920BLK5	120920LCS5	12090972MS
SL183	Zinc, Dissolved, ICP-MS	120920-5	120920BLK5 09/26/12 20:03	120920LCS5 09/26/12 20:09	12090972MS 09/26/12 20:25
Lab numbers associated with this batch: 12090980 12090981					
SL323	Hardness (Calculated)	120921-7	120921BLK7 09/24/12 20:20	120921LCS7 09/24/12 20:32	12090970MS 09/24/12 20:40
Lab numbers associated with this batch: 12090982					
GL123	BOD	120915-1	120915BLK1 09/15/12 13:11	120915LCS1 09/15/12 13:11	12090972MS 09/15/12 13:11
Lab numbers associated with this batch: 12090981 12090982					
GL502	Chloride	2IC2258	BLK2IC2258 09/14/12 20:54	LCS2IC2258 09/14/12 21:09	12090823MS 09/15/12 04:46
Lab numbers associated with this batch: 12090980 12090981 12090982					

Quality Control Report
Batch Summary

Client: City of Wichita
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Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106034

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL595	Kjeldahl Nitrogen, as N (TKN)	120924-1	120924BLK1 09/25/12 11:36	120924LCS1 09/25/12 11:38	12090979MS 09/25/12 12:15
	Lab numbers associated with this batch: 12090981 12090982				
GL505	Nitrate, as N	2IC2258	BLK2IC2258	LCS2IC2258	
GL503	Nitrite, as N	2IC2258	BLK2IC2258 09/14/12 20:54	LCS2IC2258 09/14/12 21:09	
	Lab numbers associated with this batch: 12090981 12090982				
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12090981 12090982				
GL218	Phosphorus, Total, as P	120924-1	120924BLK1 09/24/12 1452	120924LCS1 09/24/12 1453	12090972MS 09/24/12 1454
	Lab numbers associated with this batch: 12090981 12090982				
GL242	Solids, Total Dissolved	120920-1	120920BLK1 09/20/12 16:31	120920LCS1 09/20/12	12090979MS 09/20/12 16:32
	Lab numbers associated with this batch: 12090980 12090981 12090982				
GL243	Solids, Total Suspended	120919-4	120919BLK4 09/19/12 16:20	120919LCS4 09/19/12	12090981MS 09/19/12 16:21
	Lab numbers associated with this batch: 12090980 12090981 12090982				

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106034

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120914-5	**For samples prepared on: 09/14/2012 1344**					**Spiked sample: 12091073**						
Hardness (Calculated)	ND(5.0)	96.5	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120915-1	**For sample analyzed on: 09/15/2012**					**Spiked sample: 12090972**						
BOD	ND(5)	99.4	84.6-115	198	mg/L	MN	MN	#		mg/L	**	16.4
QC Batch: 120917-3	**For samples prepared on: 09/17/2012 1240**					**Spiked sample: 12090971**						
Hardness (Calculated)	ND(5.0)	99.7	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120918-4	**For samples prepared on: 09/18/2012 1227**					**Spiked sample: 12090967**						
Cadmium, Dissolved, ICP-MS	ND(1)	94.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	90.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	96.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120919-4	**For sample analyzed on: 09/19/2012**					**Spiked sample: 12090981**						
Solids, Total Suspended	ND(5)	N/A			mg/L	59 T	58 T	#		mg/L	1.7	27.6
QC Batch: 120919-5	**For samples prepared on: 09/19/2012 1021**					**Spiked sample:**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	97.7	85.0-115	500	µg/L	MN	MN	80.0-120			**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	90.2	85.0-115	500	µg/L	MN	MN	80.0-120			**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	103	85.0-115	500	µg/L	MN	MN	80.0-120			**	20.0
QC Batch: 120919-6	**For samples prepared on: 09/19/2012 1113**					**Spiked sample: 12090967**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	95.4	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	89.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120920-1	**For sample analyzed on: 09/20/2012**					**Spiked sample: 12090979**						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120920-5	**For samples prepared on: 09/20/2012 1014**					**Spiked sample: 12090972**						
Cadmium, Dissolved, ICP-MS	ND(1)	90.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	85.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	96.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120921-7	**For samples prepared on: 09/21/2012 1215**					**Spiked sample: 12090970**						
Hardness (Calculated)	ND(5.0)	90.4	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120924-1	**For sample analyzed on: 09/24/2012**					**Spiked sample: 12090972**						
Phosphorus, Total, as P	ND(0.20)	101	88.8-110	2.0	mg/L	MN	MN	80.5-117	2.0	mg/L	**	5.7
QC Batch: 120924-1	**For samples prepared on: 09/24/2012 10:45**					**Spiked sample: 12090979**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	113	85.0-115	4.0	mg/L	MN	MN	81.2-133	4.0	mg/L	**	6.7
QC Batch: 2IC2258	**For sample analyzed on: 09/14/2012**					**Spiked sample:**						
Nitrite, as N	ND(0.1)	101	90.0-110	2.0	mg/L	MN	MN	77.5-116			**	10.2
Nitrate, as N	ND(0.1)	98.4	90.0-110	2.0	mg/L	MN	MN	81.7-121			**	8.2
QC Batch: 2IC2258	**For sample analyzed on: 09/14/2012**					**Spiked sample: 12090823**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	40.0	mg/L	**	5.7

Data Qualifiers:
MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106034

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit

T - MS/MSD cannot be performed for this analysis. The MS result is the same as the sample result. The MSD result is a duplicate of the sample.

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106034

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/25/2012	6IP3269	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/25/2012	7IP3269	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/25/2012	6IP3269	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/25/2012	7IP3269	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.			
BOD	09/15/2012	120915-1	CCV recovery acceptable for this Instrument Batch.			
BOD	09/15/2012	120915-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/24/2012	120924-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/24/2012	120924-3	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	4IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	5IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/15/2012	6IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/15/2012	7IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	4IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	5IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	4IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	5IC2258	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-3	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-4	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	10IP4261	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/24/2012	6IP4268	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/24/2012	7IP4268	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/14/2012	8IP4258	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/14/2012	9IP4258	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	9IP4261	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/25/2012	6IP3269	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/25/2012	7IP3269	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106034

Zinc, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.
525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO. 106034
CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information	Invoice Information
Company Name: City of Wichita Sewage Treatment	Company Name: City of Wichita Sewage Treatment
Address: 2305 E. 57th Street South	Address: 2305 E. 57th Street South
City: Wichita State: KS Zip: 67216	City: Wichita State: KS Zip: 67216
Contact: Jim Hardesty E-mail:	Contact: Jim Hardesty E-mail:
Phone Number: (316)303-8700 Fax Number: (316)303-8712	Phone Number: (316)303-8700 Fax Number: (316)303-8712

Sampler's Name:(Printed) Justin Murphy
Sampler's Name:(Signature)
Purchase Order Number:
File Number: 5611
Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER	Total Metals 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P		COMMENTS 5 Gal. container to be poured off at lab as needed for required tests. Remainining volume will be saved for organics if needed
21st and Hood-Grab	WW	N	9/13/12	1515	G	4			1	2	1		X	X						Discrepancies See C/S RF 9-14-12	
21st and Hood-Composite	WW	N	9/13/12	1515	C	1					1				X						
21st and Hood-Upstream	WW	N	9/13/12	1520	G	4			1	1	2					X	X	X	X		

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT: (15 working days) Rush TAT: (5 working days) Emergency TAT: (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY: Kodi Pina	DATE: 9/13/12	TIME: 730 pm	RECEIVED BY:	DATE:	TIME:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
RECEIVED AT LAB BY: Henry J. Hearon	DATE: 9/13/12	TIME: 1930	SHIPPED VIA: AIRBILL:	SEAL #: SEAL DATE:	

H:\melissa\C... Stormwater COCs.xlsx\9/13/2012

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 10834

Client Name: City of Wichita

CAS File No.: 8339

Sample ID's in cooler: 21st & Hood

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: 1462 / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 9 / 13 / 12 19 :30

Delivered By: UPS / FedX / AB Express / Field Svcs / Mail / (Walk-In) / Other: _____

Custody Seal: Present: Intact / Broken (Absent:) Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice (Ice) Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.5 Corrected Reading (°C) 1.0
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): +0.5
☒ Evidence of Cooling and date received = date sampled

AB 9/13/12

Sample Receipt Discrepancies: ☐ No ☑ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments: Grab only received 2 containers not 4

Completed by: AB Date Completed: 9-14-12

Continental Analytical Services, Inc.

09/27/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 09/13/2012 1930
Continental File No.: 8339
Continental Order No.: 106035
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 9 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12090983	Gypsum Creek - Grab	Liquid	9/13/2012
12090984	Gypsum Creek - Composite	Liquid	9/13/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

This report may not be reproduced, except in full, without written approval from Continental Analytical Services, Inc.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106035

Lab Number: 12090983
Sample Description: Gypsum Creek - Grab

Date Sampled: 09/13/2012
Time Sampled: 1555

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/222
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/222
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/222
Copper, Tot. Rec., ICP-MS	8	µg/L	7202/222
Hardness (Calculated)	59.5	mg/L as CaCO3	7157/381
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/222
Zinc, Tot. Rec., ICP-MS	61	µg/L	7202/222
Chloride	3.1	mg/L	7277/105
Solids, Total Dissolved	94	mg/L	7320/81
Solids, Total Suspended	99	mg/L	7320/78

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2123	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1958	120919-6	7IP3270	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2123	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1958	120919-6	7IP3270	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/17/12 1240	09/17/12 2002	120917-3	9IP4261	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2123	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1958	120919-6	7IP3270	KMW	200.8 Rev. 5.4
Chloride	N/A	09/15/12 0330	2IC2258	6IC2258	MLL	300.0
Solids, Total Dissolved	N/A	09/20/12 1633	120920-1	120920-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1622	120919-4	120919-4	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090983

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106035

Lab Number: 12090984
Sample Description: Gypsum Creek - Composite

Date Sampled: 09/13/2012
Time Sampled: 1555

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/222
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/222
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/222
Copper, Tot. Rec., ICP-MS	8	µg/L	7202/222
Hardness (Calculated)	56.2	mg/L as CaCO3	7157/379
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/222
Zinc, Tot. Rec., ICP-MS	56	µg/L	7202/222
BOD	9	mg/L	7060/543
Chloride	3.3	mg/L	7277/105
Kjeldahl Nitrogen, as N (TKN)	1.7	mg/L	6854/634
Nitrate, as N	0.5	mg/L	7277/105
Nitrite, as N	ND(0.1)	mg/L	7277/105
Nitrogen (TKN + NO3/NO2), as N	2.2	mg/L	9998/600
Phosphorus, Total, as P	0.31	mg/L	7321/34
Solids, Total Dissolved	90.	mg/L	7320/81
Solids, Total Suspended	98	mg/L	7320/78

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2129	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/19/12 1021	09/26/12 1751	120919-5	5IP3270	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2129	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/19/12 1021	09/26/12 1751	120919-5	5IP3270	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/14/12 1344	09/14/12 1938	120914-5	8IP4258	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2129	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/19/12 1021	09/26/12 1751	120919-5	5IP3270	KMW	200.8 Rev. 5.4
BOD	N/A	09/15/12 1311	120915-1	120915-1	ASK	5210B-2001
Chloride	N/A	09/14/12 2225	2IC2258	4IC2258	MLL	300.0
Kjeldahl Nitrogen, as N (T	09/24/12 1045	09/25/12 1227	120924-1	120925-3	JND	EPA 351.2
Nitrate, as N	N/A	09/14/12 2225	2IC2258	4IC2258	MLL	300.0
Nitrite, as N	N/A	09/14/12 2225	2IC2258	4IC2258	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	09/26/12 0808			CJB	Calculation
Phosphorus, Total, as P	N/A	09/24/12 1503	120924-1	120924-2	KJH	4500-P(B&G)-1999
Solids, Total Dissolved	N/A	09/20/12 1634	120920-1	120920-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1622	120919-4	120919-4	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090984

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106035

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12090984	BOD	09/13/2012 1555	09/15/2012 1311	45:16
12090984	Nitrate, as N	09/13/2012 1555	09/14/2012 2225	30:30
12090984	Nitrite, as N	09/13/2012 1555	09/14/2012 2225	30:30

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106035

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106035

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120914-5	120914BLK5 09/14/12 18:30	120914LCS5 09/14/12 18:34	12091073MS 09/14/12 20:07
Lab numbers associated with this batch: 12090984					
SL323	Hardness (Calculated)	120917-3	120917BLK3 09/17/12 18:30	120917LCS3 09/17/12 18:34	12090971MS 09/17/12 19:22
Lab numbers associated with this batch: 12090983					
SL006	Cadmium, Tot. Rec., ICP-MS	120919-5	120919BLK5	120919LCS5	
SL012	Copper, Tot. Rec., ICP-MS	120919-5	120919BLK5	120919LCS5	
SL033	Zinc, Tot. Rec., ICP-MS	120919-5	120919BLK5 09/26/12 16:58	120919LCS5 09/26/12 17:03	
Lab numbers associated with this batch: 12090984					
SL006	Cadmium, Tot. Rec., ICP-MS	120919-6	120919BLK6	120919LCS6	12090967MS
SL012	Copper, Tot. Rec., ICP-MS	120919-6	120919BLK6	120919LCS6	12090967MS
SL033	Zinc, Tot. Rec., ICP-MS	120919-6	120919BLK6 09/26/12 17:56	120919LCS6 09/26/12 18:02	12090967MS 09/26/12 18:49
Lab numbers associated with this batch: 12090983					
SL156	Cadmium, Dissolved, ICP-MS	120920-5	120920BLK5	120920LCS5	12090972MS
SL162	Copper, Dissolved, ICP-MS	120920-5	120920BLK5	120920LCS5	12090972MS
SL183	Zinc, Dissolved, ICP-MS	120920-5	120920BLK5 09/26/12 20:03	120920LCS5 09/26/12 20:09	12090972MS 09/26/12 20:25
Lab numbers associated with this batch: 12090983 12090984					
GL123	BOD	120915-1	120915BLK1 09/15/12 13:11	120915LCS1 09/15/12 13:11	12090972MS 09/15/12 13:11
Lab numbers associated with this batch: 12090984					
GL502	Chloride	2IC2258	BLK2IC2258 09/14/12 20:54	LCS2IC2258 09/14/12 21:09	12090823MS 09/15/12 04:46
Lab numbers associated with this batch: 12090983 12090984					
GL595	Kjeldahl Nitrogen, as N (TKN)	120924-1	120924BLK1 09/25/12 11:36	120924LCS1 09/25/12 11:38	12090979MS 09/25/12 12:15
Lab numbers associated with this batch: 12090984					
GL505	Nitrate, as N	2IC2258	BLK2IC2258	LCS2IC2258	
GL503	Nitrite, as N	2IC2258	BLK2IC2258 09/14/12 20:54	LCS2IC2258 09/14/12 21:09	
Lab numbers associated with this batch: 12090984					

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106035

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12090984				
GL218	Phosphorus, Total, as P	120924-1	120924BLK1 09/24/12 1452	120924LCS1 09/24/12 1453	12090972MS 09/24/12 1454
	Lab numbers associated with this batch: 12090984				
GL242	Solids, Total Dissolved	120920-1	120920BLK1 09/20/12 16:31	120920LCS1 09/20/12	12090979MS 09/20/12 16:32
	Lab numbers associated with this batch: 12090983 12090984				
GL243	Solids, Total Suspended	120919-4	120919BLK4 09/19/12 16:20	120919LCS4 09/19/12	12090981MS 09/19/12 16:21
	Lab numbers associated with this batch: 12090983 12090984				

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106035

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120914-5	**For samples prepared on: 09/14/2012 1344**					**Spiked sample: 12091073**						
Hardness (Calculated)	ND(5.0)	96.5	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120915-1	**For sample analyzed on: 09/15/2012**					**Spiked sample: 12090972**						
BOD	ND(5)	99.4	84.6-115	198	mg/L	MN	MN	#		mg/L	**	16.4
QC Batch: 120917-3	**For samples prepared on: 09/17/2012 1240**					**Spiked sample: 12090971**						
Hardness (Calculated)	ND(5.0)	99.7	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120919-4	**For sample analyzed on: 09/19/2012**					**Spiked sample: 12090981**						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120919-5	**For samples prepared on: 09/19/2012 1021**					**Spiked sample:**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	97.7	85.0-115	500	µg/L	MN	MN	80.0-120			**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	90.2	85.0-115	500	µg/L	MN	MN	80.0-120			**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	103	85.0-115	500	µg/L	MN	MN	80.0-120			**	20.0
QC Batch: 120919-6	**For samples prepared on: 09/19/2012 1113**					**Spiked sample: 12090967**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	95.4	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	89.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120920-1	**For sample analyzed on: 09/20/2012**					**Spiked sample: 12090979**						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120920-5	**For samples prepared on: 09/20/2012 1014**					**Spiked sample: 12090972**						
Cadmium, Dissolved, ICP-MS	ND(1)	90.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	85.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	96.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120924-1	**For sample analyzed on: 09/24/2012**					**Spiked sample: 12090972**						
Phosphorus, Total, as P	ND(0.20)	101	88.8-110	2.0	mg/L	MN	MN	80.5-117	2.0	mg/L	**	5.7
QC Batch: 120924-1	**For samples prepared on: 09/24/2012 10:45**					**Spiked sample: 12090979**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	113	85.0-115	4.0	mg/L	MN	MN	81.2-133	4.0	mg/L	**	6.7
QC Batch: 2IC2258	**For sample analyzed on: 09/14/2012**					**Spiked sample:**						
Nitrite, as N	ND(0.1)	101	90.0-110	2.0	mg/L	MN	MN	77.5-116			**	10.2
Nitrate, as N	ND(0.1)	98.4	90.0-110	2.0	mg/L	MN	MN	81.7-121			**	8.2
QC Batch: 2IC2258	**For sample analyzed on: 09/14/2012**					**Spiked sample: 12090823**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	40.0	mg/L	**	5.7

Data Qualifiers:

MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106035

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.			
BOD	09/15/2012	120915-1	CCV recovery acceptable for this Instrument Batch.			
BOD	09/15/2012	120915-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/24/2012	120924-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/24/2012	120924-3	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	4IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	5IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/15/2012	6IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/15/2012	7IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	4IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	5IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	4IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	5IC2258	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-3	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-4	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	10IP4261	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/14/2012	8IP4258	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/14/2012	9IP4258	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	9IP4261	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.
525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information	Invoice Information
Company Name: City of Wichita Sewage Treatment	Company Name: City of Wichita Sewage Treatment
Address: 2305 E. 57th Street South	Address: 2305 E. 57th Street South
City: Wichita State: KS Zip: 67216	City: Wichita State: KS Zip: 67216
Contact: Jim Hardesty E-mail:	Contact: Jim Hardesty E-mail:
Phone Number: (316)303-8700 Fax Number: (316)303-8712	Phone Number: (316)303-8700 Fax Number: (316)303-8712

Sampler's Name:(Printed) Justin Murphy
Sampler's Name:(Signature)
Purchase Order Number:
File Number: 5611
Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER:	PARAMETERS/CONTAINER TYPE: Cadmium, Copper, Zinc - Total Recoverable 250ml Plastic - HNO3	Hardness, TSS TDS, Cl, Diss. - Cd, Cu, Zn 1000ml Plastic - None	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD, TKN, Total P, NO3 Large Carboy						COMMENTS
Gypsum Creek-Grab	WW	N	9/13/12	1555	G	2			1		1		X	X							
Gypsum Creek-Composite	WW	N	9/13/12	1555	C	1					1				X						5 Gal. Container to be poured off at lab
																					as needed for required tests.
																					Remaining volume will be saved for
																					for organics if needed.

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT: (15 working days) Rush TAT: (5 working days) Emergency TAT: (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
Justin Murphy	9/13/12	730 PM			
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
RECEIVED AT LAB BY:	DATE:	TIME:	SHIPPED VIA:	SEAL #:	
Gregory J. Greene	9/13/12	1930	AIRBILL:	SEAL DATE:	

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 1060035

Client Name: City of Wichita CAS File No.: 8339

Sample ID's in cooler: Gypsum

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: 3276 / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 9 / 13 / 12 19 : 30

Delivered By: UPS / FedX / AB Express / Field Svcs / Mail / (Walk-In) / Other: _____

Custody Seal: Present: Intact / Broken (Absent:) Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice (Ice) / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.4 Corrected Reading (°C) 0.9
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): +0.5

AB 9/13/12

☒ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: RB Date Completed: 9-14-12

Continental Analytical Services, Inc.

09/27/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 09/13/2012 1930
Continental File No.: 8339
Continental Order No.: 106028
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 10 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12090962	Huntington - Grab	Liquid	9/13/2012
12090963	Huntington - Composite	Liquid	9/13/2012
12090964	Huntington - Upstream	Liquid	9/13/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

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Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106028

Lab Number: 12090962
Sample Description: Huntington - Grab

Date Sampled: 09/13/2012
Time Sampled: 1615

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/221
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/222
Copper, Dissolved, ICP-MS	6 DM	µg/L	7202/221
Copper, Tot. Rec., ICP-MS	12	µg/L	7202/222
Hardness (Calculated)	31.1	mg/L as CaCO3	7157/381
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/221
Zinc, Tot. Rec., ICP-MS	28	µg/L	7202/222
Chloride	3.5	mg/L	7277/105
Hexane Extractable Material	ND(5.0)	mg/L	7198/131
Solids, Total Dissolved	64	mg/L	7320/77
Solids, Total Suspended	41	mg/L	7320/76

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1739	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1812	120919-6	5IP3270	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1739	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1812	120919-6	5IP3270	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/17/12 1240	09/17/12 1854	120917-3	8IP4261	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1739	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1812	120919-6	5IP3270	KMW	200.8 Rev. 5.4
Chloride	N/A	09/15/12 0113	2IC2258	5IC2258	MLL	300.0
Hexane Extractable Materia	09/20/12	09/20/12 0829	120920-1	120920-1	JND	1664 Rev. A
Solids, Total Dissolved	N/A	09/19/12 1457	120919-1	120919-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1400	120919-3	120919-3	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B
HEM Preparation Method						1664

Conclusion of Lab Number: 12090962

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106028

Lab Number: 12090963
Sample Description: Huntington - Composite

Date Sampled: 09/13/2012
Time Sampled: 1615

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/221
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/222
Copper, Dissolved, ICP-MS	6 DM	µg/L	7202/221
Copper, Tot. Rec., ICP-MS	10.	µg/L	7202/222
Hardness (Calculated)	30.9	mg/L as CaCO3	7157/379
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/221
Zinc, Tot. Rec., ICP-MS	25	µg/L	7202/222
BOD	10.	mg/L	7060/542
Chloride	3.9	mg/L	7277/105
Kjeldahl Nitrogen, as N (TKN)	1.7	mg/L	6854/634
Nitrate, as N	0.5	mg/L	7277/105
Nitrite, as N	ND(0.1)	mg/L	7277/105
Nitrogen (TKN + NO3/NO2), as N	2.2	mg/L	9998/600
Phosphorus, Total, as P	0.26	mg/L	7321/32
Solids, Total Dissolved	64	mg/L	7320/77
Solids, Total Suspended	36	mg/L	7320/76

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1744	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/19/12 1021	09/26/12 1714	120919-5	4IP3270	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1744	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/19/12 1021	09/26/12 1714	120919-5	4IP3270	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/14/12 1344	09/14/12 1910	120914-5	8IP4258	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1744	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/19/12 1021	09/26/12 1714	120919-5	4IP3270	KMW	200.8 Rev. 5.4
BOD	N/A	09/14/12 1755	120914-2	120914-5	ASK	5210B-2001
Chloride	N/A	09/14/12 1433	1IC2258	2IC2258	MLL	300.0
Kjeldahl Nitrogen, as N (T	09/24/12 1045	09/25/12 1144	120924-1	120925-1	JND	EPA 351.2
Nitrate, as N	N/A	09/14/12 1433	1IC2258	2IC2258	MLL	300.0
Nitrite, as N	N/A	09/14/12 1433	1IC2258	2IC2258	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	09/26/12 0808			CJB	Calculation
Phosphorus, Total, as P	N/A	09/20/12 1629	120920-2	120920-4	KJH	4500-P(B&G)-1999
Solids, Total Dissolved	N/A	09/19/12 1457	120919-1	120919-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1400	120919-3	120919-3	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090963

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106028

Lab Number: 12090964
Sample Description: Huntington - Upstream

Date Sampled: 09/13/2012
Time Sampled: 1620

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/221
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/222
Copper, Dissolved, ICP-MS	6 DM	µg/L	7202/221
Copper, Tot. Rec., ICP-MS	10.	µg/L	7202/222
Hardness (Calculated)	32.8	mg/L as CaCO3	7157/381
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/221
Zinc, Tot. Rec., ICP-MS	28	µg/L	7202/222
BOD	11	mg/L	7060/542
Chloride	4.0	mg/L	7277/105
Kjeldahl Nitrogen, as N (TKN)	1.7	mg/L	6854/634
Nitrate, as N	0.5	mg/L	7277/105
Nitrite, as N	ND(0.1)	mg/L	7277/105
Nitrogen (TKN + NO3/NO2), as N	2.2	mg/L	9998/600
Phosphorus, Total, as P	0.22	mg/L	7321/32
Solids, Total Dissolved	72	mg/L	7320/77
Solids, Total Suspended	41	mg/L	7320/76

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1750	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1817	120919-6	5IP3270	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1750	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1817	120919-6	5IP3270	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/17/12 1240	09/17/12 1858	120917-3	8IP4261	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1750	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1817	120919-6	5IP3270	KMW	200.8 Rev. 5.4
BOD	N/A	09/14/12 1755	120914-2	120914-5	ASK	5210B-2001
Chloride	N/A	09/14/12 1449	1IC2258	2IC2258	MLL	300.0
Kjeldahl Nitrogen, as N (T	09/24/12 1045	09/25/12 1146	120924-1	120925-1	JND	EPA 351.2
Nitrate, as N	N/A	09/14/12 1449	1IC2258	2IC2258	MLL	300.0
Nitrite, as N	N/A	09/14/12 1449	1IC2258	2IC2258	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	09/26/12 0808			CJB	Calculation
Phosphorus, Total, as P	N/A	09/20/12 1631	120920-2	120920-4	KJH	4500-P(B&G)-1999
Solids, Total Dissolved	N/A	09/19/12 1457	120919-1	120919-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1400	120919-3	120919-3	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090964

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106028

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12090963	BOD	09/13/2012 1615	09/14/2012 1755	25:40
12090963	Nitrate, as N	09/13/2012 1615	09/14/2012 1433	22:18
12090963	Nitrite, as N	09/13/2012 1615	09/14/2012 1433	22:18
12090964	BOD	09/13/2012 1620	09/14/2012 1755	25:35
12090964	Nitrate, as N	09/13/2012 1620	09/14/2012 1449	22:29
12090964	Nitrite, as N	09/13/2012 1620	09/14/2012 1449	22:29

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106028

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106028

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120914-5	120914BLK5 09/14/12 18:30	120914LCS5 09/14/12 18:34	12091073MS 09/14/12 20:07
Lab numbers associated with this batch: 12090963					
SL323	Hardness (Calculated)	120917-3	120917BLK3 09/17/12 18:30	120917LCS3 09/17/12 18:34	12090971MS 09/17/12 19:22
Lab numbers associated with this batch: 12090962 12090964					
SL156	Cadmium, Dissolved, ICP-MS	120918-4	120918BLK4	120918LCS4	12090967MS
SL162	Copper, Dissolved, ICP-MS	120918-4	120918BLK4	120918LCS4	12090967MS
SL183	Zinc, Dissolved, ICP-MS	120918-4	120918BLK4 09/25/12 17:07	120918LCS4 09/25/12 17:13	12090967MS 09/25/12 18:21
Lab numbers associated with this batch: 12090962 12090963 12090964					
SL006	Cadmium, Tot. Rec., ICP-MS	120919-5	120919BLK5	120919LCS5	
SL012	Copper, Tot. Rec., ICP-MS	120919-5	120919BLK5	120919LCS5	
SL033	Zinc, Tot. Rec., ICP-MS	120919-5	120919BLK5 09/26/12 16:58	120919LCS5 09/26/12 17:03	
Lab numbers associated with this batch: 12090963					
SL006	Cadmium, Tot. Rec., ICP-MS	120919-6	120919BLK6	120919LCS6	12090967MS
SL012	Copper, Tot. Rec., ICP-MS	120919-6	120919BLK6	120919LCS6	12090967MS
SL033	Zinc, Tot. Rec., ICP-MS	120919-6	120919BLK6 09/26/12 17:56	120919LCS6 09/26/12 18:02	12090967MS 09/26/12 18:49
Lab numbers associated with this batch: 12090962 12090964					
GL123	BOD	120914-2	120914BLK2 09/14/12 17:55	120914LCS2 09/14/12 17:55	12090966MS 09/14/12 17:55
Lab numbers associated with this batch: 12090963 12090964					
GL502	Chloride	1IC2258	BLK1IC2258 09/14/12 11:16	LCS1IC2258 09/14/12 11:31	12090960MS 09/14/12 12:17
Lab numbers associated with this batch: 12090963 12090964					
GL502	Chloride	2IC2258	BLK2IC2258 09/14/12 20:54	LCS2IC2258 09/14/12 21:09	12090823MS 09/15/12 04:46
Lab numbers associated with this batch: 12090962					
GL188	Hexane Extractable Material	120920-1	120920BLK1 09/20/12 08:25	120920LCS1 09/20/12 08:26	12090520MS 09/20/12 08:26
Lab numbers associated with this batch: 12090962					

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106028

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL595	Kjeldahl Nitrogen, as N (TKN)	120924-1	120924BLK1 09/25/12 11:36	120924LCS1 09/25/12 11:38	12090979MS 09/25/12 12:15
	Lab numbers associated with this batch: 12090963 12090964				
GL505	Nitrate, as N	1IC2258	BLK1IC2258	LCS1IC2258	12090960MS
GL503	Nitrite, as N	1IC2258	BLK1IC2258 09/14/12 11:16	LCS1IC2258 09/14/12 11:31	12090960MS 09/14/12 12:17
	Lab numbers associated with this batch: 12090963 12090964				
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12090963 12090964				
GL218	Phosphorus, Total, as P	120920-2	120920BLK2 09/20/12 1623	120920LCS2 09/20/12 1624	12090963MS 09/20/12 1630
	Lab numbers associated with this batch: 12090963 12090964				
GL242	Solids, Total Dissolved	120919-1	120919BLK1 09/19/12 14:55	120919LCS1 09/19/12	12090969MS 09/19/12 14:59
	Lab numbers associated with this batch: 12090962 12090963 12090964				
GL243	Solids, Total Suspended	120919-3	120919BLK3 09/19/12 13:58	120919LCS3 09/19/12	12090960MS 09/19/12 13:59
	Lab numbers associated with this batch: 12090962 12090963 12090964				

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106028

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120914-2	**For sample analyzed on: 09/14/2012**					**Spiked sample: 12090966**						
BOD	ND(5)	91.5	84.6-115	198	mg/L	MN	MN	#		mg/L	**	16.4
QC Batch: 120914-5	**For samples prepared on: 09/14/2012 1344**					**Spiked sample: 12091073**						
Hardness (Calculated)	ND(5.0)	96.5	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120917-3	**For samples prepared on: 09/17/2012 1240**					**Spiked sample: 12090971**						
Hardness (Calculated)	ND(5.0)	99.7	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120918-4	**For samples prepared on: 09/18/2012 1227**					**Spiked sample: 12090967**						
Cadmium, Dissolved, ICP-MS	ND(1)	94.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	90.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	96.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120919-1	**For sample analyzed on: 09/19/2012**					**Spiked sample: 12090969**						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120919-3	**For sample analyzed on: 09/19/2012**					**Spiked sample: 12090960**						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120919-5	**For samples prepared on: 09/19/2012 1021**					**Spiked sample:**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	97.7	85.0-115	500	µg/L	MN	MN	80.0-120			**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	90.2	85.0-115	500	µg/L	MN	MN	80.0-120			**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	103	85.0-115	500	µg/L	MN	MN	80.0-120			**	20.0
QC Batch: 120919-6	**For samples prepared on: 09/19/2012 1113**					**Spiked sample: 12090967**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	95.4	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	89.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120920-1	**For samples prepared on: 09/20/2012**					**Spiked sample: 12090520**						
Hexane Extractable Material	ND(1.4)	91.0	78.0-114	40.0	mg/L	MN	MN	78.0-114	40.0	mg/L	**	18.0
QC Batch: 120920-2	**For sample analyzed on: 09/20/2012**					**Spiked sample: 12090963**						
Phosphorus, Total, as P	ND(0.20)	104	88.8-110	2.0	mg/L	97.2	97.2	80.5-117	2.0	mg/L	0.0	5.7
QC Batch: 120924-1	**For samples prepared on: 09/24/2012 10:45**					**Spiked sample: 12090979**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	113	85.0-115	4.0	mg/L	MN	MN	81.2-133	4.0	mg/L	**	6.7
QC Batch: 1IC2258	**For sample analyzed on: 09/14/2012**					**Spiked sample: 12090960**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	4.0	mg/L	**	5.7
Nitrite, as N	ND(0.1)	99.9	90.0-110	2.0	mg/L	MN	MN	77.5-116	2.0	mg/L	**	10.2
Nitrate, as N	ND(0.1)	104	90.0-110	2.0	mg/L	MN	MN	81.7-121	2.0	mg/L	**	8.2
QC Batch: 2IC2258	**For sample analyzed on: 09/14/2012**					**Spiked sample: 12090823**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	40.0	mg/L	**	5.7

Data Qualifiers:

MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

\# - Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/27/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106028

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	09/25/2012	4IP3269	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	4IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/25/2012	5IP3269	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/25/2012	4IP3269	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	4IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/25/2012	5IP3269	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
BOD	09/14/2012	120914-5	CCV recovery acceptable for this Instrument Batch.			
BOD	09/14/2012	120914-6	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	09/20/2012	120920-1	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	09/20/2012	120920-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/20/2012	120920-4	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/20/2012	120920-5	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	2IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	5IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/15/2012	6IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	2IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	2IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-1	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-2	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/14/2012	8IP4258	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	8IP4261	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/14/2012	9IP4258	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	9IP4261	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/25/2012	4IP3269	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	4IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/25/2012	5IP3269	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.
525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO 106025
CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information	Invoice Information
Company Name: City of Wichita Sewage Treatment	Company Name: City of Wichita Sewage Treatment
Address: 2305 E. 57th Street South	Address: 2305 E. 57th Street South
City: Wichita State: KS Zip: 67216	City: Wichita State: KS Zip: 67216
Contact: Jim Hardesty E-mail:	Contact: Jim Hardesty E-mail:
Phone Number: (316)303-8700 Fax Number: (316)303-8712	Phone Number: (316)303-8700 Fax Number: (316)303-8712
Sampler's Name:(Printed) Justin Murphy Sampler's Name:(Signature)	Purchase Order Number:
File Number: 5611 Project Name: Stormwater	

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER:	Cadmium, Copper, Zinc - Total Recoverable 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Hexane Extractable Material 2 - 1000ml Amber Glass - H2SO4	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P	COMMENTS 5 Gal. container to be poured off at lab as needed for required tests. Remainining volume will be saved for organics if needed
Huntington-Grab	WW	N	9/13/12	1615	G	4			1	2	1		X	X	X						
Huntington-Composite	WW	N	9/13/12	1615	C	1					1					X					
Huntington-Upstream	WW	N	9/13/12	~~1615~~ 1620	G	4			1	1	2						X	X	X	X	

Edits made prior to sample receipt 9-14-12

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT: (15 working days) Rush TAT: (5 working days) Emergency TAT: (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY:	DATE: 9/13/12	TIME: 730 pm	RECEIVED BY:	DATE:	TIME:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
RECEIVED AT LAB BY:	DATE: 9/13/12	TIME: 1930	SHIPPED VIA: AIRBILL:	SEAL #: SEAL DATE:	

H:\melissa\COC\Wichita Stormwater COCs.xlsx\9/13/2012

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 18025

Client Name: City of Wichita CAS File No.: 8339

Sample ID's in cooler: Huntington

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: Huntington / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 9 / 13 / 12 19 : 30

Delivered By: UPS / FedX / AB Express / Field Svcs / Mail / (Walk-In) / Other: _____

Custody Seal: Present: Intact / Broken (Absent) Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.3 Corrected Reading (°C) 0.8
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): +0.5

AB 9/13/12

☒ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☐ No ☐ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: _____ Date Completed: 9-14-12

Continental Analytical Services, Inc.

09/28/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 09/13/2012 1930
Continental File No.: 8339
Continental Order No.: 106027
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 12 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12090959	Broadway - Grab	Liquid	9/13/2012
12090960	Broadway - Composite	Liquid	9/13/2012
12090961	Broadway - Upstream	Liquid	9/13/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106027

Lab Number: 12090959
Sample Description: Broadway - Grab

Date Sampled: 09/13/2012
Time Sampled: 1430

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/221
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/222
Copper, Dissolved, ICP-MS	5 DM	µg/L	7202/221
Copper, Tot. Rec., ICP-MS	7	µg/L	7202/222
Hardness (Calculated)	36.1	mg/L as CaCO3	7157/381
Zinc, Dissolved, ICP-MS	22 DM	µg/L	7202/221
Zinc, Tot. Rec., ICP-MS	55	µg/L	7202/222
Chloride	2.4	mg/L	7277/105
Hexane Extractable Material	ND(5.0)	mg/L	7198/131
Solids, Total Dissolved	70.	mg/L	7320/77
Solids, Total Suspended	32	mg/L	7320/76

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1723	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1807	120919-6	5IP3270	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1723	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1807	120919-6	5IP3270	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/17/12 1240	09/17/12 1838	120917-3	7IP4261	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1723	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1807	120919-6	5IP3270	KMW	200.8 Rev. 5.4
Chloride	N/A	09/15/12 0057	2IC2258	5IC2258	MLL	300.0
Hexane Extractable Materia	09/20/12	09/20/12 0829	120920-1	120920-1	JND	1664 Rev. A
Solids, Total Dissolved	N/A	09/19/12 1455	120919-1	120919-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1359	120919-3	120919-3	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B
HEM Preparation Method						1664

Conclusion of Lab Number: 12090959

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106027

Lab Number: 12090960
Sample Description: Broadway - Composite

Date Sampled: 09/13/2012
Time Sampled: 1430

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/221
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/223
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/221
Copper, Tot. Rec., ICP-MS	8	µg/L	7202/223
Hardness (Calculated)	35.2	mg/L as CaCO3	7157/379
Zinc, Dissolved, ICP-MS	26 DM	µg/L	7202/221
Zinc, Tot. Rec., ICP-MS	58	µg/L	7202/223
BOD	14	mg/L	7060/542
Chloride	3.2	mg/L	7277/105
Kjeldahl Nitrogen, as N (TKN)	1.9	mg/L	6854/634
Nitrate, as N	0.7	mg/L	7277/105
Nitrite, as N	ND(0.1)	mg/L	7277/105
Nitrogen (TKN + NO3/NO2), as N	2.6	mg/L	9998/600
Phosphorus, Total, as P	ND(0.20)	mg/L	7321/32
Solids, Total Dissolved	74	mg/L	7320/77
Solids, Total Suspended	23	mg/L	7320/76

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1728	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1519	120920-6	3IP3271	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1728	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1519	120920-6	3IP3271	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/14/12 1344	09/14/12 1906	120914-5	8IP4258	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1728	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1519	120920-6	3IP3271	KMW	200.8 Rev. 5.4
BOD	N/A	09/14/12 1755	120914-2	120914-5	ASK	5210B-2001
Chloride	N/A	09/14/12 1201	1IC2258	1IC2258	MLL	300.0
Kjeldahl Nitrogen, as N (T	09/24/12 1045	09/25/12 1140	120924-1	120925-1	JND	EPA 351.2
Nitrate, as N	N/A	09/14/12 1201	1IC2258	1IC2258	MLL	300.0
Nitrite, as N	N/A	09/14/12 1201	1IC2258	1IC2258	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	09/26/12 0808			CJB	Calculation
Phosphorus, Total, as P	N/A	09/20/12 1649	120920-2	120920-6	KJH	4500-P(B&G)-1999
Solids, Total Dissolved	N/A	09/19/12 1456	120919-1	120919-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1359	120919-3	120919-3	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090960

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106027

Lab Number: 12090961
Sample Description: Broadway - Upstream

Date Sampled: 09/13/2012
Time Sampled: 1435

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/221
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/223
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/221
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/223
Hardness (Calculated)	276	mg/L as CaCO3	7157/381
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/221
Zinc, Tot. Rec., ICP-MS	ND(20)	µg/L	7202/223
BOD	8	mg/L	7060/542
Chloride	143	mg/L	7277/105
Kjeldahl Nitrogen, as N (TKN)	1.0	mg/L	6854/634
Nitrate, as N	0.4	mg/L	7277/105
Nitrite, as N	ND(0.1)	mg/L	7277/105
Nitrogen (TKN + NO3/NO2), as N	1.4	mg/L	9998/600
Phosphorus, Total, as P	0.22	mg/L	7321/32
Solids, Total Dissolved	612	mg/L	7320/77
Solids, Total Suspended	13	mg/L	7320/76

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1734	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1524	120920-6	3IP3271	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1734	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1524	120920-6	3IP3271	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/17/12 1240	09/17/12 1850	120917-3	8IP4261	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1734	120918-4	4IP3269	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1524	120920-6	3IP3271	KMW	200.8 Rev. 5.4
BOD	N/A	09/14/12 1755	120914-2	120914-5	ASK	5210B-2001
Chloride	N/A	09/14/12 1852	1IC2258	3IC2258	MLL	300.0
Kjeldahl Nitrogen, as N (T	09/24/12 1045	09/25/12 1142	120924-1	120925-1	JND	EPA 351.2
Nitrate, as N	N/A	09/14/12 1418	1IC2258	2IC2258	MLL	300.0
Nitrite, as N	N/A	09/14/12 1418	1IC2258	2IC2258	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	09/26/12 0808			CJB	Calculation
Phosphorus, Total, as P	N/A	09/20/12 1627	120920-2	120920-3	KJH	4500-P(B&G)-1999
Solids, Total Dissolved	N/A	09/19/12 1456	120919-1	120919-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1400	120919-3	120919-3	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090961

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106027

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12090960	BOD	09/13/2012 1430	09/14/2012 1755	27:25
12090960	Nitrate, as N	09/13/2012 1430	09/14/2012 1201	21:31
12090960	Nitrite, as N	09/13/2012 1430	09/14/2012 1201	21:31
12090961	BOD	09/13/2012 1435	09/14/2012 1755	27:20
12090961	Nitrate, as N	09/13/2012 1435	09/14/2012 1418	23:43
12090961	Nitrite, as N	09/13/2012 1435	09/14/2012 1418	23:43

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106027

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106027

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120914-5	120914BLK5 09/14/12 18:30	120914LCS5 09/14/12 18:34	12091073MS 09/14/12 20:07
Lab numbers associated with this batch: 12090960					
SL323	Hardness (Calculated)	120917-3	120917BLK3 09/17/12 18:30	120917LCS3 09/17/12 18:34	12090971MS 09/17/12 19:22
Lab numbers associated with this batch: 12090959 12090961					
SL156	Cadmium, Dissolved, ICP-MS	120918-4	120918BLK4	120918LCS4	12090967MS
SL162	Copper, Dissolved, ICP-MS	120918-4	120918BLK4	120918LCS4	12090967MS
SL183	Zinc, Dissolved, ICP-MS	120918-4	120918BLK4 09/25/12 17:07	120918LCS4 09/25/12 17:13	12090967MS 09/25/12 18:21
Lab numbers associated with this batch: 12090959 12090960 12090961					
SL006	Cadmium, Tot. Rec., ICP-MS	120919-6	120919BLK6	120919LCS6	12090967MS
SL012	Copper, Tot. Rec., ICP-MS	120919-6	120919BLK6	120919LCS6	12090967MS
SL033	Zinc, Tot. Rec., ICP-MS	120919-6	120919BLK6 09/26/12 17:56	120919LCS6 09/26/12 18:02	12090967MS 09/26/12 18:49
Lab numbers associated with this batch: 12090959					
SL006	Cadmium, Tot. Rec., ICP-MS	120920-6	120920BLK6	120920LCS6	12090972MS
SL012	Copper, Tot. Rec., ICP-MS	120920-6	120920BLK6	120920LCS6	12090972MS
SL033	Zinc, Tot. Rec., ICP-MS	120920-6	120920BLK6 09/27/12 15:09	120920LCS6 09/27/12 15:14	12090972MS 09/27/12 15:45
Lab numbers associated with this batch: 12090960 12090961					
GL123	BOD	120914-2	120914BLK2 09/14/12 17:55	120914LCS2 09/14/12 17:55	12090966MS 09/14/12 17:55
Lab numbers associated with this batch: 12090960 12090961					
GL502	Chloride	1IC2258	BLK1IC2258 09/14/12 11:16	LCS1IC2258 09/14/12 11:31	12090960MS 09/14/12 12:17
Lab numbers associated with this batch: 12090960 12090961					
GL502	Chloride	2IC2258	BLK2IC2258 09/14/12 20:54	LCS2IC2258 09/14/12 21:09	12090823MS 09/15/12 04:46
Lab numbers associated with this batch: 12090959					
GL188	Hexane Extractable Material	120920-1	120920BLK1 09/20/12 08:25	120920LCS1 09/20/12 08:26	12090520MS 09/20/12 08:26
Lab numbers associated with this batch: 12090959					

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106027

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL595	Kjeldahl Nitrogen, as N (TKN)	120924-1	120924BLK1 09/25/12 11:36	120924LCS1 09/25/12 11:38	12090979MS 09/25/12 12:15
	Lab numbers associated with this batch: 12090960 12090961				
GL505	Nitrate, as N	1IC2258	BLK1IC2258	LCS1IC2258	12090960MS
GL503	Nitrite, as N	1IC2258	BLK1IC2258 09/14/12 11:16	LCS1IC2258 09/14/12 11:31	12090960MS 09/14/12 12:17
	Lab numbers associated with this batch: 12090960 12090961				
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12090960 12090961				
GL218	Phosphorus, Total, as P	120920-2	120920BLK2 09/20/12 1623	120920LCS2 09/20/12 1624	12090963MS 09/20/12 1630
	Lab numbers associated with this batch: 12090960 12090961				
GL242	Solids, Total Dissolved	120919-1	120919BLK1 09/19/12 14:55	120919LCS1 09/19/12	12090969MS 09/19/12 14:59
	Lab numbers associated with this batch: 12090959 12090960 12090961				
GL243	Solids, Total Suspended	120919-3	120919BLK3 09/19/12 13:58	120919LCS3 09/19/12	12090960MS 09/19/12 13:59
	Lab numbers associated with this batch: 12090959 12090960 12090961				

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106027

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120914-2	**For sample analyzed on: 09/14/2012**					**Spiked sample: 12090966**						
BOD	ND(5)	91.5	84.6-115	198	mg/L	MN	MN	#		mg/L	**	16.4
QC Batch: 120914-5	**For samples prepared on: 09/14/2012 1344**					**Spiked sample: 12091073**						
Hardness (Calculated)	ND(5.0)	96.5	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120917-3	**For samples prepared on: 09/17/2012 1240**					**Spiked sample: 12090971**						
Hardness (Calculated)	ND(5.0)	99.7	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120918-4	**For samples prepared on: 09/18/2012 1227**					**Spiked sample: 12090967**						
Cadmium, Dissolved, ICP-MS	ND(1)	94.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	90.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	96.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120919-1	**For sample analyzed on: 09/19/2012**					**Spiked sample: 12090969**						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120919-3	**For sample analyzed on: 09/19/2012**					**Spiked sample: 12090960**						
Solids, Total Suspended	ND(5)	N/A			mg/L	23 T	24 T	#		mg/L	4.3	27.6
QC Batch: 120919-6	**For samples prepared on: 09/19/2012 1113**					**Spiked sample: 12090967**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	95.4	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	89.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120920-1	**For samples prepared on: 09/20/2012**					**Spiked sample: 12090520**						
Hexane Extractable Material	ND(1.4)	91.0	78.0-114	40.0	mg/L	MN	MN	78.0-114	40.0	mg/L	**	18.0
QC Batch: 120920-2	**For sample analyzed on: 09/20/2012**					**Spiked sample: 12090963**						
Phosphorus, Total, as P	ND(0.20)	104	88.8-110	2.0	mg/L	MN	MN	80.5-117	2.0	mg/L	**	5.7
QC Batch: 120920-6	**For samples prepared on: 09/20/2012 1213**					**Spiked sample: 12090972**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	96.3	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	88.4	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	97.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120924-1	**For samples prepared on: 09/24/2012 10:45**					**Spiked sample: 12090979**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	113	85.0-115	4.0	mg/L	MN	MN	81.2-133	4.0	mg/L	**	6.7
QC Batch: 1IC2258	**For sample analyzed on: 09/14/2012**					**Spiked sample: 12090960**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	92.9	92.8	75.1-131	4.0	mg/L	0.1	5.7
Nitrite, as N	ND(0.1)	99.9	90.0-110	2.0	mg/L	97.7	96.4	77.5-116	2.0	mg/L	1.3	10.2
Nitrate, as N	ND(0.1)	104	90.0-110	2.0	mg/L	94.9	92.4	81.7-121	2.0	mg/L	2.7	8.2
QC Batch: 2IC2258	**For sample analyzed on: 09/14/2012**					**Spiked sample: 12090823**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	40.0	mg/L	**	5.7

Data Qualifiers:

MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

T - MS/MSD cannot be performed for this analysis. The MS result is the same as the sample result. The MSD result is a duplicate of the sample.

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106027

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit

Continental

Continental Analytical Services, Inc.

Client: City of Wichita
Attn: Jim Hardesty
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455 N. Main
Wichita, KS 67202

Quality Control Report
Continuing Calibration Data Summary

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106027

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Tot. Rec., ICP-MS	09/27/2012	3IP3271	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/25/2012	4IP3269	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/25/2012	5IP3269	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/27/2012	3IP3271	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/25/2012	4IP3269	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/25/2012	5IP3269	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
BOD	09/14/2012	120914-5	CCV recovery acceptable for this Instrument Batch.			
BOD	09/14/2012	120914-6	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	09/20/2012	120920-1	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	09/20/2012	120920-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/20/2012	120920-3	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/20/2012	120920-4	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/20/2012	120920-6	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/20/2012	120920-7	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	1IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	2IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	4IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	5IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/15/2012	6IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	1IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	2IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	1IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	2IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-1	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-2	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	7IP4261	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/14/2012	8IP4258	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	8IP4261	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/14/2012	9IP4258	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	9IP4261	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/27/2012	3IP3271	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/25/2012	4IP3269	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/25/2012	5IP3269	CCV recovery acceptable for this Instrument Batch.			

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Quality Control Report
Continuing Calibration Data Summary

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106027

Zinc, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO: 10032 1

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information	Invoice Information
Company Name: City of Wichita Sewage Treatment	Company Name: City of Wichita Sewage Treatment
Address: 2305 E. 57th Street South	Address: 2305 E. 57th Street South
City: Wichita State: KS Zip: 67216	City: Wichita State: KS Zip: 67216
Contact: Jim Hardesty E-mail:	Contact: Jim Hardesty E-mail:
Phone Number: (316)303-8700 Fax Number: (316)303-8712	Phone Number: (316)303-8700 Fax Number: (316)303-8712

Sampler's Name:(Printed) Justin Murphy
Sampler's Name:(Signature)
Purchase Order Number:
File Number: 5611
Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER:	Cadmium, Copper, Zinc - Total Recoverable 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Hexane Extractable Material 2 - 1000ml Amber Glass - H2SO4	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P	COMMENTS 5 Gal. container to be poured off at lab as needed for required tests. Remaininig volume will be saved for organics if needed
Broadway-Grab	WW	N	9/13/2012	1430	G	4			1	2	1		X	X	X						
Broadway-Composite	WW	N	9/13/2012	1430	C	1					1					X			✓		
Broadway-Upstream	WW	N	9/13/2012	1435	G	4			1	1	2						X	X	X	X	

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT: (15 working days) Rush TAT: (5 working days) Emergency TAT: (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY:	DATE: 9/13/12	TIME: 7:40pm	RECEIVED BY:	DATE:	TIME:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
RECEIVED AT LAB BY:	DATE: 9/13/12	TIME: 1930	SHIPPED VIA: AIRBILL:	SEAL #: SEAL DATE:	

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 10602

Client Name: City of Wichita

CAS File No.: 8339

Sample ID's in cooler: Broadway

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: Broadway / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 9 / 13 / 12 19 : 30

Delivered By: UPS / FedX / AB Express / Field Svcs / Mail / (Walk-In) / Other: _____

Custody Seal: Present: Intact / Broken (Absent:) Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice (Ice) Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.3 Corrected Reading (°C) 0.8
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): +0.5
☒ Evidence of Cooling and date received = date sampled

AB 9/13/12

Sample Receipt Discrepancies: ☒ No ☐ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: [signature] Date Completed: 9-14-12

Continental Analytical Services, Inc.

09/28/2012 Page: 1

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 09/13/2012 1930
Continental File No.: 8339
Continental Order No.: 106030
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 12 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12090968	Towne East - Grab	Liquid	9/13/2012
12090969	Towne East - Composite	Liquid	9/13/2012
12090970	Towne East - Upstream	Liquid	9/13/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

This report may not be reproduced, except in full, without written approval from Continental Analytical Services, Inc.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106030

Lab Number: 12090968
Sample Description: Towne East - Grab

Date Sampled: 09/13/2012
Time Sampled: 1630

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/221
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/223
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/221
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/223
Hardness (Calculated)	25.0	mg/L as CaCO3	7157/381
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/221
Zinc, Tot. Rec., ICP-MS	33	µg/L	7202/223
Chloride	2.1	mg/L	7277/105
Hexane Extractable Material	ND(5.0)	mg/L	7198/131
Solids, Total Dissolved	42	mg/L	7320/77
Solids, Total Suspended	10.	mg/L	7320/76

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1837	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1530	120920-6	3IP3271	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1837	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1530	120920-6	3IP3271	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/17/12 1240	09/17/12 1914	120917-3	8IP4261	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1837	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1530	120920-6	3IP3271	KMW	200.8 Rev. 5.4
Chloride	N/A	09/15/12 0143	2IC2258	5IC2258	MLL	300.0
Hexane Extractable Materia	09/20/12	09/20/12 0830	120920-1	120920-1	JND	1664 Rev. A
Solids, Total Dissolved	N/A	09/19/12 1459	120919-1	120919-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1402	120919-3	120919-3	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B
HEM Preparation Method						1664

Conclusion of Lab Number: 12090968

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106030

Lab Number: 12090969
Sample Description: Towne East - Composite

Date Sampled: 09/13/2012
Time Sampled: 1630

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/221
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/222
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/221
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/222
Hardness (Calculated)	27.5	mg/L as CaCO3	7157/379
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/221
Zinc, Tot. Rec., ICP-MS	27	µg/L	7202/222
BOD	ND(5)	mg/L	7060/542
Chloride	5.1	mg/L	7277/105
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	6854/634
Nitrate, as N	0.2	mg/L	7277/105
Nitrite, as N	ND(0.1)	mg/L	7277/105
Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L	9998/600
Phosphorus, Total, as P	ND(0.20)	mg/L	7321/32
Solids, Total Dissolved	50. QC	mg/L	7320/77
Solids, Total Suspended	15	mg/L	7320/76

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1842	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1910	120919-6	6IP3270	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1842	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1910	120919-6	6IP3270	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/14/12 1344	09/14/12 1914	120914-5	8IP4258	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1842	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1910	120919-6	6IP3270	KMW	200.8 Rev. 5.4
BOD	N/A	09/14/12 1755	120914-2	120914-5	ASK	5210B-2001
Chloride	N/A	09/14/12 1550	1IC2258	2IC2258	MLL	300.0
Kjeldahl Nitrogen, as N (T	09/24/12 1045	09/25/12 1153	120924-1	120925-1	JND	EPA 351.2
Nitrate, as N	N/A	09/14/12 1550	1IC2258	2IC2258	MLL	300.0
Nitrite, as N	N/A	09/14/12 1550	1IC2258	2IC2258	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	09/26/12 0808			CJB	Calculation
Phosphorus, Total, as P	N/A	09/20/12 1633	120920-2	120920-4	KJH	4500-P(B&G)-1999
Solids, Total Dissolved	N/A	09/19/12 1459	120919-1	120919-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1402	120919-3	120919-3	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090969

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106030

Lab Number: 12090970
Sample Description: Towne East - Upstream

Date Sampled: 09/13/2012
Time Sampled: 1635

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/221
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/222
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/221
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/222
Hardness (Calculated)	61.1	mg/L as CaCO3	7157/388
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/221
Zinc, Tot. Rec., ICP-MS	ND(20)	µg/L	7202/222
BOD	6	mg/L	7060/542
Chloride	51	mg/L	7277/106
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	6854/634
Nitrate, as N	0.2	mg/L	7277/105
Nitrite, as N	ND(0.1)	mg/L	7277/105
Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L	9998/600
Phosphorus, Total, as P	ND(0.20)	mg/L	7321/32
Solids, Total Dissolved	162	mg/L	7320/77
Solids, Total Suspended	6	mg/L	7320/76

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1848	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1916	120919-6	6IP3270	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1848	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1916	120919-6	6IP3270	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/21/12 1215	09/24/12 2036	120921-7	6IP4268	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1848	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1916	120919-6	6IP3270	KMW	200.8 Rev. 5.4
BOD	N/A	09/14/12 1755	120914-2	120914-5	ASK	5210B-2001
Chloride	N/A	09/18/12 0810	2IC2261	6IC2261	MLL	300.0
Kjeldahl Nitrogen, as N (T	09/24/12 1045	09/25/12 1159	120924-1	120925-2	JND	EPA 351.2
Nitrate, as N	N/A	09/14/12 1605	1IC2258	2IC2258	MLL	300.0
Nitrite, as N	N/A	09/14/12 1605	1IC2258	2IC2258	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	09/26/12 0808			CJB	Calculation
Phosphorus, Total, as P	N/A	09/20/12 1634	120920-2	120920-4	KJH	4500-P(B&G)-1999
Solids, Total Dissolved	N/A	09/19/12 1500	120919-1	120919-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1402	120919-3	120919-3	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090970

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106030

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12090969	BOD	09/13/2012 1630	09/14/2012 1755	25:25
12090969	Nitrate, as N	09/13/2012 1630	09/14/2012 1550	23:20
12090969	Nitrite, as N	09/13/2012 1630	09/14/2012 1550	23:20
12090970	BOD	09/13/2012 1635	09/14/2012 1755	25:20
12090970	Nitrate, as N	09/13/2012 1635	09/14/2012 1605	23:30
12090970	Nitrite, as N	09/13/2012 1635	09/14/2012 1605	23:30

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

QC - QC data qualifiers were noted. See the Quality Control Report.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106030

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106030

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120914-5	120914BLK5 09/14/12 18:30	120914LCS5 09/14/12 18:34	12091073MS 09/14/12 20:07
Lab numbers associated with this batch: 12090969					
SL323	Hardness (Calculated)	120917-3	120917BLK3 09/17/12 18:30	120917LCS3 09/17/12 18:34	12090971MS 09/17/12 19:22
Lab numbers associated with this batch: 12090968					
SL156	Cadmium, Dissolved, ICP-MS	120918-4	120918BLK4	120918LCS4	12090967MS
SL162	Copper, Dissolved, ICP-MS	120918-4	120918BLK4	120918LCS4	12090967MS
SL183	Zinc, Dissolved, ICP-MS	120918-4	120918BLK4 09/25/12 17:07	120918LCS4 09/25/12 17:13	12090967MS 09/25/12 18:21
Lab numbers associated with this batch: 12090968 12090969 12090970					
SL006	Cadmium, Tot. Rec., ICP-MS	120919-6	120919BLK6	120919LCS6	12090967MS
SL012	Copper, Tot. Rec., ICP-MS	120919-6	120919BLK6	120919LCS6	12090967MS
SL033	Zinc, Tot. Rec., ICP-MS	120919-6	120919BLK6 09/26/12 17:56	120919LCS6 09/26/12 18:02	12090967MS 09/26/12 18:49
Lab numbers associated with this batch: 12090969 12090970					
SL006	Cadmium, Tot. Rec., ICP-MS	120920-6	120920BLK6	120920LCS6	12090972MS
SL012	Copper, Tot. Rec., ICP-MS	120920-6	120920BLK6	120920LCS6	12090972MS
SL033	Zinc, Tot. Rec., ICP-MS	120920-6	120920BLK6 09/27/12 15:09	120920LCS6 09/27/12 15:14	12090972MS 09/27/12 15:45
Lab numbers associated with this batch: 12090968					
SL323	Hardness (Calculated)	120921-7	120921BLK7 09/24/12 20:20	120921LCS7 09/24/12 20:32	12090970MS 09/24/12 20:40
Lab numbers associated with this batch: 12090970					
GL123	BOD	120914-2	120914BLK2 09/14/12 17:55	120914LCS2 09/14/12 17:55	12090966MS 09/14/12 17:55
Lab numbers associated with this batch: 12090969 12090970					
GL502	Chloride	1IC2258	BLK1IC2258 09/14/12 11:16	LCS1IC2258 09/14/12 11:31	12090960MS 09/14/12 12:17
Lab numbers associated with this batch: 12090969					
GL502	Chloride	2IC2258	BLK2IC2258 09/14/12 20:54	LCS2IC2258 09/14/12 21:09	12090823MS 09/15/12 04:46
Lab numbers associated with this batch: 12090968					

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106030

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL502	Chloride	2IC2261	BLK2IC2261 09/18/12 03:34	LCS2IC2261 09/18/12 03:50	12091243MS 09/18/12 09:14
	Lab numbers associated with this batch: 12090970				
GL188	Hexane Extractable Material	120920-1	120920BLK1 09/20/12 08:25	120920LCS1 09/20/12 08:26	12090520MS 09/20/12 08:26
	Lab numbers associated with this batch: 12090968				
GL595	Kjeldahl Nitrogen, as N (TKN)	120924-1	120924BLK1 09/25/12 11:36	120924LCS1 09/25/12 11:38	12090979MS 09/25/12 12:15
	Lab numbers associated with this batch: 12090969 12090970				
GL505	Nitrate, as N	1IC2258	BLK1IC2258	LCS1IC2258	12090960MS
GL503	Nitrite, as N	1IC2258	BLK1IC2258 09/14/12 11:16	LCS1IC2258 09/14/12 11:31	12090960MS 09/14/12 12:17
	Lab numbers associated with this batch: 12090969 12090970				
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12090969 12090970				
GL218	Phosphorus, Total, as P	120920-2	120920BLK2 09/20/12 1623	120920LCS2 09/20/12 1624	12090963MS 09/20/12 1630
	Lab numbers associated with this batch: 12090969 12090970				
GL242	Solids, Total Dissolved	120919-1	120919BLK1 09/19/12 14:55	120919LCS1 09/19/12	12090969MS 09/19/12 14:59
	Lab numbers associated with this batch: 12090968 12090969 12090970				
GL243	Solids, Total Suspended	120919-3	120919BLK3 09/19/12 13:58	120919LCS3 09/19/12	12090960MS 09/19/12 13:59
	Lab numbers associated with this batch: 12090968 12090969 12090970				

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106030

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120914-2	**For sample analyzed on: 09/14/2012**					**Spiked sample: 12090966**						
BOD	ND(5)	91.5	84.6-115	198	mg/L	MN	MN	#		mg/L	**	16.4
QC Batch: 120914-5	**For samples prepared on: 09/14/2012 1344**					**Spiked sample: 12091073**						
Hardness (Calculated)	ND(5.0)	96.5	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120917-3	**For samples prepared on: 09/17/2012 1240**					**Spiked sample: 12090971**						
Hardness (Calculated)	ND(5.0)	99.7	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120918-4	**For samples prepared on: 09/18/2012 1227**					**Spiked sample: 12090967**						
Cadmium, Dissolved, ICP-MS	ND(1)	94.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	90.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	96.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120919-1	**For sample analyzed on: 09/19/2012**					**Spiked sample: 12090969**						
Solids, Total Dissolved	ND(30)	N/A			mg/L	50 T	46 T MP	#		mg/L	8.3	5.9
QC Batch: 120919-3	**For sample analyzed on: 09/19/2012**					**Spiked sample: 12090960**						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120919-6	**For samples prepared on: 09/19/2012 1113**					**Spiked sample: 12090967**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	95.4	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	89.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120920-1	**For samples prepared on: 09/20/2012**					**Spiked sample: 12090520**						
Hexane Extractable Material	ND(1.4)	91.0	78.0-114	40.0	mg/L	MN	MN	78.0-114	40.0	mg/L	**	18.0
QC Batch: 120920-2	**For sample analyzed on: 09/20/2012**					**Spiked sample: 12090963**						
Phosphorus, Total, as P	ND(0.20)	104	88.8-110	2.0	mg/L	MN	MN	80.5-117	2.0	mg/L	**	5.7
QC Batch: 120920-6	**For samples prepared on: 09/20/2012 1213**					**Spiked sample: 12090972**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	96.3	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	88.4	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	97.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120921-7	**For samples prepared on: 09/21/2012 1215**					**Spiked sample: 12090970**						
Hardness (Calculated)	ND(5.0)	90.4	80.0-120	337	mg/L a	92.0	91.6	80.0-120	337	mg/L as	0.4	20.0
QC Batch: 120924-1	**For samples prepared on: 09/24/2012 10:45**					**Spiked sample: 12090979**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	113	85.0-115	4.0	mg/L	MN	MN	81.2-133	4.0	mg/L	**	6.7
QC Batch: 1IC2258	**For sample analyzed on: 09/14/2012**					**Spiked sample: 12090960**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	4.0	mg/L	**	5.7
Nitrite, as N	ND(0.1)	99.9	90.0-110	2.0	mg/L	MN	MN	77.5-116	2.0	mg/L	**	10.2
Nitrate, as N	ND(0.1)	104	90.0-110	2.0	mg/L	MN	MN	81.7-121	2.0	mg/L	**	8.2
QC Batch: 2IC2258	**For sample analyzed on: 09/14/2012**					**Spiked sample: 12090823**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	40.0	mg/L	**	5.7
QC Batch: 2IC2261	**For sample analyzed on: 09/18/2012**					**Spiked sample: 12091243**						
Chloride	ND(1.0)	103	90.0-110	4.0	mg/L	MN	MN	75.1-131	200	mg/L	**	5.7

Data Qualifiers:

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106030

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit

MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

T - MS/MSD cannot be performed for this analysis. The MS result is the same as the sample result. The MSD result is a duplicate of the sample.

MP - The MS/MSD recoveries for this analyte exceeded the method or laboratory precision control limit. The reported sample concentration is estimated.

- Limits not available.

** - RPD cannot be calculated.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106030

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Tot. Rec., ICP-MS	09/27/2012	3IP3271	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/25/2012	5IP3269	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/25/2012	6IP3269	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/27/2012	3IP3271	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/25/2012	5IP3269	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/25/2012	6IP3269	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			
BOD	09/14/2012	120914-5	CCV recovery acceptable for this Instrument Batch.			
BOD	09/14/2012	120914-6	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	09/20/2012	120920-1	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	09/20/2012	120920-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/20/2012	120920-4	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/20/2012	120920-5	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	2IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	5IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/15/2012	6IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/18/2012	6IC2261	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/18/2012	7IC2261	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	2IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	2IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-1	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-2	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-3	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/24/2012	6IP4268	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/24/2012	7IP4268	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/14/2012	8IP4258	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	8IP4261	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/14/2012	9IP4258	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	9IP4261	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/27/2012	3IP3271	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/25/2012	5IP3269	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/25/2012	6IP3269	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Quality Control Report
Continuing Calibration Data Summary

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106030

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.
525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS JOB NO: 14050

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information	Invoice Information
Company Name: City of Wichita Sewage Treatment	Company Name: City of Wichita Sewage Treatment
Address: 2305 E. 57th Street South	Address: 2305 E. 57th Street South
City: Wichita State: KS Zip: 67216	City: Wichita State: KS Zip: 67216
Contact: Jim Hardesty E-mail:	Contact: Jim Hardesty E-mail:
Phone Number: (316)303-8700 Fax Number: (316)303-8712	Phone Number: (316)303-8700 Fax Number: (316)303-8712

Sampler's Name:(Printed) Justin Murphy
Sampler's Name: (Signature)
Purchase Order Number:
File Number: 5611
Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER:	Cadmium, Copper, Zinc - Total Recoverable 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Hexane Extractable Material 2 - 1000ml Amber Glass - H2SO4	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P	COMMENTS 5 Gal. container to be poured off at lab as needed for required tests. Remaininig volume will be saved for organics if needed
Towne East-Grab	WW	N	9/13/12	1630	G	4			1	2	1		X	X	X						
Towne East-Composite	WW	N	9/13/12	1630	C	1					1					X					
Towne East-Upstream	WW	N	9/13/12	1635	G	4			1	1	2						X	X	X	X	

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT: (15 working days) Rush TAT: (5 working days) Emergency TAT: (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY: Justin Murphy	DATE: 9/13/12	TIME: 7:00 PM	RECEIVED BY:	DATE:	TIME:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
RECEIVED AT LAB BY: Stacy J. Greene	DATE: 9/13/12	TIME: 1930	SHIPPED VIA: AIRBILL:	SEAL #: SEAL DATE:	

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 10680

Client Name: City of Wichita CAS File No.: 8339

Sample ID's in cooler: TOWNE East

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: TOWNE EAST / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 9 / 13 / 12 19 : 30

Delivered By: UPS / FedX / AB Express / Field Svcs / Mail / (Walk-In) / Other: _____

Custody Seal: Present: Intact / Broken (Absent) Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.6 Corrected Reading (°C) 1.1
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): +0.5

AB 9/13/12

☒ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes (See below for discrepancies.)

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: [signature] Date Completed: 9-14-12

Continental Analytical Services, Inc.

09/28/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 09/13/2012 1930
Continental File No.: 8339
Continental Order No.: 106031
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 12 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12090971	Harvest Ct. - Grab	Liquid	9/13/2012
12090972	Harvest Ct. - Composite	Liquid	9/13/2012
12090973	Harvest Ct. - Upstream	Liquid	9/13/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106031

Lab Number: 12090971
Sample Description: Harvest Ct. - Grab

Date Sampled: 09/13/2012
Time Sampled: 1445

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/222
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/223
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/222
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/223
Hardness (Calculated)	30.2	mg/L as CaCO3	7157/381
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/222
Zinc, Tot. Rec., ICP-MS	ND(20)	µg/L	7202/223
Chloride	3.1	mg/L	7277/105
Solids, Total Dissolved	44	mg/L	7320/77
Solids, Total Suspended	24	mg/L	7320/76

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2014	120920-5	7IP3270	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1535	120920-6	3IP3271	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2014	120920-5	7IP3270	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1535	120920-6	3IP3271	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/17/12 1240	09/17/12 1918	120917-3	8IP4261	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2014	120920-5	7IP3270	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1535	120920-6	3IP3271	KMW	200.8 Rev. 5.4
Chloride	N/A	09/15/12 0229	2IC2258	6IC2258	MLL	300.0
Solids, Total Dissolved	N/A	09/19/12 1500	120919-1	120919-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1402	120919-3	120919-3	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090971

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106031

Lab Number: 12090972
Sample Description: Harvest Ct. - Composite

Date Sampled: 09/13/2012
Time Sampled: 1445

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/222
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/223
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/222
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/223
Hardness (Calculated)	30.3	mg/L as CaCO3	7157/379
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/222
Zinc, Tot. Rec., ICP-MS	ND(20)	µg/L	7202/223
BOD	7	mg/L	7060/543
Chloride	3.5	mg/L	7277/105
Kjeldahl Nitrogen, as N (TKN)	1.3	mg/L	6854/634
Nitrate, as N	0.4	mg/L	7277/105
Nitrite, as N	ND(0.1)	mg/L	7277/105
Nitrogen (TKN + NO3/NO2), as N	1.7	mg/L	9998/600
Phosphorus, Total, as P	0.24	mg/L	7321/34
Solids, Total Dissolved	52	mg/L	7320/77
Solids, Total Suspended	17	mg/L	7320/76

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2019	120920-5	7IP3270	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1540	120920-6	3IP3271	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2019	120920-5	7IP3270	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1540	120920-6	3IP3271	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/14/12 1344	09/14/12 1918	120914-5	8IP4258	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2019	120920-5	7IP3270	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1540	120920-6	3IP3271	KMW	200.8 Rev. 5.4
BOD	N/A	09/15/12 1311	120915-1	120915-1	ASK	5210B-2001
Chloride	N/A	09/14/12 1620	1IC2258	2IC2258	MLL	300.0
Kjeldahl Nitrogen, as N (T	09/24/12 1045	09/25/12 1201	120924-1	120925-2	JND	EPA 351.2
Nitrate, as N	N/A	09/14/12 1620	1IC2258	2IC2258	MLL	300.0
Nitrite, as N	N/A	09/14/12 1620	1IC2258	2IC2258	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	09/26/12 0808			CJB	Calculation
Phosphorus, Total, as P	N/A	09/24/12 1453	120924-1	120924-1	KJH	4500-P(B&G)-1999
Solids, Total Dissolved	N/A	09/19/12 1500	120919-1	120919-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1402	120919-3	120919-3	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090972

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106031

Lab Number: 12090973
Sample Description: Harvest Ct. - Upstream

Date Sampled: 09/13/2012
Time Sampled: 1450

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/221
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/222
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/221
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/222
Hardness (Calculated)	36.0	mg/L as CaCO3	7157/388
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/221
Zinc, Tot. Rec., ICP-MS	21	µg/L	7202/222
BOD	8	mg/L	7060/543
Chloride	5.5	mg/L	7277/105
Kjeldahl Nitrogen, as N (TKN)	1.6	mg/L	6854/634
Nitrate, as N	0.3	mg/L	7277/105
Nitrite, as N	ND(0.1)	mg/L	7277/105
Nitrogen (TKN + NO3/NO2), as N	1.9	mg/L	9998/600
Phosphorus, Total, as P	0.25	mg/L	7321/34
Solids, Total Dissolved	70.	mg/L	7320/77
Solids, Total Suspended	18	mg/L	7320/76

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1853	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/19/12 1021	09/26/12 1719	120919-5	4IP3270	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1853	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/19/12 1021	09/26/12 1719	120919-5	4IP3270	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/21/12 1215	09/24/12 2052	120921-7	6IP4268	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1853	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/19/12 1021	09/26/12 1719	120919-5	4IP3270	KMW	200.8 Rev. 5.4
BOD	N/A	09/15/12 1311	120915-1	120915-1	ASK	5210B-2001
Chloride	N/A	09/14/12 1635	1IC2258	2IC2258	MLL	300.0
Kjeldahl Nitrogen, as N (T	09/24/12 1045	09/25/12 1203	120924-1	120925-2	JND	EPA 351.2
Nitrate, as N	N/A	09/14/12 1635	1IC2258	2IC2258	MLL	300.0
Nitrite, as N	N/A	09/14/12 1635	1IC2258	2IC2258	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	09/26/12 0808			CJB	Calculation
Phosphorus, Total, as P	N/A	09/24/12 1456	120924-1	120924-1	KJH	4500-P(B&G)-1999
Solids, Total Dissolved	N/A	09/19/12 1501	120919-1	120919-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1403	120919-3	120919-3	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090973

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
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ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12090972	BOD	09/13/2012 1445	09/15/2012 1311	46:26
12090972	Nitrate, as N	09/13/2012 1445	09/14/2012 1620	25:35
12090972	Nitrite, as N	09/13/2012 1445	09/14/2012 1620	25:35
12090973	BOD	09/13/2012 1450	09/15/2012 1311	46:21
12090973	Nitrate, as N	09/13/2012 1450	09/14/2012 1635	25:45
12090973	Nitrite, as N	09/13/2012 1450	09/14/2012 1635	25:45

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106031

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
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455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106031

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120914-5	120914BLK5 09/14/12 18:30	120914LCS5 09/14/12 18:34	12090972MS 09/14/12 19:23
Lab numbers associated with this batch: 12090972					
SL323	Hardness (Calculated)	120917-3	120917BLK3 09/17/12 18:30	120917LCS3 09/17/12 18:34	12090971MS 09/17/12 19:22
Lab numbers associated with this batch: 12090971					
SL156	Cadmium, Dissolved, ICP-MS	120918-4	120918BLK4	120918LCS4	12090967MS
SL162	Copper, Dissolved, ICP-MS	120918-4	120918BLK4	120918LCS4	12090967MS
SL183	Zinc, Dissolved, ICP-MS	120918-4	120918BLK4 09/25/12 17:07	120918LCS4 09/25/12 17:13	12090967MS 09/25/12 18:21
Lab numbers associated with this batch: 12090973					
SL006	Cadmium, Tot. Rec., ICP-MS	120919-5	120919BLK5	120919LCS5	
SL012	Copper, Tot. Rec., ICP-MS	120919-5	120919BLK5	120919LCS5	
SL033	Zinc, Tot. Rec., ICP-MS	120919-5	120919BLK5 09/26/12 16:58	120919LCS5 09/26/12 17:03	
Lab numbers associated with this batch: 12090973					
SL156	Cadmium, Dissolved, ICP-MS	120920-5	120920BLK5	120920LCS5	12090972MS
SL162	Copper, Dissolved, ICP-MS	120920-5	120920BLK5	120920LCS5	12090972MS
SL183	Zinc, Dissolved, ICP-MS	120920-5	120920BLK5 09/26/12 20:03	120920LCS5 09/26/12 20:09	12090972MS 09/26/12 20:25
Lab numbers associated with this batch: 12090971 12090972					
SL006	Cadmium, Tot. Rec., ICP-MS	120920-6	120920BLK6	120920LCS6	12090972MS
SL012	Copper, Tot. Rec., ICP-MS	120920-6	120920BLK6	120920LCS6	12090972MS
SL033	Zinc, Tot. Rec., ICP-MS	120920-6	120920BLK6 09/27/12 15:09	120920LCS6 09/27/12 15:14	12090972MS 09/27/12 15:45
Lab numbers associated with this batch: 12090971 12090972					
SL323	Hardness (Calculated)	120921-7	120921BLK7 09/24/12 20:20	120921LCS7 09/24/12 20:32	12090970MS 09/24/12 20:40
Lab numbers associated with this batch: 12090973					
GL123	BOD	120915-1	120915BLK1 09/15/12 13:11	120915LCS1 09/15/12 13:11	12090972MS 09/15/12 13:11
Lab numbers associated with this batch: 12090972 12090973					
GL502	Chloride	1IC2258	BLK1IC2258 09/14/12 11:16	LCS1IC2258 09/14/12 11:31	12090960MS 09/14/12 12:17
Lab numbers associated with this batch: 12090972 12090973					

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Quality Control Report
Batch Summary

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Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106031

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL502	Chloride	2IC2258	BLK2IC2258 09/14/12 20:54	LCS2IC2258 09/14/12 21:09	12090823MS 09/15/12 04:46
Lab numbers associated with this batch: 12090971					
GL595	Kjeldahl Nitrogen, as N (TKN)	120924-1	120924BLK1 09/25/12 11:36	120924LCS1 09/25/12 11:38	12090979MS 09/25/12 12:15
Lab numbers associated with this batch: 12090972 12090973					
GL505	Nitrate, as N	1IC2258	BLK1IC2258	LCS1IC2258	12090960MS
GL503	Nitrite, as N	1IC2258	BLK1IC2258 09/14/12 11:16	LCS1IC2258 09/14/12 11:31	12090960MS 09/14/12 12:17
Lab numbers associated with this batch: 12090972 12090973					
GL343	Nitrogen (TKN + NO3/NO2), as N				
Lab numbers associated with this batch: 12090972 12090973					
GL218	Phosphorus, Total, as P	120924-1	120924BLK1 09/24/12 1452	120924LCS1 09/24/12 1453	12090972MS 09/24/12 1454
Lab numbers associated with this batch: 12090972 12090973					
GL242	Solids, Total Dissolved	120919-1	120919BLK1 09/19/12 14:55	120919LCS1 09/19/12	12090969MS 09/19/12 14:59
Lab numbers associated with this batch: 12090971 12090972 12090973					
GL243	Solids, Total Suspended	120919-3	120919BLK3 09/19/12 13:58	120919LCS3 09/19/12	12090960MS 09/19/12 13:59
Lab numbers associated with this batch: 12090971 12090972 12090973					

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106031

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120914-5	For samples prepared on: 09/14/2012 1344					Spiked sample: 12090972						
Hardness (Calculated)	ND(5.0)	96.5	80.0-120	337	mg/L a	95.4	95.1	80.0-120	337	mg/L as	0.3	20.0
QC Batch: 120915-1	For sample analyzed on: 09/15/2012					Spiked sample: 12090972						
BOD	ND(5)	99.4	84.6-115	198	mg/L	7 T	7 T	#		mg/L	0.0	16.4
QC Batch: 120917-3	For samples prepared on: 09/17/2012 1240					Spiked sample: 12090971						
Hardness (Calculated)	ND(5.0)	99.7	80.0-120	337	mg/L a	100.	99.8	80.0-120	337	mg/L as	0.2	20.0
QC Batch: 120918-4	For samples prepared on: 09/18/2012 1227					Spiked sample: 12090967						
Cadmium, Dissolved, ICP-MS	ND(1)	94.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	90.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	96.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120919-1	For sample analyzed on: 09/19/2012					Spiked sample: 12090969						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120919-3	For sample analyzed on: 09/19/2012					Spiked sample: 12090960						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120919-5	For samples prepared on: 09/19/2012 1021					Spiked sample:						
Cadmium, Tot. Rec., ICP-MS	ND(1)	97.7	85.0-115	500	µg/L	MN	MN	80.0-120			**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	90.2	85.0-115	500	µg/L	MN	MN	80.0-120			**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	103	85.0-115	500	µg/L	MN	MN	80.0-120			**	20.0
QC Batch: 120920-5	For samples prepared on: 09/20/2012 1014					Spiked sample: 12090972						
Cadmium, Dissolved, ICP-MS	ND(1)	90.7	85.0-115	500	µg/L	87.1	86.2	80.0-120	500	µg/L	1.0	20.0
Copper, Dissolved, ICP-MS	ND(5)	85.2	85.0-115	500	µg/L	85.6	85.6	80.0-120	500	µg/L	0.0	20.0
Zinc, Dissolved, ICP-MS	ND(20)	96.8	85.0-115	500	µg/L	91.4	91.5	80.0-120	500	µg/L	0.1	20.0
QC Batch: 120920-6	For samples prepared on: 09/20/2012 1213					Spiked sample: 12090972						
Cadmium, Tot. Rec., ICP-MS	ND(1)	96.3	85.0-115	500	µg/L	97.4	98.9	80.0-120	500	µg/L	1.5	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	88.4	85.0-115	500	µg/L	89.7	91.0	80.0-120	500	µg/L	1.4	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	97.7	85.0-115	500	µg/L	98.0	99.3	80.0-120	500	µg/L	1.3	20.0
QC Batch: 120921-7	For samples prepared on: 09/21/2012 1215					Spiked sample: 12090970						
Hardness (Calculated)	ND(5.0)	90.4	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120924-1	For sample analyzed on: 09/24/2012					Spiked sample: 12090972						
Phosphorus, Total, as P	ND(0.20)	101	88.8-110	2.0	mg/L	102	97.1	80.5-117	2.0	mg/L	4.9	5.7
QC Batch: 120924-1	For samples prepared on: 09/24/2012 10:45					Spiked sample: 12090979						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	113	85.0-115	4.0	mg/L	MN	MN	81.2-133	4.0	mg/L	**	6.7
QC Batch: 1IC2258	For sample analyzed on: 09/14/2012					Spiked sample: 12090960						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	4.0	mg/L	**	5.7
Nitrite, as N	ND(0.1)	99.9	90.0-110	2.0	mg/L	MN	MN	77.5-116	2.0	mg/L	**	10.2
Nitrate, as N	ND(0.1)	104	90.0-110	2.0	mg/L	MN	MN	81.7-121	2.0	mg/L	**	8.2
QC Batch: 2IC2258	For sample analyzed on: 09/14/2012					Spiked sample: 12090823						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	40.0	mg/L	**	5.7

Data Qualifiers:

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
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455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106031

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit

T - MS/MSD cannot be performed for this analysis. The MS result is the same as the sample result. The MSD result is a duplicate of the sample.

MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

@ - Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
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Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106031

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Tot. Rec., ICP-MS	09/27/2012	3IP3271	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	4IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/25/2012	5IP3269	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/25/2012	6IP3269	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/27/2012	3IP3271	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	4IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/25/2012	5IP3269	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/25/2012	6IP3269	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
BOD	09/15/2012	120915-1	CCV recovery acceptable for this Instrument Batch.			
BOD	09/15/2012	120915-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/24/2012	120924-1	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/24/2012	120924-2	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	2IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/15/2012	6IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/15/2012	7IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	2IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	2IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-2	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-3	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/24/2012	6IP4268	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/24/2012	7IP4268	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/14/2012	8IP4258	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	8IP4261	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/14/2012	9IP4258	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	9IP4261	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/27/2012	3IP3271	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	4IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/25/2012	5IP3269	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/25/2012	6IP3269	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Quality Control Report
Continuing Calibration Data Summary

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106031

Zinc, Dissolved, ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO. 100031

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information			Invoice Information		
Company Name: City of Wichita Sewage Treatment			Company Name: City of Wichita Sewage Treatment		
Address: 2305 E. 57th Street South			Address: 2305 E. 57th Street South		
City: Wichita	State: KS	Zip: 67216	City: Wichita	State: KS	Zip: 67216
Contact: Jim Hardesty	E-mail:		Contact: Jim Hardesty	E-mail:	
Phone Number: (316)303-8700	Fax Number: (316)303-8712		Phone Number: (316)303-8700	Fax Number: (316)303-8712	

Sampler's Name:(Printed) Justin Murphy
Sampler's Name(Signature)
Purchase Order Number:
File Number: 5611
Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Charncters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER:	Total Metals 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P		COMMENTS 5
Harvest Ct.-Grab	WW	N	9/13/12	1445	G	4			1	2	1		X	X							
Harvest Ct.-Composite	WW	N	9/13/12	1445	C	1					1				X						
Harvest Ct.-Upstream	WW	N	9/13/12	1450	G	4			1	1	2					X	X	X	X		

Gal. container to be poured off at lab as needed for required tests. Remaininig volume will be saved for organics if needed

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT: (15 working days) Rush TAT: (5 working days) Emergency TAT: (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
	9/13/12	1730			
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
RECEIVED AT LAB BY:	DATE:	TIME:	SHIPPED VIA:	SEAL #:	
	9/13/12	1730	AIRBILL:	SEAL DATE:	

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 18831

Client Name: City of Wichita CAS File No.: 8339

Sample ID's in cooler: Harvest Court

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: Harvest Ct. / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 9 / 13 / 12 19 : 30

Delivered By: UPS / FedX / AB Express / Field Svcs / Mail / (Walk-In) / Other: _____

Custody Seal: Present: Intact / Broken (Absent:) Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice (Ice) Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.3 Corrected Reading (°C) 0.8
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): +0.5

AB 9/13/12

☒ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☐ No ☒ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments: Grab only, received 2 containers not 4

Completed by: AB Date Completed: 9-14-12

Continental Analytical Services, Inc.

09/28/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 09/13/2012 1930
Continental File No.: 8339
Continental Order No.: 106032
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 12 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12090974	Cowskin and Maple - Grab	Liquid	9/13/2012
12090975	Cowskin and Maple - Composite	Liquid	9/13/2012
12090976	Cowskin and Maple - Upstream	Liquid	9/13/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106032

Lab Number: 12090974
Sample Description: Cowskin and Maple - Grab

Date Sampled: 09/13/2012
Time Sampled: 1415

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/222
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/223
Copper, Dissolved, ICP-MS	5 DM	µg/L	7202/222
Copper, Tot. Rec., ICP-MS	12	µg/L	7202/223
Hardness (Calculated)	53.6	mg/L as CaCO3	7157/381
Zinc, Dissolved, ICP-MS	22 DM	µg/L	7202/222
Zinc, Tot. Rec., ICP-MS	133	µg/L	7202/223
Chloride	8.0	mg/L	7277/105
Solids, Total Dissolved	118	mg/L	7320/77
Solids, Total Suspended	59	mg/L	7320/76

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2051	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1617	120920-6	4IP3271	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2051	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1617	120920-6	4IP3271	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/17/12 1240	09/17/12 1942	120917-3	9IP4261	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2051	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1617	120920-6	4IP3271	KMW	200.8 Rev. 5.4
Chloride	N/A	09/15/12 0244	2IC2258	6IC2258	MLL	300.0
Solids, Total Dissolved	N/A	09/19/12 1501	120919-1	120919-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1403	120919-3	120919-3	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090974

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106032

Lab Number: 12090975
Sample Description: Cowskin and Maple - Composite

Date Sampled: 09/13/2012
Time Sampled: 1415

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/222
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/222
Copper, Dissolved, ICP-MS	5 DM	µg/L	7202/222
Copper, Tot. Rec., ICP-MS	11	µg/L	7202/222
Hardness (Calculated)	51.5	mg/L as CaCO3	7157/381
Zinc, Dissolved, ICP-MS	25 DM	µg/L	7202/222
Zinc, Tot. Rec., ICP-MS	98	µg/L	7202/222
BOD	13	mg/L	7060/543
Chloride	7.8	mg/L	7277/105
Kjeldahl Nitrogen, as N (TKN)	1.7	mg/L	6854/634
Nitrate, as N	0.6	mg/L	7277/105
Nitrite, as N	ND(0.1)	mg/L	7277/105
Nitrogen (TKN + NO3/NO2), as N	2.3	mg/L	9998/600
Phosphorus, Total, as P	0.25	mg/L	7321/34
Solids, Total Dissolved	110.	mg/L	7320/77
Solids, Total Suspended	63	mg/L	7320/76

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2057	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/19/12 1021	09/26/12 1735	120919-5	5IP3270	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2057	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/19/12 1021	09/26/12 1735	120919-5	5IP3270	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/17/12 1240	09/17/12 1946	120917-3	9IP4261	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2057	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/19/12 1021	09/26/12 1735	120919-5	5IP3270	KMW	200.8 Rev. 5.4
BOD	N/A	09/15/12 1311	120915-1	120915-1	ASK	5210B-2001
Chloride	N/A	09/14/12 1721	1IC2258	3IC2258	MLL	300.0
Kjeldahl Nitrogen, as N (T	09/24/12 1045	09/25/12 1206	120924-1	120925-2	JND	EPA 351.2
Nitrate, as N	N/A	09/14/12 1721	1IC2258	3IC2258	MLL	300.0
Nitrite, as N	N/A	09/14/12 1721	1IC2258	3IC2258	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	09/26/12 0808			CJB	Calculation
Phosphorus, Total, as P	N/A	09/24/12 1457	120924-1	120924-1	KJH	4500-P(B&G)-1999
Solids, Total Dissolved	N/A	09/19/12 1502	120919-1	120919-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1403	120919-3	120919-3	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090975

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106032

Lab Number: 12090976
Sample Description: Cowskin and Maple - Upstream

Date Sampled: 09/13/2012
Time Sampled: 1420

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/221
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/222
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/221
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/222
Hardness (Calculated)	178	mg/L as CaCO3	7157/388
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/221
Zinc, Tot. Rec., ICP-MS	ND(20)	µg/L	7202/222
BOD	ND(5)	mg/L	7060/543
Chloride	103	mg/L	7277/105
Kjeldahl Nitrogen, as N (TKN)	1.3	mg/L	6854/634
Nitrate, as N	ND(0.1)	mg/L	7277/105
Nitrite, as N	ND(0.1)	mg/L	7277/105
Nitrogen (TKN + NO3/NO2), as N	1.3	mg/L	9998/600
Phosphorus, Total, as P	0.40	mg/L	7321/34
Solids, Total Dissolved	538	mg/L	7320/77
Solids, Total Suspended	106	mg/L	7320/76

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1858	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1921	120919-6	6IP3270	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1858	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1921	120919-6	6IP3270	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/21/12 1215	09/24/12 2056	120921-7	6IP4268	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/18/12 1227	09/25/12 1858	120918-4	5IP3269	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/19/12 1113	09/26/12 1921	120919-6	6IP3270	KMW	200.8 Rev. 5.4
BOD	N/A	09/15/12 1311	120915-1	120915-1	ASK	5210B-2001
Chloride	N/A	09/14/12 1938	1IC2258	3IC2258	MLL	300.0
Kjeldahl Nitrogen, as N (T	09/24/12 1045	09/25/12 1208	120924-1	120925-2	JND	EPA 351.2
Nitrate, as N	N/A	09/14/12 1736	1IC2258	3IC2258	MLL	300.0
Nitrite, as N	N/A	09/14/12 1736	1IC2258	3IC2258	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	09/26/12 0808			CJB	Calculation
Phosphorus, Total, as P	N/A	09/24/12 1457	120924-1	120924-1	KJH	4500-P(B&G)-1999
Solids, Total Dissolved	N/A	09/19/12 1502	120919-1	120919-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1404	120919-3	120919-3	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090976

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106032

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12090975	BOD	09/13/2012 1415	09/15/2012 1311	46:56
12090975	Nitrate, as N	09/13/2012 1415	09/14/2012 1721	27:06
12090975	Nitrite, as N	09/13/2012 1415	09/14/2012 1721	27:06
12090976	BOD	09/13/2012 1420	09/15/2012 1311	46:51
12090976	Nitrate, as N	09/13/2012 1420	09/14/2012 1736	27:16
12090976	Nitrite, as N	09/13/2012 1420	09/14/2012 1736	27:16

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106032

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106032

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120917-3	120917BLK3 09/17/12 18:30	120917LCS3 09/17/12 18:34	12090971MS 09/17/12 19:22
Lab numbers associated with this batch: 12090974 12090975					
SL156	Cadmium, Dissolved, ICP-MS	120918-4	120918BLK4	120918LCS4	12090967MS
SL162	Copper, Dissolved, ICP-MS	120918-4	120918BLK4	120918LCS4	12090967MS
SL183	Zinc, Dissolved, ICP-MS	120918-4	120918BLK4 09/25/12 17:07	120918LCS4 09/25/12 17:13	12090967MS 09/25/12 18:21
Lab numbers associated with this batch: 12090976					
SL006	Cadmium, Tot. Rec., ICP-MS	120919-5	120919BLK5	120919LCS5	
SL012	Copper, Tot. Rec., ICP-MS	120919-5	120919BLK5	120919LCS5	
SL033	Zinc, Tot. Rec., ICP-MS	120919-5	120919BLK5 09/26/12 16:58	120919LCS5 09/26/12 17:03	
Lab numbers associated with this batch: 12090975					
SL006	Cadmium, Tot. Rec., ICP-MS	120919-6	120919BLK6	120919LCS6	12090967MS
SL012	Copper, Tot. Rec., ICP-MS	120919-6	120919BLK6	120919LCS6	12090967MS
SL033	Zinc, Tot. Rec., ICP-MS	120919-6	120919BLK6 09/26/12 17:56	120919LCS6 09/26/12 18:02	12090967MS 09/26/12 18:49
Lab numbers associated with this batch: 12090976					
SL156	Cadmium, Dissolved, ICP-MS	120920-5	120920BLK5	120920LCS5	12090972MS
SL162	Copper, Dissolved, ICP-MS	120920-5	120920BLK5	120920LCS5	12090972MS
SL183	Zinc, Dissolved, ICP-MS	120920-5	120920BLK5 09/26/12 20:03	120920LCS5 09/26/12 20:09	12090972MS 09/26/12 20:25
Lab numbers associated with this batch: 12090974 12090975					
SL006	Cadmium, Tot. Rec., ICP-MS	120920-6	120920BLK6	120920LCS6	12090972MS
SL012	Copper, Tot. Rec., ICP-MS	120920-6	120920BLK6	120920LCS6	12090972MS
SL033	Zinc, Tot. Rec., ICP-MS	120920-6	120920BLK6 09/27/12 15:09	120920LCS6 09/27/12 15:14	12090972MS 09/27/12 15:45
Lab numbers associated with this batch: 12090974					
SL323	Hardness (Calculated)	120921-7	120921BLK7 09/24/12 20:20	120921LCS7 09/24/12 20:32	12090970MS 09/24/12 20:40
Lab numbers associated with this batch: 12090976					
GL123	BOD	120915-1	120915BLK1 09/15/12 13:11	120915LCS1 09/15/12 13:11	12090972MS 09/15/12 13:11
Lab numbers associated with this batch: 12090975 12090976					

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106032

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL502	Chloride	1IC2258	BLK1IC2258 09/14/12 11:16	LCS1IC2258 09/14/12 11:31	12090960MS 09/14/12 12:17
Lab numbers associated with this batch: 12090975 12090976					
GL502	Chloride	2IC2258	BLK2IC2258 09/14/12 20:54	LCS2IC2258 09/14/12 21:09	12090823MS 09/15/12 04:46
Lab numbers associated with this batch: 12090974					
GL595	Kjeldahl Nitrogen, as N (TKN)	120924-1	120924BLK1 09/25/12 11:36	120924LCS1 09/25/12 11:38	12090979MS 09/25/12 12:15
Lab numbers associated with this batch: 12090975 12090976					
GL505	Nitrate, as N	1IC2258	BLK1IC2258	LCS1IC2258	12090960MS
GL503	Nitrite, as N	1IC2258	BLK1IC2258 09/14/12 11:16	LCS1IC2258 09/14/12 11:31	12090960MS 09/14/12 12:17
Lab numbers associated with this batch: 12090975 12090976					
GL343	Nitrogen (TKN + NO3/NO2), as N				
Lab numbers associated with this batch: 12090975 12090976					
GL218	Phosphorus, Total, as P	120924-1	120924BLK1 09/24/12 1452	120924LCS1 09/24/12 1453	12090972MS 09/24/12 1454
Lab numbers associated with this batch: 12090975 12090976					
GL242	Solids, Total Dissolved	120919-1	120919BLK1 09/19/12 14:55	120919LCS1 09/19/12	12090969MS 09/19/12 14:59
Lab numbers associated with this batch: 12090974 12090975 12090976					
GL243	Solids, Total Suspended	120919-3	120919BLK3 09/19/12 13:58	120919LCS3 09/19/12	12090960MS 09/19/12 13:59
Lab numbers associated with this batch: 12090974 12090975 12090976					

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106032

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120915-1	For sample analyzed on: 09/15/2012					Spiked sample: 12090972						
BOD	ND(5)	99.4	84.6-115	198	mg/L	MN	MN	#		mg/L	**	16.4
QC Batch: 120917-3	For samples prepared on: 09/17/2012 1240					Spiked sample: 12090971						
Hardness (Calculated)	ND(5.0)	99.7	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120918-4	For samples prepared on: 09/18/2012 1227					Spiked sample: 12090967						
Cadmium, Dissolved, ICP-MS	ND(1)	94.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	90.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	96.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120919-1	For sample analyzed on: 09/19/2012					Spiked sample: 12090969						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120919-3	For sample analyzed on: 09/19/2012					Spiked sample: 12090960						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120919-5	For samples prepared on: 09/19/2012 1021					Spiked sample:						
Cadmium, Tot. Rec., ICP-MS	ND(1)	97.7	85.0-115	500	µg/L	MN	MN	80.0-120			**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	90.2	85.0-115	500	µg/L	MN	MN	80.0-120			**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	103	85.0-115	500	µg/L	MN	MN	80.0-120			**	20.0
QC Batch: 120919-6	For samples prepared on: 09/19/2012 1113					Spiked sample: 12090967						
Cadmium, Tot. Rec., ICP-MS	ND(1)	95.4	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	89.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120920-5	For samples prepared on: 09/20/2012 1014					Spiked sample: 12090972						
Cadmium, Dissolved, ICP-MS	ND(1)	90.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	85.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	96.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120920-6	For samples prepared on: 09/20/2012 1213					Spiked sample: 12090972						
Cadmium, Tot. Rec., ICP-MS	ND(1)	96.3	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	88.4	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	97.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120921-7	For samples prepared on: 09/21/2012 1215					Spiked sample: 12090970						
Hardness (Calculated)	ND(5.0)	90.4	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120924-1	For sample analyzed on: 09/24/2012					Spiked sample: 12090972						
Phosphorus, Total, as P	ND(0.20)	101	88.8-110	2.0	mg/L	MN	MN	80.5-117	2.0	mg/L	**	5.7
QC Batch: 120924-1	For samples prepared on: 09/24/2012 10:45					Spiked sample: 12090979						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	113	85.0-115	4.0	mg/L	MN	MN	81.2-133	4.0	mg/L	**	6.7
QC Batch: 1IC2258	For sample analyzed on: 09/14/2012					Spiked sample: 12090960						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	4.0	mg/L	**	5.7
Nitrite, as N	ND(0.1)	99.9	90.0-110	2.0	mg/L	MN	MN	77.5-116	2.0	mg/L	**	10.2
Nitrate, as N	ND(0.1)	104	90.0-110	2.0	mg/L	MN	MN	81.7-121	2.0	mg/L	**	8.2
QC Batch: 2IC2258	For sample analyzed on: 09/14/2012					Spiked sample: 12090823						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	40.0	mg/L	**	5.7

Data Qualifiers:

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106032

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit

MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106032

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/25/2012	5IP3269	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/27/2012	5IP3271	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/25/2012	6IP3269	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/25/2012	5IP3269	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/27/2012	5IP3271	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/25/2012	6IP3269	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.			
BOD	09/15/2012	120915-1	CCV recovery acceptable for this Instrument Batch.			
BOD	09/15/2012	120915-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/24/2012	120924-1	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/24/2012	120924-2	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	4IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/15/2012	6IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/15/2012	7IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	4IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	3IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	4IC2258	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-2	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-3	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	10IP4261	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/24/2012	6IP4268	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/24/2012	7IP4268	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	9IP4261	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/25/2012	5IP3269	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	5IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/27/2012	5IP3271	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/25/2012	6IP3269	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	6IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/26/2012	7IP3270	CCV recovery acceptable for this Instrument Batch.			

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Quality Control Report
Continuing Calibration Data Summary

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106032

Zinc, Dissolved, ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO: 100059

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information	Invoice Information
Company Name: City of Wichita Sewage Treatment	Company Name: City of Wichita Sewage Treatment
Address: 2305 E. 57th Street South	Address: 2305 E. 57th Street South
City: Wichita State: KS Zip: 67216	City: Wichita State: KS Zip: 67216
Contact: Jim Hardesty E-mail:	Contact: Jim Hardesty E-mail:
Phone Number: (316)303-8700 Fax Number: (316)303-8712	Phone Number: (316)303-8700 Fax Number: (316)303-8712

Sampler's Name:(Printed): Justin Murphy
Sampler's Name:(Signature):
Purchase Order Number:
File Number: 5611
Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER:	Total Metals 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P		COMMENTS 5 Gal. container to be poured off at lab as needed for required tests. Remaininig volume will be saved for organics if needed
Cowskin and Maple-Grab	WW	N	9/13/12	1415	G	4			1	2	1		X	X							Discrepancies See C/S Ref
Cowskin and Maple-Composite	WW	N	9/13/12	1415	C	1					1				X						
Cowskin and Maple-Upstream	WW	N	9/13/12	1420	G	4			1	1	2					X	X	X	X		

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT: (15 working days) Rush TAT: (5 working days) Emergency TAT: (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
Kate Pratt	9/13/12	730 pm			
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
RECEIVED AT LAB BY:	DATE:	TIME:	SHIPPED VIA:	SEAL #:	
Tracy J. Graves	9/13/12	1930	AIRBILL:	SEAL DATE:	

H:\mobile\...\Wichita Stormwater COCs.xlsx\9/13/2012

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 1209B32

Client Name: City of Wichita

CAS File No.: 8339

Sample ID's in cooler: Cowskin & Maple

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: 3135 / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 9 / 13 / 12 19 : 30

Delivered By: UPS / FedX / AB Express / Field Svcs / Mail / (Walk-In) / Other: _____

Custody Seal: Present: Intact / Broken (Absent:) Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.3 Corrected Reading (°C) 0.8
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): +0.5
☒ Evidence of Cooling and date received = date sampled

AB 9/13/12

Sample Receipt Discrepancies: ☐ No ☒ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments: Grab received 2 containers not 4

Completed by: AB Date Completed: 9-14-12

Continental Analytical Services, Inc.

09/28/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 09/13/2012 1930
Continental File No.: 8339
Continental Order No.: 106036
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 9 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12090985	Pawnee and Canal - Grab	Liquid	9/13/2012
12090986	Pawnee and Canal - Composite	Liquid	9/13/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106036

Lab Number: 12090985
Sample Description: Pawnee and Canal - Grab

Date Sampled: 09/13/2012
Time Sampled: 1515

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/222
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/223
Copper, Dissolved, ICP-MS	6 DM	µg/L	7202/222
Copper, Tot. Rec., ICP-MS	18	µg/L	7202/223
Hardness (Calculated)	69.9	mg/L as CaCO3	7157/381
Zinc, Dissolved, ICP-MS	48 DM	µg/L	7202/222
Zinc, Tot. Rec., ICP-MS	185	µg/L	7202/223
Chloride	11.1	mg/L	7277/105
Solids, Total Dissolved	128	mg/L	7320/81
Solids, Total Suspended	79	mg/L	7320/78

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2134	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1623	120920-6	4IP3271	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2134	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1623	120920-6	4IP3271	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/17/12 1240	09/17/12 2006	120917-3	9IP4261	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2134	120920-5	8IP3270	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1623	120920-6	4IP3271	KMW	200.8 Rev. 5.4
Chloride	N/A	09/15/12 0345	2IC2258	6IC2258	MLL	300.0
Solids, Total Dissolved	N/A	09/20/12 1634	120920-1	120920-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1622	120919-4	120919-4	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090985

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106036

Lab Number: 12090986
Sample Description: Pawnee and Canal - Composite

Date Sampled: 09/13/2012
Time Sampled: 1515

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/222
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/223
Copper, Dissolved, ICP-MS	6 DM	µg/L	7202/222
Copper, Tot. Rec., ICP-MS	18	µg/L	7202/223
Hardness (Calculated)	73.0	mg/L as CaCO3	7157/381
Zinc, Dissolved, ICP-MS	45 DM	µg/L	7202/222
Zinc, Tot. Rec., ICP-MS	192	µg/L	7202/223
BOD	22	mg/L	7060/543
Chloride	10.9	mg/L	7277/105
Kjeldahl Nitrogen, as N (TKN)	2.8	mg/L	6854/634
Nitrate, as N	0.6	mg/L	7277/105
Nitrite, as N	ND(0.1)	mg/L	7277/105
Nitrogen (TKN + NO3/NO2), as N	3.4	mg/L	9998/600
Phosphorus, Total, as P	0.40	mg/L	7321/34
Solids, Total Dissolved	138	mg/L	7320/81
Solids, Total Suspended	96	mg/L	7320/78

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2150	120920-5	9IP3270	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1628	120920-6	4IP3271	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2150	120920-5	9IP3270	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1628	120920-6	4IP3271	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/17/12 1240	09/17/12 2010	120917-3	9IP4261	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2150	120920-5	9IP3270	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1628	120920-6	4IP3271	KMW	200.8 Rev. 5.4
BOD	N/A	09/15/12 1311	120915-1	120915-1	ASK	5210B-2001
Chloride	N/A	09/14/12 2326	2IC2258	5IC2258	MLL	300.0
Kjeldahl Nitrogen, as N (T	09/24/12 1045	09/25/12 1230	120924-1	120925-3	JND	EPA 351.2
Nitrate, as N	N/A	09/14/12 2326	2IC2258	5IC2258	MLL	300.0
Nitrite, as N	N/A	09/14/12 2326	2IC2258	5IC2258	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	09/26/12 0808			CJB	Calculation
Phosphorus, Total, as P	N/A	09/24/12 1503	120924-1	120924-2	KJH	4500-P(B&G)-1999
Solids, Total Dissolved	N/A	09/20/12 1634	120920-1	120920-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1623	120919-4	120919-4	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090986

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106036

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12090986	BOD	09/13/2012 1515	09/15/2012 1311	45:56
12090986	Nitrate, as N	09/13/2012 1515	09/14/2012 2326	32:11
12090986	Nitrite, as N	09/13/2012 1515	09/14/2012 2326	32:11

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106036

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106036

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120917-3	120917BLK3 09/17/12 18:30	120917LCS3 09/17/12 18:34	12090971MS 09/17/12 19:22
	Lab numbers associated with this batch: 12090985 12090986				
SL156	Cadmium, Dissolved, ICP-MS	120920-5	120920BLK5	120920LCS5	12090972MS
SL162	Copper, Dissolved, ICP-MS	120920-5	120920BLK5	120920LCS5	12090972MS
SL183	Zinc, Dissolved, ICP-MS	120920-5	120920BLK5 09/26/12 20:03	120920LCS5 09/26/12 20:09	12090972MS 09/26/12 20:25
	Lab numbers associated with this batch: 12090985 12090986				
SL006	Cadmium, Tot. Rec., ICP-MS	120920-6	120920BLK6	120920LCS6	12090972MS
SL012	Copper, Tot. Rec., ICP-MS	120920-6	120920BLK6	120920LCS6	12090972MS
SL033	Zinc, Tot. Rec., ICP-MS	120920-6	120920BLK6 09/27/12 15:09	120920LCS6 09/27/12 15:14	12090972MS 09/27/12 15:45
	Lab numbers associated with this batch: 12090985 12090986				
GL123	BOD	120915-1	120915BLK1 09/15/12 13:11	120915LCS1 09/15/12 13:11	12090972MS 09/15/12 13:11
	Lab numbers associated with this batch: 12090986				
GL502	Chloride	2IC2258	BLK2IC2258 09/14/12 20:54	LCS2IC2258 09/14/12 21:09	12090823MS 09/15/12 04:46
	Lab numbers associated with this batch: 12090985 12090986				
GL595	Kjeldahl Nitrogen, as N (TKN)	120924-1	120924BLK1 09/25/12 11:36	120924LCS1 09/25/12 11:38	12090979MS 09/25/12 12:15
	Lab numbers associated with this batch: 12090986				
GL505	Nitrate, as N	2IC2258	BLK2IC2258	LCS2IC2258	
GL503	Nitrite, as N	2IC2258	BLK2IC2258 09/14/12 20:54	LCS2IC2258 09/14/12 21:09	
	Lab numbers associated with this batch: 12090986				
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12090986				
GL218	Phosphorus, Total, as P	120924-1	120924BLK1 09/24/12 1452	120924LCS1 09/24/12 1453	12090972MS 09/24/12 1454
	Lab numbers associated with this batch: 12090986				

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106036

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL242	Solids, Total Dissolved	120920-1	120920BLK1 09/20/12 16:31	120920LCS1 09/20/12	12090979MS 09/20/12 16:32
Lab numbers associated with this batch: 12090985 12090986					
GL243	Solids, Total Suspended	120919-4	120919BLK4 09/19/12 16:20	120919LCS4 09/19/12	12090981MS 09/19/12 16:21
Lab numbers associated with this batch: 12090985 12090986					

Continental Analytical Services, Inc.

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Quality Control Report
Method Blank, LCS, MS/MSD Data

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106036

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120915-1	**For sample analyzed on: 09/15/2012**					**Spiked sample: 12090972**						
BOD	ND(5)	99.4	84.6-115	198	mg/L	MN	MN	#		mg/L	**	16.4
QC Batch: 120917-3	**For samples prepared on: 09/17/2012 1240**					**Spiked sample: 12090971**						
Hardness (Calculated)	ND(5.0)	99.7	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120919-4	**For sample analyzed on: 09/19/2012**					**Spiked sample: 12090981**						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120920-1	**For sample analyzed on: 09/20/2012**					**Spiked sample: 12090979**						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120920-5	**For samples prepared on: 09/20/2012 1014**					**Spiked sample: 12090972**						
Cadmium, Dissolved, ICP-MS	ND(1)	90.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	85.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	96.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120920-6	**For samples prepared on: 09/20/2012 1213**					**Spiked sample: 12090972**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	96.3	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	88.4	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	97.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120924-1	**For sample analyzed on: 09/24/2012**					**Spiked sample: 12090972**						
Phosphorus, Total, as P	ND(0.20)	101	88.8-110	2.0	mg/L	MN	MN	80.5-117	2.0	mg/L	**	5.7
QC Batch: 120924-1	**For samples prepared on: 09/24/2012 10:45**					**Spiked sample: 12090979**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	113	85.0-115	4.0	mg/L	MN	MN	81.2-133	4.0	mg/L	**	6.7
QC Batch: 2IC2258	**For sample analyzed on: 09/14/2012**					**Spiked sample:**						
Nitrite, as N	ND(0.1)	101	90.0-110	2.0	mg/L	MN	MN	77.5-116			**	10.2
Nitrate, as N	ND(0.1)	98.4	90.0-110	2.0	mg/L	MN	MN	81.7-121			**	8.2
QC Batch: 2IC2258	**For sample analyzed on: 09/14/2012**					**Spiked sample: 12090823**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	40.0	mg/L	**	5.7

Data Qualifiers:

MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Quality Control Report
Continuing Calibration Data Summary

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106036

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	09/26/2012	10IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/27/2012	5IP3271	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/26/2012	10IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/27/2012	5IP3271	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.			
BOD	09/15/2012	120915-1	CCV recovery acceptable for this Instrument Batch.			
BOD	09/15/2012	120915-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/24/2012	120924-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/24/2012	120924-3	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	5IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/15/2012	6IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/15/2012	7IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	5IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/15/2012	6IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	5IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/15/2012	6IC2258	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-3	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-4	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	10IP4261	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	9IP4261	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/26/2012	10IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/27/2012	5IP3271	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/26/2012	8IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO. 10d034

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information			Invoice Information		
Company Name: City of Wichita Sewage Treatment			Company Name: City of Wichita Sewage Treatment		
Address: 2305 E. 57th Street South			Address: 2305 E. 57th Street South		
City: Wichita	State: KS	Zip: 67216	City: Wichita	State: KS	Zip: 67216
Contact: Jim Hardesty	E-mail:		Contact: Jim Hardesty	E-mail:	
Phone Number: (316)303-8700	Fax Number: (316)303-8712		Phone Number: (316)303-8700	Fax Number: (316)303-8712	

Sampler's Name:(Printed) Justin Murphy
Sampler's Name(Signature)
Purchase Order Number:
File Number: 5611
Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER	Total Metals 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P		COMMENTS 5 Gal. container to be poured off at lab as needed for required tests. Remaininig volume will be saved for organics if needed
Pawnee and Canal-Grab	WW	N	9/13/12	1515	G	4			1	2	1		X	X							
Pawnee and Canal-Composite	WW	N	9/13/12	1515	C	1					1				X						

Discrepancies See C/S RF 9-14-12

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT: (15 working days) Rush TAT: (5 working days) Emergency TAT: (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY:	DATE: 9/13/12	TIME: 1700	RECEIVED BY:	DATE:	TIME:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
RECEIVED AT LAB BY	DATE: 9/13/12	TIME: 1930	SHIPPED VIA: AIRBILL:	SEAL #: SEAL DATE:	

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 1060B6

Client Name: City of Wichita

CAS File No.: 8339

Sample ID's in cooler: Pawnee & Canal

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: 3464 / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 9 / 13 / 12 19 :30

Delivered By: UPS / FedX / AB Express / Field Svcs / Mail / (Walk-In) / Other: _____

Custody Seal: Present: Intact / Broken (Absent:) Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.4 Corrected Reading (°C) 0.9
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): +0.5

AB 9/13/12

☒ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☐ No ☒ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments: Grab only received 2 containers not 4

Completed by: _____ Date Completed: 9-14-12

Continental Analytical Services, Inc.

09/28/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 09/13/2012 1930
Continental File No.: 8339
Continental Order No.: 106037
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 9 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12090987	Westlink - Grab	Liquid	9/13/2012
12090988	Westlink - Composite	Liquid	9/13/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106037

Lab Number: 12090987
Sample Description: Westlink - Grab

Date Sampled: 09/13/2012
Time Sampled: 1430

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/222
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/223
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/222
Copper, Tot. Rec., ICP-MS	9	µg/L	7202/223
Hardness (Calculated)	35.8	mg/L as CaCO3	7157/381
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/222
Zinc, Tot. Rec., ICP-MS	73	µg/L	7202/223
Chloride	3.8	mg/L	7277/105
Solids, Total Dissolved	78	mg/L	7320/81
Solids, Total Suspended	25	mg/L	7320/78

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2155	120920-5	9IP3270	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1633	120920-6	4IP3271	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2155	120920-5	9IP3270	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1633	120920-6	4IP3271	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/17/12 1240	09/17/12 2014	120917-3	9IP4261	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2155	120920-5	9IP3270	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1633	120920-6	4IP3271	KMW	200.8 Rev. 5.4
Chloride	N/A	09/15/12 0400	2IC2258	6IC2258	MLL	300.0
Solids, Total Dissolved	N/A	09/20/12 1635	120920-1	120920-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1623	120919-4	120919-4	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090987

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106037

Lab Number: 12090988
Sample Description: Westlink - Composite

Date Sampled: 09/13/2012
Time Sampled: 1430

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/222
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/223
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/222
Copper, Tot. Rec., ICP-MS	20.	µg/L	7202/223
Hardness (Calculated)	57.3	mg/L as CaCO3	7157/379
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/222
Zinc, Tot. Rec., ICP-MS	147	µg/L	7202/223
BOD	39	mg/L	7060/543
Chloride	4.6	mg/L	7277/105
Kjeldahl Nitrogen, as N (TKN)	7.9	mg/L	6854/634
Nitrate, as N	0.5	mg/L	7277/105
Nitrite, as N	ND(0.1)	mg/L	7277/105
Nitrogen (TKN + NO3/NO2), as N	8.4	mg/L	9998/600
Phosphorus, Total, as P	0.90	mg/L	7321/34
Solids, Total Dissolved	98	mg/L	7320/81
Solids, Total Suspended	360.	mg/L	7320/78

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2201	120920-5	9IP3270	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1638	120920-6	4IP3271	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2201	120920-5	9IP3270	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1638	120920-6	4IP3271	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/14/12 1344	09/14/12 1942	120914-5	8IP4258	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2201	120920-5	9IP3270	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1638	120920-6	4IP3271	KMW	200.8 Rev. 5.4
BOD	N/A	09/15/12 1311	120915-1	120915-1	ASK	5210B-2001
Chloride	N/A	09/14/12 2357	2IC2258	5IC2258	MLL	300.0
Kjeldahl Nitrogen, as N (T	09/24/12 1045	09/25/12 1232	120924-1	120925-3	JND	EPA 351.2
Nitrate, as N	N/A	09/14/12 2357	2IC2258	5IC2258	MLL	300.0
Nitrite, as N	N/A	09/14/12 2357	2IC2258	5IC2258	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	09/26/12 0808			CJB	Calculation
Phosphorus, Total, as P	N/A	09/24/12 1504	120924-1	120924-2	KJH	4500-P(B&G)-1999
Solids, Total Dissolved	N/A	09/20/12 1635	120920-1	120920-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1623	120919-4	120919-4	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090988

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106037

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12090988	BOD	09/13/2012 1430	09/15/2012 1311	46:41
12090988	Nitrate, as N	09/13/2012 1430	09/14/2012 2357	33:27
12090988	Nitrite, as N	09/13/2012 1430	09/14/2012 2357	33:27

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106037

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106037

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120914-5	120914BLK5 09/14/12 18:30	120914LCS5 09/14/12 18:34	12091073MS 09/14/12 20:07
Lab numbers associated with this batch: 12090988					
SL323	Hardness (Calculated)	120917-3	120917BLK3 09/17/12 18:30	120917LCS3 09/17/12 18:34	12090971MS 09/17/12 19:22
Lab numbers associated with this batch: 12090987					
SL156	Cadmium, Dissolved, ICP-MS	120920-5	120920BLK5	120920LCS5	12090972MS
SL162	Copper, Dissolved, ICP-MS	120920-5	120920BLK5	120920LCS5	12090972MS
SL183	Zinc, Dissolved, ICP-MS	120920-5	120920BLK5 09/26/12 20:03	120920LCS5 09/26/12 20:09	12090972MS 09/26/12 20:25
Lab numbers associated with this batch: 12090987 12090988					
SL006	Cadmium, Tot. Rec., ICP-MS	120920-6	120920BLK6	120920LCS6	12090972MS
SL012	Copper, Tot. Rec., ICP-MS	120920-6	120920BLK6	120920LCS6	12090972MS
SL033	Zinc, Tot. Rec., ICP-MS	120920-6	120920BLK6 09/27/12 15:09	120920LCS6 09/27/12 15:14	12090972MS 09/27/12 15:45
Lab numbers associated with this batch: 12090987 12090988					
GL123	BOD	120915-1	120915BLK1 09/15/12 13:11	120915LCS1 09/15/12 13:11	12090972MS 09/15/12 13:11
Lab numbers associated with this batch: 12090988					
GL502	Chloride	2IC2258	BLK2IC2258 09/14/12 20:54	LCS2IC2258 09/14/12 21:09	12090823MS 09/15/12 04:46
Lab numbers associated with this batch: 12090987 12090988					
GL595	Kjeldahl Nitrogen, as N (TKN)	120924-1	120924BLK1 09/25/12 11:36	120924LCS1 09/25/12 11:38	12090979MS 09/25/12 12:15
Lab numbers associated with this batch: 12090988					
GL505	Nitrate, as N	2IC2258	BLK2IC2258	LCS2IC2258	
GL503	Nitrite, as N	2IC2258	BLK2IC2258 09/14/12 20:54	LCS2IC2258 09/14/12 21:09	
Lab numbers associated with this batch: 12090988					
GL343	Nitrogen (TKN + NO3/NO2), as N				
Lab numbers associated with this batch: 12090988					

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106037

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL218	Phosphorus, Total, as P	120924-1	120924BLK1 09/24/12 1452	120924LCS1 09/24/12 1453	12090972MS 09/24/12 1454
Lab numbers associated with this batch: 12090988					
GL242	Solids, Total Dissolved	120920-1	120920BLK1 09/20/12 16:31	120920LCS1 09/20/12	12090979MS 09/20/12 16:32
Lab numbers associated with this batch: 12090987 12090988					
GL243	Solids, Total Suspended	120919-4	120919BLK4 09/19/12 16:20	120919LCS4 09/19/12	12090981MS 09/19/12 16:21
Lab numbers associated with this batch: 12090987 12090988					

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106037

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120914-5	**For samples prepared on: 09/14/2012 1344**					**Spiked sample: 12091073**						
Hardness (Calculated)	ND(5.0)	96.5	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120915-1	**For sample analyzed on: 09/15/2012**					**Spiked sample: 12090972**						
BOD	ND(5)	99.4	84.6-115	198	mg/L	MN	MN	#		mg/L	**	16.4
QC Batch: 120917-3	**For samples prepared on: 09/17/2012 1240**					**Spiked sample: 12090971**						
Hardness (Calculated)	ND(5.0)	99.7	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120919-4	**For sample analyzed on: 09/19/2012**					**Spiked sample: 12090981**						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120920-1	**For sample analyzed on: 09/20/2012**					**Spiked sample: 12090979**						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120920-5	**For samples prepared on: 09/20/2012 1014**					**Spiked sample: 12090972**						
Cadmium, Dissolved, ICP-MS	ND(1)	90.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	85.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	96.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120920-6	**For samples prepared on: 09/20/2012 1213**					**Spiked sample: 12090972**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	96.3	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	88.4	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	97.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120924-1	**For sample analyzed on: 09/24/2012**					**Spiked sample: 12090972**						
Phosphorus, Total, as P	ND(0.20)	101	88.8-110	2.0	mg/L	MN	MN	80.5-117	2.0	mg/L	**	5.7
QC Batch: 120924-1	**For samples prepared on: 09/24/2012 10:45**					**Spiked sample: 12090979**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	113	85.0-115	4.0	mg/L	MN	MN	81.2-133	4.0	mg/L	**	6.7
QC Batch: 2IC2258	**For sample analyzed on: 09/14/2012**					**Spiked sample:**						
Nitrite, as N	ND(0.1)	101	90.0-110	2.0	mg/L	MN	MN	77.5-116			**	10.2
Nitrate, as N	ND(0.1)	98.4	90.0-110	2.0	mg/L	MN	MN	81.7-121			**	8.2
QC Batch: 2IC2258	**For sample analyzed on: 09/14/2012**					**Spiked sample: 12090823**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	40.0	mg/L	**	5.7

Data Qualifiers:

MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

\# - Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106037

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	09/26/2012	10IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/27/2012	5IP3271	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/26/2012	10IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/27/2012	5IP3271	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.			
BOD	09/15/2012	120915-1	CCV recovery acceptable for this Instrument Batch.			
BOD	09/15/2012	120915-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/24/2012	120924-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/24/2012	120924-3	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	5IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/15/2012	6IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/15/2012	7IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	5IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/15/2012	6IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	5IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/15/2012	6IC2258	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-3	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/25/2012	120925-4	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	10IP4261	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/14/2012	8IP4258	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/14/2012	9IP4258	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	9IP4261	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/26/2012	10IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/27/2012	5IP3271	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO. 16053

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information	Invoice Information
Company Name: City of Wichita Sewage Treatment	Company Name: City of Wichita Sewage Treatment
Address: 2305 E. 57th Street South	Address: 2305 E. 57th Street South
City: Wichita State: KS Zip: 67216	City: Wichita State: KS Zip: 67216
Contact: Jim Hardesty E-mail:	Contact: Jim Hardesty E-mail:
Phone Number: (316)303-8700 Fax Number: (316)303-8712	Phone Number: (316)303-8700 Fax Number: (316)303-8712

Sampler's Name:(Printed) Justin Murphy
Sampler's Name:(Signature)
Purchase Order Number:
File Number: 5611
Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER:	Cadmium, Copper, Zinc - Total Recoverable 250ml Plastic - HNO3	Hardness, TSS TDS, Cl, Diss. - Cd, Cu, Zn 1000ml Plastic - None	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD, TKN, Total P, NO3 Large Carboy						COMMENTS
Westlink-Grab	WW	N	9/13/12	1430	G	2			1		1		X	X							
Westlink-Composite	WW	N	9/13/12	1430	C	1					1				X						5 Gal. Container to be poured off at lab
																					as needed for required tests.
																					Remaining volume will be saved for
																					for organics if needed.

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT: (15 working days) Rush TAT: (5 working days) Emergency TAT: (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY: Justin Murphy	DATE: 9/13/12	TIME: 730pm	RECEIVED BY:	DATE:	TIME:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
RECEIVED AT LAB BY: Tommy J. Grover	DATE: 9/13/12	TIME: 1930	SHIPPED VIA: AIRBILL:	SEAL #: SEAL DATE:	

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 10687

Client Name: City of Wichita

CAS File No.: 8339

Sample ID's in cooler: Westlink

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: 3201 / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 9 / 13 / 12 19 : 30

Delivered By: UPS / FedX / AB Express / Field Svcs / Mail / (Walk-In) / Other: _____

Custody Seal: Present: Intact / Broken (Absent:) Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.5 Corrected Reading (°C) 1.0
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): +0.5

AB 9/13/12

☒ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: PLG Date Completed: 9-14-12

Continental Analytical Services, Inc.

09/28/2012 Page: 1

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 09/13/2012 1930
Continental File No.: 8339
Continental Order No.: 106038
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 9 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12090989	Dry Creek - Grab	Liquid	9/13/2012
12090990	Dry Creek - Composite	Liquid	9/13/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106038

Lab Number: 12090989
Sample Description: Dry Creek - Grab

Date Sampled: 09/13/2012
Time Sampled: 1545

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/222
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/223
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/222
Copper, Tot. Rec., ICP-MS	6	µg/L	7202/223
Hardness (Calculated)	53	mg/L as CaCO3	7157/381
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/222
Zinc, Tot. Rec., ICP-MS	50.	µg/L	7202/223
Chloride	2.6	mg/L	7277/105
Solids, Total Dissolved	94	mg/L	7320/81
Solids, Total Suspended	101	mg/L	7320/78

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2206	120920-5	9IP3270	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1644	120920-6	4IP3271	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2206	120920-5	9IP3270	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1644	120920-6	4IP3271	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/17/12 1240	09/17/12 2026	120917-3	10IP4261	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2206	120920-5	9IP3270	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1644	120920-6	4IP3271	KMW	200.8 Rev. 5.4
Chloride	N/A	09/15/12 0415	2IC2258	6IC2258	MLL	300.0
Solids, Total Dissolved	N/A	09/20/12 1635	120920-1	120920-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1623	120919-4	120919-4	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090989

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106038

Lab Number: 12090990
Sample Description: Dry Creek - Composite

Date Sampled: 09/13/2012
Time Sampled: 1545

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/222
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/223
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/222
Copper, Tot. Rec., ICP-MS	6	µg/L	7202/223
Hardness (Calculated)	51.2	mg/L as CaCO3	7157/379
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/222
Zinc, Tot. Rec., ICP-MS	46	µg/L	7202/223
BOD	8	mg/L	7060/543
Chloride	3.0	mg/L	7277/105
Kjeldahl Nitrogen, as N (TKN)	1.3	mg/L	6854/636
Nitrate, as N	0.3	mg/L	7277/105
Nitrite, as N	ND(0.1)	mg/L	7277/105
Nitrogen (TKN + NO3/NO2), as N	1.6	mg/L	9998/602
Phosphorus, Total, as P	0.24	mg/L	7321/34
Solids, Total Dissolved	90.	mg/L	7320/81
Solids, Total Suspended	134	mg/L	7320/78

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2211	120920-5	9IP3270	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1649	120920-6	4IP3271	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2211	120920-5	9IP3270	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1649	120920-6	4IP3271	KMW	200.8 Rev. 5.4
Hardness (Calculated)	09/14/12 1344	09/14/12 1954	120914-5	9IP4258	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	09/20/12 1014	09/26/12 2211	120920-5	9IP3270	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	09/20/12 1213	09/27/12 1649	120920-6	4IP3271	KMW	200.8 Rev. 5.4
BOD	N/A	09/15/12 1311	120915-1	120915-1	ASK	5210B-2001
Chloride	N/A	09/15/12 0027	2IC2258	5IC2258	MLL	300.0
Kjeldahl Nitrogen, as N (T	09/24/12 1045	09/26/12 1055	120924-1	120926-3	JND	EPA 351.2
Nitrate, as N	N/A	09/15/12 0027	2IC2258	5IC2258	MLL	300.0
Nitrite, as N	N/A	09/15/12 0027	2IC2258	5IC2258	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	09/26/12 1333			CJB	Calculation
Phosphorus, Total, as P	N/A	09/24/12 1505	120924-1	120924-2	KJH	4500-P(B&G)-1999
Solids, Total Dissolved	N/A	09/20/12 1636	120920-1	120920-1	KJH	2540 (C)-1997
Solids, Total Suspended	N/A	09/19/12 1624	120919-4	120919-4	KJH	2540 (D)-1997
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12090990

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106038

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12090990	BOD	09/13/2012 1545	09/15/2012 1311	45:26
12090990	Nitrate, as N	09/13/2012 1545	09/15/2012 0027	32:42
12090990	Nitrite, as N	09/13/2012 1545	09/15/2012 0027	32:42

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106038

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106038

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120914-5	120914BLK5 09/14/12 18:30	120914LCS5 09/14/12 18:34	12091073MS 09/14/12 20:07
	Lab numbers associated with this batch: 12090990				
SL323	Hardness (Calculated)	120917-3	120917BLK3 09/17/12 18:30	120917LCS3 09/17/12 18:34	12090971MS 09/17/12 19:22
	Lab numbers associated with this batch: 12090989				
SL156	Cadmium, Dissolved, ICP-MS	120920-5	120920BLK5	120920LCS5	12090972MS
SL162	Copper, Dissolved, ICP-MS	120920-5	120920BLK5	120920LCS5	12090972MS
SL183	Zinc, Dissolved, ICP-MS	120920-5	120920BLK5 09/26/12 20:03	120920LCS5 09/26/12 20:09	12090972MS 09/26/12 20:25
	Lab numbers associated with this batch: 12090989 12090990				
SL006	Cadmium, Tot. Rec., ICP-MS	120920-6	120920BLK6	120920LCS6	12090972MS
SL012	Copper, Tot. Rec., ICP-MS	120920-6	120920BLK6	120920LCS6	12090972MS
SL033	Zinc, Tot. Rec., ICP-MS	120920-6	120920BLK6 09/27/12 15:09	120920LCS6 09/27/12 15:14	12090972MS 09/27/12 15:45
	Lab numbers associated with this batch: 12090989 12090990				
GL123	BOD	120915-1	120915BLK1 09/15/12 13:11	120915LCS1 09/15/12 13:11	12090972MS 09/15/12 13:11
	Lab numbers associated with this batch: 12090990				
GL502	Chloride	2IC2258	BLK2IC2258 09/14/12 20:54	LCS2IC2258 09/14/12 21:09	12090823MS 09/15/12 04:46
	Lab numbers associated with this batch: 12090989 12090990				
GL595	Kjeldahl Nitrogen, as N (TKN)	120924-1	120924BLK1 09/25/12 11:36	120924LCS1 09/25/12 11:38	12090979MS 09/25/12 12:15
	Lab numbers associated with this batch: 12090990				
GL505	Nitrate, as N	2IC2258	BLK2IC2258	LCS2IC2258	
GL503	Nitrite, as N	2IC2258	BLK2IC2258 09/14/12 20:54	LCS2IC2258 09/14/12 21:09	
	Lab numbers associated with this batch: 12090990				
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12090990				

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
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Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106038

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL218	Phosphorus, Total, as P	120924-1	120924BLK1 09/24/12 1452	120924LCS1 09/24/12 1453	12090972MS 09/24/12 1454
Lab numbers associated with this batch: 12090990					
GL242	Solids, Total Dissolved	120920-1	120920BLK1 09/20/12 16:31	120920LCS1 09/20/12	12090979MS 09/20/12 16:32
Lab numbers associated with this batch: 12090989 12090990					
GL243	Solids, Total Suspended	120919-4	120919BLK4 09/19/12 16:20	120919LCS4 09/19/12	12090981MS 09/19/12 16:21
Lab numbers associated with this batch: 12090989 12090990					

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106038

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120914-5	**For samples prepared on: 09/14/2012 1344**					**Spiked sample: 12091073**						
Hardness (Calculated)	ND(5.0)	96.5	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120915-1	**For sample analyzed on: 09/15/2012**					**Spiked sample: 12090972**						
BOD	ND(5)	99.4	84.6-115	198	mg/L	MN	MN	#		mg/L	**	16.4
QC Batch: 120917-3	**For samples prepared on: 09/17/2012 1240**					**Spiked sample: 12090971**						
Hardness (Calculated)	ND(5.0)	99.7	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120919-4	**For sample analyzed on: 09/19/2012**					**Spiked sample: 12090981**						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120920-1	**For sample analyzed on: 09/20/2012**					**Spiked sample: 12090979**						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120920-5	**For samples prepared on: 09/20/2012 1014**					**Spiked sample: 12090972**						
Cadmium, Dissolved, ICP-MS	ND(1)	90.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	85.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	96.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120920-6	**For samples prepared on: 09/20/2012 1213**					**Spiked sample: 12090972**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	96.3	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	88.4	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	97.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120924-1	**For sample analyzed on: 09/24/2012**					**Spiked sample: 12090972**						
Phosphorus, Total, as P	ND(0.20)	101	88.8-110	2.0	mg/L	MN	MN	80.5-117	2.0	mg/L	**	5.7
QC Batch: 120924-2	**For samples prepared on: 09/24/2012 10:45**					**Spiked sample: 12090979**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	113	85.0-115	4.0	mg/L	MN	MN	81.2-133	4.0	mg/L	**	6.7
QC Batch: 2IC2258	**For sample analyzed on: 09/14/2012**					**Spiked sample:**						
Nitrite, as N	ND(0.1)	101	90.0-110	2.0	mg/L	MN	MN	77.5-116			**	10.2
Nitrate, as N	ND(0.1)	98.4	90.0-110	2.0	mg/L	MN	MN	81.7-121			**	8.2
QC Batch: 2IC2258	**For sample analyzed on: 09/14/2012**					**Spiked sample: 12090823**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	40.0	mg/L	**	5.7

Data Qualifiers:
MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.
- Limits not available.
** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 09/28/2012
Date Received: 09/13/2012
Continental File No: 8339
Continental Order No: 106038

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	09/26/2012	10IP3270	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	09/27/2012	5IP3271	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/26/2012	10IP3270	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	09/27/2012	5IP3271	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.			
BOD	09/15/2012	120915-1	CCV recovery acceptable for this Instrument Batch.			
BOD	09/15/2012	120915-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/24/2012	120924-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	09/24/2012	120924-3	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/14/2012	5IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/15/2012	6IC2258	CCV recovery acceptable for this Instrument Batch.			
Chloride	09/15/2012	7IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/14/2012	5IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	09/15/2012	6IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/14/2012	5IC2258	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	09/15/2012	6IC2258	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/26/2012	120926-3	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	09/26/2012	120926-4	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/14/2012	10IP4258	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	10IP4261	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/17/2012	11IP4261	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	09/14/2012	9IP4258	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/26/2012	10IP3270	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/27/2012	4IP3271	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	09/27/2012	5IP3271	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	09/26/2012	9IP3270	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.
525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO 10405

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information	Invoice Information
Company Name: City of Wichita Sewage Treatment	Company Name: City of Wichita Sewage Treatment
Address: 2305 E. 57th Street South	Address: 2305 E. 57th Street South
City: Wichita State: KS Zip: 67216	City: Wichita State: KS Zip: 67216
Contact: Jim Hardesty E-mail:	Contact: Jim Hardesty E-mail:
Phone Number: (316)303-8700 Fax Number: (316)303-8712	Phone Number: (316)303-8700 Fax Number: (316)303-8712
Sampler's Name:(Printed) Jason Murphy	Sampler's Name:(Signature)
File Number: 5611	Project Name: Stormwater
Purchase Order Number:	

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER:	PARAMETERS/CONTAINER TYPE: Cadmium, Copper, Zinc - Total Recoverable 250ml Plastic - HNO3	Hardness, TSS TDS, Cl, Diss. - Cd, Cu, Zn 1000ml Plastic - None	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD, TKN, Total P, NO3 Large Carboy						COMMENTS
Dry Creek-Grab	WW	N	9/13/12	1545	G	2			1		1		X	X							
Dry Creek-Composite	WW	N	9/13/12	1545	C	1					1				X						5 Gal. Container to be poured off at lab
																					as needed for required tests.
																					Remaining volume will be saved for
																					for organics if needed.

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT: (15 working days) Rush TAT: (5 working days) Emergency TAT: (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY:	DATE: 9/13/12	TIME: 730pm	RECEIVED BY:	DATE:	TIME:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
RECEIVED AT LAB BY:	DATE: 9/13/12	TIME: 1933	SHIPPED VIA: AIRBILL:	SEAL #: SEAL DATE:	

H:\media\...chita Stormwater COCs.xlsx\9/13/2012

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 1206038

Client Name: City of Wichita CAS File No.: 8339

Sample ID's in cooler: Dry Creek

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: 0005 / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 9 / 13 / 12 19 : 30

Delivered By: UPS / FedX / AB Express / Field Svcs / Mail / (Walk-In) / Other: _____

Custody Seal: Present: Intact / Broken (Absent:) Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice (Ice) Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.6 Corrected Reading (°C) 1.1
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): +0.5
☒ Evidence of Cooling and date received = date sampled

AB 9/13/12

Sample Receipt Discrepancies: ☒ No ☐ Yes (See below for discrepancies.)

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: PB Date Completed: 9-14-12

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K E Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00240
LOCATION CODE: 47TH
DESCRIPTION: Arkansas River @ 47th St.

Report Date: 09/07/2012
Date/Time Collected: 09/06/2012 08:10
Date/Time Received: 09/06/2012 11:45
Sample Collector KLING, TABATHA

Site code: BRI **Sample Type:** **Sample Frequency: MTH**

Comments:

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	152	mg/L	5	EPA 300.0	09/06/2012 16:40	KCARTER
Sulfate	122	mg/L	5	EPA 300.0	09/06/2012 16:40	KCARTER
Total Hardness Manual	293	mg/L	1	SM 2340 C	09/06/2012 15:50	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K E Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00239
LOCATION CODE: 63RD
DESCRIPTION: Arkansas River @ 63rd St.

Report Date: 09/07/2012
Date/Time Collected: 09/06/2012 09:50
Date/Time Received: 09/06/2012 11:45
Sample Collector KLING, TABATHA

Site code: BRI **Sample Type:** **Sample Frequency: MTH**

Comments:

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	195	mg/L	5	EPA 300.0	09/06/2012 16:22	KCARTER
Sulfate	126	mg/L	5	EPA 300.0	09/06/2012 16:22	KCARTER
Total Hardness Manual	236	mg/L	1	SM 2340 C	09/06/2012 15:50	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

Chain of Custody Record and Analytical Request

In Lab: 6°C. ☑ Iced on Receipt, Preservation Checked, Temperature at Delivery

WICHITA MUNICIPAL WATER & SEWER DEPARTMENT LABORATORY E-60603
PRODUCTION & PUMPING DIVISION
1815 W. Pine St., Wichita KS 67203

RECEIVED FROM: ☑ PRETREATMENT SEWAGE TREATMENT DIVISION ☐ PRODUCTION & PUMPING DIVISION

Sampler(s): TABATHA KLING

Lab Log # C500	Location Code	Date	Time	Sample Info: No. of Containers	Type: G=Grab, TC= Time Comp. FC=Flow Comp	Preservation: H3PO4	H2SO4	HNO3	Ascorbic	NaOH	None	Anions: Nitrate-N	Cl/SO4	Water Chemistries: Alkalinity	Hardness	T-PO4-P	Spec. Conductivity	TSS	Turbidity	Other: Bacti	NH3-N	Organic: Atrazine	CN	Phenol	TOC	Metals: Ag Cd Cr Cu Fe Ni Pb Zn	As Be Mo Sb Se Tl	Ca K Mn Mg Na	Hg	Field pH or Comments	M	Q	S	INS	INV	CMF	CEP	LOC
239	BIG ARK @ 63RD	9-6-12	7:50A	1	G		✓								✓															✓							
"	BIG ARK @ 63RD		7:50A	1	G						✓		✓																	✓							
240	BIG ARK @ 47TH		8:10A	1	G		✓								✓															✓							
"	BIG ARK @ 47TH		8:10A	1	G						✓		✓																	✓							
241	COW @ 37TH		9:56A	1	G		✓								✓															✓							
"	COW @ 37TH		9:56A	1	G						✓		✓																	✓							
242	COW @ 135TH		9:45A	1	G		✓								✓															✓							
"	COW @ 135TH		9:45A	1	G						✓		✓																	✓							
243	COW @ PAWNEE		10:30A	1	G		✓								✓															✓							
"	COW @ PAWNEE		10:30A	1	G						✓		✓																	✓							
244	COW @ K-42		10:50A	1	G		✓								✓															✓							
"	COW @ K-42		10:50A	1	G						✓		✓																	✓							

COPY

Comments:

CUSTODY RECORD:	Date	Time		Date	Time
Relinquished by: Tabatha Kling	9-6-12	11:45AM	Received by: Paul Mills	9/6/12	11:45AM
Print Name: TABATHA KLING			Print Name: PAUL MILLS		
Relinquished by:			Received by:		
Print Name:			Print Name:		

Form: I:\Excel\123\Forms\COC Revision 11 08/08/07

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K[illegible]E Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00087
LOCATION CODE: 47TH
DESCRIPTION: Arkansas River @ 47th St.

Report Date: 04/24/2012
Date/Time Collected: 04/05/2012 07:54
Date/Time Received: 04/05/2012 10:50
Sample Collector KLING, TABATHA

Site code: BRI **Sample Type:** **Sample Frequency: MTH**

Comments:

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	226	mg/L	5	EPA 300.0	04/06/2012 08:51	KCARTER
Sulfate	86.8	mg/L	5	EPA 300.0	04/06/2012 08:51	KCARTER
Total Hardness Manual	228	mg/L	1	SM 2340 C	04/18/2012 16:00	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

Chain of Custody Record and Analytical Request

In Lab: 6°C. ☑ Iced on Receipt ☑ Presevation Checked — Temperature at Delivery

WICHITA MUNICIPAL WATER & SEWER DEPARTMENT LABORATORY E-60603
PRODUCTION & PUMPING DIVISION
1815 W. Pine St., Wichita KS 67203

RECEIVED FROM: ☑ PRETREATMENT SEWAGE TREATMENT DIVISION ☐ PRODUCTION & PUMPING DIVISION

Sampler(s): TABATHA KLING

Lab Log #	Location Code	Date	Time	Sample Info: No. of Containers	Sample Info: Type: G=Grab, TC= Time Comp, FC=Flow Comp	Preservation: H3PO4	Preservation: H2SO4	Preservation: HNO3	Preservation: Ascorbic	Preservation: NaOH	Preservation: None	Anions: Nitrate-N	Anions: Cl/SO4	Water Chemistries: Alkalinity	Water Chemistries: Hardness	Water Chemistries: T-PO4-P	Water Chemistries: Spec. Conductivity	Water Chemistries: TSS	Water Chemistries: Turbidity	Other: Bacti	Other: NH3-N	Organic: Atrazine	Organic: CN	Organic: Phenol	Organic: TOC	Metals: Ag Cd Cr Cu Fe Ni Pb Zn	Metals: As Be Mo Sb Se Tl	Metals: Ca K Mn Mg Na	Metals: Hg	Field pH or Comments: M	Q	S	INS	INV	CMF	CEP	LOC
C87			7	1	G						✓		✓																							
"	BIG ARK @ 47TH	4-5-12	7:40AM	1	G		✓								✓															✓						
C88	COW @ 135TH	4-5-12	7:15AM	1	G						✓		✓																	✓						
"	COW @ 135TH	4-5-12	7:15AM	1	G		✓								✓																					
C89	COW @ 37TH	4-5-12	9:25AM		G						✓		✓																	✓						
"	COW @ 37TH	4-5-12	9:25AM	1	G		✓								✓																					
C90	COW @ PAWNEE	4-5-12	10:10AM	1	G						✓		✓																	✓						
"	COW @ PAWNEE	4-5-12	10:10AM	1	G		✓								✓																					
C91	COW @ K-42	4-5-12	10:20AM	1	G						✓		✓																	✓						
"	COW @ K-42	4-5-12	10:20AM	1	G		✓								✓																					

Comments:

CUSTODY RECORD:	Date	Time		Date	Time
Relinquished by: Tabatha K Kling	4/5/12	10:50AM	Received by: A. Kent Coulter	4/5/12	10:50
Print Name: TABATHA KLING			Print Name: NKC		
Relinquished by:			Received by:		
Print Name:			Print Name:		

Form: I:\Excel\123\Forms\COC Revision 11 08/08/07

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00108
LOCATION CODE: 47TH
DESCRIPTION: Arkansas River @ 47th St.

Report Date: 05/22/2012
Date/Time Collected: 05/02/2012 07:50
Date/Time Received: 05/04/2012 11:57
Sample Collector KLING, TABATHA

Site code: BRI **Sample Type:** **Sample Frequency: MTH**

Comments:

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	328	mg/L	5	EPA 300.0	05/04/2012 14:37	KCARTER
Sulfate	122	mg/L	5	EPA 300.0	05/04/2012 14:37	KCARTER
Total Hardness Manual	284	mg/L	1	SM 2340 C	05/21/2012 12:05	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

Chain of Custody Record and Analytical Request

In Lab:
- [ ] Iced on Receipt
- [ ] Presevation Checked
- [ ] Temperature at Delivery

WICHITA MUNICIPAL WATER & SEWER DEPARTMENT LABORATORY E-60603
PRODUCTION & PUMPING DIVISION
1815 W. Pine St., Wichita KS 67203

RECEIVED FROM:
- [x] PRETREATMENT
- [ ] SEWAGE TREATMENT DIVISION
- [ ] PRODUCTION & PUMPING DIVISION

Sampler(s): TABATHA KLING

Lab Log # CS00	Location Code	Date	Time	Sample Info: No. of Containers	Sample Info: Type: G=Grab, TC= Time Comp, FC=Flow Comp	Preservation: H_3PO_4	Preservation: H_2SO_4	Preservation: HNO_3	Preservation: Ascorbic	Preservation: NaOH	Preservation: None	Anions: Nitrate-N	Anions: Cl/SO_4	Water Chemistries: Alkalinity	Water Chemistries: Hardness	Water Chemistries: $T\text{-}PO_4\text{-}P$	Water Chemistries: Spec. Conductivity	Water Chemistries: TSS	Water Chemistries: Turbidity	Other: Bacti	Other: $NH_3\text{-}N$	Organic: Atrazine	Organic: CN	Organic: Phenol	Organic: TOC	Metals: Ag Cd Cr Cu Fe Ni Pb Zn	Metals: As Be Mo Sb Se Tl	Metals: Ca K Mn Mg Na	Metals: Hg	Field pH or Comments: M	Q	S	INS	INV	CMF	CEP	LOC
108	EIG ARK @ 47		7:50A	1	G		✓								✓																					
"	EIG ARK @ 47TH	5-2-12	7:50A	1	G						✓		✓																	✓							
109	COW @ 135	5-2-12	10:57A	1	G		✓								✓																					
"	COW @ 135TH	5-2-12	10:57A	1	G						✓		✓																	✓							
110	COW @ 37	5-2-12	10:50A	1	G		✓								✓																					
"	COW @ 37TH	5-2-12	10:50A	1	G						✓		✓																	✓							
111	COW @ PAWNEE	5-2-12	10:15A	1	G		✓								✓																					
"	COW @ PAWNEE	5-2-12	10:15A	1	G						✓		✓																	✓							
112	COW @ K-42	5-2-12	10:00A	1	G		✓								✓																					
"	COW @ K-42	5-2-12	10:00A	1	G						✓		✓																	✓							

Comments:

CUSTODY RECORD:	Date	Time		Date	Time
Relinquished by: [signature]	5-4-12	11:57AM	Received by: [signature]	5/5/12	11:57AM
Print Name: TABATHA KLING			Print Name: DAVE MILLS		
Relinquished by:			Received by:		
Print Name:			Print Name:		

Form: I:\Excel\123\Forms\COC Revision 11 08/08/07

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00164
LOCATION CODE: 47TH
DESCRIPTION: Arkansas River @ 47th St.

Report Date: 06/27/2012
Date/Time Collected: 06/07/2012 07:30
Date/Time Received: 06/07/2012 13:55
Sample Collector KLING, TABATHA

Site code: BRI **Sample Type:** **Sample Frequency:**

Comments:

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	263	mg/L	5	EPA 300.0	06/07/2012 15:28	KCARTER
Sulfate	101	mg/L	5	EPA 300.0	06/07/2012 15:28	KCARTER
Total Hardness Manual	219	mg/L	1	SM 2340 C	06/27/2012 13:00	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00165
LOCATION CODE: 63RD
DESCRIPTION: Arkansas River @ 63rd St.

Report Date: 06/27/2012
Date/Time Collected: 06/07/2012 11:00
Date/Time Received: 06/07/2012 13:55
Sample Collector KLING, TABATHA

Site code: BRI **Sample Type:** **Sample Frequency:**

Comments:

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	262	mg/L	5	EPA 300.0	06/07/2012 15:47	KCARTER
Sulfate	124	mg/L	5	EPA 300.0	06/07/2012 15:47	KCARTER
Total Hardness Manual	233	mg/L	1	SM 2340 C	06/27/2012 13:00	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

Chain of Custody Record and Analytical Request

In Lab: 4°C ☑ Iced on Receipt ☑ Presevation Checked ☑ Temperature at Delivery

WICHITA MUNICIPAL WATER & SEWER DEPARTMENT LABORATORY E-60603
PRODUCTION & PUMPING DIVISION
1815 W. Pine St., Wichita KS 67203

RECEIVED FROM: ☑ PRETREATMENT SEWAGE TREATMENT DIVISION ☐ PRODUCTION & PUMPING DIVISION

Sampler(s): TABATHA KLING

Lab Log # C500	Location Code	Date	Time	Sample Info: No. of Containers	Type: G=Grab, TC= Time Comp, FC=Flow Comp	Preservation: H3PO4	H2SO4	HNO3	Ascorbic	NaOH	None	Anions: Nitrate-N	Cl /SO4	Water Chemistries: Alkalinity	Hardness	T-PO4-P	Spec. Conductivity	TSS	Turbidity	Other: Bacti	NH3-N	Organic: Atrazine	CN	Phenol	TOC	Metals: Ag Cd Cr Cu Fe Ni Pb Zn	As Be Mo Sb Se Tl	Ca K Mn Mg Na	Hg	Field pH or Comments: M	Q	S	INS	INV	CMF	CEP	LOC
160	COW@K-42	6-7-12	9:50AM	1	G		✓								✓															✓						
"	COW@K-42		9:50AM	1	G						✓		✓																	✓						
161	COW@PAWNEE		12:40PM	1	G		✓								✓															✓						
"	COW@PAWNEE		12:40PM	1	G						✓		✓																	✓						
162	COW@37TH		9:00AM	1	G		✓								✓															✓						
"	COW@37TH		9:00AM	1	G						✓		✓																	✓						
163	COW@135TH		8:50AM	1	G		✓								✓															✓						
"	COW@135TH		8:50AM	1	G						✓		✓																	✓						
164	BIG ARK@47TH		7:30AM	1	G		✓								✓															✓						
"	BIG ARK@47TH		7:30AM	1	G						✓		✓																	✓						
165	BIG ARK@63RD		11:00AM	1	G		✓								✓															✓						
"	BIG ARK@63RD		11:00AM	1	G						✓		✓																	✓						

Comments:

CUSTODY RECORD:	Date	Time		Date	Time
Relinquished by: Tabatha Kling	6-7-12	1:55PM	Received by: [signature]	6/7/12	1355
Print Name: TABATHA KLING			Print Name: NKC		
Relinquished by:			Received by:		
Print Name:			Print Name:		

Form: I:\Excel\123\Forms\COC Revision 11 08/08/07

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K[illegible]E Cerification No: E-60603
N[illegible]AP Accredited Laboratory

LAB LOG NO: CS00192
LOCATION CODE: 47TH
DESCRIPTION: Arkansas River @ 47th St.

Report Date: 08/16/2012
Date/Time Collected: 07/12/2012 07:50
Date/Time Received: 07/12/2012 11:14
Sample Collector KLING, TABATHA

Site code: BRI **Sample Type:** **Sample Frequency:**

Comments:

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	293	mg/L	5	EPA 300.0	07/12/2012 17:50	KCARTER
Sulfate	130	mg/L	5	EPA 300.0	07/12/2012 17:50	KCARTER
Total Hardness Manual	295	mg/L	1	SM 2340 C	08/16/2012 15:20	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00191
LOCATION CODE: 63RD
DESCRIPTION: Arkansas River @ 63rd St.

Report Date: 08/16/2012
Date/Time Collected: 07/12/2012 07:35
Date/Time Received: 07/12/2012 11:14
Sample Collector KLING, TABATHA

Site code: BRI **Sample Type:** **Sample Frequency:**

Comments:

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	284	mg/L	5	EPA 300.0	07/12/2012 17:32	KCARTER
Sulfate	136	mg/L	5	EPA 300.0	07/12/2012 17:32	KCARTER
Total Hardness Manual	250	mg/L	1	SM 2340 C	08/16/2012 15:20	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

Chain of Custody Record and Analytical Request

In Lab: ☐ Iced on Receipt ☐ Presevation Checked ☐ Temperature at Delivery

WICHITA MUNICIPAL WATER & SEWER DEPARTMENT LABORATORY E-60603
PRODUCTION & PUMPING DIVISION
1815 W. Pine St., Wichita KS 67203

RECEIVED FROM: ☑ PRETREATMENT SEWAGE TREATMENT DIVISION ☐ PRODUCTION & PUMPING DIVISION

Sampler(s): TABATHA KLING

Lab Log # C800	Location Code	Date	Time	Sample Info: No. of Containers	Sample Info: Type: G=Grab, TC= Time Comp. FC=Flow Comp	Preservation: H3PO4	Preservation: H2SO4	Preservation: HNO3	Preservation: Ascorbic	Preservation: NaOH	Preservation: None	Anions: Nitrate-N	Anions: Cl /SO4	Water Chemistries: Alkalinity	Water Chemistries: Hardness	Water Chemistries: T-PO4-P	Water Chemistries: Spec. Conductivity	Water Chemistries: TSS	Water Chemistries: Turbidity	Other: Bacti	Other: NH3-N	Organic: Atrazine	Organic: CN	Organic: Phenol	Organic: TOC	Metals: Ag Cd Cr Cu Fe Ni Pb Zn	Metals: As Be Mo Sb Se Tl	Metals: Ca K Mn Mg Na	Metals: Hg	Field pH or Comments: M	Q	S	INS	INV	CMF	CEP	LOC
191	BIG ARK @ 63RD	7-12-12	7:[illegible]	1	G						✓		✓																							
"	BIG ARK @ 63RD	7-12-12	7:35A	1	G		✓								✓															✓						
192	BIG ARK @ 47TH	7-12-12	7:[illegible]	1	G						✓		✓																							
"	BIG ARK @ 47TH	7-12-12	7:50A	1	G		✓								✓															✓						
193	COW @ 37TH	7-12-12	[illegible]	1	G						✓		✓																							
"	COW @ 37TH	7-12-12	9:40A	1	G		✓								✓															✓						
194	COW @ 135TH	7-12-12	[illegible]	1	G						✓		✓																							
"	COW @ 135TH	7-12-12	9:30A	1	G		✓								✓															✓						
195	COW @ PAWNEE	7-12-12	10:15A	1	G						✓		✓																							
"	COW @ PAWNEE	7-12-12	10:15A	1	G		✓								✓															✓						
196	COW @ K 42	7-12-12	10:35A	1	G						✓		✓																							
"	COW @ K 42	7-12-12	10:35A	1	G		✓								✓															✓						

Comments:

CUSTODY RECORD:	Date	Time		Date	Time
Relinquished by: Tabatha Kling	7-12-12	11:[illegible]AM	Received by: [illegible]	[illegible]	11:[illegible]
Print Name: TABATHA KLING			Print Name: NEC		
Relinquished by:			Received by:		
Print Name:			Print Name:		

Form: I:\Excel\123\Forms\COC Revision 11 08/08/07

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K[illegible]E Cerification No: E-60603
N[illegible]AP Accredited Laboratory

LAB LOG NO: CS00205
LOCATION CODE: 47TH
DESCRIPTION: Arkansas River @ 47th St.

Report Date: 08/28/2012
Date/Time Collected: 08/02/2012 09:20
Date/Time Received: 08/02/2012 12:44
Sample Collector KLING, TABATHA

Site code: BRI **Sample Type:** **Sample Frequency: MTH**

Comments:

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	195	mg/L	5	EPA 300.0	08/07/2012 04:12	KCARTER
Sulfate	131	mg/L	5	EPA 300.0	08/07/2012 04:12	KCARTER
Total Hardness Manual	308	mg/L	1	SM 2340 C	08/24/2012 13:25	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00204
LOCATION CODE: 63RD
DESCRIPTION: Arkansas River @ 63rd St.

Report Date: 08/28/2012
Date/Time Collected: 08/02/2012 09:05
Date/Time Received: 08/02/2012 12:44
Sample Collector KLING, TABATHA

Site code: BRI **Sample Type:** **Sample Frequency: MTH**

Comments:

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	227	mg/L	5	EPA 300.0	08/07/2012 03:53	KCARTER
Sulfate	147	mg/L	5	EPA 300.0	08/07/2012 03:53	KCARTER
Total Hardness Manual	240	mg/L	1	SM 2340 C	08/24/2012 13:25	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

Chain of Custody Record and Analytical Request

In Lab:
☑ Iced on Receipt
☐ Presevation Checked
12-20° C Temperature at Delivery

WICHITA MUNICIPAL WATER & SEWER DEPARTMENT LABORATORY E-60603
PRODUCTION & PUMPING DIVISION
1815 W. Pine St., Wichita KS 67203

RECEIVED FROM:
☑ PRETREATMENT
SEWAGE TREATMENT DIVISION
☐ PRODUCTION & PUMPING DIVISION

COPY

Sampler(s): TABATHA KLING

Lab Log # C500	Location Code	Date	Time	Sample Info: No. of Containers	Sample Info: Type: G=Grab, TC= Time Comp, FC=Flow Comp	Preservation: H_3PO_4	Preservation: H_2SO_4	Preservation: HNO_3	Preservation: Ascorbic	Preservation: NaOH	Preservation: None	Anions: Nitrate-N	Anions: Cl / SO_4	Water Chemistries: Alkalinity	Water Chemistries: Hardness	Water Chemistries: T-PO_4-P	Water Chemistries: Spec. Conductivity	Water Chemistries: TSS	Water Chemistries: Turbidity	Other: Bacti	Other: NH_3-N	Organic: Atrazine	Organic: CN	Organic: Phenol	Organic: TOC	Metals: Ag Cd Cr Cu Fe Ni Pb Zn	Metals: As Be Mo Sb Se Tl	Metals: Ca K Mn Mg Na	Metals: Hg	Field pH or Comments: M	Q	S	INS	INV	CMF	CEP	LOC
204	BIG ARK @ 63RD	8-2-11	9:05A	1			✓								✓															✓						
"	BIG ARK @ 63RD		9:05A	1							✓		✓																	✓						
205	BIG ARK @ 47TH		9:20A	1			✓								✓															✓						
"	BIG ARK @ 47TH		9:20A	1							✓		✓																	✓						
206	COW @ 135TH		10:25A	1			✓								✓															✓						
"	COW @ 135TH		10:25A	1							✓		✓																	✓						
207	COW @ 37TH		10:35A	1			✓								✓															✓						
"	COW @ 37TH		10:35A	1							✓		✓																	✓						
208	COW @ PAWNEE		11:10A	1			✓								✓															✓						
"	COW @ PAWNEE		11:10A	1							✓		✓																	✓						
209	COW @ K-42		11:25A	1			✓								✓															✓						
"	COW @ K-42		11:25A	1							✓		✓																	✓						

Comments:

CUSTODY RECORD:	Date	Time		Date	Time
Relinquished by: Tabatha Kling	8-2-12	1244	Received by: Vernon A. Strasser	8/2/12	1244
Print Name: TABATHA KLING			Print Name: Vernon A. Strasser		
Relinquished by:			Received by:		
Print Name:			Print Name:		

Form: I:\Excel\123\Forms\COC Revision 11 08/08/07

Continental Analytical Services, Inc.

02/20/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 02/03/2012 14:25
Continental File No.: 8339
Continental Order No.: 101253
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 12 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12020398	Broadway-Grab	Liquid	2/3/2012
12020399	Broadway-Composite	Liquid	2/3/2012
12020400	Broadway-Upstream	Liquid	2/3/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101253

Lab Number: 12020398
Sample Description: Broadway-Grab

Date Sampled: 02/03/2012
Time Sampled: 0545

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/90
Cadmium, Tot. Rec., ICP-MS	1	µg/L	7202/88
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/90
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/88
Hardness (Calculated)	12.7	mg/L as CaCO3	7157/194
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/90
Zinc, Tot. Rec., ICP-MS	41	µg/L	7202/88
Chloride	1.6	mg/L	7107/222
Hexane Extractable Material	ND(5.0)	mg/L	7198/60
Solids, Total Dissolved	30.	mg/L	7059/732
Solids, Total Suspended	11	mg/L	7059/733

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2142	120210-2	4IP3046	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2054	120208-2	4IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2142	120210-2	4IP3046	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2054	120208-2	4IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/07/12 1301	02/07/12 1904	120207-4	7IP4038	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2142	120210-2	4IP3046	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2054	120208-2	4IP3040	JDL	200.8 Rev. 5.4
Chloride	N/A	02/08/12 1658	1IC2039	1IC2039	MLL	300.0
Hexane Extractable Materia	02/16/12 0900	02/16/12 0855	120216-1	120216-1	JND	1664
Solids, Total Dissolved	N/A	02/08/12 1411	120208-1	120208-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/09/12 1242	120209-1	120209-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B
HEM Preparation Method						1664

Conclusion of Lab Number: 12020398

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101253

Lab Number: 12020399
Sample Description: Broadway-Composite

Date Sampled: 02/03/2012
Time Sampled: 0545

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM QC	µg/L	7202/87
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/88
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/87
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/88
Hardness (Calculated)	14.1	mg/L as CaCO3	7157/192
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/87
Zinc, Tot. Rec., ICP-MS	60.	µg/L	7202/88
BOD	ND(5)	mg/L	7060/353
Chloride	2.0	mg/L	7107/218
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	6854/436
Nitrate, as N	0.1	mg/L	7107/218
Nitrite, as N	ND(0.1)	mg/L	7107/218
Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L	9999/873
Phosphorus, Total, as P	ND(0.20)	mg/L	7061/272
Solids, Total Dissolved	30.	mg/L	7059/732
Solids, Total Suspended	26	mg/L	7059/733

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1714	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2131	120208-2	5IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1714	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2131	120208-2	5IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/06/12 1304	02/06/12 2354	120206-3	10IP4037	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1714	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2131	120208-2	5IP3040	JDL	200.8 Rev. 5.4
BOD	N/A	02/03/12 1800	120203-1	120203-1	ASK	SM 5210B
Chloride	N/A	02/03/12 1911	1IC2034	1IC2034	MLL	300.0
Kjeldahl Nitrogen, as N (T	02/06/12	02/07/12 1205	120206-2	120207-2	JND	EPA 351.2
Nitrate, as N	N/A	02/03/12 1911	1IC2034	1IC2034	MLL	300.0
Nitrite, as N	N/A	02/03/12 1911	1IC2034	1IC2034	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	02/10/12 0801				Calculation
Phosphorus, Total, as P	N/A	02/17/12 1413	120217-1	120217-1	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	02/08/12 1412	120208-1	120208-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/09/12 1243	120209-1	120209-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12020399

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101253

Lab Number: 12020400
Sample Description: Broadway-Upstream

Date Sampled: 02/03/2012
Time Sampled: 0545

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM QC	µg/L	7202/87
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/88
Copper, Dissolved, ICP-MS	6 DM	µg/L	7202/87
Copper, Tot. Rec., ICP-MS	17	µg/L	7202/88
Hardness (Calculated)	113	mg/L as CaCO3	7157/192
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/87
Zinc, Tot. Rec., ICP-MS	127	µg/L	7202/88
BOD	7	mg/L	7060/353
Chloride	50.	mg/L	7107/218
Kjeldahl Nitrogen, as N (TKN)	1.8	mg/L	6854/436
Nitrate, as N	0.5	mg/L	7107/218
Nitrite, as N	ND(0.1)	mg/L	7107/218
Nitrogen (TKN + NO3/NO2), as N	2.3	mg/L	9999/873
Phosphorus, Total, as P	0.36	mg/L	7061/272
Solids, Total Dissolved	188	mg/L	7059/732
Solids, Total Suspended	210.	mg/L	7059/733

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1719	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2137	120208-2	5IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1719	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2137	120208-2	5IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/06/12 1304	02/06/12 2358	120206-3	10IP4037	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1719	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2137	120208-2	5IP3040	JDL	200.8 Rev. 5.4
BOD	N/A	02/03/12 1800	120203-1	120203-1	ASK	SM 5210B
Chloride	N/A	02/04/12 0138	1IC2034	3IC2034	MLL	300.0
Kjeldahl Nitrogen, as N (T	02/06/12	02/07/12 1207	120206-2	120207-2	JND	EPA 351.2
Nitrate, as N	N/A	02/04/12 0120	1IC2034	3IC2034	MLL	300.0
Nitrite, as N	N/A	02/04/12 0120	1IC2034	3IC2034	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	02/10/12 0801				Calculation
Phosphorus, Total, as P	N/A	02/17/12 1414	120217-1	120217-1	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	02/08/12 1412	120208-1	120208-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/09/12 1243	120209-1	120209-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12020400

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101253

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12020399	BOD	02/03/2012 0545	02/03/2012 1800	12:15
12020399	Nitrate, as N	02/03/2012 0545	02/03/2012 1911	13:26
12020399	Nitrite, as N	02/03/2012 0545	02/03/2012 1911	13:26
12020400	BOD	02/03/2012 0545	02/03/2012 1800	12:15
12020400	Nitrate, as N	02/03/2012 0545	02/04/2012 0120	19:35
12020400	Nitrite, as N	02/03/2012 0545	02/04/2012 0120	19:35

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

QC - QC data qualifiers were noted. See the Quality Control Report.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101253

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101253

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120206-3	120206BLK3 02/06/12 23:10	120206LCS3 02/06/12 23:14	12020397MS 02/06/12 23:34
Lab numbers associated with this batch: 12020399 12020400					
SL156	Cadmium, Dissolved, ICP-MS	120206-4	120206BLK4	120206LCS4	12020415MS
SL162	Copper, Dissolved, ICP-MS	120206-4	120206BLK4	120206LCS4	12020415MS
SL183	Zinc, Dissolved, ICP-MS	120206-4	120206BLK4 02/08/12 16:32	120206LCS4 02/08/12 16:37	12020415MS 02/08/12 18:27
Lab numbers associated with this batch: 12020399 12020400					
SL323	Hardness (Calculated)	120207-4	120207BLK4 02/07/12 18:00	120207LCS4 02/07/12 18:12	12020348MS 02/07/12 18:36
Lab numbers associated with this batch: 12020398					
SL006	Cadmium, Tot. Rec., ICP-MS	120208-2	120208BLK2	120208LCS2	12020398MS
SL012	Copper, Tot. Rec., ICP-MS	120208-2	120208BLK2	120208LCS2	12020398MS
SL033	Zinc, Tot. Rec., ICP-MS	120208-2	120208BLK2 02/09/12 20:18	120208LCS2 02/09/12 20:23	12020398MS 02/09/12 21:00
Lab numbers associated with this batch: 12020398 12020399 12020400					
SL156	Cadmium, Dissolved, ICP-MS	120210-2	120210BLK2	120210LCS2	12020410MS
SL162	Copper, Dissolved, ICP-MS	120210-2	120210BLK2	120210LCS2	12020410MS
SL183	Zinc, Dissolved, ICP-MS	120210-2	120210BLK2 02/15/12 21:21	120210LCS2 02/15/12 21:26	12020410MS 02/15/12 22:19
Lab numbers associated with this batch: 12020398					
GL123	BOD	120203-1	120203BLK1 02/03/12 18:00	120203LCS1 02/03/12 18:00	12020390MS 02/03/12 18:00
Lab numbers associated with this batch: 12020399 12020400					
GL502	Chloride	1IC2034	BLK1IC2034 02/03/12 16:25	LCS1IC2034 02/03/12 16:44	12020330MS 02/03/12 17:20
Lab numbers associated with this batch: 12020399 12020400					
GL502	Chloride	1IC2039	BLK1IC2039 02/08/12 14:12	LCS1IC2039 02/08/12 14:31	12020352MS 02/08/12 18:49
Lab numbers associated with this batch: 12020398					
GL188	Hexane Extractable Material	120216-1	120216BLK1 02/16/12 08:50	120216LCS1 02/16/12 08:50	12020350MS 02/16/12 08:51
Lab numbers associated with this batch: 12020398					

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101253

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL595	Kjeldahl Nitrogen, as N (TKN)	120206-2	120206BLK2 02/07/12 11:41	120206LCS2 02/07/12 11:43	12020351MS 02/07/12 16:29
	Lab numbers associated with this batch: 12020399 12020400				
GL505	Nitrate, as N	1IC2034	BLK1IC2034	LCS1IC2034	12020330MS
GL503	Nitrite, as N	1IC2034	BLK1IC2034 02/03/12 16:25	LCS1IC2034 02/03/12 16:44	
	Lab numbers associated with this batch: 12020399 12020400				
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12020399 12020400				
GL218	Phosphorus, Total, as P	120217-1	120217BLK1 02/17/12 1409	120217LCS1 02/17/12 1410	12020397MS 02/17/12 1412
	Lab numbers associated with this batch: 12020399 12020400				
GL242	Solids, Total Dissolved	120208-1	120208BLK1 02/08/12 14:02	120208LCS1 02/08/12	12020376MS 02/08/12 14:03
	Lab numbers associated with this batch: 12020398 12020399 12020400				
GL243	Solids, Total Suspended	120209-1	120209BLK1 02/09/12 12:37	120209LCS1 02/09/12	12020392MS 02/09/12 12:40
	Lab numbers associated with this batch: 12020398 12020399 12020400				

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101253

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120203-1	For sample analyzed on: 02/03/2012					Spiked sample: 12020390						
BOD	ND(5)	81.3	70.5-110	198	mg/L	MN	MN	#		mg/L	**	13.2
QC Batch: 120206-2	For samples prepared on: 02/06/2012					Spiked sample: 12020351						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	104	85.0-115	4.0	mg/L	MN	MN	81.5-133	20.0	mg/L	**	18.3
QC Batch: 120206-3	For samples prepared on: 02/06/2012 1304					Spiked sample: 12020397						
Hardness (Calculated)	ND(5.0)	101	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120206-4	For samples prepared on: 02/06/2012 1426					Spiked sample: 12020415						
Cadmium, Dissolved, ICP-MS	ND(1)	104	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	92.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	102	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120207-4	For samples prepared on: 02/07/2012 1301					Spiked sample: 12020348						
Hardness (Calculated)	ND(5.0)	101	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120208-1	For sample analyzed on: 02/08/2012					Spiked sample: 12020376						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.2
QC Batch: 120208-2	For samples prepared on: 02/08/2012 0915					Spiked sample: 12020398						
Cadmium, Tot. Rec., ICP-MS	ND(1)	103	85.0-115	500	µg/L	103	103	80.0-120	500	µg/L	0.0	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	92.8	85.0-115	500	µg/L	94.2	92.8	80.0-120	500	µg/L	1.5	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	105	85.0-115	500	µg/L	105	103	80.0-120	500	µg/L	1.9	20.0
QC Batch: 120209-1	For sample analyzed on: 02/09/2012					Spiked sample: 12020392						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	18.2
QC Batch: 120210-2	For samples prepared on: 02/10/2012 0952					Spiked sample: 12020410						
Cadmium, Dissolved, ICP-MS	ND(1)	102	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	95.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	99.6	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120216-1	For samples prepared on: 02/16/2012 0900					Spiked sample: 12020350						
Hexane Extractable Material	ND(1.4)	93.5	78.0-114	40.0	mg/L	MN	MN	78.0-114	40.0	mg/L	**	18.0
QC Batch: 120217-1	For sample analyzed on: 02/17/2012					Spiked sample: 12020397						
Phosphorus, Total, as P	ND(0.20)	95.5	90.0-110	2.0	mg/L	MN	MN	71.2-135	2.0	mg/L	**	21.2
QC Batch: 1IC2034	For sample analyzed on: 02/03/2012					Spiked sample:						
Nitrite, as N	ND(0.1)	99.1	90.0-110	2.0	mg/L	MN	MN	78.5-127			**	10.1
QC Batch: 1IC2034	For sample analyzed on: 02/03/2012					Spiked sample: 12020330						
Chloride	ND(1.0)	96.6	90.0-110	4.0	mg/L	MN	MN	82.1-126	80.0	mg/L	**	12.5
Nitrate, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	79.3-118	40.0	mg/L	**	12.1
QC Batch: 1IC2039	For sample analyzed on: 02/08/2012					Spiked sample: 12020352						
Chloride	ND(1.0)	96.7	90.0-110	4.0	mg/L	MN	MN	82.1-126	400	mg/L	**	12.5

Data Qualifiers:
MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

N/A - Not Applicable

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101253

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101253

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	02/08/2012	2IP3039	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/08/2012	3IP3039	100	111	µg/L	111 CH

Samples associated with this Continuing Calibration Verification:

Laboratory Number	Instrument Batch	Sample Description
12020399	2IP3039	Broadway-Composite
12020400	2IP3039	Broadway-Upstream

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/15/2012	4IP3046	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	02/09/2012	5IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	02/09/2012	6IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/08/2012	2IP3039	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/08/2012	3IP3039	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/15/2012	4IP3046	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	5IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	6IP3040	CCV recovery acceptable for this Instrument Batch.			
BOD	02/03/2012	120203-1	CCV recovery acceptable for this Instrument Batch.			
BOD	02/03/2012	120203-2	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	02/16/2012	120216-1	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	02/16/2012	120216-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	02/17/2012	120217-1	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	02/17/2012	120217-2	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/03/2012	1IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/08/2012	1IC2039	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/08/2012	2IC2039	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/03/2012	1IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/03/2012	1IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/07/2012	120207-2	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/07/2012	120207-3	CCV recovery acceptable for this Instrument Batch.			

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101253

Hardness (Calculated)	02/06/2012	10IP4037	CCV recovery acceptable for this Instrument Batch.
Hardness (Calculated)	02/07/2012	11IP4037	CCV recovery acceptable for this Instrument Batch.
Hardness (Calculated)	02/07/2012	7IP4038	CCV recovery acceptable for this Instrument Batch.
Hardness (Calculated)	02/07/2012	8IP4038	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/08/2012	2IP3039	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/08/2012	3IP3039	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/15/2012	4IP3046	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	5IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	6IP3040	CCV recovery acceptable for this Instrument Batch.

Data Qualifiers:
CH - The continuing calibration verification (CCV) standard recovery for this analyte was above the method or SOP limit. The reported concentration for this analyte may be biased high.

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO. 101253

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information			Invoice Information		
Company Name: City of Wichita Sewage Treatment			Company Name: City of Wichita Sewage Treatment		
Address: 2305 E. 57th Street South			Address: 2305 E. 57th Street South		
City: Wichita	State: KS	Zip: 67216	City: Wichita	State: KS	Zip: 67216
Contact: Jim Hardesty	E-mail:		Contact: Jim Hardesty	E-mail:	
Phone Number (316)303-8700	Fax Number (316)303-8712		Phone Number: (316)303-8700	Fax Number: (316)303-8712	

Sampler's Name:(Printed): Justin Murphy
Sampler's Name:(Signature):
Purchase Order Number:
File Number: 5611
Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER:	Cadmium, Copper, Zinc - Total Recoverable 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Hexane Extractable Material 2 - 1000ml Amber Glass - H2SO4	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P	COMMENTS 5 Gal. container to be poured off at lab as needed for required tests. Remaininig volume will be saved for organics if needed
Broadway-Grab	WW	N	2/3/12	0545	G	4			1	2	1		X	X	X						
Broadway-Composite	WW	N	2/3/12	0545	C	1					1					X					
Broadway-Upstream	WW	N	2/3/12	0545	G	4			1	1	2						X	X	X	X	

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT (15 working days) Rush TAT (5 working days) Emergency TAT. (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY	DATE:	TIME:	RECEIVED BY	DATE:	TIME:
	2/3/12	1000			
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
RECEIVED AT LAB BY: Mark Whitehead	DATE: 2-3-12	TIME: 1425	SHIPPED VIA: AIRBILL	SEAL #: SEAL DATE	

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 101253

Client Name: Wichita CAS File No.: 8339

Sample ID's in cooler: See COC

Broadway

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: _____ / (Client's Cooler) / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 2/3/12 14:35

Delivered By: UPS / FedX / AB Express / (Field Svcs) / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / (Foam) / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.2 Corrected Reading (°C) 0.6
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): 0.4
☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes (See below for discrepancies.)

Note: **If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.**

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: MWS Date Completed: 2-3-12

Continental Analytical Services, Inc.

02/20/2012 Page: 1

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 02/03/2012 14:25
Continental File No.: 8339
Continental Order No.: 101253
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 12 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12020398	Broadway-Grab	Liquid	2/3/2012
12020399	Broadway-Composite	Liquid	2/3/2012
12020400	Broadway-Upstream	Liquid	2/3/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

This report may not be reproduced, except in full, without written approval from Continental Analytical Services, Inc.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101253

Lab Number: 12020398
Sample Description: Broadway-Grab

Date Sampled: 02/03/2012
Time Sampled: 0545

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/90
Cadmium, Tot. Rec., ICP-MS	1	µg/L	7202/88
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/90
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/88
Hardness (Calculated)	12.7	mg/L as CaCO3	7157/194
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/90
Zinc, Tot. Rec., ICP-MS	41	µg/L	7202/88
Chloride	1.6	mg/L	7107/222
Hexane Extractable Material	ND(5.0)	mg/L	7198/60
Solids, Total Dissolved	30.	mg/L	7059/732
Solids, Total Suspended	11	mg/L	7059/733

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2142	120210-2	4IP3046	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2054	120208-2	4IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2142	120210-2	4IP3046	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2054	120208-2	4IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/07/12 1301	02/07/12 1904	120207-4	7IP4038	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2142	120210-2	4IP3046	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2054	120208-2	4IP3040	JDL	200.8 Rev. 5.4
Chloride	N/A	02/08/12 1658	1IC2039	1IC2039	MLL	300.0
Hexane Extractable Materia	02/16/12 0900	02/16/12 0855	120216-1	120216-1	JND	1664
Solids, Total Dissolved	N/A	02/08/12 1411	120208-1	120208-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/09/12 1242	120209-1	120209-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B
HEM Preparation Method						1664

Conclusion of Lab Number: 12020398

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101253

Lab Number: 12020399
Sample Description: Broadway-Composite

Date Sampled: 02/03/2012
Time Sampled: 0545

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM QC	µg/L	7202/87
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/88
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/87
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/88
Hardness (Calculated)	14.1	mg/L as CaCO3	7157/192
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/87
Zinc, Tot. Rec., ICP-MS	60.	µg/L	7202/88
BOD	ND(5)	mg/L	7060/353
Chloride	2.0	mg/L	7107/218
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	6854/436
Nitrate, as N	0.1	mg/L	7107/218
Nitrite, as N	ND(0.1)	mg/L	7107/218
Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L	9999/873
Phosphorus, Total, as P	ND(0.20)	mg/L	7061/272
Solids, Total Dissolved	30.	mg/L	7059/732
Solids, Total Suspended	26	mg/L	7059/733

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1714	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2131	120208-2	5IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1714	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2131	120208-2	5IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/06/12 1304	02/06/12 2354	120206-3	10IP4037	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1714	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2131	120208-2	5IP3040	JDL	200.8 Rev. 5.4
BOD	N/A	02/03/12 1800	120203-1	120203-1	ASK	SM 5210B
Chloride	N/A	02/03/12 1911	1IC2034	1IC2034	MLL	300.0
Kjeldahl Nitrogen, as N (T	02/06/12	02/07/12 1205	120206-2	120207-2	JND	EPA 351.2
Nitrate, as N	N/A	02/03/12 1911	1IC2034	1IC2034	MLL	300.0
Nitrite, as N	N/A	02/03/12 1911	1IC2034	1IC2034	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	02/10/12 0801				Calculation
Phosphorus, Total, as P	N/A	02/17/12 1413	120217-1	120217-1	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	02/08/12 1412	120208-1	120208-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/09/12 1243	120209-1	120209-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12020399

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101253

Lab Number: 12020400
Sample Description: Broadway-Upstream

Date Sampled: 02/03/2012
Time Sampled: 0545

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM QC	µg/L	7202/87
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/88
Copper, Dissolved, ICP-MS	6 DM	µg/L	7202/87
Copper, Tot. Rec., ICP-MS	17	µg/L	7202/88
Hardness (Calculated)	113	mg/L as CaCO3	7157/192
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/87
Zinc, Tot. Rec., ICP-MS	127	µg/L	7202/88
BOD	7	mg/L	7060/353
Chloride	50.	mg/L	7107/218
Kjeldahl Nitrogen, as N (TKN)	1.8	mg/L	6854/436
Nitrate, as N	0.5	mg/L	7107/218
Nitrite, as N	ND(0.1)	mg/L	7107/218
Nitrogen (TKN + NO3/NO2), as N	2.3	mg/L	9999/873
Phosphorus, Total, as P	0.36	mg/L	7061/272
Solids, Total Dissolved	188	mg/L	7059/732
Solids, Total Suspended	210.	mg/L	7059/733

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1719	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2137	120208-2	5IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1719	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2137	120208-2	5IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/06/12 1304	02/06/12 2358	120206-3	10IP4037	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1719	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2137	120208-2	5IP3040	JDL	200.8 Rev. 5.4
BOD	N/A	02/03/12 1800	120203-1	120203-1	ASK	SM 5210B
Chloride	N/A	02/04/12 0138	1IC2034	3IC2034	MLL	300.0
Kjeldahl Nitrogen, as N (T	02/06/12	02/07/12 1207	120206-2	120207-2	JND	EPA 351.2
Nitrate, as N	N/A	02/04/12 0120	1IC2034	3IC2034	MLL	300.0
Nitrite, as N	N/A	02/04/12 0120	1IC2034	3IC2034	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	02/10/12 0801				Calculation
Phosphorus, Total, as P	N/A	02/17/12 1414	120217-1	120217-1	KJH	SM 4500-P(B&F)(M
Solids, Total Dissolved	N/A	02/08/12 1412	120208-1	120208-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/09/12 1243	120209-1	120209-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12020400

Appendix

Client: City of Wichita
Attn: Jim Hardesty
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455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
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Continental File No: 8339
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ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12020399	BOD	02/03/2012 0545	02/03/2012 1800	12:15
12020399	Nitrate, as N	02/03/2012 0545	02/03/2012 1911	13:26
12020399	Nitrite, as N	02/03/2012 0545	02/03/2012 1911	13:26
12020400	BOD	02/03/2012 0545	02/03/2012 1800	12:15
12020400	Nitrate, as N	02/03/2012 0545	02/04/2012 0120	19:35
12020400	Nitrite, as N	02/03/2012 0545	02/04/2012 0120	19:35

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

QC - QC data qualifiers were noted. See the Quality Control Report.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
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Wichita, KS 67202

Date Reported: 02/20/2012
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NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
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City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
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Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120206-3	120206BLK3 02/06/12 23:10	120206LCS3 02/06/12 23:14	12020397MS 02/06/12 23:34
	Lab numbers associated with this batch: 12020399 12020400				
SL156	Cadmium, Dissolved, ICP-MS	120206-4	120206BLK4	120206LCS4	12020415MS
SL162	Copper, Dissolved, ICP-MS	120206-4	120206BLK4	120206LCS4	12020415MS
SL183	Zinc, Dissolved, ICP-MS	120206-4	120206BLK4 02/08/12 16:32	120206LCS4 02/08/12 16:37	12020415MS 02/08/12 18:27
	Lab numbers associated with this batch: 12020399 12020400				
SL323	Hardness (Calculated)	120207-4	120207BLK4 02/07/12 18:00	120207LCS4 02/07/12 18:12	12020348MS 02/07/12 18:36
	Lab numbers associated with this batch: 12020398				
SL006	Cadmium, Tot. Rec., ICP-MS	120208-2	120208BLK2	120208LCS2	12020398MS
SL012	Copper, Tot. Rec., ICP-MS	120208-2	120208BLK2	120208LCS2	12020398MS
SL033	Zinc, Tot. Rec., ICP-MS	120208-2	120208BLK2 02/09/12 20:18	120208LCS2 02/09/12 20:23	12020398MS 02/09/12 21:00
	Lab numbers associated with this batch: 12020398 12020399 12020400				
SL156	Cadmium, Dissolved, ICP-MS	120210-2	120210BLK2	120210LCS2	12020410MS
SL162	Copper, Dissolved, ICP-MS	120210-2	120210BLK2	120210LCS2	12020410MS
SL183	Zinc, Dissolved, ICP-MS	120210-2	120210BLK2 02/15/12 21:21	120210LCS2 02/15/12 21:26	12020410MS 02/15/12 22:19
	Lab numbers associated with this batch: 12020398				
GL123	BOD	120203-1	120203BLK1 02/03/12 18:00	120203LCS1 02/03/12 18:00	12020390MS 02/03/12 18:00
	Lab numbers associated with this batch: 12020399 12020400				
GL502	Chloride	1IC2034	BLK1IC2034 02/03/12 16:25	LCS1IC2034 02/03/12 16:44	12020330MS 02/03/12 17:20
	Lab numbers associated with this batch: 12020399 12020400				
GL502	Chloride	1IC2039	BLK1IC2039 02/08/12 14:12	LCS1IC2039 02/08/12 14:31	12020352MS 02/08/12 18:49
	Lab numbers associated with this batch: 12020398				
GL188	Hexane Extractable Material	120216-1	120216BLK1 02/16/12 08:50	120216LCS1 02/16/12 08:50	12020350MS 02/16/12 08:51
	Lab numbers associated with this batch: 12020398				

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Quality Control Report
Batch Summary

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455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101253

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL595	Kjeldahl Nitrogen, as N (TKN)	120206-2	120206BLK2 02/07/12 11:41	120206LCS2 02/07/12 11:43	12020351MS 02/07/12 16:29
	Lab numbers associated with this batch: 12020399 12020400				
GL505	Nitrate, as N	1IC2034	BLK1IC2034	LCS1IC2034	12020330MS
GL503	Nitrite, as N	1IC2034	BLK1IC2034 02/03/12 16:25	LCS1IC2034 02/03/12 16:44	
	Lab numbers associated with this batch: 12020399 12020400				
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12020399 12020400				
GL218	Phosphorus, Total, as P	120217-1	120217BLK1 02/17/12 1409	120217LCS1 02/17/12 1410	12020397MS 02/17/12 1412
	Lab numbers associated with this batch: 12020399 12020400				
GL242	Solids, Total Dissolved	120208-1	120208BLK1 02/08/12 14:02	120208LCS1 02/08/12	12020376MS 02/08/12 14:03
	Lab numbers associated with this batch: 12020398 12020399 12020400				
GL243	Solids, Total Suspended	120209-1	120209BLK1 02/09/12 12:37	120209LCS1 02/09/12	12020392MS 02/09/12 12:40
	Lab numbers associated with this batch: 12020398 12020399 12020400				

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101253

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120203-1	**For sample analyzed on: 02/03/2012**					**Spiked sample: 12020390**						
BOD	ND(5)	81.3	70.5-110	198	mg/L	MN	MN	#		mg/L	**	13.2
QC Batch: 120206-2	**For samples prepared on: 02/06/2012**					**Spiked sample: 12020351**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	104	85.0-115	4.0	mg/L	MN	MN	81.5-133	20.0	mg/L	**	18.3
QC Batch: 120206-3	**For samples prepared on: 02/06/2012 1304**					**Spiked sample: 12020397**						
Hardness (Calculated)	ND(5.0)	101	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120206-4	**For samples prepared on: 02/06/2012 1426**					**Spiked sample: 12020415**						
Cadmium, Dissolved, ICP-MS	ND(1)	104	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	92.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	102	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120207-4	**For samples prepared on: 02/07/2012 1301**					**Spiked sample: 12020348**						
Hardness (Calculated)	ND(5.0)	101	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120208-1	**For sample analyzed on: 02/08/2012**					**Spiked sample: 12020376**						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.2
QC Batch: 120208-2	**For samples prepared on: 02/08/2012 0915**					**Spiked sample: 12020398**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	103	85.0-115	500	µg/L	103	103	80.0-120	500	µg/L	0.0	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	92.8	85.0-115	500	µg/L	94.2	92.8	80.0-120	500	µg/L	1.5	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	105	85.0-115	500	µg/L	105	103	80.0-120	500	µg/L	1.9	20.0
QC Batch: 120209-1	**For sample analyzed on: 02/09/2012**					**Spiked sample: 12020392**						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	18.2
QC Batch: 120210-2	**For samples prepared on: 02/10/2012 0952**					**Spiked sample: 12020410**						
Cadmium, Dissolved, ICP-MS	ND(1)	102	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	95.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	99.6	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120216-1	**For samples prepared on: 02/16/2012 0900**					**Spiked sample: 12020350**						
Hexane Extractable Material	ND(1.4)	93.5	78.0-114	40.0	mg/L	MN	MN	78.0-114	40.0	mg/L	**	18.0
QC Batch: 120217-1	**For sample analyzed on: 02/17/2012**					**Spiked sample: 12020397**						
Phosphorus, Total, as P	ND(0.20)	95.5	90.0-110	2.0	mg/L	MN	MN	71.2-135	2.0	mg/L	**	21.2
QC Batch: 1IC2034	**For sample analyzed on: 02/03/2012**					**Spiked sample:**						
Nitrite, as N	ND(0.1)	95.1	90.0-110	2.0	mg/L	MN	MN	78.5-127			**	10.1
QC Batch: 1IC2034	**For sample analyzed on: 02/03/2012**					**Spiked sample: 12020330**						
Chloride	ND(1.0)	96.6	90.0-110	4.0	mg/L	MN	MN	82.1-126	80.0	mg/L	**	12.5
Nitrate, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	79.3-118	40.0	mg/L	**	12.1
QC Batch: 1IC2039	**For sample analyzed on: 02/08/2012**					**Spiked sample: 12020352**						
Chloride	ND(1.0)	96.7	90.0-110	4.0	mg/L	MN	MN	82.1-126	400	mg/L	**	12.5

Data Qualifiers:
MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

N/A - Not Applicable

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101253

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit

@ - Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101253

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	02/08/2012	2IP3039	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/08/2012	3IP3039	100	111	µg/L	111 CH

Samples associated with this Continuing Calibration Verification:

Laboratory Number	Instrument Batch	Sample Description
12020399	2IP3039	Broadway-Composite
12020400	2IP3039	Broadway-Upstream

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/15/2012	4IP3046	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	02/09/2012	5IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	02/09/2012	6IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/08/2012	2IP3039	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/08/2012	3IP3039	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/15/2012	4IP3046	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	5IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	6IP3040	CCV recovery acceptable for this Instrument Batch.			
BOD	02/03/2012	120203-1	CCV recovery acceptable for this Instrument Batch.			
BOD	02/03/2012	120203-2	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	02/16/2012	120216-1	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	02/16/2012	120216-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	02/17/2012	120217-1	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	02/17/2012	120217-2	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/03/2012	1IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/08/2012	1IC2039	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/08/2012	2IC2039	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/03/2012	1IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/03/2012	1IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/07/2012	120207-2	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/07/2012	120207-3	CCV recovery acceptable for this Instrument Batch.			

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Quality Control Report
Continuing Calibration Data Summary

Date Reported: 02/20/2012
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Continental File No: 8339
Continental Order No: 101253

Hardness (Calculated)	02/06/2012	10IP4037	CCV recovery acceptable for this Instrument Batch.
Hardness (Calculated)	02/07/2012	11IP4037	CCV recovery acceptable for this Instrument Batch.
Hardness (Calculated)	02/07/2012	7IP4038	CCV recovery acceptable for this Instrument Batch.
Hardness (Calculated)	02/07/2012	8IP4038	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/08/2012	2IP3039	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/08/2012	3IP3039	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/15/2012	4IP3046	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	5IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	6IP3040	CCV recovery acceptable for this Instrument Batch.

Data Qualifiers:
CH - The continuing calibration verification (CCV) standard recovery for this analyte was above the method or SOP limit. The reported concentration for this analyte may be biased high.

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO. 101253

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information			Invoice Information		
Company Name: City of Wichita Sewage Treatment			Company Name: City of Wichita Sewage Treatment		
Address: 2305 E. 57th Street South			Address: 2305 E. 57th Street South		
City: Wichita	State: KS	Zip: 67216	City: Wichita	State: KS	Zip: 67216
Contact: Jim Hardesty	E-mail:		Contact: Jim Hardesty	E-mail:	
Phone Number: (316)303-8700	Fax Number: (316)303-8712		Phone Number: (316)303-8700	Fax Number: (316)303-8712	

Sampler's Name:(Printed): Justin Murphy

Sampler's Name:(Signature):

Purchase Order Number:

File Number: 5611

Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER:	Cadmium, Copper, Zinc - Total Recoverable 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Hexane Extractable Material 2 - 1000ml Amber Glass - H2SO4	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P	COMMENTS 5
Broadway-Grab	WW	N	2/3/12	0545	G	4			1	2	1		X	X	X						
Broadway-Composite	WW	N	2/3/12	0545	C	1					1					X					
Broadway-Upstream	WW	N	2/3/12	0545	G	4			1	1	2						X	X	X	X	

Gal. container to be poured off at lab as needed for required tests. Remaininig volume will be saved for organics if needed

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT (15 working days) Rush TAT (5 working days) Emergency TAT. (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY	DATE:	TIME:	RECEIVED BY	DATE:	TIME:
	2/3/12	1000			
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
RECEIVED AT LAB BY: Mark W. Stibrand	DATE: 2-3-12	TIME: 1425	SHIPPED VIA: AIRBILL	SEAL #: SEAL DATE	

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 101253

Client Name: Wichita CAS File No.: 8339

Sample ID's in cooler: 5x. COC
Broadway

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: _____ / (Client's Cooler) / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 2/3/12 14:35

Delivered By: UPS / FedX / AB Express / (Field Svcs) / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / (Foam) / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.2 Corrected Reading (°C) 0.6
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): 0.4
☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes (See below for discrepancies.)

Note: **If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.**

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: MW Date Completed: 2-3-12

Continental
Analytical Services, Inc.

05/04/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 04/12/2012 1620
Continental File No.: 8339
Continental Order No.: 102696
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 11 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12041016	Broadway-Grab	Liquid	4/12/2012
12041017	Broadway-Composite	Liquid	4/12/2012
12041018	Broadway-Upstream	Liquid	4/12/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

for Clifford U. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102696

Lab Number: 12041016
Sample Description: Broadway-Grab

Date Sampled: 04/12/2012
Time Sampled: 1145

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/125
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/125
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/123
Hardness (Calculated)	18.7	mg/L as CaCO3	7157/251
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/125
Zinc, Tot. Rec., ICP-MS	35	µg/L	7202/123
Chloride	ND(1.0)	mg/L	7276/22
Hexane Extractable Material	ND(5.0)	mg/L	7198/85
Solids, Total Dissolved	ND(30)	mg/L	7059/859
Solids, Total Suspended	39	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2215	120419-4	6IP3114	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2217	120417-1	4IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2215	120419-4	6IP3114	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2217	120417-1	4IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/17/12 1131	04/17/12 2037	120417-5	6IP4108	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2215	120419-4	6IP3114	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2217	120417-1	4IP3109	KMW	200.8 Rev. 5.4
Chloride	N/A	04/26/12 1711	1IC1117	3IC1117	MLL	300.0
Hexane Extractable Materia	N/A	05/01/12 0830	120501-1	120501-1	JND	1664
Solids, Total Dissolved	N/A	04/19/12 1436	120419-1	120419-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1330	120419-1	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B
HEM Preparation Method						1664

Conclusion of Lab Number: 12041016

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102696

Lab Number: 12041017
Sample Description: Broadway-Composite

Date Sampled: 04/12/2012
Time Sampled: 1145

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/122
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/122
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/123
Hardness (Calculated)	16.5	mg/L as CaCO3	7157/248
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/122
Zinc, Tot. Rec., ICP-MS	32	µg/L	7202/123
BOD	ND(5)	mg/L	7060/412
Chloride	1.2	mg/L	7277/35
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	6854/505
Nitrate, as N	0.2	mg/L	7277/35
Nitrite, as N	ND(0.1)	mg/L	7277/35
Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L	9998/57
Phosphorus, Total, as P	ND(0.2)	mg/L	7061/315
Solids, Total Dissolved	ND(30)	mg/L	7059/859
Solids, Total Suspended	13	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2342	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2232	120417-1	5IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2342	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2232	120417-1	5IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/13/12 1234	04/14/12 0212	120413-5	12IP4104	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2342	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2232	120417-1	5IP3109	KMW	200.8 Rev. 5.4
BOD	N/A	04/13/12 1455	120413-1	120413-1	MLL	SM 5210B
Chloride	N/A	04/13/12 0754	2IC2103	6IC2103	MLL	300.0
Kjeldahl Nitrogen, as N (T	04/17/12 1756	04/24/12 1108	120417-2	120424-2	JND	EPA 351.2
Nitrate, as N	N/A	04/13/12 0754	2IC2103	6IC2103	MLL	300.0
Nitrite, as N	N/A	04/13/12 0754	2IC2103	6IC2103	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	04/27/12 0831				Calculation
Phosphorus, Total, as P	N/A	04/26/12 1412	120426-1	120426-2	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	04/19/12 1437	120419-1	120419-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1331	120419-1	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041017

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102696

Lab Number: 12041018
Sample Description: Broadway-Upstream

Date Sampled: 04/12/2012
Time Sampled: 1145

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/122
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/122
Copper, Tot. Rec., ICP-MS	10	µg/L	7202/123
Hardness (Calculated)	125	mg/L as CaCO3	7157/251
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/122
Zinc, Tot. Rec., ICP-MS	78	µg/L	7202/123
BOD	9	mg/L	7060/413
Chloride	86	mg/L	7277/35
Kjeldahl Nitrogen, as N (TKN)	2.1	mg/L	6854/505
Nitrate, as N	0.6	mg/L	7277/35
Nitrite, as N	ND(0.1)	mg/L	7277/35
Nitrogen (TKN + NO3/NO2), as N	2.7	mg/L	9998/57
Phosphorus, Total, as P	ND(0.2)	mg/L	7061/315
Solids, Total Dissolved	246	mg/L	7059/859
Solids, Total Suspended	131	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2347	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2238	120417-1	5IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2347	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2238	120417-1	5IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/17/12 1131	04/17/12 2041	120417-5	6IP4108	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2347	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2238	120417-1	5IP3109	KMW	200.8 Rev. 5.4
BOD	N/A	04/13/12 1700	120413-2	120413-1	MLL	SM 5210B
Chloride	N/A	04/13/12 0849	2IC2103	6IC2103	MLL	300.0
Kjeldahl Nitrogen, as N (T	04/17/12 1756	04/24/12 1114	120417-2	120424-3	JND	EPA 351.2
Nitrate, as N	N/A	04/13/12 0831	2IC2103	6IC2103	MLL	300.0
Nitrite, as N	N/A	04/13/12 0831	2IC2103	6IC2103	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	04/27/12 0831				Calculation
Phosphorus, Total, as P	N/A	04/26/12 1413	120426-1	120426-2	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	04/19/12 1437	120419-1	120419-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1331	120419-1	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041018

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102696

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12041017	BOD	04/12/2012 1145	04/13/2012 1455	27:10
12041017	Nitrate, as N	04/12/2012 1145	04/13/2012 0754	20:09
12041017	Nitrite, as N	04/12/2012 1145	04/13/2012 0754	20:09
12041018	BOD	04/12/2012 1145	04/13/2012 1700	29:15
12041018	Nitrate, as N	04/12/2012 1145	04/13/2012 0831	20:46
12041018	Nitrite, as N	04/12/2012 1145	04/13/2012 0831	20:46

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102696

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102696

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120413-5	120413BLK5 04/14/12 01:03	120413LCS5 04/14/12 01:16	12041017MS 04/14/12 02:16
Lab numbers associated with this batch: 12041017					
SL156	Cadmium, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL162	Copper, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL183	Zinc, Dissolved, ICP-MS	120416-2	120416BLK2 04/16/12 22:18	120416LCS2 04/16/12 22:23	12041027MS 04/17/12 00:35
Lab numbers associated with this batch: 12041017 12041018					
SL006	Cadmium, Tot. Rec., ICP-MS	120417-1	120417BLK1	120417LCS1	12040878MS
SL012	Copper, Tot. Rec., ICP-MS	120417-1	120417BLK1	120417LCS1	12040878MS
SL033	Zinc, Tot. Rec., ICP-MS	120417-1	120417BLK1 04/18/12 20:58	120417LCS1 04/18/12 21:03	12040878MS 04/18/12 21:13
Lab numbers associated with this batch: 12041016 12041017 12041018					
SL323	Hardness (Calculated)	120417-5	120417BLK5 04/17/12 19:41	120417LCS5 04/17/12 19:45	12041000MS 04/17/12 20:05
Lab numbers associated with this batch: 12041016 12041018					
SL156	Cadmium, Dissolved, ICP-MS	120419-4	120419BLK4	120419LCS4	12041016MS
SL162	Copper, Dissolved, ICP-MS	120419-4	120419BLK4	120419LCS4	12041016MS
SL183	Zinc, Dissolved, ICP-MS	120419-4	120419BLK4 04/23/12 21:17	120419LCS4 04/23/12 21:23	12041016MS 04/23/12 22:21
Lab numbers associated with this batch: 12041016					
GL123	BOD	120413-1	120413BLK1 04/13/12 14:55	120413LCS1 04/13/12 14:55	12040999MS 04/13/12 14:55
Lab numbers associated with this batch: 12041017					
GL123	BOD	120413-2	120413BLK2 04/13/12 17:00	120413LCS2 04/13/12 17:00	12041018MS 04/13/12 17:00
Lab numbers associated with this batch: 12041018					
GL502	Chloride	1IC1117	BLK1IC1117 04/26/12 09:23	LCS1IC1117 04/26/12 10:07	12041939MS 04/26/12 16:05
Lab numbers associated with this batch: 12041016					
GL502	Chloride	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
Lab numbers associated with this batch: 12041017 12041018					

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102696

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL188	Hexane Extractable Material	120501-1	120501BLK1 05/01/12 08:24	120501LCS1 05/01/12 08:25	12042101MS 05/01/12 08:25
	Lab numbers associated with this batch: 12041016				
GL595	Kjeldahl Nitrogen, as N (TKN)	120417-2	120417BLK2 04/24/12 10:26	120417LCS2 04/24/12 10:29	12040969MS 04/24/12 10:35
	Lab numbers associated with this batch: 12041017 12041018				
GL505	Nitrate, as N	2IC2103	BLK2IC2103	LCS2IC2103	12041027MS
GL503	Nitrite, as N	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
	Lab numbers associated with this batch: 12041017 12041018				
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12041017 12041018				
GL218	Phosphorus, Total, as P	120426-1	120426BLK1 04/26/12 1359	120426LCS1 04/26/12 1400	12041012MS 04/26/12 1409
	Lab numbers associated with this batch: 12041017 12041018				
GL242	Solids, Total Dissolved	120419-1	120419BLK1	120419LCS1	12041127MS
GL243	Solids, Total Suspended	120419-1	120419BLK1 04/19/12 13:25	120419LCS1 04/19/12	12041002MS 04/19/12 13:25
	Lab numbers associated with this batch: 12041016 12041017 12041018				

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102696

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120413-1	**For sample analyzed on: 04/13/2012**					**Spiked sample: 12040999**						
BOD	ND(5)	85.6	75.3-109	198	mg/L	MN	MN	#		mg/L	**	16.4
QC Batch: 120413-2	**For sample analyzed on: 04/13/2012**					**Spiked sample: 12041018**						
BOD	ND(5)	84.5 LB	75.3-109	198	mg/L	9 T	9 T	#		mg/L	0.0	16.4
QC Batch: 120413-5	**For samples prepared on: 04/13/2012 1234**					**Spiked sample: 12041017**						
Hardness (Calculated)	ND(5.0)	105	80.0-120	337	mg/L a	108	108	80.0-120	337	mg/L as	0.0	20.0
QC Batch: 120416-2	**For samples prepared on: 04/16/2012 0902**					**Spiked sample: 12041027**						
Cadmium, Dissolved, ICP-MS	ND(1)	96.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	93.0	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	99.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-1	**For samples prepared on: 04/17/2012 0717**					**Spiked sample: 12040878**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	91.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-2	**For samples prepared on: 04/17/2012 1756**					**Spiked sample: 12040969**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	111	85.0-115	4.0	mg/L	MN	MN	81.2-133	20.0	mg/L	**	6.7
QC Batch: 120417-5	**For samples prepared on: 04/17/2012 1131**					**Spiked sample: 12041000**						
Hardness (Calculated)	ND(5.0)	104	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120419-1	**For sample analyzed on: 04/19/2012**					**Spiked sample: 12041002**						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120419-1	**For sample analyzed on: 04/19/2012**					**Spiked sample: 12041127**						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120419-4	**For samples prepared on: 04/19/2012 1121**					**Spiked sample: 12041016**						
Cadmium, Dissolved, ICP-MS	ND(1)	98.8	85.0-115	500	µg/L	97.3	98.4	80.0-120	500	µg/L	1.1	20.0
Copper, Dissolved, ICP-MS	ND(5)	91.7	85.0-115	500	µg/L	91.0	92.0	80.0-120	500	µg/L	1.1	20.0
Zinc, Dissolved, ICP-MS	ND(20)	94.6	85.0-115	500	µg/L	92.1	95.1	80.0-120	500	µg/L	3.2	20.0
QC Batch: 120426-1	**For sample analyzed on: 04/26/2012**					**Spiked sample: 12041012**						
Phosphorus, Total, as P	ND(0.2)	98.3	88.8-110	2.0	mg/L	MN	MN	80.5-117	2.0	mg/L	**	5.7
QC Batch: 120501-1	**For sample analyzed on: 05/01/2012**					**Spiked sample: 12042101**						
Hexane Extractable Material	ND(1.4)	85.5	78.0-114	40.0	mg/L	MN	MN	78.0-114	40.0	mg/L	**	18.0
QC Batch: 1IC1117	**For sample analyzed on: 04/26/2012**					**Spiked sample: 12041939**						
Chloride	ND(1.0)	98.8	90.0-110	4.0	mg/L	MN	MN	75.1-131	40.0	mg/L	**	5.7
QC Batch: 2IC2103	**For sample analyzed on: 04/12/2012**					**Spiked sample: 12041027**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	4.0	mg/L	**	5.7
Nitrite, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	77.5-116	2.0	mg/L	**	10.2
Nitrate, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	81.7-121	2.0	mg/L	**	8.2

Data Qualifiers:
MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102696

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit

LB - The recovery was below the method limit but within the laboratory statistically derived limits based on historical data. The reported sample concentration may be biased low.

T - MS/MSD cannot be performed for this analysis. The MS result is the same as the sample result. The MSD result is a duplicate of the sample.

N/A - Not Applicable

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102696

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	04/18/2012	4IP3109	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/23/2012	6IP3114	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/18/2012	4IP3109	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/23/2012	6IP3114	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-1	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-2	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	05/01/2012	120501-1	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	05/01/2012	120501-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-3	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/26/2012	3IC1117	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/26/2012	4IC1117	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/13/2012	6IC2103	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/13/2012	7IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/13/2012	6IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/13/2012	7IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/13/2012	6IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/13/2012	7IC2103	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-2	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-3	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-4	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	12IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	13IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	6IP4108	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	7IP4108	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/18/2012	4IP3109	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/23/2012	6IP3114	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO 102646
CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information			Invoice Information		
Company Name: City of Wichita Sewage Treatment			Company Name: City of Wichita Sewage Treatment		
Address: 2305 E. 57th Street South			Address: 2305 E. 57th Street South		
City: Wichita	State: KS	Zip: 67216	City: Wichita	State: KS	Zip: 67216
Contact: Jim Hardesty	E-mail:		Contact: Jim Hardesty	E-mail:	
Phone Number: (316)303-8700	Fax Number: (316)303-8712		Phone Number: (316)303-8700	Fax Number: (316)303-8712	

Sampler's Name:(Printed) Justin Murphy
Sampler's Name:(Signature)
Purchase Order Number:
File Number: 5611
Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER:	Cadmium, Copper, Zinc - Total Recoverable 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Hexane Extractable Material 2 - 1040ml Amber Glass - H2SO4	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P	COMMENTS 5 Gal container to be poured off at lab as needed for required tests. Remaininig volume will be saved for organics if needed
Broadway-Grab	WW	N	4/12/12	1145	G	4			1	2	1		X	X	X						
Broadway-Composite	WW	N	4/12/12	1145	C	1					1					X					
Broadway-Upstream	WW	N	4/12/12	1145	G	4			1	1	2						X	X	X	X	

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT (15 working days) Rush TAT (5 working days) Emergency TAT (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY:	DATE: 4/12/12	TIME: 1500	RECEIVED BY	DATE	TIME
RELINQUISHED BY	DATE:	TIME:	RECEIVED BY	DATE	TIME:
RECEIVED AT LAB BY:	DATE: 4-12-12	TIME: 1620	SHIPPED VIA: AIRBILL	SEAL #: SEAL DATE:	

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 102696

Client Name: Wichita

CAS File No.: 8339

Sample ID's in cooler: See COC

Broadway

Cooler 1 **of** 1 **for this CAS Order No.**

Cooler Identification: CAS Cooler #:_____ (Client's Cooler) / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 4 / 12 / 12 16 : 20

Delivered By: UPS / FedX / AB Express / (Field Svcs) / Mail / Walk-In / Other:_____

Custody Seal: Present: Intact / Broken **Absent:** X **Seal No:** _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice (Ice) / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other:_____

Cooler Temperature (°C): Original Reading (°C) 1.1 Corrected Reading (°C) 1.6
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other:_____
mw 4-12-12 Thermo. ID No.: 58 Thermo. Correction Factor (°C): 0.5
☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: _____ **Date Completed:** 4-12-12

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K E Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00241
LOCATION CODE: COW@37N
DESCRIPTION: Cowskin Creek @ 37th North

Report Date: 09/07/2012
Date/Time Collected: 09/06/2012 09:56
Date/Time Received: 09/06/2012 11:45
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Lower plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	154	mg/L	5	EPA 300.0	09/06/2012 16:59	KCARTER
Sulfate	124	mg/L	5	EPA 300.0	09/06/2012 16:59	KCARTER
Total Hardness Manual	212	mg/L	1	SM 2340 C	09/06/2012 15:50	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K : Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00242
LOCATION CODE: COW@135W
DESCRIPTION: Cowskin Creek @ 135th West

Report Date: 09/07/2012
Date/Time Collected: 09/06/2012 09:45
Date/Time Received: 09/06/2012 11:45
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	118	mg/L	5	EPA 300.0	09/06/2012 17:18	KCARTER
Sulfate	196	mg/L	5	EPA 300.0	09/06/2012 17:18	KCARTER
Total Hardness Manual	288	mg/L	1	SM 2340 C	09/06/2012 15:50	PMILLS

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CITY OF WICHITA

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Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K E Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00243
LOCATION CODE: COW@PAWNEE
DESCRIPTION: Cowskin Creek @ Pawnee

Report Date: 09/07/2012
Date/Time Collected: 09/06/2012 10:30
Date/Time Received: 09/06/2012 11:45
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	70.7	mg/L	5	EPA 300.0	09/06/2012 17:36	KCARTER
Sulfate	63.7	mg/L	5	EPA 300.0	09/06/2012 17:36	KCARTER
Total Hardness Manual	140	mg/L	1	SM 2340 C	09/06/2012 15:50	PMILLS

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CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K E Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00244
LOCATION CODE: COW@K42
DESCRIPTION: Cowskin Creek @ K42

Report Date: 09/07/2012
Date/Time Collected: 09/06/2012 10:50
Date/Time Received: 09/06/2012 11:45
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	61.9	mg/L	5	EPA 300.0	09/06/2012 17:55	KCARTER
Sulfate	49.6	mg/L	5	EPA 300.0	09/06/2012 17:55	KCARTER
Total Hardness Manual	118	mg/L	1	SM 2340 C	09/06/2012 15:50	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

Chain of Custody Record and Analytical Request

In Lab: 6°C. ☑ Iced on Receipt / Presevation Checked / Temperature at Delivery

WICHITA MUNICIPAL WATER & SEWER DEPARTMENT LABORATORY E-60603
PRODUCTION & PUMPING DIVISION
1815 W. Pine St., Wichita KS 67203

RECEIVED FROM: ☑ PRETREATMENT SEWAGE TREATMENT DIVISION ☐ PRODUCTION & PUMPING DIVISION

Sampler(s): TABATHA KLING

Lab Log # CS00	Location Code	Date	Time	Sample Info: No. of Containers	Sample Info: Type: G=Grab, TC= Time Comp. FC=Flow Comp	Preservation: H3PO4	Preservation: H2SO4	Preservation: HNO3	Preservation: Ascorbic	Preservation: NaOH	Preservation: None	Anions: Nitrate-N	Anions: Cl/SO4	Water Chemistries: Alkalinity	Water Chemistries: Hardness	Water Chemistries: T-PO4-P	Water Chemistries: Spec. Conductivity	Water Chemistries: TSS	Water Chemistries: Turbidity	Other: Bacti	Other: NH3-N	Organic: Atrazine	Organic: CN	Organic: Phenol	Organic: TOC	Metals: Ag Cd Cr Cu Fe Ni Pb Zn	Metals: As Be Mo Sb Se Tl	Metals: Ca K Mn Mg Na	Metals: Hg	Field pH or Comments	M	Q	S	INS	INV	CMF	CEP	LOC
239	BIG ARK @ 63RD	9-6-12	7:50A	1	G		✓								✓															✓							
"	BIG ARK @ 63RD		7:50A	1	G						✓		✓																	✓							
240	BIG ARK @ 47TH		8:10A	1	G		✓								✓															✓							
"	BIG ARK @ 47TH		8:10A	1	G						✓		✓																	✓							
241	COW @ 37TH		9:56A	1	G		✓								✓															✓							
"	COW @ 37TH		9:56A	1	G						✓		✓																	✓							
242	COW @ 135TH		9:45A	1	G		✓								✓															✓							
"	COW @ 135TH		9:45A	1	G						✓		✓																	✓							
243	COW @ PAWNEE		10:30A	1	G		✓								✓															✓							
"	COW @ PAWNEE		10:30A	1	G						✓		✓																	✓							
244	COW @ K-42		10:50A	1	G		✓								✓															✓							
"	COW @ K-42		10:50A	1	G						✓		✓																	✓							

COPY

Comments:

CUSTODY RECORD:	Date	Time		Date	Time
Relinquished by: Tabatha Kling	9-6-12	11:45AM	Received by:	9/6/12	11:45AM
Print Name: TABATHA KLING			Print Name: PAUL MILLS		
Relinquished by:			Received by:		
Print Name:			Print Name:		

Form: I:\Excel\123\Forms\COC Revision 11 08/08/07

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
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Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K : Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00088
LOCATION CODE: COW@135W
DESCRIPTION: Cowskin Creek @ 135th West

Report Date: 04/24/2012
Date/Time Collected: 04/05/2012 09:15
Date/Time Received: 04/05/2012 10:50
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	79.2	mg/L	5	EPA 300.0	04/06/2012 09:09	KCARTER
Sulfate	105	mg/L	5	EPA 300.0	04/06/2012 09:09	KCARTER
Total Hardness Manual	145	mg/L	1	SM 2340 C	04/18/2012 16:00	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K[illegible] Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00089
LOCATION CODE: COW@37N
DESCRIPTION: Cowskin Creek @ 37th North

Report Date: 04/24/2012
Date/Time Collected: 04/05/2012 09:25
Date/Time Received: 04/05/2012 10:50
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Lower plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	39.7	mg/L	5	EPA 300.0	04/06/2012 09:28	KCARTER
Sulfate	43.1	mg/L	5	EPA 300.0	04/06/2012 09:28	KCARTER
Total Hardness Manual	265	mg/L	1	SM 2340 C	04/18/2012 16:00	PMILLS

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CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K : Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00090
LOCATION CODE: COW@PAWNEE
DESCRIPTION: Cowskin Creek @ Pawnee

Report Date: 04/24/2012
Date/Time Collected: 04/05/2012 10:10
Date/Time Received: 04/05/2012 10:50
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	40.5	mg/L	5	EPA 300.0	04/06/2012 09:47	KCARTER
Sulfate	40.8	mg/L	5	EPA 300.0	04/06/2012 09:47	KCARTER
Total Hardness Manual	113	mg/L	1	SM 2340 C	04/18/2012 16:00	PMILLS

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CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K[illegible] Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00091
LOCATION CODE: COW@K42
DESCRIPTION: Cowskin Creek @ K42

Report Date: 04/24/2012
Date/Time Collected: 04/05/2012 10:20
Date/Time Received: 04/05/2012 10:50
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	37.2	mg/L	5	EPA 300.0	04/06/2012 10:05	KCARTER
Sulfate	36.3	mg/L	5	EPA 300.0	04/06/2012 10:05	KCARTER
Total Hardness Manual	117	mg/L	1	SM 2340 C	04/18/2012 16:00	PMILLS

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CITY OF WICHITA

Chain of Custody Record and Analytical Request

In Lab: 6°C. ☑ Iced on Receipt ☑ Preservation Checked ☑ Temperature at Delivery

WICHITA MUNICIPAL WATER & SEWER DEPARTMENT LABORATORY E-60603
PRODUCTION & PUMPING DIVISION
1815 W. Pine St., Wichita KS 67203

RECEIVED FROM: ☑ PRETREATMENT SEWAGE TREATMENT DIVISION ☐ PRODUCTION & PUMPING DIVISION

Sampler(s): TABATHA KLING

Lab Log #	Location Code	Date	Time	Sample Info: No. of Containers	Sample Info: Type: G=Grab, TC= Time Comp, FC=Flow Comp	Preservation: H3PO4	Preservation: H2SO4	Preservation: HNO3	Preservation: Ascorbic	Preservation: NaOH	Preservation: None	Anions: Nitrate-N	Anions: Cl /SO4	Water Chemistries: Alkalinity	Water Chemistries: Hardness	Water Chemistries: T-PO4-P	Water Chemistries: Spec. Conductivity	Water Chemistries: TSS	Water Chemistries: Turbidity	Other: Bacti	Other: NH3-N	Organic: Atrazine	Organic: CN	Organic: Phenol	Organic: TOC	Metals: Ag Cd Cr Cu Fe Ni Pb Zn	Metals: As Be Mo Sb Se Tl	Metals: Ca K Mn Mg Na	Metals: Hg	Field pH or Comments: M	Q	S	INS	INV	CMF	CEP	LOC
C500																																				
087	BIG ARK @ 47TH	4-5-12	7:45A	1	G						✓		✓																							
"	BIG ARK @ 47TH	4-5-12	7:45AM	1	G		✓								✓																✓					
088	COW @ 135TH	4-5-12	9:15AM	1	G						✓		✓																		✓					
"	COW @ 135TH	4-5-12	9:15AM	1	G		✓								✓																✓					
089	COW @ 37TH	4-5-12	9:25AM	1	G						✓		✓																		✓					
"	COW @ 37TH	4-5-12	9:25AM	1	G		✓								✓																✓					
090	COW @ PAWNEE	4-5-12	10:10AM	1	G						✓		✓																		✓					
"	COW @ PAWNEE	4-5-12	10:10AM	1	G		✓								✓																✓					
091	COW @ K-42	4-5-12	10:30AM	1	G						✓		✓																		✓					
"	COW @ K-42	4-5-12	10:30AM	1	G		✓								✓																✓					

Comments:

CUSTODY RECORD:	Date	Time		Date	Time
Relinquished by: Tabatha K Cling	4-5-12	10:50AM	Received by: A. Kent Coulter	4/5/12	1050
Print Name: TABATHA KLING			Print Name: NKC		
Relinquished by:			Received by:		
Print Name:			Print Name:		

Form: I:\Excel\123\Forms\COC Revision 11 08/08/07

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K[illegible] Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00109
LOCATION CODE: COW@135W
DESCRIPTION: Cowskin Creek @ 135th West

Report Date: 05/22/2012
Date/Time Collected: 05/02/2012 10:57
Date/Time Received: 05/04/2012 11:57
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	190	mg/L	5	EPA 300.0	05/04/2012 14:55	KCARTER
Sulfate	249	mg/L	5	EPA 300.0	05/04/2012 14:55	KCARTER
Total Hardness Manual	320	mg/L	1	SM 2340 C	05/21/2012 12:05	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00110
LOCATION CODE: COW@37N
DESCRIPTION: Cowskin Creek @ 37th North

Report Date: 05/22/2012
Date/Time Collected: 05/02/2012 10:50
Date/Time Received: 05/04/2012 11:57
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Lower plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	200	mg/L	5	EPA 300.0	05/04/2012 15:14	KCARTER
Sulfate	229	mg/L	5	EPA 300.0	05/04/2012 15:14	KCARTER
Total Hardness Manual	295	mg/L	1	SM 2340 C	05/21/2012 12:05	PMILLS

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CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00111
LOCATION CODE: COW@PAWNEE
DESCRIPTION: Cowskin Creek @ Pawnee

Report Date: 05/22/2012
Date/Time Collected: 05/02/2012 10:15
Date/Time Received: 05/04/2012 11:57
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	55.3	mg/L	5	EPA 300.0	05/04/2012 15:32	KCARTER
Sulfate	66.8	mg/L	5	EPA 300.0	05/04/2012 15:32	KCARTER
Total Hardness Manual	147	mg/L	1	SM 2340 C	05/21/2012 12:05	PMILLS

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CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K' Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00112
LOCATION CODE: COW@K42
DESCRIPTION: Cowskin Creek @ K42

Report Date: 05/22/2012
Date/Time Collected: 05/02/2012 10:00
Date/Time Received: 05/04/2012 11:57
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	57.0	mg/L	5	EPA 300.0	05/04/2012 15:51	KCARTER
Sulfate	56.0	mg/L	5	EPA 300.0	05/04/2012 15:51	KCARTER
Total Hardness Manual	170	mg/L	1	SM 2340 C	05/21/2012 12:05	PMILLS

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CITY OF WICHITA

Chain of Custody Record and Analytical Request

In Lab: Iced on Receipt / Presevation Checked / Temperature at Delivery

WICHITA MUNICIPAL WATER & SEWER DEPARTMENT LABORATORY E-60603
PRODUCTION & PUMPING DIVISION
1815 W. Pine St., Wichita KS 67203

RECEIVED FROM: ☑ PRETREATMENT SEWAGE TREATMENT DIVISION ☐ PRODUCTION & PUMPING DIVISION

Sampler(s): TABATHA KLING

Lab Log # CS00	Location Code	Date	Time	Sample Info: No. of Containers	Type: G=Grab, TC= Time Comp, FC=Flow Comp	Preservation: H3PO4	H2SO4	HNO3	Ascorbic	NaOH	None	Anions: Nitrate-N	Cl /SO4	Water Chemistries: Alkalinity	Hardness	T-PO4-P	Spec. Conductivity	TSS	Turbidity	Other: Bacti	NH3-N	Organic: Atrazine	CN	Phenol	TOC	Metals: Ag Cd Cr Cu Fe Ni Pb Zn	As Be Mo Sb Se Tl	Ca K Mn Mg Na	Hg	Field pH or Comments: N	Q	S	INS	INV	CMF	CEP	LOC
108	BIG ARK @ 47TH	5-2-12	7:50A	1	G		✓								✓															✓							
"	BIG ARK @ 47TH	5-2-12	7:50A	1	G						✓		✓																	✓							
109	COW @ 135TH	5-2-12	10:57A	1	G		✓								✓															✓							
"	COW @ 135TH	5-2-12	10:57A	1	G						✓		✓																	✓							
110	COW @ 37TH	5-2-12	10:50A	1	G		✓								✓															✓							
"	COW @ 37TH	5-2-12	10:50A	1	G						✓		✓																	✓							
111	COW @ PAWNEE	5-2-12	10:15A	1	G		✓								✓															✓							
"	COW @ PAWNEE	5-2-12	10:15A	1	G						✓		✓																	✓							
112	COW @ K-42	5-2-12	10:00A	1	G		✓								✓															✓							
"	COW @ K-42	5-2-12	10:00A	1	G						✓		✓																	✓							

Comments:

CUSTODY RECORD:	Date	Time		Date	Time
Relinquished by: Tabatha Kling	5-4-12	11:57AM	Received by:	05/04/12	11:57AM
Print Name: TABATHA KLING			Print Name: PAUL MILLS		
Relinquished by:			Received by:		
Print Name:			Print Name:		

Form: I:\Excel\123\Forms\COC Revision 11 08/08/07

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00160
LOCATION CODE: COW@K42
DESCRIPTION: Cowskin Creek @ K42

Report Date: 06/27/2012
Date/Time Collected: 06/07/2012 09:50
Date/Time Received: 06/07/2012 13:55
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency:**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	39.9	mg/L	5	EPA 300.0	06/07/2012 14:14	KCARTER
Sulfate	32.7	mg/L	5	EPA 300.0	06/07/2012 14:14	KCARTER
Total Hardness Manual	102	mg/L	1	SM 2340 C	06/27/2012 13:00	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00161
LOCATION CODE: COW@PAWNEE
DESCRIPTION: Cowskin Creek @ Pawnee

Report Date: 06/27/2012
Date/Time Collected: 06/07/2012 12:40
Date/Time Received: 06/07/2012 13:55
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency:**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	25.7	mg/L	5	EPA 300.0	06/07/2012 14:32	KCARTER
Sulfate	26.5	mg/L	5	EPA 300.0	06/07/2012 14:32	KCARTER
Total Hardness Manual	198	mg/L	1	SM 2340 C	06/27/2012 13:00	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result
KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00162
LOCATION CODE: COW@37N
DESCRIPTION: Cowskin Creek @ 37th North

Report Date: 06/27/2012
Date/Time Collected: 06/07/2012 09:00
Date/Time Received: 06/07/2012 13:55
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency:**

Comments: Lower plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	68.2	mg/L	5	EPA 300.0	06/07/2012 14:51	KCARTER
Sulfate	61.8	mg/L	5	EPA 300.0	06/07/2012 14:51	KCARTER
Total Hardness Manual	139	mg/L	1	SM 2340 C	06/27/2012 13:00	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00163
LOCATION CODE: COW@135W
DESCRIPTION: Cowskin Creek @ 135th West

Report Date: 06/27/2012
Date/Time Collected: 06/07/2012 08:50
Date/Time Received: 06/07/2012 13:55
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency:**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	47.5	mg/L	5	EPA 300.0	06/07/2012 15:10	KCARTER
Sulfate	64.2	mg/L	5	EPA 300.0	06/07/2012 15:10	KCARTER
Total Hardness Manual	144	mg/L	1	SM 2340 C	06/27/2012 13:00	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

Chain of Custody Record and Analytical Request

In Lab: ☑ Iced on Receipt ☐ Presevation Checked ☐ Temperature at Delivery

4°C

WICHITA MUNICIPAL WATER & SEWER DEPARTMENT LABORATORY E-60603
PRODUCTION & PUMPING DIVISION
1815 W. Pine St., Wichita KS 67203

RECEIVED FROM: ☑ PRETREATMENT SEWAGE TREATMENT DIVISION ☐ PRODUCTION & PUMPING DIVISION

Sampler(s): TABATHA KLING

Lab Log #	Location Code	Date	Time	Sample Info: No. of Containers	Type: G=Grab, TC= Time Comp. FC=Flow Comp	Preservation: H3PO4	H2SO4	HNO3	Ascorbic	NaOH	None	Anions: Nitrate-N	Cl/SO4	Water Chemistries: Alkalinity	Hardness	T-PO4-P	Spec. Conductivity	TSS	Turbidity	Other: Bacti	NH3-N	Organic: Atrazine	CN	Phenol	TOC	Metals: Ag Cd Cr Cu Fe Ni Pb Zn	As Be Mo Sb Se Tl	Ca K Mn Mg Na	Hg	Field pH or Comments: M	Q	S	INS	INV	CMF	CEP	LOC
1600	COW @ K-42	6-7-12		1	G		✓								✓																					
"	COW @ K-42		9:50AM	1	G						✓		✓																	✓							
1601	COW @ PAWNEE			1	G		✓								✓																					
"	COW @ PAWNEE		12:40PM	1	G						✓		✓																	✓							
1602	COW @ 37TH			1	G		✓								✓																					
"	COW @ 37TH		9:10AM	1	G						✓		✓																	/							
1603	COW @ 135TH			1	G		✓								✓																					
"	COW @ 135TH		8:50AM	1	G						✓		✓																	✓							
1604	BIG ARK @ 47TH			1	G		✓								✓																					
"	BIG ARK @ 47TH		7:30AM	1	G						✓		✓																	✓							
1605	BIG ARK @ 63RD			1	G		✓								✓																					
"	BIG ARK @ 63RD	↓	11:00AM	1	G						✓		✓																	✓							

Comments:

CUSTODY RECORD:	Date	Time		Date	Time
Relinquished by: Tabatha Kling	6-7-12	1:55 PM	Received by:		
Print Name: TABATHA KLING			Print Name:		
Relinquished by:			Received by:		
Print Name:			Print Name:		

Form: I:\Excel\123\Forms\COC Revision 11 08/08/07

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K E Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00193
LOCATION CODE: COW@37N
DESCRIPTION: Cowskin Creek @ 37th North

Report Date: 08/16/2012
Date/Time Collected: 07/12/2012 09:40
Date/Time Received: 07/12/2012 11:14
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency:**

Comments: Lower plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	242	mg/L	5	EPA 300.0	07/12/2012 18:09	KCARTER
Sulfate	302	mg/L	5	EPA 300.0	07/12/2012 18:09	KCARTER
Total Hardness Manual	350	mg/L	1	SM 2340 C	08/16/2012 15:20	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result
K[illegible]E Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00194
LOCATION CODE: COW@135W
DESCRIPTION: Cowskin Creek @ 135th West

Report Date: 08/16/2012
Date/Time Collected: 07/12/2012 09:30
Date/Time Received: 07/12/2012 11:14
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency:**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	242	mg/L	5	EPA 300.0	07/12/2012 18:27	KCARTER
Sulfate	427	mg/L	5	EPA 300.0	07/12/2012 18:27	KCARTER
Total Hardness Manual	463	mg/L	1	SM 2340 C	08/16/2012 15:20	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00195
LOCATION CODE: COW@PAWNEE
DESCRIPTION: Cowskin Creek @ Pawnee

Report Date: 08/16/2012
Date/Time Collected: 07/12/2012 10:15
Date/Time Received: 07/12/2012 11:14
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency:**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	78.2	mg/L	5	EPA 300.0	07/12/2012 18:46	KCARTER
Sulfate	75.7	mg/L	5	EPA 300.0	07/12/2012 18:46	KCARTER
Total Hardness Manual	157	mg/L	1	SM 2340 C	08/16/2012 15:20	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K[illegible]E Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00196
LOCATION CODE: COW@K42
DESCRIPTION: Cowskin Creek @ K42

Report Date: 08/16/2012
Date/Time Collected: 07/12/2012 10:35
Date/Time Received: 07/12/2012 11:14
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency:**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	108	mg/L	5	EPA 300.0	07/12/2012 19:04	KCARTER
Sulfate	61.5	mg/L	5	EPA 300.0	07/12/2012 19:04	KCARTER
Total Hardness Manual	140	mg/L	1	SM 2340 C	08/16/2012 15:20	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

Chain of Custody Record and Analytical Request

In Lab:
- ☐ Iced on Receipt
- ☐ Presevation Checked
- ☐ Temperature at Delivery

WICHITA MUNICIPAL WATER & SEWER DEPARTMENT LABORATORY E-60603
PRODUCTION & PUMPING DIVISION
1815 W. Pine St., Wichita KS 67203

RECEIVED FROM:
- ☑ PRETREATMENT
- ☐ SEWAGE TREATMENT DIVISION
- ☐ PRODUCTION & PUMPING DIVISION

Sampler(s): TABATHA KLING

Lab Log #	Location Code	Date	Time	Sample Info: No. of Containers	Sample Info: Type: G=Grab, TC= Time Comp, FC=Flow Comp	Preservation: H3PO4	Preservation: H2SO4	Preservation: HNO3	Preservation: Ascorbic	Preservation: NaOH	Preservation: None	Anions: Nitrate-N	Anions: Cl/SO4	Water Chemistries: Alkalinity	Water Chemistries: Hardness	Water Chemistries: T-PO4-P	Water Chemistries: Spec. Conductivity	Water Chemistries: TSS	Water Chemistries: Turbidity	Other: Bacti	Other: NH3-N	Organic: Atrazine	Organic: CN	Organic: Phenol	Organic: TOC	Metals: Ag Cd Cr Cu Fe Ni Pb Zn	Metals: As Be Mo Sb Se Tl	Metals: Ca K Mn Mg Na	Metals: Hg	Field pH or Comments: M	Q	S	INS	INV	CMF	CEP	LOC
C500																																				
191	BIG ARK @ 63RD	7-12-12	7:35A	1	G						✓		✓																	✓						
"	BIG ARK @ 63RD	7-12-12	7:35A	1	G		✓								✓															✓						
192	BIG ARK @ 47TH	7-12-12	7:50A	1	G						✓		✓																	✓						
"	BIG ARK @ 47TH	7-12-12	7:50A	1	G		✓								✓															✓						
193	COW @ 37TH	7-12-12	7:40A	1	G						✓		✓																	✓						
"	COW @ 37TH	7-12-12	7:40A	1	G		✓								✓															✓						
194	COW @ 135TH	7-12-12	7:30A	1	G						✓		✓																	✓						
"	COW @ 135TH	7-12-12	7:30A	1	G		✓								✓															✓						
195	COW @ PAWNEE	7-12-12	10:15A	1	G						✓		✓																	✓						
"	COW @ PAWNEE	7-12-12	10:15A	1	G		✓								✓															✓						
196	COW @ K-42	7-12-12	10:35A	1	G						✓		✓																	✓						
"	COW @ K-42	7-12-12	10:35A	1	G		✓								✓															✓						

Comments:

CUSTODY RECORD:	Date	Time		Date	Time
Relinquished by: Tabatha Kling	7-12-12	11:14AM	Received by: N Kent Carter	7-12-12	1114
Print Name: TABATHA KLING			Print Name: NKC		
Relinquished by:			Received by:		
Print Name:			Print Name:		

Form: I:\Excel\123\Forms\COC Revision 11 08/08/07

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00206
LOCATION CODE: COW@135W
DESCRIPTION: Cowskin Creek @ 135th West

Report Date: 08/28/2012
Date/Time Collected: 08/02/2012 10:25
Date/Time Received: 08/02/2012 12:44
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	195	mg/L	5	EPA 300.0	08/07/2012 04:30	KCARTER
Sulfate	350	mg/L	5	EPA 300.0	08/07/2012 04:30	KCARTER
Total Hardness Manual	362	mg/L	1	SM 2340 C	08/24/2012 13:25	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

K[illegible]E Cerification No: E-60603
N[illegible]AP Accredited Laboratory

LAB LOG NO: CS00207
LOCATION CODE: COW@37N
DESCRIPTION: Cowskin Creek @ 37th North

Report Date: 08/28/2012
Date/Time Collected: 08/02/2012 10:35
Date/Time Received: 08/02/2012 12:44
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Lower plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	212	mg/L	5	EPA 300.0	08/07/2012 04:49	KCARTER
Sulfate	129	mg/L	5	EPA 300.0	08/07/2012 04:49	KCARTER
Total Hardness Manual	205	mg/L	1	SM 2340 C	08/24/2012 13:25	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result

KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00208
LOCATION CODE: COW@PAWNEE
DESCRIPTION: Cowskin Creek @ Pawnee

Report Date: 08/28/2012
Date/Time Collected: 08/02/2012 11:10
Date/Time Received: 08/02/2012 12:44
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	134	mg/L	5	EPA 300.0	08/07/2012 05:08	KCARTER
Sulfate	115	mg/L	5	EPA 300.0	08/07/2012 05:08	KCARTER
Total Hardness Manual	294	mg/L	1	SM 2340 C	08/24/2012 13:25	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

FROM: Wichita Municipal Water and Wastewater Lab
Water Treatment Plant
1815 W. Pine St.
Wichita, KS 67203-3230
316-269-4766

TO: Jade Dundas, Superintendent
City of Wichita
Sewage Treatment Division
2305 E. 57th S.
Wichita, KS 67216

Analytical Result
KDHE Cerification No: E-60603
NELAP Accredited Laboratory

LAB LOG NO: CS00209
LOCATION CODE: COW@K42
DESCRIPTION: Cowskin Creek @ K42

Report Date: 08/28/2012
Date/Time Collected: 08/02/2012 11:25
Date/Time Received: 08/02/2012 12:44
Sample Collector KLING, TABATHA

Site code: FAC **Sample Type:** **Sample Frequency: MTH**

Comments: Upstream plant sample point for Cowskin Creek

Parameter	Analytical Result	Units	MDL	Analytical Method	Analysis Date and Time	Analyst
Chloride	92.5	mg/L	5	EPA 300.0	08/07/2012 05:26	KCARTER
Sulfate	54.9	mg/L	5	EPA 300.0	08/07/2012 05:26	KCARTER
Total Hardness Manual	106	mg/L	1	SM 2340 C	08/24/2012 13:25	PMILLS

This report is respectfully submitted by Terryl A. Pajor, Laboratory Director, Wichita Municipal Water and Wastewater Laboratory. If you have any question, please call me at 316-269- 4766. The results relate only to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of the laboratory.

CITY OF WICHITA

Chain of Custody Record and Analytical Request

In Lab:
- ☑ Iced on Receipt
- ☐ Presevation Checked
- 12-20° Temperature at Delivery

WICHITA MUNICIPAL WATER & SEWER DEPARTMENT LABORATORY E-60603
PRODUCTION & PUMPING DIVISION
1815 W. Pine St., Wichita KS 67203

RECEIVED FROM:
- ☑ PRETREATMENT SEWAGE TREATMENT DIVISION
- ☐ PRODUCTION & PUMPING DIVISION

Sampler(s): TABATHA KLING

COPY

Lab Log # C500	Location Code	Date	Time	Sample Info: No. of Containers	Sample Info: Type: G=Grab, TC= Time Comp. FC=Flow Comp	Preservation: H3PO4	Preservation: H2SO4	Preservation: HNO3	Preservation: Ascorbic	Preservation: NaOH	Preservation: None	Anions: Nitrate-N	Anions: Cl /SO4	Water Chemistries: Alkalinity	Water Chemistries: Hardness	Water Chemistries: T-PO4-P	Water Chemistries: Spec. Conductivity	Water Chemistries: TSS	Water Chemistries: Turbidity	Other: Bacti	Other: NH3-N	Organic: Atrazine	Organic: CN	Organic: Phenol	Organic: TOC	Metals: Ag Cd Cr Cu Fe Ni Pb Zn	Metals: As Be Mo Sb Se Tl	Metals: Ca K Mn Mg Na	Metals: Hg	Field pH or Comments	M	O	S	INS	INV	CMF	CEP	LOC
204	BIG ARK @ 63RD	8-2-11	9:05A	1			✓								✓															✓							
"	BIG ARK @ 63RD		9:05A	1							✓		✓																	✓							
205	BIG ARK @ 47TH		9:20A	1			✓								✓															✓							
"	BIG ARK @ 47TH		9:20A	1							✓		✓																	✓							
206	COW @ 135TH		10:25A	1			✓								✓															✓							
"	COW @ 135TH		10:25A	1							✓		✓																	✓							
207	COW @ 37TH		10:35A	1			✓								✓															✓							
"	COW @ 37TH		10:35A	1							✓		✓																	✓							
208	COW @ PAWNEE		11:10A	1			✓								✓															✓							
"	COW @ PAWNEE		11:10A	1							✓		✓																	✓							
209	COW @ K-42		11:25A	1			✓								✓															✓							
"	COW @ K-42		11:25A	1							✓		✓																	✓							

Comments:

CUSTODY RECORD:	Date	Time		Date	Time
Relinquished by: Tabatha Kling	8-2-12	1244	Received by: Vernon A. Strasser	8/2/12	1244
Print Name: TABATHA KLING			Print Name: Vernon A. Strasser		
Relinquished by:			Received by:		
Print Name:			Print Name:		

Form: I:\Excel\123\Forms\COC Revision 11 08/08/07

Continental Analytical Services, Inc.

05/02/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 04/12/2012 1620
Continental File No.: 8339
Continental Order No.: 102692
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 9 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12041006	Dry Creek-Grab	Liquid	4/12/2012
12041007	Dry Creek-Composite	Liquid	4/12/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102692

Lab Number: 12041006
Sample Description: Dry Creek-Grab

Date Sampled: 04/12/2012
Time Sampled: 1245

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/125
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/125
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/123
Hardness (Calculated)	221	mg/L as CaCO3	7157/251
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/125
Zinc, Tot. Rec., ICP-MS	35	µg/L	7202/123
Chloride	47	mg/L	7277/48
Solids, Total Dissolved	316	mg/L	7059/856
Solids, Total Suspended	80.	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2149	120419-4	6IP3114	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0050	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2149	120419-4	6IP3114	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0050	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/17/12 1131	04/17/12 2021	120417-5	6IP4108	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2149	120419-4	6IP3114	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0050	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Chloride	N/A	05/01/12 1141	1IC2122	1IC2122	MLL	300.0
Solids, Total Dissolved	N/A	04/18/12 1501	120418-1	120418-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1326	120419-1	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041006

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102692

Lab Number: 12041007
Sample Description: Dry Creek-Composite

Date Sampled: 04/12/2012
Time Sampled: 1245

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/122
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/122
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/123
Hardness (Calculated)	219	mg/L as CaCO3	7157/248
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/122
Zinc, Tot. Rec., ICP-MS	31	µg/L	7202/123
BOD	ND(5)	mg/L	7060/412
Chloride	47.7	mg/L	7277/35
Kjeldahl Nitrogen, as N (TKN)	1.4	mg/L	6854/505
Nitrate, as N	0.3	mg/L	7277/35
Nitrite, as N	ND(0.1)	mg/L	7277/35
Nitrogen (TKN + NO3/NO2), as N	1.7	mg/L	9998/57
Phosphorus, Total, as P	0.21	mg/L	7061/315
Solids, Total Dissolved	320.	mg/L	7059/856
Solids, Total Suspended	60.	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2316	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0055	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2316	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0055	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/13/12 1234	04/14/12 0139	120413-5	11IP4104	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2316	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0055	120417-2	7IP3109	KMW	200.8 Rev. 5.4
BOD	N/A	04/13/12 1455	120413-1	120413-1	MLL	SM 5210B
Chloride	N/A	04/13/12 0336	2IC2103	5IC2103	MLL	300.0
Kjeldahl Nitrogen, as N (T	04/17/12 1756	04/24/12 1055	120417-2	120424-2	JND	EPA 351.2
Nitrate, as N	N/A	04/13/12 0336	2IC2103	5IC2103	MLL	300.0
Nitrite, as N	N/A	04/13/12 0336	2IC2103	5IC2103	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	04/27/12 0831				Calculation
Phosphorus, Total, as P	N/A	04/26/12 1404	120426-1	120426-1	KJH	SM 4500-P(B&F)(M
Solids, Total Dissolved	N/A	04/18/12 1502	120418-1	120418-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1327	120419-1	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041007

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102692

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12041007	BOD	04/12/2012 1245	04/13/2012 1455	26:10
12041007	Nitrate, as N	04/12/2012 1245	04/13/2012 0336	14:51
12041007	Nitrite, as N	04/12/2012 1245	04/13/2012 0336	14:51

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Continental Analytical Services, Inc.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102692

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102692

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120413-5	120413BLK5 04/14/12 01:03	120413LCS5 04/14/12 01:16	12041017MS 04/14/12 02:16
Lab numbers associated with this batch: 12041007					
SL156	Cadmium, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL162	Copper, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL183	Zinc, Dissolved, ICP-MS	120416-2	120416BLK2 04/16/12 22:18	120416LCS2 04/16/12 22:23	12041027MS 04/17/12 00:35
Lab numbers associated with this batch: 12041007					
SL006	Cadmium, Tot. Rec., ICP-MS	120417-2	120417BLK2	120417LCS2	12040880MS
SL012	Copper, Tot. Rec., ICP-MS	120417-2	120417BLK2	120417LCS2	12040880MS
SL033	Zinc, Tot. Rec., ICP-MS	120417-2	120417BLK2 04/18/12 23:15	120417LCS2 04/18/12 23:20	12040880MS 04/18/12 23:41
Lab numbers associated with this batch: 12041006 12041007					
SL323	Hardness (Calculated)	120417-5	120417BLK5 04/17/12 19:41	120417LCS5 04/17/12 19:45	12041000MS 04/17/12 20:05
Lab numbers associated with this batch: 12041006					
SL156	Cadmium, Dissolved, ICP-MS	120419-4	120419BLK4	120419LCS4	12041016MS
SL162	Copper, Dissolved, ICP-MS	120419-4	120419BLK4	120419LCS4	12041016MS
SL183	Zinc, Dissolved, ICP-MS	120419-4	120419BLK4 04/23/12 21:17	120419LCS4 04/23/12 21:23	12041016MS 04/23/12 22:21
Lab numbers associated with this batch: 12041006					
GL123	BOD	120413-1	120413BLK1 04/13/12 14:55	120413LCS1 04/13/12 14:55	12040999MS 04/13/12 14:55
Lab numbers associated with this batch: 12041007					
GL502	Chloride	1IC2122	BLK1IC2122 05/01/12 10:27	LCS1IC2122 05/01/12 10:46	12041142MS 05/01/12 15:04
Lab numbers associated with this batch: 12041006					
GL502	Chloride	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
Lab numbers associated with this batch: 12041007					
GL595	Kjeldahl Nitrogen, as N (TKN)	120417-2	120417BLK2 04/24/12 10:26	120417LCS2 04/24/12 10:29	12040969MS 04/24/12 10:35
Lab numbers associated with this batch: 12041007					

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102692

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL505	Nitrate, as N	2IC2103	BLK2IC2103	LCS2IC2103	12041027MS
GL503	Nitrite, as N	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
Lab numbers associated with this batch: 12041007					
GL343	Nitrogen (TKN + NO3/NO2), as N				
Lab numbers associated with this batch: 12041007					
GL218	Phosphorus, Total, as P	120426-1	120426BLK1 04/26/12 1359	120426LCS1 04/26/12 1400	12041012MS 04/26/12 1409
Lab numbers associated with this batch: 12041007					
GL242	Solids, Total Dissolved	120418-1	120418BLK1 04/18/12 15:00	120418LCS1 04/18/12	12041006MS 04/18/12 15:01
Lab numbers associated with this batch: 12041006 12041007					
GL243	Solids, Total Suspended	120419-1	120419BLK1 04/19/12 13:25	120419LCS1 04/19/12	12041002MS 04/19/12 13:25
Lab numbers associated with this batch: 12041006 12041007					

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102692

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120413-1	For sample analyzed on: 04/13/2012					Spiked sample: 12040999						
BOD	ND(5)	85.6	75.3-109	198	mg/L	MN	MN	#		mg/L	**	16.4
QC Batch: 120413-5	For samples prepared on: 04/13/2012 1234					Spiked sample: 12041017						
Hardness (Calculated)	ND(5.0)	105	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120416-2	For samples prepared on: 04/16/2012 0902					Spiked sample: 12041027						
Cadmium, Dissolved, ICP-MS	ND(1)	96.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	93.0	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	99.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-2	For samples prepared on: 04/17/2012 0756					Spiked sample: 12040880						
Cadmium, Tot. Rec., ICP-MS	ND(1)	100.	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	92.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-2	For samples prepared on: 04/17/2012 1756					Spiked sample: 12040969						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	111	85.0-115	4.0	mg/L	MN	MN	81.2-133	20.0	mg/L	**	6.7
QC Batch: 120417-5	For samples prepared on: 04/17/2012 1131					Spiked sample: 12041000						
Hardness (Calculated)	ND(5.0)	104	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120418-1	For sample analyzed on: 04/18/2012					Spiked sample: 12041006						
Solids, Total Dissolved	ND(30)	N/A			mg/L	316 T	318 T	#		mg/L	0.6	5.9
QC Batch: 120419-1	For sample analyzed on: 04/19/2012					Spiked sample: 12041002						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120419-4	For samples prepared on: 04/19/2012 1121					Spiked sample: 12041016						
Cadmium, Dissolved, ICP-MS	ND(1)	98.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	91.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	94.6	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120426-1	For sample analyzed on: 04/26/2012					Spiked sample: 12041012						
Phosphorus, Total, as P	ND(0.2)	98.3	88.8-110	2.0	mg/L	MN	MN	80.5-117	2.0	mg/L	**	5.7
QC Batch: 11C2122	For sample analyzed on: 05/01/2012					Spiked sample: 12041142						
Chloride	ND(1.0)	98.2	90.0-110	4.0	mg/L	MN	MN	75.1-131	400	mg/L	**	5.7
QC Batch: 21C2103	For sample analyzed on: 04/12/2012					Spiked sample: 12041027						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	4.0	mg/L	**	5.7
Nitrite, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	77.5-116	2.0	mg/L	**	10.2
Nitrate, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	81.7-121	2.0	mg/L	**	8.2

Data Qualifiers:
MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

N/A - Not Applicable

T - MS/MSD cannot be performed for this analysis. The MS result is the same as the sample result. The MSD result is a duplicate of the sample.

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102692

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/23/2012	6IP3114	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/23/2012	6IP3114	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-1	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-1	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-2	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/13/2012	6IC2103	CCV recovery acceptable for this Instrument Batch.			
Chloride	05/01/2012	1IC2122	CCV recovery acceptable for this Instrument Batch.			
Chloride	05/01/2012	2IC2122	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/13/2012	6IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/13/2012	6IC2103	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-2	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-3	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	11IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	12IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	6IP4108	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	7IP4108	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/23/2012	6IP3114	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO. 152692

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information			Invoice Information		
Company Name: City of Wichita Sewage Treatment			Company Name: City of Wichita Sewage Treatment		
Address: 2305 E. 57th Street South			Address: 2305 E. 57th Street South		
City: Wichita	State: KS	Zip: 67216	City: Wichita	State: KS	Zip: 67216
Contact: Jim Hardesty	E-mail:		Contact: Jim Hardesty	E-mail	
Phone Number (316)303-8700	Fax Number (316)303-8712		Phone Number: (316)303-8700	Fax Number: (316)303-8712	

Sampler's Name:(Printed) Justin Murphy
Sampler's Name:(Signature)
Purchase Order Number:
File Number: 5611
Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER	Cadmium, Copper, Zinc - Total Recoverable 250ml Plastic - HNO3	Hardness, TSS TDS, Cl, Diss. - Cd, Cu, Zn 1000ml Plastic - None	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD, TKN, Total P, NO3 Large Carboy						COMMENTS
Dry Creek-Grab	WW	N	4/12/12	1245	G	2			1		1		X	X							
Dry Creek-Composite	WW	N	4/12/12	1245	C	1					1				X						5 Gal. Container to be poured off at lab
																					as needed for required tests
																					Remaining volume will be saved for
																					for organics if needed.

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT (15 working days) Rush TAT (5 working days) Emergency TAT (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	4/12/12	1500			
RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
RECEIVED AT LAB BY	DATE	TIME	SHIPPED VIA: AIRBILL	SEAL #: SEAL DATE:	
	4-12-12	1621			

H:\mchs...chita Stormwater COCs.xlsx\4/12/2012

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 1D2692

Client Name: Wichita **CAS File No.:** 8339

Sample ID's in cooler: See COC
Dry Creek

Cooler ____ **of** 1 **for this CAS Order No.**

Cooler Identification: CAS Cooler #: 005 / Client's Cooler / Box / Letter / Hand-delivered
Other: ____

Date/Time Cooler Received: 4 / 12 / 12 16 : 20

Delivered By: UPS / FedX / AB Express / (Field Svcs) / Mail / Walk-In / Other: ____

Custody Seal: Present: Intact / Broken Absent: X Seal No: ____
Seal Name: ____ Seal Date: ____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: ____

Cooler Temperature (°C): Original Reading (°C) 0.4 Corrected Reading (°C) 0.9
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: ____
RMJ 4-12-12 Thermo. ID No.: 585 Thermo. Correction Factor (°C): 0.5
☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: ____

Detail to discrepancies/comments:

Completed by: [signature] **Date Completed:** 4-12-12

CITY OF WICHITA - SEWAGE TREATMENT DIVISION

Revision 3
Revision Date: 12/29/09
SOP#: 21

BACTERIOLOGICAL RESULTS **STORM WATER**
E. COLI ANALYSIS - IDEXX Colilert Method (SM. 9223 B)

IDEXX 120 mL Bottle Lot#: D4015
EXP DATE: 4/14/16
IDEXX QUANTI-TRAY/2000 Lot#: FG005
EXP DATE: 5/23/14

2/3/12 February 2012

JULIAN # /Sampler Brier Overbader	SAMPLE ID	Sample Pulling DATE / TIME 20 12	INCUBATION TIME AM/PM	INITIALS	READING DATE / TIME 20	INITIALS	# OF POSITIVE LARGE WELLS	# OF POSITIVE SMALL WELLS	LOT# COLILERT LG 754 Exp: 8/20/12	RESULTS MPN 100 mL	DUP Result X= %
#34 BG	Huntington	02/3/12 5:15 Am/Pm	11:40 Am/Pm	RH	2/4/12 11:44 Am/Pm	RH	48	13		201.4	
#34 BG	Huntington Upstream	2/3/12 5:15 Am/Pm	11:40 Am/Pm		2/4/12 11:44 Am/Pm		45	15	RH	147.8	157.6
#34 BG	Town East	2/3/12 5:25 Am/Pm	11:40 Am/Pm		2/4/12 11:49 Am/Pm		47	14		185.0	
#34 BG	Town East upstream	2/3/12 5:25 Am/Pm	11:40 Am/Pm		2/4/12 11:44 Am/Pm		42	6		98.8	
	Broadway	2/3/12 5:45 Am/Pm	11:55 Am/Pm		2/4/12 12:00 Am/Pm		37	6		75.4	Dup=83.6
	Broadway (1:10)	2/3/12 5:45 Am/Pm	11:55 Am/Pm		2/4/12 12:00 Am/Pm		6	0		63.0	X=69.2
	Broadway upstream	2/3/12 5:45 Am/Pm	11:55 Am/Pm		2/4/12 12:00 Am/Pm		49	44		1553.0	Dup=87.0
	Broadway upstream (1:10)	2/3/12 5:45 Am/Pm	11:55 Am/Pm		2/4/12 12:00 Am/Pm		47	13		1785	X=1669
	Mclean	2/3/12 6:00 Am/Pm	12:08 Am/Pm		2/4/12 12:15 Am/Pm		43	7		108.1	Dup=68.5
	Mclean (1:10)	2/3/12 6:00 Am/Pm	12:08 Am/Pm		2/4/12 12:15 Am/Pm		6	1		74.0	X=91.0
	Mclean upstream	2/3/12 6:00 Am/Pm	12:08 Am/Pm		2/4/12 12:15 Am/Pm		49	39		1046.24	Dup=91.7
	Mclean upstream (1:10)	2/3/12 Am/Pm	12:08 Am/Pm		2/4/12 12:15 Am/Pm		40	9		959	X=1002.62
	Mclean upstream (1:100)	2/3/12 Am/Pm	12:08 Am/Pm		2/4/12 12:15 Am/Pm		0	0	too much dilution		
	13th & River	2/3/12 6:45 Am/Pm	12:34 Am/Pm		1:34 2/4/12 ~~12:15~~ Am/Pm		49	34		770.1	Dup=85.8
	13th & River (1:10)	2/3/12 6:45 Am/Pm	12:34 Am/Pm		1:34 2/4/12 Am/Pm		33	8		657	X=713.6
	13th & River upstream	2/3/12 6:45 Am/Pm	12:34 Am/Pm		1:34 2/4/12 Am/Pm		49	17		290.9	
	Harvest Ct	2/3/12 7:30 Am/Pm	12:34 Am/Pm		2/4/12 Am/Pm		48	11		186.0	Dup=65.1
	Harvest Ct (1:10)	2/3/12 7:30 Am/Pm	12:34 Am/Pm		2/4/12 Am/Pm		10	1		121.0	
	Harvest Ct upstream (1:1)	2/3/12 7:30 Am/Pm	12:34 Am/Pm		2/4/12 Am/Pm		49	29		579.4	Dup=63.9
	Harvest Ct upstream (1:10)	2/3/12 7:30 Am/Pm	12:34 Am/Pm		2/4/12 Am/Pm		40	7		907	X=743.2
		Am/Pm	Am/Pm		2/4/12 Am/Pm						

Continental Analytical Services, Inc.

04/23/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 04/13/2012 10:15
Continental File No.: 8339
Continental Order No.: 102717
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 13 pages for the analytical report, 3 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12041069	Harvest Ct.	Liquid	4/12/2012
12041070	Harvest Ct. Upstream	Liquid	4/12/2012
12041071	Cowsking & Maple	Liquid	4/12/2012
12041072	Cowsking & Maple Upstream	Liquid	4/12/2012
12041073	13th & River	Liquid	4/12/2012
12041074	13th & River Upstream	Liquid	4/12/2012
12041075	21st & Hood	Liquid	4/12/2012
12041076	21st & Hood Upstream	Liquid	4/12/2012
12041077	McLean	Liquid	4/12/2012
12041078	McLean Upstream	Liquid	4/12/2012
12041079	Broadway	Liquid	4/12/2012
12041080	Broadway Upstream	Liquid	4/12/2012
12041081	Huntington	Liquid	4/12/2012
12041082	Huntington Upstream	Liquid	4/12/2012
12041083	Towne East	Liquid	4/12/2012
12041084	Towne East Upstream	Liquid	4/12/2012
12041085	Dry Creek	Liquid	4/12/2012
12041086	Gypsum Creek	Liquid	4/12/2012
12041087	Westlink	Liquid	4/12/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods

referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

for Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/23/2012
Date Received: 04/13/2012
Continental File No: 8339
Continental Order No: 102717

Lab Number: 12041069
Sample Description: Harvest Ct.

Date Sampled: 04/12/2012
Time Sampled: 1015

Analysis	Concentration	Units	Book/Page
E. Coli	4400 HT	MPN/100 mL	7057/728

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
E. Coli	N/A	04/13/12 1340	120413-1	120413-1	MLL	SM 9223B Colilert

Conclusion of Lab Number: 12041069

Lab Number: 12041070
Sample Description: Harvest Ct. Upstream

Date Sampled: 04/12/2012
Time Sampled: 1015

Analysis	Concentration	Units	Book/Page
E. Coli	105 HT	MPN/100 mL	7057/728

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
E. Coli	N/A	04/13/12 1340	120413-1	120413-1	MLL	SM 9223B Colilert

Conclusion of Lab Number: 12041070

Lab Number: 12041071
Sample Description: Cowsking & Maple

Date Sampled: 04/12/2012
Time Sampled: 1030

Analysis	Concentration	Units	Book/Page
E. Coli	14700 HT	MPN/100 mL	7057/728

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
E. Coli	N/A	04/13/12 1340	120413-1	120413-1	MLL	SM 9223B Colilert

Conclusion of Lab Number: 12041071

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/23/2012
Date Received: 04/13/2012
Continental File No: 8339
Continental Order No: 102717

Lab Number: 12041072
Sample Description: Cowsking & Maple Upstream

Date Sampled: 04/12/2012
Time Sampled: 1030

Analysis	Concentration	Units	Book/Page
E. Coli	866 HT	MPN/100 mL	7057/728

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
E. Coli	N/A	04/13/12 1340	120413-1	120413-1	MLL	SM 9223B Colilert

Conclusion of Lab Number: 12041072

Lab Number: 12041073
Sample Description: 13th & River

Date Sampled: 04/12/2012
Time Sampled: 1050

Analysis	Concentration	Units	Book/Page
E. Coli	649 HT	MPN/100 mL	7057/728

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
E. Coli	N/A	04/13/12 1340	120413-1	120413-1	MLL	SM 9223B Colilert

Conclusion of Lab Number: 12041073

Lab Number: 12041074
Sample Description: 13th & River Upstream

Date Sampled: 04/12/2012
Time Sampled: 1050

Analysis	Concentration	Units	Book/Page
E. Coli	579 HT	MPN/100 mL	7057/728

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
E. Coli	N/A	04/13/12 1340	120413-1	120413-1	MLL	SM 9223B Colilert

Conclusion of Lab Number: 12041074

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/23/2012
Date Received: 04/13/2012
Continental File No: 8339
Continental Order No: 102717

Lab Number: 12041075
Sample Description: 21st & Hood

Date Sampled: 04/12/2012
Time Sampled: 1105

Analysis	Concentration	Units	Book/Page
E. Coli	5700 HT	MPN/100 mL	7057/728

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
E. Coli	N/A	04/13/12 1340	120413-1	120413-1	MLL	SM 9223B Colilert

Conclusion of Lab Number: 12041075

Lab Number: 12041076
Sample Description: 21st & Hood Upstream

Date Sampled: 04/12/2012
Time Sampled: 1105

Analysis	Concentration	Units	Book/Page
E. Coli	727 HT	MPN/100 mL	7057/728

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
E. Coli	N/A	04/13/12 1340	120413-1	120413-1	MLL	SM 9223B Colilert

Conclusion of Lab Number: 12041076

Lab Number: 12041077
Sample Description: McLean

Date Sampled: 04/12/2012
Time Sampled: 1130

Analysis	Concentration	Units	Book/Page
E. Coli	3200 HT	MPN/100 mL	7057/728

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
E. Coli	N/A	04/13/12 1340	120413-1	120413-1	MLL	SM 9223B Colilert

Conclusion of Lab Number: 12041077

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/23/2012
Date Received: 04/13/2012
Continental File No: 8339
Continental Order No: 102717

Lab Number: 12041078
Sample Description: McLean Upstream

Date Sampled: 04/12/2012
Time Sampled: 1130

Analysis	Concentration	Units	Book/Page
E. Coli	1730 HT	MPN/100 mL	7057/728

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
E. Coli	N/A	04/13/12 1340	120413-1	120413-1	MLL	SM 9223B Colilert

Conclusion of Lab Number: 12041078

Lab Number: 12041079
Sample Description: Broadway

Date Sampled: 04/12/2012
Time Sampled: 1145

Analysis	Concentration	Units	Book/Page
E. Coli	5000 HT	MPN/100 mL	7057/728

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
E. Coli	N/A	04/13/12 1340	120413-1	120413-1	MLL	SM 9223B Colilert

Conclusion of Lab Number: 12041079

Lab Number: 12041080
Sample Description: Broadway Upstream

Date Sampled: 04/12/2012
Time Sampled: 1145

Analysis	Concentration	Units	Book/Page
E. Coli	7700 HT	MPN/100 mL	7057/728

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
E. Coli	N/A	04/13/12 1340	120413-1	120413-1	MLL	SM 9223B Colilert

Conclusion of Lab Number: 12041080

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/23/2012
Date Received: 04/13/2012
Continental File No: 8339
Continental Order No: 102717

Lab Number: 12041081
Sample Description: Huntington

Date Sampled: 04/12/2012
Time Sampled: 1205

Analysis	Concentration	Units	Book/Page
E. Coli	13100 HT	MPN/100 mL	7057/728

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
E. Coli	N/A	04/13/12 1340	120413-1	120413-1	MLL	SM 9223B Colilert

Conclusion of Lab Number: 12041081

Lab Number: 12041082
Sample Description: Huntington Upstream

Date Sampled: 04/12/2012
Time Sampled: 1205

Analysis	Concentration	Units	Book/Page
E. Coli	14000 HT	MPN/100 mL	7057/728

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
E. Coli	N/A	04/13/12 1340	120413-1	120413-1	MLL	SM 9223B Colilert

Conclusion of Lab Number: 12041082

Lab Number: 12041083
Sample Description: Towne East

Date Sampled: 04/12/2012
Time Sampled: 1210

Analysis	Concentration	Units	Book/Page
E. Coli	1410 HT	MPN/100 mL	7057/728

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
E. Coli	N/A	04/13/12 1340	120413-1	120413-1	MLL	SM 9223B Colilert

Conclusion of Lab Number: 12041083

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/23/2012
Date Received: 04/13/2012
Continental File No: 8339
Continental Order No: 102717

Lab Number: 12041084
Sample Description: Towne East Upstream

Date Sampled: 04/12/2012
Time Sampled: 1210

Analysis	Concentration	Units	Book/Page
E. Coli	5600 HT	MPN/100 mL	7057/728

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
E. Coli	N/A	04/13/12 1340	120413-1	120413-1	MLL	SM 9223B Colilert

Conclusion of Lab Number: 12041084

Lab Number: 12041085
Sample Description: Dry Creek

Date Sampled: 04/12/2012
Time Sampled: 1245

Analysis	Concentration	Units	Book/Page
E. Coli	2600 HT	MPN/100 mL	7057/728

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
E. Coli	N/A	04/13/12 1340	120413-1	120413-1	MLL	SM 9223B Colilert

Conclusion of Lab Number: 12041085

Lab Number: 12041086
Sample Description: Gypsum Creek

Date Sampled: 04/12/2012
Time Sampled: 1255

Analysis	Concentration	Units	Book/Page
E. Coli	3400 HT	MPN/100 mL	7057/728

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
E. Coli	N/A	04/13/12 1340	120413-1	120413-1	MLL	SM 9223B Colilert

Conclusion of Lab Number: 12041086

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/23/2012
Date Received: 04/13/2012
Continental File No: 8339
Continental Order No: 102717

Lab Number: 12041087
Sample Description: Westlink

Date Sampled: 04/12/2012
Time Sampled: 1315

Analysis	Concentration	Units	Book/Page
E. Coli	3100 HT	MPN/100 mL	7057/728

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
E. Coli	N/A	04/13/12 1340	120413-1	120413-1	MLL	SM 9223B Colilert

Conclusion of Lab Number: 12041087

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/23/2012
Date Received: 04/13/2012
Continental File No: 8339
Continental Order No: 102717

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12041069	E. Coli	04/12/2012 1015	04/13/2012 1340	27:25
12041070	E. Coli	04/12/2012 1015	04/13/2012 1340	27:25
12041071	E. Coli	04/12/2012 1030	04/13/2012 1340	27:10
12041072	E. Coli	04/12/2012 1030	04/13/2012 1340	27:10
12041073	E. Coli	04/12/2012 1050	04/13/2012 1340	26:50
12041074	E. Coli	04/12/2012 1050	04/13/2012 1340	26:50
12041075	E. Coli	04/12/2012 1105	04/13/2012 1340	26:35
12041076	E. Coli	04/12/2012 1105	04/13/2012 1340	26:35
12041077	E. Coli	04/12/2012 1130	04/13/2012 1340	26:10
12041078	E. Coli	04/12/2012 1130	04/13/2012 1340	26:10
12041079	E. Coli	04/12/2012 1145	04/13/2012 1340	25:55
12041080	E. Coli	04/12/2012 1145	04/13/2012 1340	25:55
12041081	E. Coli	04/12/2012 1205	04/13/2012 1340	25:35
12041082	E. Coli	04/12/2012 1205	04/13/2012 1340	25:35
12041083	E. Coli	04/12/2012 1210	04/13/2012 1340	25:30
12041084	E. Coli	04/12/2012 1210	04/13/2012 1340	25:30
12041085	E. Coli	04/12/2012 1245	04/13/2012 1340	24:55
12041086	E. Coli	04/12/2012 1255	04/13/2012 1340	24:45
12041087	E. Coli	04/12/2012 1315	04/13/2012 1340	24:25

HT - This sample exceeded the EPA maximum in transit holding time of six hours permitted for this analysis.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/23/2012
Date Received: 04/13/2012
Continental File No: 8339
Continental Order No: 102717

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program

CAS is accredited for all analytes.

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/23/2012
Date Received: 04/13/2012
Continental File No: 8339
Continental Order No: 102717

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL347	E. Coli	120413-1	120413BLK1 04/13/12 1340	120413LCS1 04/13/12	12041069MS 04/13/12 1340

Lab numbers associated with this batch:
12041069 12041070 12041071 12041072 12041073 12041074 12041075 12041076 12041077 12041078 12041079
12041080 12041081 12041082 12041083 12041084 12041085 12041086 12041087

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/23/2012
Date Received: 04/13/2012
Continental File No: 8339
Continental Order No: 102717

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120413-1	For sample analyzed on: 04/13/2012					Spiked sample: 12041069						
E. Coli	ND(1)	N/A			MPN/100ml	00 T	2900 T	#		MPN/100	41.1	106

Data Qualifiers:
N/A - Not Applicable

T - MS/MSD cannot be performed for this analysis. The MS result is the same as the sample result. The MSD result is a duplicate of the sample.
- Limits not available.

CAS ORDER NO. 102717

Edits made prior to sample receipt

Discrepancies See C/S RF MW 4-13-12

CHAIN OF CUSTODY RECORD AND ANALYTICAL REQUEST

TRANSMITTED TO:

WICHITA WATER & SEWER DEPARTMENT LABORATORY
SEWAGE TREATMENT

RECEIVED FROM:

iSi ENVIRONMENTAL SERVICES
215 S. LAURA ST.
WICHITA

Sample ID	Lab Log#	Date	Time	Contnr Info #	Contnr Info p/g	Preservative H2SO	HNO3	ASC+	NAOH	NONE	Analysis Request BOD	COD	TSS	PH	O&G	NO2	NH3	NO3	TP	ALK	VS	OP	MICRO TOX	FECAL COLIF	E.coli Fecal Step	U.V.
Harvest Ct.		4/12/12	1015	1	P					X															X	
Harvest Ct. Upstream		4/12/12	1015	1	P					X															X	
Cowskin & Maple		4/12/12	1030	1	P					X															X	
Cowskin & Maple Upstream		4/12/12	1030	1	P					X															X	
13th & River		4/12/12	1050	1	P					X															X	
13th & River Upstream		4/12/12	1050	1	P					X															X	
21st & Hood		4/12/12	1105	1	P					X															X	
21st & Hood Upstream		4/12/12	1105	1	P					X															X	
McLean		4/12/12	1130	1	P					X															X	

Comments

Cooler Temps =

CUSTODY RECORD	DATE	TIME
Relinquished by:	4/12/12	1600
Print Name:		
Relinquished by:		
Print by:		
Relinquished by:		
Print Name:		

	DATE	TIME
Received by:	4-13-12	10:15
Print Name:		
Received by:		
Print Name:		
Received by:		
Print Name:		

CAS ORDER NO 10217

Data made prior to sample receipt

mw 4-D-12

CHAIN OF CUSTODY RECORD AND ANALYTICAL REQUEST

TRANSMITTED TO:

WICHITA WATER & SEWER DEPARTMENT LABORATORY
SEWAGE TREATMENT

RECEIVED FROM:

ISI ENVIRONMENTAL SERVICES
215 S. LAURA ST.
WICHITA

Sample ID	Lab Log#	Date	Time	Contnr Info		Preservative				Analysis Request																E. coli	
				#	p/g	H2SO	HNO3	ASC+	NAOH	NONE	BOD	COD	TSS	PH	O&G	NO2	NH3	NO3	TP	ALK	VS	OP	MICRO TOX	FECAL COLIF	Fecal Step	U.V.
Melean Upstream		4/12/12	1130	1	P					X															X	
Broadway		4/12/12	1145	1	P					X															X	
Broadway Upstream		4/12/12	1145	1	P					X															X	
Huntington		4/12/12	1205	1	P					X															X	
Huntington Upstream		4/12/12	1205	1	P					X															X	
Towne East		4/12/12	1210	1	P					X															X	
Towne East Upstream		4/12/12	1210	1	P					X															X	
Dry Creek		4/12/12	1245	1	P					X															X	
Gypsum Creek		4/12/12	1255	1	P					X															X	

Comments

Cooler Temps =

CUSTODY RECORD	DATE	TIME		DATE	TIME
Relinquished by:	4/12/12	1600	Received by:	4-D-12	10:15
Print Name:			Print Name:		
Relinquished by:			Received by:		
Print by:			Print Name:		
Relinquished by:			Received by:		
Print Name:			Print Name:		

Edits made prior to sample receipt

CAS ORDER NO. 102717

MJ 4-13-12

CHAIN OF CUSTODY RECORD AND ANALYTICAL REQUEST

TRANSMITTED TO:

WICHITA WATER & SEWER DEPARTMENT LABORATORY
SEWAGE TREATMENT

RECEIVED FROM:

ISI ENVIRONMENTAL SERVICES
215 S. LAURA ST.
WICHITA

Sample ID	Lab Log#	Date	Time	Contnr Info		Preservative					Analysis Request															E. coli	
				#	p/g	H2SO	HNO3	ASC+	NAOH	NONE	BOD	COD	TSS	PH	O&G	NO2	NH3	NO3	TP	ALK	VS	OP	MICRO TOX	FECAL COLIF	Fecal Strep	U.V.
West line		4/12/12	1315	1	P					X														X	

Comments

Cooler Temps =

CUSTODY RECORD	DATE	TIME
Relinquished by:	4/12/12	1600
Print Name:		
Relinquished by:		
Print by:		
Relinquished by:		
Print Name:		

	DATE	TIME
Received by:	4-12-12	10:15
Print Name:		
Received by:		
Print Name:		
Received by:		
Print Name:		

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: ID2717

Client Name: Wichits

CAS File No.: 8339

Sample ID's in cooler: See COC

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: 3738 / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 4 / 13 / 12 10 : 45

Delivered By: UPS / (FedX) / AB Express / Field Svcs / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice (Ice) / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.2 Corrected Reading (°C) 0.7
Temp. By: Temp. Blank (Cooler) Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): 0.5

☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☐ No ☒ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☒ Chain of Custody missing sampler's name
- ☒ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: MW Date Completed: 4-13-12

CITY OF WICHITA SEWAGE TREATMENT DIVISION

TOTAL SUSPENDED SOLIDS COMPOSITE SAMPLE BENCHSHEET

(SM 2540 D)

S.O.P. NO. : # 012

Revision NO : 13

Revision Date : 8/13/2012

MDL : 1.0 mg/l

Report Limit : 1.0 mg/l

(Loaded Wt.- Crucible Wt) X 1000 (mg)= Result Wt (mg/L)

Sample Vol./1000 (L)

Date: 8/31/12 Analyst : RYT Time : 8:21 Am

Temp. in: 104 C Time in : 8:46 Am

Temp. out: C Time out :

Mettler Toledo AG 204 Balance : # 114293256

Millipore Lot # RoCA12529 Opened: 8/16/12

Julian No.	SAMPLE POINT	NO.	CRUCIBLE WT.(GM)	LOADED WT.(GM)	RESIDUE WT.(GM)	SAMPLE VOL.(ML)	RESULT MG/L	
238	North High #1	9	29.8331	29.8390	0.0059	93.0	63.4	(95 %)
	North High #1 dup	10	30.6067	30.6123	0.0056	93.0	60.2	x=61.8
238	North High #2	12	25.3676	25.3718	0.0042	95.0	44.2	(98 %)
	North High #2 dup	13	26.0895	26.0938	0.0043	95.0	45.3	x=44.8
238	North High #3	15	29.9720	29.9832	0.0112	23.0	487	(98 %)
	North High #3 dup (Athletic Field)	16	26.5675	26.5789	0.0114	23.0	496	x=492
								(%) x=
	Blank	Blk	29.6118	29.6116	-0.0002	100	<1.0	
								(%) x=
								(%) x=
								(%) x=
								(%) x=
								(%) x=
								(%) x=
								(%) x=
								(%) x=
								(%) x=
								(%) x=
								(%) x=

JR 8/31/12

CHAIN OF CUSTODY RECORD AND ANALYTICAL REQUEST

TRANSMITTED TO:	RECEIVED FROM:
WICHITA WATER & SEWER DEPARTMENT LABORATORY PRODUCTION & PUMPING DIVISION	PRETREATMENT SEWAGE TREATMENT DIVISION

Sample ID	Lab Log #	Date	Time	Container Info #:	Container Info P/G	Preservative: H2SO	HNO3	ASC+	NAOH	NONE	ANALYSIS REQUEST: BOD	COD	TSS	PH	SURF	CN	PHENOL	O&G	H2S	Ag	Cd	Cr	Cu	Pb	Ni	Zn	Hg	Organic Metals
NORTH HIGH #1	238	8/25/12	1:15 pm										X															
NORTH HIGH #2	"	8/25/12	1:25 pm										X															
NORTH HIGH #3	"	8/25/12	1:30 pm										X															
ATHLETIC FIELD																												

Comments: Temp = 3.1°C

CUSTODY RECORD:	Date	Time		Date	Time
Relinquished by:	8/25/12	8:07 AM	Received by: Rwei-Ying Tsai	8/25/12	8:07 AM
Print Name: Jack Brown			Print Name: Rwei-Ying Tsai		
Relinquished by:			Received by:		
Print by:			Print Name:		
Relinquished by:			Received by:		
Print Name:			Print Name:		

FIGURE VI.B1
Chain-of-Custody Form

Continental Analytical Services, Inc.

05/02/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 04/12/2012 1620
Continental File No.: 8339
Continental Order No.: 102693
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 10 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12041008	Gypsum Creek-Grab	Liquid	4/12/2012
12041009	Gypsum Creek-Composite	Liquid	4/12/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102693

Lab Number: 12041008
Sample Description: Gypsum Creek-Grab

Date Sampled: 04/12/2012
Time Sampled: 1255

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/125
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/125
Copper, Tot. Rec., ICP-MS	16	µg/L	7202/123
Hardness (Calculated)	352	mg/L as CaCO3	7157/251
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/125
Zinc, Tot. Rec., ICP-MS	155	µg/L	7202/123
Chloride	65	mg/L	7277/48
Solids, Total Dissolved	434	mg/L	7059/856
Solids, Total Suspended	1410	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2154	120419-4	6IP3114	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2206	120417-1	4IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2154	120419-4	6IP3114	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2206	120417-1	4IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/17/12 1131	04/17/12 2025	120417-5	6IP4108	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2154	120419-4	6IP3114	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2206	120417-1	4IP3109	KMW	200.8 Rev. 5.4
Chloride	N/A	05/01/12 1159	1IC2122	1IC2122	MLL	300.0
Solids, Total Dissolved	N/A	04/18/12 1502	120418-1	120418-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1327	120419-1	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041008

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102693

Lab Number: 12041009
Sample Description: Gypsum Creek-Composite

Date Sampled: 04/12/2012
Time Sampled: 1255

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/122
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/122
Copper, Tot. Rec., ICP-MS	14	µg/L	7202/123
Hardness (Calculated)	318	mg/L as CaCO3	7157/248
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/122
Zinc, Tot. Rec., ICP-MS	118	µg/L	7202/123
BOD	9	mg/L	7060/412
Chloride	67	mg/L	7277/35
Kjeldahl Nitrogen, as N (TKN)	2.4	mg/L	6854/505
Nitrate, as N	0.3	mg/L	7277/35
Nitrite, as N	ND(0.1)	mg/L	7277/35
Nitrogen (TKN + NO3/NO2), as N	2.7	mg/L	9998/57
Phosphorus, Total, as P	ND(0.2)	mg/L	7061/315
Solids, Total Dissolved	426	mg/L	7059/856
Solids, Total Suspended	638	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2321	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0100	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2321	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0100	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/13/12 1234	04/14/12 0143	120413-5	11IP4104	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2321	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0100	120417-2	7IP3109	KMW	200.8 Rev. 5.4
BOD	N/A	04/13/12 1455	120413-1	120413-1	MLL	SM 5210B
Chloride	N/A	04/13/12 0431	2IC2103	5IC2103	MLL	300.0
Kjeldahl Nitrogen, as N (T	04/17/12 1756	04/24/12 1057	120417-2	120424-2	JND	EPA 351.2
Nitrate, as N	N/A	04/13/12 0413	2IC2103	5IC2103	MLL	300.0
Nitrite, as N	N/A	04/13/12 0413	2IC2103	5IC2103	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	04/27/12 0831				Calculation
Phosphorus, Total, as P	N/A	04/26/12 1405	120426-1	120426-1	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	04/18/12 1502	120418-1	120418-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1328	120419-1	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041009

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102693

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12041009	BOD	04/12/2012 1255	04/13/2012 1455	26:00
12041009	Nitrate, as N	04/12/2012 1255	04/13/2012 0413	15:18
12041009	Nitrite, as N	04/12/2012 1255	04/13/2012 0413	15:18

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102693

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102693

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120413-5	120413BLK5 04/14/12 01:03	120413LCS5 04/14/12 01:16	12041017MS 04/14/12 02:16
Lab numbers associated with this batch: 12041009					
SL156	Cadmium, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL162	Copper, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL183	Zinc, Dissolved, ICP-MS	120416-2	120416BLK2 04/16/12 22:18	120416LCS2 04/16/12 22:23	12041027MS 04/17/12 00:35
Lab numbers associated with this batch: 12041009					
SL006	Cadmium, Tot. Rec., ICP-MS	120417-1	120417BLK1	120417LCS1	12040878MS
SL012	Copper, Tot. Rec., ICP-MS	120417-1	120417BLK1	120417LCS1	12040878MS
SL033	Zinc, Tot. Rec., ICP-MS	120417-1	120417BLK1 04/18/12 20:58	120417LCS1 04/18/12 21:03	12040878MS 04/18/12 21:13
Lab numbers associated with this batch: 12041008					
SL006	Cadmium, Tot. Rec., ICP-MS	120417-2	120417BLK2	120417LCS2	12040880MS
SL012	Copper, Tot. Rec., ICP-MS	120417-2	120417BLK2	120417LCS2	12040880MS
SL033	Zinc, Tot. Rec., ICP-MS	120417-2	120417BLK2 04/18/12 23:15	120417LCS2 04/18/12 23:20	12040880MS 04/18/12 23:41
Lab numbers associated with this batch: 12041009					
SL323	Hardness (Calculated)	120417-5	120417BLK5 04/17/12 19:41	120417LCS5 04/17/12 19:45	12041000MS 04/17/12 20:05
Lab numbers associated with this batch: 12041008					
SL156	Cadmium, Dissolved, ICP-MS	120419-4	120419BLK4	120419LCS4	12041016MS
SL162	Copper, Dissolved, ICP-MS	120419-4	120419BLK4	120419LCS4	12041016MS
SL183	Zinc, Dissolved, ICP-MS	120419-4	120419BLK4 04/23/12 21:17	120419LCS4 04/23/12 21:23	12041016MS 04/23/12 22:21
Lab numbers associated with this batch: 12041008					
GL123	BOD	120413-1	120413BLK1 04/13/12 14:55	120413LCS1 04/13/12 14:55	12040999MS 04/13/12 14:55
Lab numbers associated with this batch: 12041009					
GL502	Chloride	1IC2122	BLK1IC2122 05/01/12 10:27	LCS1IC2122 05/01/12 10:46	12041142MS 05/01/12 15:04
Lab numbers associated with this batch: 12041008					
GL502	Chloride	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
Lab numbers associated with this batch: 12041009					

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102693

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL595	Kjeldahl Nitrogen, as N (TKN)	120417-2	120417BLK2 04/24/12 10:26	120417LCS2 04/24/12 10:29	12040969MS 04/24/12 10:35
	Lab numbers associated with this batch: 12041009				
GL505	Nitrate, as N	2IC2103	BLK2IC2103	LCS2IC2103	12041027MS
GL503	Nitrite, as N	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
	Lab numbers associated with this batch: 12041009				
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12041009				
GL218	Phosphorus, Total, as P	120426-1	120426BLK1 04/26/12 1359	120426LCS1 04/26/12 1400	12041012MS 04/26/12 1409
	Lab numbers associated with this batch: 12041009				
GL242	Solids, Total Dissolved	120418-1	120418BLK1 04/18/12 15:00	120418LCS1 04/18/12	12041006MS 04/18/12 15:01
	Lab numbers associated with this batch: 12041008 12041009				
GL243	Solids, Total Suspended	120419-1	120419BLK1 04/19/12 13:25	120419LCS1 04/19/12	12041002MS 04/19/12 13:25
	Lab numbers associated with this batch: 12041008 12041009				

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102693

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120413-1	**For sample analyzed on: 04/13/2012**					**Spiked sample: 12040999**						
BOD	ND(5)	85.6	75.3-109	198	mg/L	MN	MN	#		mg/L	**	16.4
QC Batch: 120413-5	**For samples prepared on: 04/13/2012 1234**					**Spiked sample: 12041017**						
Hardness (Calculated)	ND(5.0)	105	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120416-2	**For samples prepared on: 04/16/2012 0902**					**Spiked sample: 12041027**						
Cadmium, Dissolved, ICP-MS	ND(1)	96.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	93.0	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	99.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-1	**For samples prepared on: 04/17/2012 0717**					**Spiked sample: 12040878**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	91.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-2	**For samples prepared on: 04/17/2012 0756**					**Spiked sample: 12040880**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	100.	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	92.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-2	**For samples prepared on: 04/17/2012 1756**					**Spiked sample: 12040969**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	111	85.0-115	4.0	mg/L	MN	MN	81.2-133	20.0	mg/L	**	6.7
QC Batch: 120417-5	**For samples prepared on: 04/17/2012 1131**					**Spiked sample: 12041000**						
Hardness (Calculated)	ND(5.0)	104	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120418-1	**For sample analyzed on: 04/18/2012**					**Spiked sample: 12041006**						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120419-1	**For sample analyzed on: 04/19/2012**					**Spiked sample: 12041002**						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120419-4	**For samples prepared on: 04/19/2012 1121**					**Spiked sample: 12041016**						
Cadmium, Dissolved, ICP-MS	ND(1)	98.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	91.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	94.6	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120426-1	**For sample analyzed on: 04/26/2012**					**Spiked sample: 12041012**						
Phosphorus, Total, as P	ND(0.2)	98.3	88.8-110	2.0	mg/L	MN	MN	80.5-117	2.0	mg/L	**	5.7
QC Batch: 1IC2122	**For sample analyzed on: 05/01/2012**					**Spiked sample: 12041142**						
Chloride	ND(1.0)	98.2	90.0-110	4.0	mg/L	MN	MN	75.1-131	400	mg/L	**	5.7
QC Batch: 2IC2103	**For sample analyzed on: 04/12/2012**					**Spiked sample: 12041027**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	4.0	mg/L	**	5.7
Nitrite, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	77.5-116	2.0	mg/L	**	10.2
Nitrate, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	81.7-121	2.0	mg/L	**	8.2

Data Qualifiers:
MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

N/A - Not Applicable

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102693

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102693

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	04/18/2012	4IP3109	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/23/2012	6IP3114	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/23/2012	71P3114	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/18/2012	4IP3109	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/23/2012	6IP3114	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-1	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-1	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-2	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/13/2012	6IC2103	CCV recovery acceptable for this Instrument Batch.			
Chloride	05/01/2012	1IC2122	CCV recovery acceptable for this Instrument Batch.			
Chloride	05/01/2012	2IC2122	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/13/2012	6IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/13/2012	6IC2103	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-2	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-3	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	11IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	12IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	6IP4108	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	7IP4108	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/18/2012	4IP3109	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/23/2012	6IP3114	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO 152643

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information	Invoice Information
Company Name: City of Wichita Sewage Treatment	Company Name: City of Wichita Sewage Treatment
Address: 2305 E. 57th Street South	Address: 2305 E. 57th Street South
City: Wichita State: KS Zip: 67216	City: Wichita State: KS Zip: 67216
Contact: Jim Hardesty E-mail:	Contact: Jim Hardesty E-mail:
Phone Number: (316)303-8700 Fax Number: (316)303-8712	Phone Number: (316)303-8700 Fax Number: (316)303-8712

Sampler's Name:(Printed) Juston Murphy
Sampler's Name(Signature)
Purchase Order Number:
File Number: 5611
Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER	Cadmium, Copper, Zinc - Total Recoverable 250ml Plastic - HNO3	Hardness, TSS TDS, Cl, Diss. - Cd, Cu, Zn 1000ml Plastic - None	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD, TKN, Total P, NO3 Large Carboy						COMMENTS
Gypsum Creek-Grab	WW	N	4/12/12	1255	G	2			1		1		X	X							
Gypsum Creek-Composite	WW	N	4/12/12	1255	C	1					1				X						5 Gal. Container to be poured off at lab
																					as needed for required tests.
																					Remaining volume will be saved for
																					for organics if needed.

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT (15 working days) Rush TAT (5 working days) Emergency TAT (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY	DATE: 4/12/12	TIME: 1500	RECEIVED BY	DATE:	TIME:
RELINQUISHED BY	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
RECEIVED AT LAB BY	DATE: 4-12-12	TIME: 1620	SHIPPED VIA: AIRBILL	SEAL #: SEAL DATE:	

H:\mchas\...chita Stormwater COCs.xlsx\4/12/2012

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 1208093

Client Name: Wichita **CAS File No.:** 8339

Sample ID's in cooler: Sa. Col

Gypsum Creek

Cooler 1 **of** 1 **for this CAS Order No.**

Cooler Identification: CAS Cooler #: 1117 / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 4 / 12 / 12 16 : 20

Delivered By: UPS / FedX / AB Express / (Field Svcs) / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.6 Corrected Reading (°C) 1.1
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): 0.5
mw 4-12-12
☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes **(See below for discrepancies.)**

Note: **If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.**

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: [signature] **Date Completed:** 4-12-12

Continental Analytical Services, Inc.

02/17/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 02/03/2012 14:25
Continental File No.: 8339
Continental Order No.: 101256
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 12 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12020407	Harvest CT-Grab	Liquid	2/3/2012
12020408	Harvest CT-Composite	Liquid	2/3/2012
12020409	Harvest CT-Upstream	Liquid	2/3/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101256

Lab Number: 12020407
Sample Description: Harvest CT-Grab

Date Sampled: 02/03/2012
Time Sampled: 0730

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/90
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/88
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/90
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/88
Hardness (Calculated)	22.5	mg/L as CaCO3	7157/194
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/90
Zinc, Tot. Rec., ICP-MS	ND(20)	µg/L	7202/88
Chloride	2.8	mg/L	7107/222
Solids, Total Dissolved	70.	mg/L	7059/732
Solids, Total Suspended	28	mg/L	7059/736

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2158	120210-2	4IP3046	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 1010	02/09/12 1930	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2158	120210-2	4IP3046	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 1010	02/09/12 1930	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/07/12 1301	02/07/12 1916	120207-4	7IP4038	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2158	120210-2	4IP3046	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 1010	02/09/12 1930	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Chloride	N/A	02/08/12 1603	1IC2039	1IC2039	MLL	300.0
Solids, Total Dissolved	N/A	02/08/12 1414	120208-1	120208-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/10/12 1435	120210-1	120210-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12020407

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101256

Lab Number: 12020408
Sample Description: Harvest CT-Composite

Date Sampled: 02/03/2012
Time Sampled: 0730

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM QC	µg/L	7202/87
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/88
Copper, Dissolved, ICP-MS	6 DM	µg/L	7202/87
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/88
Hardness (Calculated)	23.8	mg/L as CaCO3	7157/192
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/87
Zinc, Tot. Rec., ICP-MS	ND(20)	µg/L	7202/88
BOD	ND(5)	mg/L	7060/353
Chloride	2.7	mg/L	7107/218
Kjeldahl Nitrogen, as N (TKN)	1.1	mg/L	6854/436
Nitrate, as N	0.4	mg/L	7107/218
Nitrite, as N	ND(0.1)	mg/L	7107/218
Nitrogen (TKN + NO3/NO2), as N	1.5	mg/L	9999/873
Phosphorus, Total, as P	0.33	mg/L	7061/272
Solids, Total Dissolved	58	mg/L	7059/737
Solids, Total Suspended	31	mg/L	7059/736

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1745	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1935	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1745	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1935	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/06/12 1304	02/07/12 0018	120206-3	10IP4037	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1745	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1935	120208-1	3IP3040	JDL	200.8 Rev. 5.4
BOD	N/A	02/03/12 1800	120203-1	120203-1	ASK	SM 5210B
Chloride	N/A	02/03/12 2139	1IC2034	2IC2034	MLL	300.0
Kjeldahl Nitrogen, as N (T	02/06/12	02/07/12 1218	120206-2	120207-2	JND	EPA 351.2
Nitrate, as N	N/A	02/03/12 2139	1IC2034	2IC2034	MLL	300.0
Nitrite, as N	N/A	02/03/12 2139	1IC2034	2IC2034	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	02/10/12 0801				Calculation
Phosphorus, Total, as P	N/A	02/17/12 1419	120217-1	120217-2	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	02/10/12 1514	120210-1	120210-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/10/12 1435	120210-1	120210-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12020408

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101256

Lab Number: 12020409
Sample Description: Harvest CT-Upstream

Date Sampled: 02/03/2012
Time Sampled: 0730

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM QC	µg/L	7202/87
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/88
Copper, Dissolved, ICP-MS	6 DM	µg/L	7202/87
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/88
Hardness (Calculated)	63.4	mg/L as CaCO3	7157/192
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/87
Zinc, Tot. Rec., ICP-MS	ND(20)	µg/L	7202/88
BOD	6	mg/L	7060/353
Chloride	9.8	mg/L	7107/218
Kjeldahl Nitrogen, as N (TKN)	2.3	mg/L	6854/436
Nitrate, as N	ND(0.1)	mg/L	7107/218
Nitrite, as N	ND(0.1)	mg/L	7107/218
Nitrogen (TKN + NO3/NO2), as N	2.3	mg/L	9999/873
Phosphorus, Total, as P	0.25	mg/L	7061/272
Solids, Total Dissolved	126	mg/L	7059/737
Solids, Total Suspended	58	mg/L	7059/736

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1801	120206-4	3IP3039	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1941	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1801	120206-4	3IP3039	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1941	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/06/12 1304	02/07/12 0022	120206-3	10IP4037	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1801	120206-4	3IP3039	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1941	120208-1	3IP3040	JDL	200.8 Rev. 5.4
BOD	N/A	02/03/12 1800	120203-1	120203-1	ASK	SM 5210B
Chloride	N/A	02/04/12 0347	1IC2034	4IC2034	MLL	300.0
Kjeldahl Nitrogen, as N (T	02/06/12	02/07/12 1220	120206-2	120207-2	JND	EPA 351.2
Nitrate, as N	N/A	02/04/12 0347	1IC2034	4IC2034	MLL	300.0
Nitrite, as N	N/A	02/04/12 0347	1IC2034	4IC2034	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	02/10/12 0801				Calculation
Phosphorus, Total, as P	N/A	02/17/12 1420	120217-1	120217-2	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	02/10/12 1515	120210-1	120210-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/10/12 1436	120210-1	120210-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12020409

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101256

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12020408	BOD	02/03/2012 0730	02/03/2012 1800	10:30
12020408	Nitrate, as N	02/03/2012 0730	02/03/2012 2139	14:09
12020408	Nitrite, as N	02/03/2012 0730	02/03/2012 2139	14:09
12020409	BOD	02/03/2012 0730	02/03/2012 1800	10:30
12020409	Nitrate, as N	02/03/2012 0730	02/04/2012 0347	20:17
12020409	Nitrite, as N	02/03/2012 0730	02/04/2012 0347	20:17

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

QC - QC data qualifiers were noted. See the Quality Control Report.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101256

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101256

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120206-3	120206BLK3 02/06/12 23:10	120206LCS3 02/06/12 23:14	12020397MS 02/06/12 23:34
Lab numbers associated with this batch: 12020408 12020409					
SL156	Cadmium, Dissolved, ICP-MS	120206-4	120206BLK4	120206LCS4	12020415MS
SL162	Copper, Dissolved, ICP-MS	120206-4	120206BLK4	120206LCS4	12020415MS
SL183	Zinc, Dissolved, ICP-MS	120206-4	120206BLK4 02/08/12 16:32	120206LCS4 02/08/12 16:37	12020415MS 02/08/12 18:27
Lab numbers associated with this batch: 12020408 12020409					
SL323	Hardness (Calculated)	120207-4	120207BLK4 02/07/12 18:00	120207LCS4 02/07/12 18:12	12020348MS 02/07/12 18:36
Lab numbers associated with this batch: 12020407					
SL006	Cadmium, Tot. Rec., ICP-MS	120208-1	120208BLK1	120208LCS1	12020401MS
SL012	Copper, Tot. Rec., ICP-MS	120208-1	120208BLK1	120208LCS1	12020401MS
SL033	Zinc, Tot. Rec., ICP-MS	120208-1	120208BLK1 02/09/12 18:17	120208LCS1 02/09/12 18:22	12020401MS 02/09/12 18:38
Lab numbers associated with this batch: 12020407 12020408 12020409					
SL156	Cadmium, Dissolved, ICP-MS	120210-2	120210BLK2	120210LCS2	12020410MS
SL162	Copper, Dissolved, ICP-MS	120210-2	120210BLK2	120210LCS2	12020410MS
SL183	Zinc, Dissolved, ICP-MS	120210-2	120210BLK2 02/15.12 21:21	120210LCS2 02/15/12 21:26	12020410MS 02/15/12 22:19
Lab numbers associated with this batch: 12020407					
GL123	BOD	120203-1	120203BLK1 02/03/12 18:00	120203LCS1 02/03/12 18:00	12020390MS 02/03/12 18:00
Lab numbers associated with this batch: 12020408 12020409					
GL502	Chloride	1IC2034	BLK1IC2034 02/03/12 16:25	LCS1IC2034 02/03/12 16:44	12020330MS 02/03/12 17:20
Lab numbers associated with this batch: 12020408 12020409					
GL502	Chloride	1IC2039	BLK1IC2039 02/08/12 14:12	LCS1IC2039 02/08/12 14:31	12020352MS 02/08/12 18:49
Lab numbers associated with this batch: 12020407					
GL595	Kjeldahl Nitrogen, as N (TKN)	120206-2	120206BLK2 02/07/12 11:41	120206LCS2 02/07/12 11:43	12020351MS 02/07/12 16:29
Lab numbers associated with this batch: 12020408 12020409					

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101256

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL505	Nitrate, as N	1IC2034	BLK1IC2034	LCS1IC2034	12020330MS
GL503	Nitrite, as N	1IC2034	BLK1IC2034 02/03/12 16:25	LCS1IC2034 02/03/12 16:44	
Lab numbers associated with this batch: 12020408 12020409					
GL343	Nitrogen (TKN + NO3/NO2), as N				
Lab numbers associated with this batch: 12020408 12020409					
GL218	Phosphorus, Total, as P	120217-1	120217BLK1 02/17/12 1409	120217LCS1 02/17/12 1410	12020397MS 02/17/12 1412
Lab numbers associated with this batch: 12020408 12020409					
GL242	Solids, Total Dissolved	120208-1	120208BLK1 02/08/12 14:02	120208LCS1 02/08/12	12020376MS 02/08/12 14:03
Lab numbers associated with this batch: 12020407					
GL242	Solids, Total Dissolved	120210-1	120210BLK1 02/10/12 15:14	120210LCS1 02/10/12	12020425MS 02/10/12 15:17
Lab numbers associated with this batch: 12020408 12020409					
GL243	Solids, Total Suspended	120210-1	120210BLK1 02/10/12 14:34	120210LCS1 02/10/12	12020416MS 02/10/12 14:38
Lab numbers associated with this batch: 12020407 12020408 12020409					

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101256

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120203-1	For sample analyzed on: 02/03/2012					Spiked sample: 12020390						
BOD	ND(5)	81.3	70.5-110	198	mg/L	MN	MN	#		mg/L	**	13.2
QC Batch: 120206-2	For samples prepared on: 02/06/2012					Spiked sample: 12020351						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	104	85.0-115	4.0	mg/L	MN	MN	81.5-133	20.0	mg/L	**	18.3
QC Batch: 120206-3	For samples prepared on: 02/06/2012 1304					Spiked sample: 12020397						
Hardness (Calculated)	ND(5.0)	101	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120206-4	For samples prepared on: 02/06/2012 1426					Spiked sample: 12020415						
Cadmium, Dissolved, ICP-MS	ND(1)	104	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	92.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	102	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120207-4	For samples prepared on: 02/07/2012 1301					Spiked sample: 12020348						
Hardness (Calculated)	ND(5.0)	101	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120208-1	For sample analyzed on: 02/08/2012					Spiked sample: 12020376						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.2
QC Batch: 120208-1	For samples prepared on: 02/08/2012 0805					Spiked sample: 12020401						
Cadmium, Tot. Rec., ICP-MS	1 J	102	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	93.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	105	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120210-1	For sample analyzed on: 02/10/2012					Spiked sample: 12020416						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	18.2
QC Batch: 120210-1	For sample analyzed on: 02/10/2012					Spiked sample: 12020425						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.2
QC Batch: 120210-2	For samples prepared on: 02/10/2012 0952					Spiked sample: 12020410						
Cadmium, Dissolved, ICP-MS	ND(1)	102	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	95.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	99.6	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120217-1	For sample analyzed on: 02/17/2012					Spiked sample: 12020397						
Phosphorus, Total, as P	ND(0.20)	95.5	90.0-110	2.0	mg/L	MN	MN	71.2-135	2.0	mg/L	**	21.2
QC Batch: 1IC2034	For sample analyzed on: 02/03/2012					Spiked sample:						
Nitrite, as N	ND(0.1)	95.1	90.0-110	2.0	mg/L	MN	MN	78.5-127			**	10.1
QC Batch: 1IC2034	For sample analyzed on: 02/03/2012					Spiked sample: 12020330						
Chloride	ND(1.0)	96.6	90.0-110	4.0	mg/L	MN	MN	82.1-126	80.0	mg/L	**	12.5
Nitrate, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	79.3-118	40.0	mg/L	**	12.1
QC Batch: 1IC2039	For sample analyzed on: 02/08/2012					Spiked sample: 12020352						
Chloride	ND(1.0)	96.7	90.0-110	4.0	mg/L	MN	MN	82.1-126	400	mg/L	**	12.5

Data Qualifiers:
MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

N/A - Not Applicable

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: R339
Continental Order No: 101256

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit

J - The concentration or not detected (ND) value is below the Limit of Quantitation (LOQ) and is considered an estimated value.

@ - Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101256

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	02/08/2012	2IP3039	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/08/2012	3IP3039	100	111	µg/L	111 CH

Samples associated with this Continuing Calibration Verification:

Laboratory Number	Instrument Batch	Sample Description
12020408	2IP3039	Harvest CT-Composite
12020409	3IP3039	Harvest CT-Upstream

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Tot. Rec., ICP-MS	02/09/2012	3IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/08/2012	4IP3039	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/15/2012	4IP3046	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/08/2012	2IP3039	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/08/2012	3IP3039	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	3IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/08/2012	4IP3039	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/15/2012	4IP3046	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.			
BOD	02/03/2012	120203-1	CCV recovery acceptable for this Instrument Batch.			
BOD	02/03/2012	120203-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	02/17/2012	120217-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	02/17/2012	120217-3	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/04/2012	5IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/08/2012	1IC2039	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/08/2012	2IC2039	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/04/2012	5IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/04/2012	5IC2034	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/07/2012	120207-2	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/07/2012	120207-3	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	02/06/2012	10IP4037	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	02/07/2012	11IP4037	CCV recovery acceptable for this Instrument Batch.			

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101256

Hardness (Calculated)	02/07/2012	7IP4038	CCV recovery acceptable for this Instrument Batch.
Hardness (Calculated)	02/07/2012	8IP4038	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/08/2012	2IP3039	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/08/2012	3IP3039	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	3IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/08/2012	4IP3039	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/15/2012	4IP3046	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.

Data Qualifiers:
CH - The continuing calibration verification (CCV) standard recovery for this analyte was above the method or SOP limit. The reported concentration for this analyte may be biased high.

- Laboratory Report Conclusion -

Lontinenta Analytical Services, Inc.
525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO. NJ 034

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information	Invoice Information
Company Name: City of Wichita Sewage Treatment	Company Name: City of Wichita Sewage Treatment
Address: 2305 E. 57th Street South	Address: 2305 E. 57th Street South
City: Wichita State: KS Zip: 67216	City: Wichita State: KS Zip: 67216
Contact: Jim Hardesty E-mail:	Contact: Jim Hardesty E-mail:
Phone Number: (316)303-8700 Fax Number: (316)303-8712	Phone Number: (316)303-8700 Fax Number: (316)303-8712

Sampler's Name:(Printed): Justin Murphy
Sampler's Name:(Signature):
Purchase Order Number:
File Number: 5611
Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER	Total Metals 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P		COMMENTS 5
Harvest Ct.-Grab	WW	N	2/3/12	0730	G	4			1	2	1		X	X							Gal. container to be poured off at lab as needed for required tests. Remaininig volume will be saved for organics if needed
Harvest Ct.-Composite	WW	N	2/3/12	0730	C	1					1				X						
Harvest Ct.-Upstream	WW	N	2/3/12	0730	G	4			1	1	2					X	X	X	X		

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT (15 working days) Rush TAT (5 working days) Emergency TAT (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	2/3/12	1000			
RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
RECEIVED AT LAB BY: Mark W. Stafford	DATE 2-3-12	TIME 1435	SHIPPED VIA: AIRBILL	SEAL #: SEAL DATE:	

H:\mark\Wichita Stormwater COCs.xlsx\2/2/2012

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 101296

Client Name: Wichita CAS File No.: 8339

Sample ID's in cooler: 5 COC

Harvert Ct.

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: _____ / (Client's Cooler) / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 2/3/12 14:35

Delivered By: UPS / FedX / AB Express / (Field Svcs) / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / (Foam) / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.5 Corrected Reading (°C) 0.9
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): 0.4

☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

☐ Chain of Custody not present - information taken from:
Cover Letter ☐ Container ☐
PO ☐ CAS Proj. Mgr. ☐
☐ Container label absent
☐ Chain of Custody incomplete [see detail below]
☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
☐ Date or Time sampled obtained from container label
☐ Chain of Custody missing sampler's name
☐ Chain of Custody missing matrix (sample type)
☐ Missing relinquished information: signature date time
☐ Sample excluded from Chain of Custody
☐ Sample listed on Chain of Custody, not received
☐ Sample description on container and Chain of Custody do not agree
☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement
[Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
☐ Broken or leaking containers (detail actions below)
☐ Sample container type or labeled chemical preservation inappropriate
☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: MW Date Completed: 2-3-12

Continental Analytical Services, Inc.

05/02/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 04/12/2012 1620
Continental File No.: 8339
Continental Order No.: 102698
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 11 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12041022	Harvest Ct.-Grab	Liquid	4/12/2012
12041023	Harvest Ct.-Composite	Liquid	4/12/2012
12041024	Harvest Ct.-Upstream	Liquid	4/12/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102698

Lab Number: 12041022
Sample Description: Harvest Ct.-Grab

Date Sampled: 04/12/2012
Time Sampled: 1015

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/125
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	11 DM	µg/L	7202/125
Copper, Tot. Rec., ICP-MS	15	µg/L	7202/123
Hardness (Calculated)	45.2	mg/L as CaCO3	7157/251
Zinc, Dissolved, ICP-MS	30 DM	µg/L	7202/127
Zinc, Tot. Rec., ICP-MS	84	µg/L	7202/123
Chloride	4.5	mg/L	7277/48
Solids, Total Dissolved	46	mg/L	7059/859
Solids, Total Suspended	166	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2252	120419-4	7IP3114	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2253	120417-1	5IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2252	120419-4	7IP3114	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2253	120417-1	5IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/17/12 1131	04/17/12 2101	120417-5	7IP4108	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/19/12 1121	04/25/12 1257	120419-4	2IP3116	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2253	120417-1	5IP3109	KMW	200.8 Rev. 5.4
Chloride	N/A	05/01/12 1218	1IC2122	1IC2122	MLL	300.0
Solids, Total Dissolved	N/A	04/19/12 1438	120419-1	120419-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1334	120419-2	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041022

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102698

Lab Number: 12041023
Sample Description: Harvest Ct.-Composite

Date Sampled: 04/12/2012
Time Sampled: 1015

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/122
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	11 DM	µg/L	7202/122
Copper, Tot. Rec., ICP-MS	16	µg/L	7202/123
Hardness (Calculated)	42.4	mg/L as CaCO3	7157/248
Zinc, Dissolved, ICP-MS	42 DM	µg/L	7202/122
Zinc, Tot. Rec., ICP-MS	87	µg/L	7202/123
BOD	61	mg/L	7060/413
Chloride	6.6	mg/L	7277/35
Kjeldahl Nitrogen, as N (TKN)	8.5	mg/L	6854/505
Nitrate, as N	1.1	mg/L	7277/35
Nitrite, as N	ND(0.1)	mg/L	7277/35
Nitrogen (TKN + NO3/NO2), as N	9.6	mg/L	9998/57
Phosphorus, Total, as P	1.4	mg/L	7061/315
Solids, Total Dissolved	94	mg/L	7059/859
Solids, Total Suspended	145	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/16/12 0902	04/17/12 0014	120416-2	4IP3107	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0148	120417-2	8IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/16/12 0902	04/17/12 0014	120416-2	4IP3107	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0148	120417-2	8IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/13/12 1234	04/14/12 0232	120413-5	12IP4104	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/16/12 0902	04/17/12 0014	120416-2	4IP3107	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0148	120417-2	8IP3109	KMW	200.8 Rev. 5.4
BOD	N/A	04/13/12 1700	120413-2	120413-1	MLL	SM 5210B
Chloride	N/A	04/13/12 1116	2IC2103	7IC2103	MLL	300.0
Kjeldahl Nitrogen, as N (T	04/17/12 1756	04/24/12 1120	120417-2	120424-3	JND	EPA 351.2
Nitrate, as N	N/A	04/13/12 1116	2IC2103	7IC2103	MLL	300.0
Nitrite, as N	N/A	04/13/12 1116	2IC2103	7IC2103	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	04/27/12 0831				Calculation
Phosphorus, Total, as P	N/A	04/26/12 1415	120426-1	120426-2	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	04/19/12 1438	120419-1	120419-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1334	120419-2	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041023

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102698

Lab Number: 12041024
Sample Description: Harvest Ct.-Upstream

Date Sampled: 04/12/2012
Time Sampled: 1015

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/122
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/122
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/123
Hardness (Calculated)	86.7	mg/L as CaCO3	7157/251
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/122
Zinc, Tot. Rec., ICP-MS	ND(20)	µg/L	7202/123
BOD	ND(5)	mg/L	7060/413
Chloride	11.3	mg/L	7277/35
Kjeldahl Nitrogen, as N (TKN)	1.4	mg/L	6854/505
Nitrate, as N	0.3	mg/L	7277/35
Nitrite, as N	ND(0.1)	mg/L	7277/35
Nitrogen (TKN + NO3/NO2), as N	1.7	mg/L	9998/57
Phosphorus, Total, as P	0.25	mg/L	7061/315
Solids, Total Dissolved	106	mg/L	7059/859
Solids, Total Suspended	12	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/16/12 0902	04/17/12 0019	120416-2	4IP3107	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2259	120417-1	5IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/16/12 0902	04/17/12 0019	120416-2	4IP3107	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2259	120417-1	5IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/17/12 1131	04/17/12 2105	120417-5	7IP4108	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/16/12 0902	04/17/12 0019	120416-2	4IP3107	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2259	120417-1	5IP3109	KMW	200.8 Rev. 5.4
BOD	N/A	04/13/12 1700	120413-2	120413-1	MLL	SM 5210B
Chloride	N/A	04/13/12 1135	2IC2103	7IC2103	MLL	300.0
Kjeldahl Nitrogen, as N (T	04/17/12 1756	04/24/12 1122	120417-2	120424-3	JND	EPA 351.2
Nitrate, as N	N/A	04/13/12 1135	2IC2103	7IC2103	MLL	300.0
Nitrite, as N	N/A	04/13/12 1135	2IC2103	7IC2103	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	04/27/12 0831				Calculation
Phosphorus, Total, as P	N/A	04/26/12 1417	120426-1	120426-3	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	04/19/12 1440	120419-1	120419-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1334	120419-2	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041024

Appendix

Client: City of Wichita
Attn: Jim Hardesty
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455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
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ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12041023	BOD	04/12/2012 1015	04/13/2012 1700	30:45
12041023	Nitrate, as N	04/12/2012 1015	04/13/2012 1116	25:01
12041023	Nitrite, as N	04/12/2012 1015	04/13/2012 1116	25:01
12041024	BOD	04/12/2012 1015	04/13/2012 1700	30:45
12041024	Nitrate, as N	04/12/2012 1015	04/13/2012 1135	25:20
12041024	Nitrite, as N	04/12/2012 1015	04/13/2012 1135	25:20

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102698

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102698

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120413-5	120413BLK5 04/14/12 01:03	120413LCS5 04/14/12 01:16	12041017MS 04/14/12 02:16
Lab numbers associated with this batch: 12041023					
SL156	Cadmium, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL162	Copper, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL183	Zinc, Dissolved, ICP-MS	120416-2	120416BLK2 04/16/12 22:18	120416LCS2 04/16/12 22:23	12041027MS 04/17/12 00:35
Lab numbers associated with this batch: 12041023 12041024					
SL006	Cadmium, Tot. Rec., ICP-MS	120417-1	120417BLK1	120417LCS1	12040878MS
SL012	Copper, Tot. Rec., ICP-MS	120417-1	120417BLK1	120417LCS1	12040878MS
SL033	Zinc, Tot. Rec., ICP-MS	120417-1	120417BLK1 04/18/12 20:58	120417LCS1 04/18/12 21:03	12040878MS 04/18/12 21:13
Lab numbers associated with this batch: 12041022 12041024					
SL006	Cadmium, Tot. Rec., ICP-MS	120417-2	120417BLK2	120417LCS2	12040880MS
SL012	Copper, Tot. Rec., ICP-MS	120417-2	120417BLK2	120417LCS2	12040880MS
SL033	Zinc, Tot. Rec., ICP-MS	120417-2	120417BLK2 04/18/12 23:15	120417LCS2 04/18/12 23:20	12040880MS 04/18/12 23:41
Lab numbers associated with this batch: 12041023					
SL323	Hardness (Calculated)	120417-5	120417BLK5 04/17/12 19:41	120417LCS5 04/17/12 19:45	12041000MS 04/17/12 20:05
Lab numbers associated with this batch: 12041022 12041024					
SL156	Cadmium, Dissolved, ICP-MS	120419-4	120419BLK4	120419LCS4	12041016MS
SL162	Copper, Dissolved, ICP-MS	120419-4	120419BLK4	120419LCS4	12041016MS
SL183	Zinc, Dissolved, ICP-MS	120419-4	120419BLK4 04/23/12 21:17	120419LCS4 04/23/12 21:23	12041016MS 04/23/12 22:21
Lab numbers associated with this batch: 12041022					
GL123	BOD	120413-2	120413BLK2 04/13/12 17:00	120413LCS2 04/13/12 17:00	12041018MS 04/13/12 17:00
Lab numbers associated with this batch: 12041023 12041024					
GL502	Chloride	1IC2122	BLK1IC2122 05/01/12 10:27	LCS1IC2122 05/01/12 10:46	12041142MS 05/01/12 15:04
Lab numbers associated with this batch: 12041022					
GL502	Chloride	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
Lab numbers associated with this batch: 12041023 12041024					

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Quality Control Report
Batch Summary

Client: City of Wichita
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Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102698

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL595	Kjeldahl Nitrogen, as N (TKN)	120417-2	120417BLK2 04/24/12 10:26	120417LCS2 04/24/12 10:29	12040969MS 04/24/12 10:35
Lab numbers associated with this batch: 12041023 12041024					
GL505	Nitrate, as N	2IC2103	BLK2IC2103	LCS2IC2103	12041027MS
GL503	Nitrite, as N	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
Lab numbers associated with this batch: 12041023 12041024					
GL343	Nitrogen (TKN + NO3/NO2), as N				
Lab numbers associated with this batch: 12041023 12041024					
GL218	Phosphorus, Total, as P	120426-1	120426BLK1 04/26/12 1359	120426LCS1 04/26/12 1400	12041012MS 04/26/12 1409
Lab numbers associated with this batch: 12041023 12041024					
GL242	Solids, Total Dissolved	120419-1	120419BLK1 04/19/12 14:36	120419LCS1 04/19/12	12041127MS 04/19/12 14:41
Lab numbers associated with this batch: 12041022 12041023 12041024					
GL243	Solids, Total Suspended	120419-2	120419BLK2 04/19/12 13:33	120419LCS2 04/19/12	12041022MS 04/19/12 13:34
Lab numbers associated with this batch: 12041022 12041023 12041024					

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102698

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120413-2	**For sample analyzed on: 04/13/2012**					**Spiked sample: 12041018**						
BOD	ND(5)	84.5 LB	75.3-109	198	mg/L	MN	MN	#		mg/L	**	16.4
QC Batch: 120413-5	**For samples prepared on: 04/13/2012 1234**					**Spiked sample: 12041017**						
Hardness (Calculated)	ND(5.0)	105	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120416-2	**For samples prepared on: 04/16/2012 0902**					**Spiked sample: 12041027**						
Cadmium, Dissolved, ICP-MS	ND(1)	96.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	93.0	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	99.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-1	**For samples prepared on: 04/17/2012 0717**					**Spiked sample: 12040878**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	91.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-2	**For samples prepared on: 04/17/2012 0756**					**Spiked sample: 12040880**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	100.	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	92.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-2	**For samples prepared on: 04/17/2012 1756**					**Spiked sample: 12040969**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	111	85.0-115	4.0	mg/L	MN	MN	81.2-133	20.0	mg/L	**	6.7
QC Batch: 120417-5	**For samples prepared on: 04/17/2012 1131**					**Spiked sample: 12041000**						
Hardness (Calculated)	ND(5.0)	104	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120419-1	**For sample analyzed on: 04/19/2012**					**Spiked sample: 12041127**						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120419-2	**For sample analyzed on: 04/19/2012**					**Spiked sample: 12041022**						
Solids, Total Suspended	ND(5)	N/A			mg/L	166 T	174 T	#		mg/L	4.7	27.6
QC Batch: 120419-4	**For samples prepared on: 04/19/2012 1121**					**Spiked sample: 12041016**						
Cadmium, Dissolved, ICP-MS	ND(1)	98.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	91.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	94.6	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120426-1	**For sample analyzed on: 04/26/2012**					**Spiked sample: 12041012**						
Phosphorus, Total, as P	ND(0.2)	98.3	88.8-110	2.0	mg/L	MN	MN	80.5-117	2.0	mg/L	**	5.7
QC Batch: 12C2122	**For sample analyzed on: 05/01/2012**					**Spiked sample: 12041142**						
Chloride	ND(1.0)	98.2	90.0-110	4.0	mg/L	MN	MN	75.1-131	400	mg/L	**	5.7
QC Batch: 21C2103	**For sample analyzed on: 04/12/2012**					**Spiked sample: 12041027**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	4.0	mg/L	**	5.7
Nitrite, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	77.5-116	2.0	mg/L	**	10.2
Nitrate, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	81.7-121	2.0	mg/L	**	8.2

Data Qualifiers:
LB - The recovery was below the method limit but within the laboratory statistically derived limits based on historical data. The reported sample concentration may be biased low.

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102698

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit

MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

N/A - Not Applicable

T - MS/MSD cannot be performed for this analysis. The MS result is the same as the sample result. The MSD result is a duplicate of the sample.

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Client: City of Wichita
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Quality Control Report
Continuing Calibration Data Summary

Date Reported: 05/02/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102698

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/23/2012	8IP3114	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/23/2012	8IP3114	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-1	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-3	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-4	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/13/2012	7IC2103	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/13/2012	8IC2103	CCV recovery acceptable for this Instrument Batch.			
Chloride	05/01/2012	1IC2122	CCV recovery acceptable for this Instrument Batch.			
Chloride	05/01/2012	2IC2122	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/13/2012	7IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/13/2012	8IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/13/2012	7IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/13/2012	8IC2103	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-3	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-4	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	12IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	13IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	7IP4108	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	8IP4108	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/25/2012	2IP3116	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/25/2012	3IP3116	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO 10[illegible]78

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information			Invoice Information		
Company Name: City of Wichita Sewage Treatment			Company Name: City of Wichita Sewage Treatment		
Address: 2305 E. 57th Street South			Address: 2305 E. 57th Street South		
City: Wichita	State: KS	Zip: 67216	City: Wichita	State: KS	Zip 67216
Contact: Jim Hardesty	E-mail:		Contact: Jim Hardesty	E-mail:	
Phone Number: (316)303-8700	Fax Number: (316)303-8712		Phone Number: (316)303-8700	Fax Number: (316)303-8712	

Sampler's Name (Printed): Justin Murphy

Sampler's Name (Signature):

Purchase Order Number:

File Number: 5611

Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER	Total Metals 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P		COMMENTS 5 Gal. container to be poured off at lab as needed for required tests. Remainining volume will be saved for organics if needed
Harvest Ct.-Grab	WW	N	4/12/12	1015	G	4			1	2	1		X	X							
Harvest Ct.-Composite	WW	N	4/12/12	1015	C	1					1				X						
Harvest Ct.-Upstream	WW	N	4/12/12	1015	G	4			1	1	2					X	X	X	X		

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT (15 working days) Rush TAT (5 working days) Emergency TAT (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY	DATE: 4/12/12	TIME: 1500	RECEIVED BY	DATE:	TIME:
RELINQUISHED BY	DATE:	TIME:	RECEIVED BY	DATE:	TIME:
RECEIVED AT LAB BY	DATE: 4-12-12	TIME: 1620	SHIPPED VIA / AIRBILL:	SEAL #: / SEAL DATE:	

H:\melissa\COC\Wichita Stormwater COCs.xlsx\4/12/2012

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 102695

Client Name: Wichita CAS File No.: 8339

Sample ID's in cooler: St-Coc
Harvest Ct

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: _____ (Client's Cooler) / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 4/12/12 16:20

Delivered By: UPS / FedX / AB Express / (Field Svcs) / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.7 Corrected Reading (°C) 1.2
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
NW 4-12-12 Thermo. ID No.: 585 Thermo. Correction Factor (°C): 0.5
☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

☐ Chain of Custody not present - information taken from:
Cover Letter ☐ Container ☐
PO ☐ CAS Proj. Mgr. ☐
☐ Container label absent
☐ Chain of Custody incomplete [see detail below]
☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
☐ Date or Time sampled obtained from container label
☐ Chain of Custody missing sampler's name
☐ Chain of Custody missing matrix (sample type)
☐ Missing relinquished information: signature date time
☐ Sample excluded from Chain of Custody
☐ Sample listed on Chain of Custody, not received
☐ Sample description on container and Chain of Custody do not agree
☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement
[Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
☐ Broken or leaking containers (detail actions below)
☐ Sample container type or labeled chemical preservation inappropriate
☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: AB Date Completed: 4-12-12

Continental Analytical Services, Inc.

05/07/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 04/12/2012 1620
Continental File No.: 8339
Continental Order No.: 102699
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 11 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12041025	Huntington-Grab	Liquid	4/12/2012
12041026	Huntington-Composite	Liquid	4/12/2012
12041027	Huntington-Upstream	Liquid	4/12/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/07/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102699

Lab Number: 12041025
Sample Description: Huntington-Grab

Date Sampled: 04/12/2012
Time Sampled: 1205

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/125
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/125
Copper, Tot. Rec., ICP-MS	5	µg/L	7202/123
Hardness (Calculated)	25.8	mg/L as CaCO3	7157/251
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/125
Zinc, Tot. Rec., ICP-MS	25	µg/L	7202/123
Chloride	2.3	mg/L	7277/48
Hexane Extractable Material	ND(5.0)	mg/L	7198/87
Solids, Total Dissolved	42	mg/L	7059/859
Solids, Total Suspended	41	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2258	120419-4	7IP3114	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0153	120417-2	8IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2258	120419-4	7IP3114	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0153	120417-2	8IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/17/12 1131	04/17/12 2109	120417-5	7IP4108	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2258	120419-4	7IP3114	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0153	120417-2	8IP3109	KMW	200.8 Rev. 5.4
Chloride	N/A	05/01/12 1236	1IC2122	1IC2122	MLL	300.0
Hexane Extractable Materia	05/03/12	05/03/12 2221	120503-1	120503-1	JND	1664
Solids, Total Dissolved	N/A	04/19/12 1440	120419-1	120419-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1335	120419-2	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B
HEM Preparation Method						1664

Conclusion of Lab Number: 12041025

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/07/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102699

Lab Number: 12041026
Sample Description: Huntington-Composite

Date Sampled: 04/12/2012
Time Sampled: 1205

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/122
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/122
Copper, Tot. Rec., ICP-MS	6	µg/L	7202/123
Hardness (Calculated)	23.0	mg/L as CaCO3	7157/248
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/122
Zinc, Tot. Rec., ICP-MS	25	µg/L	7202/123
BOD	7	mg/L	7060/413
Chloride	1.9	mg/L	7277/35
Kjeldahl Nitrogen, as N (TKN)	2.1	mg/L	6854/509
Nitrate, as N	0.4	mg/L	7277/35
Nitrite, as N	ND(0.1)	mg/L	7277/35
Nitrogen (TKN + NO3/NO2), as N	2.5	mg/L	9998/72
Phosphorus, Total, as P	0.26	mg/L	7061/315
Solids, Total Dissolved	ND(30)	mg/L	7059/859
Solids, Total Suspended	29	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/16/12 0902	04/17/12 0024	120416-2	4IP3107	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2304	120417-1	5IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/16/12 0902	04/17/12 0024	120416-2	4IP3107	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2304	120417-1	5IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/13/12 1234	04/14/12 0236	120413-5	12IP4104	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/16/12 0902	04/17/12 0024	120416-2	4IP3107	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2304	120417-1	5IP3109	KMW	200.8 Rev. 5.4
BOD	N/A	04/13/12 1700	120413-2	120413-1	MLL	SM 5210B
Chloride	N/A	04/13/12 1212	2IC2103	7IC2103	MLL	300.0
Kjeldahl Nitrogen, as N (T	04/23/12 1625	05/02/12 1647	120423-2	120502-2	JND	EPA 351.2
Nitrate, as N	N/A	04/13/12 1212	2IC2103	7IC2103	MLL	300.0
Nitrite, as N	N/A	04/13/12 1212	2IC2103	7IC2103	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	05/07/12 1103				Calculation
Phosphorus, Total, as P	N/A	04/26/12 1418	120426-1	120426-3	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	04/19/12 1440	120419-1	120419-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1335	120419-2	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041026

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/07/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102699

Lab Number: 12041027
Sample Description: Huntington-Upstream

Date Sampled: 04/12/2012
Time Sampled: 1205

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/122
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	12 DM	µg/L	7202/122
Copper, Tot. Rec., ICP-MS	9	µg/L	7202/123
Hardness (Calculated)	28.7	mg/L as CaCO3	7157/251
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/122
Zinc, Tot. Rec., ICP-MS	47	µg/L	7202/123
BOD	7	mg/L	7060/413
Chloride	2.9	mg/L	7277/35
Kjeldahl Nitrogen, as N (TKN)	1.7	mg/L	6854/509
Nitrate, as N	0.3	mg/L	7277/35
Nitrite, as N	ND(0.1)	mg/L	7277/35
Nitrogen (TKN + NO3/NO2), as N	2.0	mg/L	9998/72
Phosphorus, Total, as P	0.21	mg/L	7061/315
Solids, Total Dissolved	ND(30)	mg/L	7059/859
Solids, Total Suspended	34	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/16/12 0902	04/17/12 0030	120416-2	4IP3107	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2309	120417-1	5IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/16/12 0902	04/17/12 0030	120416-2	4IP3107	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2309	120417-1	5IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/17/12 1131	04/17/12 2113	120417-5	7IP4108	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/16/12 0902	04/17/12 0030	120416-2	4IP3107	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2309	120417-1	5IP3109	KMW	200.8 Rev. 5.4
BOD	N/A	04/13/12 1700	120413-2	120413-1	MLL	SM 5210B
Chloride	N/A	04/13/12 1249	2IC2103	7IC2103	MLL	300.0
Kjeldahl Nitrogen, as N (T	04/23/12 1625	05/02/12 1649	120423-2	120502-2	JND	EPA 351.2
Nitrate, as N	N/A	04/13/12 1249	2IC2103	7IC2103	MLL	300.0
Nitrite, as N	N/A	04/13/12 1249	2IC2103	7IC2103	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	05/07/12 1103				Calculation
Phosphorus, Total, as P	N/A	04/26/12 1419	120426-1	120426-3	KJH	SM 4500-P(B&F)(M
Solids, Total Dissolved	N/A	04/19/12 1440	120419-1	120419-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1335	120419-2	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041027

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/07/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102699

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12041026	BOD	04/12/2012 1205	04/13/2012 1700	28:55
12041026	Nitrate, as N	04/12/2012 1205	04/13/2012 1212	24:07
12041026	Nitrite, as N	04/12/2012 1205	04/13/2012 1212	24:07
12041027	BOD	04/12/2012 1205	04/13/2012 1700	28:55
12041027	Nitrate, as N	04/12/2012 1205	04/13/2012 1249	24:44
12041027	Nitrite, as N	04/12/2012 1205	04/13/2012 1249	24:44

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/07/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102699

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/07/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102699

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120413-5	120413BLK5 04/14/12 01:03	120413LCS5 04/14/12 01:16	12041017MS 04/14/12 02:16
Lab numbers associated with this batch: 12041026					
SL156	Cadmium, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL162	Copper, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL183	Zinc, Dissolved, ICP-MS	120416-2	120416BLK2 04/16/12 22:18	120416LCS2 04/16/12 22:23	12041027MS 04/17/12 00:35
Lab numbers associated with this batch: 12041026 12041027					
SL006	Cadmium, Tot. Rec., ICP-MS	120417-1	120417BLK1	120417LCS1	12040878MS
SL012	Copper, Tot. Rec., ICP-MS	120417-1	120417BLK1	120417LCS1	12040878MS
SL033	Zinc, Tot. Rec., ICP-MS	120417-1	120417BLK1 04/18/12 20:58	120417LCS1 04/18/12 21:03	12040878MS 04/18/12 21:13
Lab numbers associated with this batch: 12041026 12041027					
SL006	Cadmium, Tot. Rec., ICP-MS	120417-2	120417BLK2	120417LCS2	12040880MS
SL012	Copper, Tot. Rec., ICP-MS	120417-2	120417BLK2	120417LCS2	12040880MS
SL033	Zinc, Tot. Rec., ICP-MS	120417-2	120417BLK2 04/18/12 23:15	120417LCS2 04/18/12 23:20	12040880MS 04/18/12 23:41
Lab numbers associated with this batch: 12041025					
SL323	Hardness (Calculated)	120417-5	120417BLK5 04/17/12 19:41	120417LCS5 04/17/12 19:45	12041000MS 04/17/12 20:05
Lab numbers associated with this batch: 12041025 12041027					
SL156	Cadmium, Dissolved, ICP-MS	120419-4	120419BLK4	120419LCS4	12041016MS
SL162	Copper, Dissolved, ICP-MS	120419-4	120419BLK4	120419LCS4	12041016MS
SL183	Zinc, Dissolved, ICP-MS	120419-4	120419BLK4 04/23/12 21:17	120419LCS4 04/23/12 21:23	12041016MS 04/23/12 22:21
Lab numbers associated with this batch: 12041025					
GL123	BOD	120413-2	120413BLK2 04/13/12 17:00	120413LCS2 04/13/12 17:00	12041018MS 04/13/12 17:00
Lab numbers associated with this batch: 12041026 12041027					
GL502	Chloride	1IC2122	BLK1IC2122 05/01/12 10:27	LCS1IC2122 05/01/12 10:46	12041142MS 05/01/12 15:04
Lab numbers associated with this batch: 12041025					
GL502	Chloride	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
Lab numbers associated with this batch: 12041026 12041027					

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/07/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102699

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL188	Hexane Extractable Material	120503-1	120503BLK1 05/03/12 22:17	120503LCS1 05/03/12 22:21	12050179MS 05/03/12 22:22
	Lab numbers associated with this batch: 12041025				
GL595	Kjeldahl Nitrogen, as N (TKN)	120423-2	120423BLK2 05/02/12 16:15	120423LCS2 05/02/12 16:17	12041421MS 05/02/12 16:25
	Lab numbers associated with this batch: 12041026 12041027				
GL505	Nitrate, as N	2IC2103	BLK2IC2103	LCS2IC2103	12041027MS
GL503	Nitrite, as N	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
	Lab numbers associated with this batch: 12041026 12041027				
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12041026 12041027				
GL218	Phosphorus, Total, as P	120426-1	120426BLK1 04/26/12 1359	120426LCS1 04/26/12 1400	12041012MS 04/26/12 1409
	Lab numbers associated with this batch: 12041026 12041027				
GL242	Solids, Total Dissolved	120419-1	120419BLK1 04/19/12 14:36	120419LCS1 04/19/12	12041127MS 04/19/12 14:41
	Lab numbers associated with this batch: 12041025 12041026 12041027				
GL243	Solids, Total Suspended	120419-2	120419BLK2 04/19/12 13:33	120419LCS2 04/19/12	12041022MS 04/19/12 13:34
	Lab numbers associated with this batch: 12041025 12041026 12041027				

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/07/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102699

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120413-2	**For sample analyzed on: 04/13/2012**					**Spiked sample: 12041018**						
BOD	ND(5)	84.5 LB	75.3-109	198	mg/L	MN	MN	#		mg/L	**	16.4
QC Batch: 120413-5	**For samples prepared on: 04/13/2012 1234**					**Spiked sample: 12041017**						
Hardness (Calculated)	ND(5.0)	105	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120416-2	**For samples prepared on: 04/16/2012 0902**					**Spiked sample: 12041027**						
Cadmium, Dissolved, ICP-MS	ND(1)	96.2	85.0-115	500	µg/L	93.9	94.8	80.0-120	500	µg/L	1.0	20.0
Copper, Dissolved, ICP-MS	ND(5)	93.0	85.0-115	500	µg/L	95.5	96.5	80.0-120	500	µg/L	1.0	20.0
Zinc, Dissolved, ICP-MS	ND(20)	99.8	85.0-115	500	µg/L	98.5	99.5	80.0-120	500	µg/L	1.0	20.0
QC Batch: 120417-1	**For samples prepared on: 04/17/2012 0717**					**Spiked sample: 12040878**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	91.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-2	**For samples prepared on: 04/17/2012 0756**					**Spiked sample: 12040880**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	100.	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	92.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-5	**For samples prepared on: 04/17/2012 1131**					**Spiked sample: 12041000**						
Hardness (Calculated)	ND(5.0)	104	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120419-1	**For sample analyzed on: 04/19/2012**					**Spiked sample: 12041127**						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120419-2	**For sample analyzed on: 04/19/2012**					**Spiked sample: 12041022**						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120419-4	**For samples prepared on: 04/19/2012 1121**					**Spiked sample: 12041016**						
Cadmium, Dissolved, ICP-MS	ND(1)	98.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	91.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	94.6	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120423-2	**For samples prepared on: 04/23/2012 1625**					**Spiked sample: 12041421**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	108	85.0-115	4.0	mg/L	MN	MN	81.2-133	4.0	mg/L	**	6.7
QC Batch: 120426-1	**For sample analyzed on: 04/26/2012**					**Spiked sample: 12041012**						
Phosphorus, Total, as P	ND(0.2)	98.3	88.8-110	2.0	mg/L	MN	MN	80.5-117	2.0	mg/L	**	5.7
QC Batch: 120503-1	**For samples prepared on: 05/03/2012**					**Spiked sample: 12050179**						
Hexane Extractable Material	ND(1.4)	88.0	78.0-114	40.0	mg/L	MN	MN	78.0-114	40.0	mg/L	**	18.0
QC Batch: 1IC2122	**For sample analyzed on: 05/01/2012**					**Spiked sample: 12041142**						
Chloride	ND(1.0)	98.2	90.0-110	4.0	mg/L	MN	MN	75.1-131	400	mg/L	**	5.7
QC Batch: 2IC2103	**For sample analyzed on: 04/12/2012**					**Spiked sample: 12041027**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	92.6	92.5	75.1-131	4.0	mg/L	0.1	5.7
Nitrite, as N	ND(0.1)	103	90.0-110	2.0	mg/L	96.7	98.2	77.5-116	2.0	mg/L	1.5	10.2
Nitrate, as N	ND(0.1)	103	90.0-110	2.0	mg/L	96.7	97.3	81.7-121	2.0	mg/L	0.6	8.2

Data Qualifiers:

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/07/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102699

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit

LB - The recovery was below the method limit but within the laboratory statistically derived limits based on historical data. The reported sample concentration may be biased low.

MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

N/A - Not Applicable

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/07/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102699

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/23/2012	8IP3114	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/23/2012	8IP3114	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-1	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-2	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	05/03/2012	120503-1	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	05/03/2012	120503-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-3	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-4	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/13/2012	7IC2103	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/13/2012	8IC2103	CCV recovery acceptable for this Instrument Batch.			
Chloride	05/01/2012	1IC2122	CCV recovery acceptable for this Instrument Batch.			
Chloride	05/01/2012	2IC2122	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/13/2012	7IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/13/2012	8IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/13/2012	7IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/13/2012	8IC2103	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	05/02/2012	120502-2	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	05/02/2012	120502-3	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	12IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	13IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	7IP4108	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	8IP4108	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/23/2012	8IP3114	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.
525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS JOB # NO. 102617

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information	Invoice Information
Company Name: City of Wichita Sewage Treatment	Company Name: City of Wichita Sewage Treatment
Address: 2305 E. 57th Street South	Address: 2305 E. 57th Street South
City: Wichita State: KS Zip: 67216	City: Wichita State: KS Zip: 67216
Contact: Jim Hardesty E-mail:	Contact: Jim Hardesty E-mail:
Phone Number: (316)303-8700 Fax Number: (316)303-8712	Phone Number: (316)303-8700 Fax Number: (316)303-8712

Sampler's Name:(Printed) Justin Murphy
Sampler's Name:(Signature)
Purchase Order Number:
File Number: 5611
Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER	Cadmium, Copper, Zinc - Total Recoverable 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Hexane Extractable Material 2 - 1000ml Amber Glass - H2SO4	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P	COMMENTS 5 Gal. container to be poured off at lab as needed for required tests. Remaininig volume will be saved for organics if needed
Huntington-Grab	WW	N	4/12/12	1205	G	4			1	2	1		X	X	X						
Huntington-Composite	WW	N	4/12/12	1205	C	1					1					X					
Huntington-Upstream	WW	N	4/12/12	1205	G	4			1	1	2						X	X	X	X	

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT (15 working days) Rush TAT (5 working days) Emergency TAT (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY	DATE: 4/12/12	TIME: 1500	RECEIVED BY	DATE:	TIME
RELINQUISHED BY	DATE:	TIME:	RECEIVED BY	DATE:	TIME:
RECEIVED AT LAB BY	DATE: 4-12-12	TIME: 1620	SHIPPED VIA: AIRBILL	SEAL #: SEAL DATE:	

H:\analisa\...chita Stormwater COCs.xls\4/12/2012

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 102699

Client Name: Wichita **CAS File No.:** 8339

Sample ID's in cooler: See COC

Huntington

Cooler 1 **of** 1 **for this CAS Order No.**

Cooler Identification: CAS Cooler #:_____ (Client's Cooler) / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 4 / 12 / 12 16 : 20

Delivered By: UPS / FedX / AB Express / (Field Svcs) / Mail / Walk-In / Other:_____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other:_____

Cooler Temperature (°C): Original Reading (°C) 1.1 Corrected Reading (°C) 1.6
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other:_____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): 0.5

MW 4-13-12

☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: _____ **Date Completed:** 4-12-12

Continental Analytical Services, Inc.

02/17/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 02/03/2012 10:00
Continental File No.: 8339
Continental Order No.: 101257
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 12 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12020410	Cowskin and Maple-Grab	Liquid	2/3/2012
12020411	Cowskin and Maple-Composite	Liquid	2/3/2012
12020412	Cowskin and Maple-Upstream	Liquid	2/3/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101257

Lab Number: 12020410
Sample Description: Cowskin and Maple-Grab

Date Sampled: 02/03/2012
Time Sampled: 0745

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/90
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/88
Copper, Dissolved, ICP-MS	9 DM	µg/L	7202/90
Copper, Tot. Rec., ICP-MS	6	µg/L	7202/88
Hardness (Calculated)	27.1	mg/L as CaCO3	7157/194
Zinc, Dissolved, ICP-MS	23 DM	µg/L	7202/90
Zinc, Tot. Rec., ICP-MS	55	µg/L	7202/88
Chloride	4.0	mg/L	7107/222
Solids, Total Dissolved	76	mg/L	7059/737
Solids, Total Suspended	28	mg/L	7059/736

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2214	120210-2	5IP3046	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1946	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2214	120210-2	5IP3046	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1946	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/07/12 1301	02/07/12 1920	120207-4	7IP4038	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2214	120210-2	5IP3046	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1946	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Chloride	N/A	02/08/12 1545	1IC2039	1IC2039	MLL	300.0
Solids, Total Dissolved	N/A	02/10/12 1515	120210-1	120210-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/10/12 1436	120210-1	120210-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12020410

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101257

Lab Number: 12020411
Sample Description: Cowskin and Maple-Composite

Date Sampled: 02/03/2012
Time Sampled: 0745

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM QC	µg/L	7202/87
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/88
Copper, Dissolved, ICP-MS	7 DM	µg/L	7202/87
Copper, Tot. Rec., ICP-MS	8	µg/L	7202/88
Hardness (Calculated)	28.3	mg/L as CaCO3	7157/192
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/87
Zinc, Tot. Rec., ICP-MS	85	µg/L	7202/88
BOD	6	mg/L	7060/353
Chloride	4.3	mg/L	7107/218
Kjeldahl Nitrogen, as N (TKN)	1.4	mg/L	6854/436
Nitrate, as N	0.6	mg/L	7107/218
Nitrite, as N	ND(0.1)	mg/L	7107/218
Nitrogen (TKN + NO3/NO2), as N	2.0	mg/L	9999/873
Phosphorus, Total, as P	ND(0.20)	mg/L	7061/272
Solids, Total Dissolved	70.	mg/L	7059/737
Solids, Total Suspended	36	mg/L	7059/736

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1806	120206-4	3IP3039	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1951	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1806	120206-4	3IP3039	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1951	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/06/12 1304	02/07/12 0028	120206-3	10IP4037	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1806	120206-4	3IP3039	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1951	120208-1	3IP3040	JDL	200.8 Rev. 5.4
BOD	N/A	02/03/12 1800	120203-1	120203-1	ASK	SM 5210B
Chloride	N/A	02/03/12 2215	1IC2034	2IC2034	MLL	300.0
Kjeldahl Nitrogen, as N (T	02/06/12	02/07/12 1222	120206-2	120207-2	JND	EPA 351.2
Nitrate, as N	N/A	02/03/12 2215	1IC2034	2IC2034	MLL	300.0
Nitrite, as N	N/A	02/03/12 2215	1IC2034	2IC2034	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	02/10/12 0801				Calculation
Phosphorus, Total, as P	N/A	02/17/12 1421	120217-1	120217-2	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	02/10/12 1515	120210-1	120210-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/10/12 1436	120210-1	120210-1	KJH	SM20th 2540D

Dissolved Metals Preparation Method 200.7/200.8
Total Recoverable Metals Preparation Method 200.7/200.8
Calculated as Hardness Preparation Method 200.7/6010B

Conclusion of Lab Number: 12020411

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101257

Lab Number: 12020412
Sample Description: Cowskin and Maple-Upstream

Date Sampled: 02/03/2012
Time Sampled: 0745

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM QC	µg/L	7202/87
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/88
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/87
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/88
Hardness (Calculated)	120.	mg/L as CaCO3	7157/192
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/87
Zinc, Tot. Rec., ICP-MS	41	µg/L	7202/88
BOD	ND(5)	mg/L	7060/353
Chloride	69	mg/L	7107/218
Kjeldahl Nitrogen, as N (TKN)	1.1	mg/L	6854/436
Nitrate, as N	1.0	mg/L	7107/218
Nitrite, as N	ND(0.1)	mg/L	7107/218
Nitrogen (TKN + NO3/NO2), as N	2.1	mg/L	9999/873
Phosphorus, Total, as P	0.3	mg/L	7061/272
Solids, Total Dissolved	336	mg/L	7059/737
Solids, Total Suspended	50.	mg/L	7059/736

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1812	120206-4	3IP3039	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1957	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1812	120206-4	3IP3039	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1957	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/06/12 1304	02/07/12 0033	120206-3	10IP4037	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1812	120206-4	3IP3039	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1957	120208-1	3IP3040	JDL	200.8 Rev. 5.4
BOD	N/A	02/03/12 1800	120203-1	120203-1	ASK	SM 5210B
Chloride	N/A	02/04/12 0442	1IC2034	4IC2034	MLL	300.0
Kjeldahl Nitrogen, as N (T	02/06/12	02/07/12 1228	120206-2	120207-3	JND	EPA 351.2
Nitrate, as N	N/A	02/04/12 0424	1IC2034	4IC2034	MLL	300.0
Nitrite, as N	N/A	02/04/12 0424	1IC2034	4IC2034	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	02/10/12 0801				Calculation
Phosphorus, Total, as P	N/A	02/17/12 1421	120217-1	120217-2	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	02/10/12 1516	120210-1	120210-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/10/12 1436	120210-1	120210-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12020412

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101257

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12020411	BOD	02/03/2012 0745	02/03/2012 1800	10:15
12020411	Nitrate, as N	02/03/2012 0745	02/03/2012 2215	14:30
12020411	Nitrite, as N	02/03/2012 0745	02/03/2012 2215	14:30
12020412	BOD	02/03/2012 0745	02/03/2012 1800	10:15
12020412	Nitrate, as N	02/03/2012 0745	02/04/2012 0424	20:39
12020412	Nitrite, as N	02/03/2012 0745	02/04/2012 0424	20:39

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

QC - QC data qualifiers were noted. See the Quality Control Report.

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Jim Hardesty
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Date Reported: 02/17/2012
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NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101257

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120206-3	120206BLK3 02/06/12 23:10	120206LCS3 02/06/12 23:14	12020397MS 02/06/12 23:34
	Lab numbers associated with this batch: 12020411 12020412				
SL156	Cadmium, Dissolved, ICP-MS	120206-4	120206BLK4	120206LCS4	12020415MS
SL162	Copper, Dissolved, ICP-MS	120206-4	120206BLK4	120206LCS4	12020415MS
SL183	Zinc, Dissolved, ICP-MS	120206-4	120206BLK4 02/08/12 16:32	120206LCS4 02/08/12 16:37	12020415MS 02/08/12 18:27
	Lab numbers associated with this batch: 12020411 12020412				
SL323	Hardness (Calculated)	120207-4	120207BLK4 02/07/12 18:00	120207LCS4 02/07/12 18:12	12020348MS 02/07/12 18:36
	Lab numbers associated with this batch: 12020410				
SL006	Cadmium, Tot. Rec., ICP-MS	120208-1	120208BLK1	120208LCS1	12020401MS
SL012	Copper, Tot. Rec., ICP-MS	120208-1	120208BLK1	120208LCS1	12020401MS
SL033	Zinc, Tot. Rec., ICP-MS	120208-1	120208BLK1 02/09/12 18:17	120208LCS1 02/09/12 18:22	12020401MS 02/09/12 18:38
	Lab numbers associated with this batch: 12020410 12020411 12020412				
SL156	Cadmium, Dissolved, ICP-MS	120210-2	120210BLK2	120210LCS2	12020410MS
SL162	Copper, Dissolved, ICP-MS	120210-2	120210BLK2	120210LCS2	12020410MS
SL183	Zinc, Dissolved, ICP-MS	120210-2	120210BLK2 02/15/12 21:21	120210LCS2 02/15/12 21:26	12020410MS 02/15/12 22:19
	Lab numbers associated with this batch: 12020410				
GL123	BOD	120203-1	120203BLK1 02/03/12 18:00	120203LCS1 02/03/12 18:00	12020390MS 02/03/12 18:00
	Lab numbers associated with this batch: 12020411 12020412				
GL502	Chloride	1IC2034	BLK1IC2034 02/03/12 16:25	LCS1IC2034 02/03/12 16:44	12020330MS 02/03/12 17:20
	Lab numbers associated with this batch: 12020411 12020412				
GL502	Chloride	1IC2039	BLK1IC2039 02/08/12 14:12	LCS1IC2039 02/08/12 14:31	12020352MS 02/08/12 18:49
	Lab numbers associated with this batch: 12020410				
GL595	Kjeldahl Nitrogen, as N (TKN)	120206-2	120206BLK2 02/07/12 11:41	120206LCS2 02/07/12 11:43	12020351MS 02/07/12 16:29
	Lab numbers associated with this batch: 12020411 12020412				

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
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455 N. Main
Wichita, KS 67202

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101257

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL505	Nitrate, as N	1IC2034	BLK1IC2034	LCS1IC2034	12020330MS
GL503	Nitrite, as N	1IC2034	BLK1IC2034 02/03/12 16:25	LCS1IC2034 02/03/12 16:44	
	Lab numbers associated with this batch: 12020411 12020412				
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12020411 12020412				
GL218	Phosphorus, Total, as P	120217-1	120217BLK1 02/17/12 1409	120217LCS1 02/17/12 1410	12020397MS 02/17/12 1412
	Lab numbers associated with this batch: 12020411 12020412				
GL242	Solids, Total Dissolved	120210-1	120210BLK1	120210LCS1	12020425MS
GL243	Solids, Total Suspended	120210-1	120210BLK1 02/10/12 14:34	120210LCS1 02/10/12	12020416MS 02/10/12 14:38
	Lab numbers associated with this batch: 12020410 12020411 12020412				

Continental Analytical Services, Inc.

Client: City of Wichita
Attn: Jim Hardesty
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455 N. Main
Wichita, KS 67202

Quality Control Report
Method Blank, LCS, MS/MSD Data

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101257

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120203-1	For sample analyzed on: 02/03/2012					Spiked sample: 12020390						
BOD	ND(5)	81.3	70.5-110	198	mg/L	MN	MN	#		mg/L	**	13.2
QC Batch: 120206-2	For samples prepared on: 02/06/2012					Spiked sample: 12020351						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	104	85.0-115	4.0	mg/L	MN	MN	81.5-133	20.0	mg/L	**	18.3
QC Batch: 120206-3	For samples prepared on: 02/06/2012 1304					Spiked sample: 12020397						
Hardness (Calculated)	ND(5.0)	101	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120206-4	For samples prepared on: 02/06/2012 1426					Spiked sample: 12020415						
Cadmium, Dissolved, ICP-MS	ND(1)	104	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	92.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	102	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120207-4	For samples prepared on: 02/07/2012 1301					Spiked sample: 12020348						
Hardness (Calculated)	ND(5.0)	101	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120208-1	For samples prepared on: 02/08/2012 0805					Spiked sample: 12020401						
Cadmium, Tot. Rec., ICP-MS	1 J	102	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	93.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	105	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120210-1	For sample analyzed on: 02/10/2012					Spiked sample: 12020416						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	18.2
QC Batch: 120210-1	For sample analyzed on: 02/10/2012					Spiked sample: 12020425						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.2
QC Batch: 120210-2	For samples prepared on: 02/10/2012 0952					Spiked sample: 12020410						
Cadmium, Dissolved, ICP-MS	ND(1)	102	85.0-115	500	µg/L	105	99.8	80.0-120	500	µg/L	5.1	20.0
Copper, Dissolved, ICP-MS	ND(5)	95.7	85.0-115	500	µg/L	98.1	93.6	80.0-120	500	µg/L	4.7	20.0
Zinc, Dissolved, ICP-MS	ND(20)	99.6	85.0-115	500	µg/L	102	96.5	80.0-120	500	µg/L	5.5	20.0
QC Batch: 120217-1	For sample analyzed on: 02/17/2012					Spiked sample: 12020397						
Phosphorus, Total, as P	ND(0.20)	95.5	90.0-110	2.0	mg/L	MN	MN	71.2-135	2.0	mg/L	**	21.2
QC Batch: 1IC2034	For sample analyzed on: 02/03/2012					Spiked sample:						
Nitrite, as N	ND(0.1)	95.1	90.0-110	2.0	mg/L	MN	MN	78.5-127			**	10.1
QC Batch: 1IC2034	For sample analyzed on: 02/03/2012					Spiked sample: 12020330						
Chloride	ND(1.0)	96.6	90.0-110	4.0	mg/L	MN	MN	82.1-126	80.0	mg/L	**	12.5
Nitrate, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	79.3-118	40.0	mg/L	**	12.1
QC Batch: 1IC2039	For sample analyzed on: 02/08/2012					Spiked sample: 12020352						
Chloride	ND(1.0)	96.7	90.0-110	4.0	mg/L	MN	MN	82.1-126	400	mg/L	**	12.5

Data Qualifiers:

MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

J - The concentration or not detected (ND) value is below the Limit of Quantitation (LOQ) and is considered an estimated value.

N/A - Not Applicable

\# - Limits not available.

** - RPD cannot be calculated.

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Quality Control Report
Method Blank, LCS, MS/MSD Data

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101257

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit

Continental Analytical Services, Inc.

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Quality Control Report
Continuing Calibration Data Summary

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101257

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	02/08/2012	3IP3039	100	111	µg/L	111 CH

Samples associated with this Continuing Calibration Verification:

Laboratory Number	Instrument Batch	Sample Description
12020411	3IP3039	Cowskin and Maple-Composite
12020412	3IP3039	Cowskin and Maple-Upstream

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Tot. Rec., ICP-MS	02/09/2012	3IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/08/2012	4IP3039	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/15/2012	6IP3046	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/08/2012	3IP3039	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	3IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/08/2012	4IP3039	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/15/2012	6IP3046	CCV recovery acceptable for this Instrument Batch.			
BOD	02/03/2012	120203-1	CCV recovery acceptable for this Instrument Batch.			
BOD	02/03/2012	120203-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	02/17/2012	120217-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	02/17/2012	120217-3	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/04/2012	5IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/08/2012	1IC2039	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/08/2012	2IC2039	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/04/2012	5IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/04/2012	5IC2034	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/07/2012	120207-2	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/07/2012	120207-3	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/07/2012	120207-4	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	02/06/2012	10IP4037	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	02/07/2012	11IP4037	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	02/07/2012	7IP4038	CCV recovery acceptable for this Instrument Batch.			

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Quality Control Report
Continuing Calibration Data Summary

Date Reported: 02/17/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101257

Hardness (Calculated)	02/07/2012	8IP4038	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/08/2012	3IP3039	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	3IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/08/2012	4IP3039	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/15/2012	6IP3046	CCV recovery acceptable for this Instrument Batch.

Data Qualifiers:
CH - The continuing calibration verification (CCV) standard recovery for this analyte was above the method or SOP limit. The reported concentration for this analyte may be biased high.

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO. 101257
CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information			Invoice Information		
Company Name: City of Wichita Sewage Treatment			Company Name: City of Wichita Sewage Treatment		
Address: 2305 E. 57th Street South			Address: 2305 E. 57th Street South		
City: Wichita	State: KS	Zip: 67216	City: Wichita	State: KS	Zip: 67216
Contact: Jim Hardesty	E-mail:		Contact: Jim Hardesty	E-mail:	
Phone Number: (316)303-8700	Fax Number: (316)303-8712		Phone Number: (316)303-8700	Fax Number: (316)303-8712	

Sampler's Name:(Printed) Justin Murphy
Sampler's Name:(Signature)
Purchase Order Number:
File Number: 5611
Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER	Total Metals 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P		COMMENTS 5 Gal. container to be poured off at lab as needed for required tests. Remaininig volume will be saved for organics if needed
Cowskin and Maple-Grab	WW	N	2/3/12	0745	G	4			1	2	1		X	X							
Cowskin and Maple-Composite	WW	N	2/3/12	0745	C	1					1				X						
Cowskin and Maple-Upstream	WW	N	2/3/12	0745	G	4			1	1	2					X	X	X	X		

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT (15 working days) Rush TAT (5 working days) Emergency TAT (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY	DATE: 2/3/12	TIME: 1000	RECEIVED BY:	DATE:	TIME:
RELINQUISHED BY	DATE:	TIME:	RECEIVED BY	DATE:	TIME:
RECEIVED AT LAB BY: Mark W. Stiles	DATE: 2-3-12	TIME: 1425	SHIPPED VIA: AIRBILL	SEAL #: SEAL DATE:	

H:\melissa...\Wichita Stormwater COCs.xls\2/2/2012

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 101257

Client Name: Wichita CAS File No.: 8339

Sample ID's in cooler: 5 COC
Cowkin

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: _____ / (Client's Cooler) / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 2/3/12 14:35

Delivered By: UPS / FedX / AB Express / (Field Svcs) / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / (Foam) / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.4 Corrected Reading (°C) 0.8
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): 0.4
☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes (See below for discrepancies.)

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

☐ Chain of Custody not present - information taken from:
Cover Letter ☐ Container ☐
PO ☐ CAS Proj. Mgr. ☐
☐ Container label absent
☐ Chain of Custody incomplete [see detail below]
☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
☐ Date or Time sampled obtained from container label
☐ Chain of Custody missing sampler's name
☐ Chain of Custody missing matrix (sample type)
☐ Missing relinquished information: signature date time
☐ Sample excluded from Chain of Custody
☐ Sample listed on Chain of Custody, not received
☐ Sample description on container and Chain of Custody do not agree
☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement
[Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
☐ Broken or leaking containers (detail actions below)
☐ Sample container type or labeled chemical preservation inappropriate
☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: MLS Date Completed: 2-3-12

Continental
Analytical Services, Inc.

04/27/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 04/12/2012 1620
Continental File No.: 8339
Continental Order No.: 102690
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 11 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12041000	Cowskin and Maple-Grab	Liquid	4/12/2012
12041001	Cowskin and Maple-Composite	Liquid	4/12/2012
12041002	Cowskin and Maple-Upstream	Liquid	4/12/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102690

Lab Number: 12041000
Sample Description: Cowskin and Maple-Grab

Date Sampled: 04/12/2012
Time Sampled: 1030

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/122
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/122
Copper, Tot. Rec., ICP-MS	10.	µg/L	7202/123
Hardness (Calculated)	38.4	mg/L as CaCO3	7157/251
Zinc, Dissolved, ICP-MS	29 DM	µg/L	7202/122
Zinc, Tot. Rec., ICP-MS	187	µg/L	7202/123
Chloride	2.8	mg/L	7276/21
Solids, Total Dissolved	42	mg/L	7059/848
Solids, Total Suspended	108	mg/L	7059/853

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2234	120416-2	2IP3107	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2156	120417-1	4IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2234	120416-2	2IP3107	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2156	120417-1	4IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/17/12 1131	04/17/12 1953	120417-5	5IP4108	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2234	120416-2	2IP3107	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2156	120417-1	4IP3109	KMW	200.8 Rev. 5.4
Chloride	N/A	04/25/12 1840	1IC1116	1IC1116	MLL	300.0
Solids, Total Dissolved	N/A	04/16/12 1623	120416-1	120416-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/18/12 1306	120418-1	120418-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041000

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102690

Lab Number: 12041001
Sample Description: Cowskin and Maple-Composite

Date Sampled: 04/12/2012
Time Sampled: 1030

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/122
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/122
Copper, Tot. Rec., ICP-MS	9	µg/L	7202/123
Hardness (Calculated)	36.1	mg/L as CaCO3	7157/248
Zinc, Dissolved, ICP-MS	25 DM	µg/L	7202/122
Zinc, Tot. Rec., ICP-MS	180.	µg/L	7202/123
BOD	12	mg/L	7060/412
Chloride	3.5	mg/L	7277/35
Kjeldahl Nitrogen, as N (TKN)	2.1	mg/L	6854/505
Nitrate, as N	0.5	mg/L	7277/35
Nitrite, as N	ND(0.1)	mg/L	7277/35
Nitrogen (TKN + NO3/NO2), as N	2.6	mg/L	9998/57
Phosphorus, Total, as P	0.31	mg/L	7061/315
Solids, Total Dissolved	40.	mg/L	7059/848
Solids, Total Suspended	104	mg/L	7059/853

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2239	120416-2	2IP3107	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0018	120417-2	6IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2239	120416-2	2IP3107	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0018	120417-2	6IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/13/12 1234	04/14/12 0123	120413-5	11IP4104	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2239	120416-2	2IP3107	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0018	120417-2	6IP3109	KMW	200.8 Rev. 5.4
BOD	N/A	04/13/12 1455	120413-1	120413-1	MLL	SM 5210B
Chloride	N/A	04/13/12 0031	2IC2103	4IC2103	MLL	300.0
Kjeldahl Nitrogen, as N (T	04/17/12 1756	04/24/12 1041	120417-2	120424-1	JND	EPA 351.2
Nitrate, as N	N/A	04/13/12 0031	2IC2103	4IC2103	MLL	300.0
Nitrite, as N	N/A	04/13/12 0031	2IC2103	4IC2103	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	04/27/12 0831				Calculation
Phosphorus, Total, as P	N/A	04/26/12 1401	120426-1	120426-1	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	04/16/12 1623	120416-1	120416-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/18/12 1306	120418-1	120418-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041001

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102690

Lab Number: 12041002
Sample Description: Cowskin and Maple-Upstream

Date Sampled: 04/12/2012
Time Sampled: 1030

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/122
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/122
Copper, Tot. Rec., ICP-MS	13	µg/L	7202/123
Hardness (Calculated)	173	mg/L as CaCO3	7157/248
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/122
Zinc, Tot. Rec., ICP-MS	75	µg/L	7202/123
BOD	7	mg/L	7060/412
Chloride	52	mg/L	7277/35
Kjeldahl Nitrogen, as N (TKN)	2.1	mg/L	6854/505
Nitrate, as N	0.7	mg/L	7277/35
Nitrite, as N	ND(0.1)	mg/L	7277/35
Nitrogen (TKN + NO3/NO2), as N	2.8	mg/L	9998/57
Phosphorus, Total, as P	ND(0.2)	mg/L	7061/315
Solids, Total Dissolved	326	mg/L	7059/856
Solids, Total Suspended	431	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2244	120416-2	2IP3107	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2201	120417-1	4IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2244	120416-2	2IP3107	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2201	120417-1	4IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/13/12 1234	04/14/12 0127	120413-5	11IP4104	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2244	120416-2	2IP3107	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2201	120417-1	4IP3109	KMW	200.8 Rev. 5.4
BOD	N/A	04/13/12 1455	120413-1	120413-1	MLL	SM 5210B
Chloride	N/A	04/13/12 0127	2IC2103	4IC2103	MLL	300.0
Kjeldahl Nitrogen, as N (T	04/17/12 1756	04/24/12 1044	120417-2	120424-1	JND	EPA 351.2
Nitrate, as N	N/A	04/13/12 0108	2IC2103	4IC2103	MLL	300.0
Nitrite, as N	N/A	04/13/12 0108	2IC2103	4IC2103	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	04/27/12 0831				Calculation
Phosphorus, Total, as P	N/A	04/26/12 1402	120426-1	120426-1	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	04/18/12 1500	120418-1	120418-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1325	120419-1	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041002

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102690

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12041001	BOD	04/12/2012 1030	04/13/2012 1455	28:25
12041001	Nitrate, as N	04/12/2012 1030	04/13/2012 0031	14:01
12041001	Nitrite, as N	04/12/2012 1030	04/13/2012 0031	14:01
12041002	BOD	04/12/2012 1030	04/13/2012 1455	28:25
12041002	Nitrate, as N	04/12/2012 1030	04/13/2012 0108	14:38
12041002	Nitrite, as N	04/12/2012 1030	04/13/2012 0108	14:38

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102690

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102690

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120413-5	120413BLK5 04/14/12 01:03	120413LCS5 04/14/12 01:16	12041017MS 04/14/12 02:16
Lab numbers associated with this batch: 12041001 12041002					
SL156	Cadmium, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL162	Copper, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL183	Zinc, Dissolved, ICP-MS	120416-2	120416BLK2 04/16/12 22:18	120416LCS2 04/16/12 22:23	12041027MS 04/17/12 00:35
Lab numbers associated with this batch: 12041000 12041001 12041002					
SL006	Cadmium, Tot. Rec., ICP-MS	120417-1	120417BLK1	120417LCS1	12040878MS
SL012	Copper, Tot. Rec., ICP-MS	120417-1	120417BLK1	120417LCS1	12040878MS
SL033	Zinc, Tot. Rec., ICP-MS	120417-1	120417BLK1 04/18/12 20:58	120417LCS1 04/18/12 21:03	12040878MS 04/18/12 21:13
Lab numbers associated with this batch: 12041000 12041002					
SL006	Cadmium, Tot. Rec., ICP-MS	120417-2	120417BLK2	120417LCS2	12040880MS
SL012	Copper, Tot. Rec., ICP-MS	120417-2	120417BLK2	120417LCS2	12040880MS
SL033	Zinc, Tot. Rec., ICP-MS	120417-2	120417BLK2 04/18/12 23:15	120417LCS2 04/18/12 23:20	12040880MS 04/18/12 23:41
Lab numbers associated with this batch: 12041001					
SL323	Hardness (Calculated)	120417-5	120417BLK5 04/17/12 19:41	120417LCS5 04/17/12 19:45	12041000MS 04/17/12 20:05
Lab numbers associated with this batch: 12041000					
GL123	BOD	120413-1	120413BLK1 04/13/12 14:55	120413LCS1 04/13/12 14:55	12040999MS 04/13/12 14:55
Lab numbers associated with this batch: 12041001 12041002					
GL502	Chloride	1IC1116	BLK1IC1116 04/25/12 16:41	LCS1IC1116 04/25/12 16:54	
Lab numbers associated with this batch: 12041000					
GL502	Chloride	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
Lab numbers associated with this batch: 12041001 12041002					
GL595	Kjeldahl Nitrogen, as N (TKN)	120417-2	120417BLK2 04/24/12 10:26	120417LCS2 04/24/12 10:29	12040969MS 04/24/12 10:35
Lab numbers associated with this batch: 12041001 12041002					

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
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Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102690

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL505	Nitrate, as N	2IC2103	BLK2IC2103	LCS2IC2103	12041027MS
GL503	Nitrite, as N	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
Lab numbers associated with this batch: 12041001 12041002					
GL343	Nitrogen (TKN + NO3/NO2), as N				
Lab numbers associated with this batch: 12041001 12041002					
GL218	Phosphorus, Total, as P	120426-1	120426BLK1 04/26/12 1359	120426LCS1 04/26/12 1400	12041012MS 04/26/12 1409
Lab numbers associated with this batch: 12041001 12041002					
GL242	Solids, Total Dissolved	120416-1	120416BLK1 04/16/12 16:15	120416LCS1 04/16/12	12041063MS 04/16/12 16:21
Lab numbers associated with this batch: 12041000 12041001					
GL242	Solids, Total Dissolved	120418-1	120418BLK1 04/18/12 15:00	120418LCS1 04/18/12	12041006MS 04/18/12 15:01
Lab numbers associated with this batch: 12041002					
GL243	Solids, Total Suspended	120418-1	120418BLK1 04/18/12 13:00	120418LCS1 04/18/12	12040861MS 04/18/12 13:00
Lab numbers associated with this batch: 12041000 12041001					
GL243	Solids, Total Suspended	120419-1	120419BLK1 04/19/12 13:25	120419LCS1 04/19/12	12041002MS 04/19/12 13:25
Lab numbers associated with this batch: 12041002					

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
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455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102690

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120413-1	For sample analyzed on: 04/13/2012					Spiked sample: 12040999						
BOD	ND(5)	85.6	75.3-109	198	mg/L	MN	MN	#		mg/L	**	16.4
QC Batch: 120413-5	For samples prepared on: 04/13/2012 1234					Spiked sample: 12041017						
Hardness (Calculated)	ND(5.0)	105	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120416-1	For sample analyzed on: 04/16/2012					Spiked sample: 12041063						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120416-2	For samples prepared on: 04/16/2012 0902					Spiked sample: 12041027						
Cadmium, Dissolved, ICP-MS	ND(1)	96.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	93.0	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	99.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-1	For samples prepared on: 04/17/2012 0717					Spiked sample: 12040878						
Cadmium, Tot. Rec., ICP-MS	ND(1)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	91.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-2	For samples prepared on: 04/17/2012 0756					Spiked sample: 12040880						
Cadmium, Tot. Rec., ICP-MS	ND(1)	100.	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	92.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-2	For samples prepared on: 04/17/2012 1756					Spiked sample: 12040969						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	111	85.0-115	4.0	mg/L	MN	MN	81.2-133	20.0	mg/L	**	6.7
QC Batch: 120417-5	For samples prepared on: 04/17/2012 1131					Spiked sample: 12041000						
Hardness (Calculated)	ND(5.0)	104	80.0-120	337	mg/L a	107	108	80.0-120	337	mg/L as	0.9	20.0
QC Batch: 120418-1	For sample analyzed on: 04/18/2012					Spiked sample: 12040861						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120418-1	For sample analyzed on: 04/18/2012					Spiked sample: 12041006						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120419-1	For sample analyzed on: 04/19/2012					Spiked sample: 12041002						
Solids, Total Suspended	ND(5)	N/A			mg/L	431 T	418 T	#		mg/L	3.1	27.6
QC Batch: 120426-1	For sample analyzed on: 04/26/2012					Spiked sample: 12041012						
Phosphorus, Total, as P	ND(0.2)	98.3	88.8-110	2.0	mg/L	MN	MN	80.5-117	2.0	mg/L	**	5.7
QC Batch: 1IC1116	For sample analyzed on: 04/25/2012					Spiked sample:						
Chloride	ND(1.0)	104	90.0-110	4.0	mg/L	MN	MN	75.1-131			**	5.7
QC Batch: 2IC2103	For sample analyzed on: 04/12/2012					Spiked sample: 12041027						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	4.0	mg/L	**	5.7
Nitrite, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	77.5-116	2.0	mg/L	**	10.2
Nitrate, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	81.7-121	2.0	mg/L	**	8.2

Data Qualifiers:
MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102690

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit

N/A - Not Applicable

T - MS/MSD cannot be performed for this analysis. The MS result is the same as the sample result. The MSD result is a duplicate of the sample.

- Limits not available.

** - RPD cannot be calculated.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 04/27/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102690

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	04/16/2012	2IP3107	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	04/18/2012	4IP3109	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/16/2012	2IP3107	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/18/2012	4IP3109	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-1	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-1	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-2	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/25/2012	1IC1116	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/25/2012	2IC1116	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/12/2012	4IC2103	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/12/2012	4IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/12/2012	4IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-1	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-2	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	11IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	12IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	5IP4108	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	6IP4108	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/16/2012	2IP3107	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/18/2012	4IP3109	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS OR [illegible] 16109

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information			Invoice Information		
Company Name: City of Wichita Sewage Treatment			Company Name: City of Wichita Sewage Treatment		
Address: 2305 E. 57th Street South			Address: 2305 E. 57th Street South		
City: Wichita	State: KS	Zip: 67216	City: Wichita	State: KS	Zip: 67216
Contact: Jim Hardesty	E-mail:		Contact: Jim Hardesty	E-mail	
Phone Number: (316)303-8700	Fax Number: (316)303-8712		Phone Number: (316)303-8700	Fax Number: (316)303-8712	

Sampler's Name:(Printed) Justin Murphy

Sampler's Name:(Signature)

Purchase Order Number:

File Number: 5611

Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER	Total Metals 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P		COMMENTS 5 Gal. container to be poured off at lab as needed for required tests. Remainining volume will be saved for organics if needed
Cowskin and Maple-Grab	WW	N	4/12/12	1030	G	4			1	2	1		X	X							
Cowskin and Maple-Composite	WW	N	4/12/12	1030	C	1					1				X						
Cowskin and Maple-Upstream	WW	N	4/12/12	1030	G	4			1	1	2					X	X	X	X		

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT (15 working days) Rush TAT (5 working days) Emergency TAT (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY	DATE: 4/12/12	TIME: 1500	RECEIVED BY	DATE:	TIME:
RELINQUISHED BY	DATE:	TIME:	RECEIVED BY	DATE:	TIME:
RECEIVED AT LAB BY	DATE: 4-12-12	TIME: 1620	SHIPPED VIA: AIRBILL	SEAL #: SEAL DATE	

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 15269J

Client Name: Wichita

CAS File No.: 8339

Sample ID's in cooler: See COC
Courtesy of Maple

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: 3135 / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 4 / 12 / 12 16 : 20

Delivered By: UPS / FedX / AB Express / (Field Svcs) / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.2 Corrected Reading (°C) 0.7
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): 0.5
mw 4-12-12
☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from:
  - Cover Letter ☐ Container ☐
  - PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: [signature] **Date Completed:** 4-12-12

Continental
Analytical Services, Inc.

02/20/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 02/03/2012 14:25
Continental File No.: 8339
Continental Order No.: 101254
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 12 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12020401	McLean-Grab	Liquid	2/3/2012
12020402	McLean-Composite	Liquid	2/3/2012
12020403	McLean-Upstream	Liquid	2/3/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101254

Lab Number: 12020401
Sample Description: McLean-Grab

Date Sampled: 02/03/2012
Time Sampled: 0600

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/90
Cadmium, Tot. Rec., ICP-MS	3 B	µg/L	7202/88
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/90
Copper, Tot. Rec., ICP-MS	13	µg/L	7202/88
Hardness (Calculated)	34.9	mg/L as CaCO3	7157/194
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/90
Zinc, Tot. Rec., ICP-MS	142	µg/L	7202/88
Chloride	4.2	mg/L	7107/222
Hexane Extractable Material	ND(5.0)	mg/L	7198/60
Solids, Total Dissolved	50.	mg/L	7059/732
Solids, Total Suspended	51	mg/L	7059/733

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2147	120210-2	4IP3046	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1832	120208-1	2IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2147	120210-2	4IP3046	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1832	120208-1	2IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/07/12 1301	02/07/12 1908	120207-4	7IP4038	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2147	120210-2	4IP3046	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1832	120208-1	2IP3040	JDL	200.8 Rev. 5.4
Chloride	N/A	02/08/12 1640	1IC2039	1IC2039	MLL	300.0
Hexane Extractable Materia	02/16/12 0900	02/16/12 0855	120216-1	120216-1	JND	1664
Solids, Total Dissolved	N/A	02/08/12 1412	120208-1	120208-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/09/12 1243	120209-1	120209-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B
HEM Preparation Method						1664

Conclusion of Lab Number: 12020401

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101254

Lab Number: 12020402
Sample Description: McLean-Composite

Date Sampled: 02/03/2012
Time Sampled: 0600

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM QC	µg/L	7202/87
Cadmium, Tot. Rec., ICP-MS	2	µg/L	7202/88
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/87
Copper, Tot. Rec., ICP-MS	15	µg/L	7202/88
Hardness (Calculated)	51.0	mg/L as CaCO3	7157/192
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/87
Zinc, Tot. Rec., ICP-MS	192	µg/L	7202/88
BOD	ND(5)	mg/L	7060/353
Chloride	4.5	mg/L	7107/218
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	6854/436
Nitrate, as N	0.4	mg/L	7107/218
Nitrite, as N	ND(0.1)	mg/L	7107/218
Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L	9999/873
Phosphorus, Total, as P	ND(0.20)	mg/L	7061/272
Solids, Total Dissolved	56	mg/L	7059/732
Solids, Total Suspended	79	mg/L	7059/736

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1724	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2142	120208-2	5IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1724	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2142	120208-2	5IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/06/12 1304	02/07/12 0002	120206-3	10IP4037	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1724	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2142	120208-2	5IP3040	JDL	200.8 Rev. 5.4
BOD	N/A	02/03/12 1800	120203-1	120203-1	ASK	SM 5210B
Chloride	N/A	02/03/12 2025	1IC2034	2IC2034	MLL	300.0
Kjeldahl Nitrogen, as N (T	02/06/12	02/07/12 1209	120206-2	120207-2	JND	EPA 351.2
Nitrate, as N	N/A	02/03/12 2025	1IC2034	2IC2034	MLL	300.0
Nitrite, as N	N/A	02/03/12 2025	1IC2034	2IC2034	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	02/10/12 0801				Calculation
Phosphorus, Total, as P	N/A	02/17/12 1415	120217-1	120217-1	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	02/08/12 1413	120208-1	120208-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/10/12 1434	120210-1	120210-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12020402

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101254

Lab Number: 12020403
Sample Description: McLean-Upstream

Date Sampled: 02/03/2012
Time Sampled: 0600

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM QC	µg/L	7202/87
Cadmium, Tot. Rec., ICP-MS	1 B	µg/L	7202/88
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/87
Copper, Tot. Rec., ICP-MS	22	µg/L	7202/88
Hardness (Calculated)	132	mg/L as CaCO3	7157/192
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/87
Zinc, Tot. Rec., ICP-MS	183	µg/L	7202/88
BOD	9	mg/L	7060/353
Chloride	78	mg/L	7107/218
Kjeldahl Nitrogen, as N (TKN)	3.7	mg/L	6854/436
Nitrate, as N	0.6	mg/L	7107/218
Nitrite, as N	ND(0.1)	mg/L	7107/218
Nitrogen (TKN + NO3/NO2), as N	4.3	mg/L	9999/873
Phosphorus, Total, as P	0.47	mg/L	7061/272
Solids, Total Dissolved	268	mg/L	7059/732
Solids, Total Suspended	222	mg/L	7059/736

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1729	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1909	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1729	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1909	120208-1	3IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/06/12 1304	02/07/12 0006	120206-3	10IP4037	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1729	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1909	120208-1	3IP3040	JDL	200.8 Rev. 5.4
BOD	N/A	02/03/12 1800	120203-1	120203-1	ASK	SM 5210B
Chloride	N/A	02/04/12 0215	1IC2034	3IC2034	MLL	300.0
Kjeldahl Nitrogen, as N (T	02/06/12	02/07/12 1211	120206-2	120207-2	JND	EPA 351.2
Nitrate, as N	N/A	02/04/12 0156	1IC2034	3IC2034	MLL	300.0
Nitrite, as N	N/A	02/04/12 0156	1IC2034	3IC2034	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	02/10/12 0801				Calculation
Phosphorus, Total, as P	N/A	02/17/12 1415	120217-1	120217-1	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	02/08/12 1413	120208-1	120208-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/10/12 1434	120210-1	120210-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12020403

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101254

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12020402	BOD	02/03/2012 0600	02/03/2012 1800	12:00
12020402	Nitrate, as N	02/03/2012 0600	02/03/2012 2025	14:25
12020402	Nitrite, as N	02/03/2012 0600	02/03/2012 2025	14:25
12020403	BOD	02/03/2012 0600	02/03/2012 1800	12:00
12020403	Nitrate, as N	02/03/2012 0600	02/04/2012 0156	19:56
12020403	Nitrite, as N	02/03/2012 0600	02/04/2012 0156	19:56

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

B - Analyte is also present in the method blank or load blank at the concentration indicated either to the right of the letter B and/or in the enclosed Quality Control Report. The reported sample concentration has not been blank corrected.

QC - QC data qualifiers were noted. See the Quality Control Report.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101254

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101254

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120206-3	120206BLK3 02/06/12 23:10	120206LCS3 02/06/12 23:14	12020397MS 02/06/12 23:34
	Lab numbers associated with this batch: 12020402 12020403				
SL156	Cadmium, Dissolved, ICP-MS	120206-4	120206BLK4	120206LCS4	12020415MS
SL162	Copper, Dissolved, ICP-MS	120206-4	120206BLK4	120206LCS4	12020415MS
SL183	Zinc, Dissolved, ICP-MS	120206-4	120206BLK4 02/08/12 16:32	120206LCS4 02/08/12 16:37	12020415MS 02/08/12 18:27
	Lab numbers associated with this batch: 12020402 12020403				
SL323	Hardness (Calculated)	120207-4	120207BLK4 02/07/12 18:00	120207LCS4 02/07/12 18:12	12020348MS 02/07/12 18:36
	Lab numbers associated with this batch: 12020401				
SL006	Cadmium, Tot. Rec., ICP-MS	120208-1	120208BLK1	120208LCS1	12020401MS
SL012	Copper, Tot. Rec., ICP-MS	120208-1	120208BLK1	120208LCS1	12020401MS
SL033	Zinc, Tot. Rec., ICP-MS	120208-1	120208BLK1 02/09/12 18:17	120208LCS1 02/09/12 18:22	12020401MS 02/09/12 18:38
	Lab numbers associated with this batch: 12020401 12020403				
SL006	Cadmium, Tot. Rec., ICP-MS	120208-2	120208BLK2	120208LCS2	12020398MS
SL012	Copper, Tot. Rec., ICP-MS	120208-2	120208BLK2	120208LCS2	12020398MS
SL033	Zinc, Tot. Rec., ICP-MS	120208-2	120208BLK2 02/09/12 20:18	120208LCS2 02/09/12 20:23	12020398MS 02/09/12 21:00
	Lab numbers associated with this batch: 12020402				
SL156	Cadmium, Dissolved, ICP-MS	120210-2	120210BLK2	120210LCS2	12020410MS
SL162	Copper, Dissolved, ICP-MS	120210-2	120210BLK2	120210LCS2	12020410MS
SL183	Zinc, Dissolved, ICP-MS	120210-2	120210BLK2 02/15/12 21:21	120210LCS2 02/15/12 21:26	12020410MS 02/15/12 22:19
	Lab numbers associated with this batch: 12020401				
GL123	BOD	120203-1	120203BLK1 02/03/12 18:00	120203LCS1 02/03/12 18:00	12020390MS 02/03/12 18:00
	Lab numbers associated with this batch: 12020402 12020403				
GL502	Chloride	1IC2034	BLK1IC2034 02/03/12 16:25	LCS1IC2034 02/03/12 16:44	12020330MS 02/03/12 17:20
	Lab numbers associated with this batch: 12020402 12020403				
GL502	Chloride	1IC2039	BLK1IC2039 02/08/12 14:12	LCS1IC2039 02/08/12 14:31	12020352MS 02/08/12 18:49
	Lab numbers associated with this batch: 12020401				

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

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Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101254

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL188	Hexane Extractable Material	120216-1	120216BLK1 02/16/12 08:50	120216LCS1 02/16/12 08:50	12020350MS 02/16/12 08:51
	Lab numbers associated with this batch: 12020401				
GL595	Kjeldahl Nitrogen, as N (TKN)	120206-2	120206BLK2 02/07/12 11:41	120206LCS2 02/07/12 11:43	12020351MS 02/07/12 16:29
	Lab numbers associated with this batch: 12020402 12020403				
GL505	Nitrate, as N	1IC2034	BLK1IC2034	LCS1IC2034	12020330MS
GL503	Nitrite, as N	1IC2034	BLK1IC2034 02/03/12 16:25	LCS1IC2034 02/03/12 16:44	
	Lab numbers associated with this batch: 12020402 12020403				
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12020402 12020403				
GL218	Phosphorus, Total, as P	120217-1	120217BLK1 02/17/12 1409	120217LCS1 02/17/12 1410	12020397MS 02/17/12 1412
	Lab numbers associated with this batch: 12020402 12020403				
GL242	Solids, Total Dissolved	120208-1	120208BLK1 02/08/12 14:02	120208LCS1 02/08/12	12020376MS 02/08/12 14:03
	Lab numbers associated with this batch: 12020401 12020402 12020403				
GL243	Solids, Total Suspended	120209-1	120209BLK1 02/09/12 12:37	120209LCS1 02/09/12	12020392MS 02/09/12 12:40
	Lab numbers associated with this batch: 12020401				
GL243	Solids, Total Suspended	120210-1	120210BLK1 02/10/12 14:34	120210LCS1 02/10/12	12020416MS 02/10/12 14:38
	Lab numbers associated with this batch: 12020402 12020403				

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101254

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120203-1	For sample analyzed on: 02/03/2012					Spiked sample: 12020390						
BOD	ND(5)	81.3	70.5-110	198	mg/L	MN	MN	#		mg/L	**	13.2
QC Batch: 120206-2	For samples prepared on: 02/06/2012					Spiked sample: 12020351						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	104	85.0-115	4.0	mg/L	MN	MN	81.5-133	20.0	mg/L	**	18.3
QC Batch: 120206-3	For samples prepared on: 02/06/2012 1304					Spiked sample: 12020397						
Hardness (Calculated)	ND(5.0)	101	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120206-4	For samples prepared on: 02/06/2012 1426					Spiked sample: 12020415						
Cadmium, Dissolved, ICP-MS	ND(1)	104	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	92.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	102	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120207-4	For samples prepared on: 02/07/2012 1301					Spiked sample: 12020348						
Hardness (Calculated)	ND(5.0)	101	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120208-1	For sample analyzed on: 02/08/2012					Spiked sample: 12020376						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.2
QC Batch: 120208-1	For samples prepared on: 02/08/2012 0805					Spiked sample: 12020401						
Cadmium, Tot. Rec., ICP-MS	1 J	102	85.0-115	500	µg/L	102	101	80.0-120	500	µg/L	1.0	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	93.5	85.0-115	500	µg/L	92.9	92.5	80.0-120	500	µg/L	0.4	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	105	85.0-115	500	µg/L	101	101	80.0-120	500	µg/L	0.0	20.0
QC Batch: 120208-2	For samples prepared on: 02/08/2012 0915					Spiked sample: 12020398						
Cadmium, Tot. Rec., ICP-MS	ND(1)	103	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	92.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	105	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120209-1	For sample analyzed on: 02/09/2012					Spiked sample: 12020392						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	18.2
QC Batch: 120210-1	For sample analyzed on: 02/10/2012					Spiked sample: 12020416						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	18.2
QC Batch: 120210-2	For samples prepared on: 02/10/2012 0952					Spiked sample: 12020410						
Cadmium, Dissolved, ICP-MS	ND(1)	102	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	95.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	99.6	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120216-1	For samples prepared on: 02/16/2012 0900					Spiked sample: 12020350						
Hexane Extractable Material	ND(1.4)	93.5	78.0-114	40.0	mg/L	MN	MN	78.0-114	40.0	mg/L	**	18.0
QC Batch: 120217-1	For sample analyzed on: 02/17/2012					Spiked sample: 12020397						
Phosphorus, Total, as P	ND(0.20)	95.5	90.0-110	2.0	mg/L	MN	MN	71.2-135	2.0	mg/L	**	21.2
QC Batch: 1IC2034	For sample analyzed on: 02/03/2012					Spiked sample:						
Nitrite, as N	ND(0.1)	95.1	90.0-110	2.0	mg/L	MN	MN	78.5-127			**	10.1
QC Batch: 1IC2034	For sample analyzed on: 02/03/2012					Spiked sample: 12020330						
Chloride	ND(1.0)	96.6	90.0-110	4.0	mg/L	MN	MN	82.1-126	80.0	mg/L	**	12.5
Nitrate, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	79.3-118	40.0	mg/L	**	12.1

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101254

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 1IC2039	**For sample analyzed on: 02/08/2012**					**Spiked sample: 12020353**						
Chloride	ND(1.0)	96.7	90.0-110	4.0	mg/L	MN	MN	82.1-126	400	mg/L	**	12.5

Data Qualifiers:
MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

N/A - Not Applicable

J - The concentration or not detected (ND) value is below the Limit of Quantitation (LOQ) and is considered an estimated value.

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101254

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	02/08/2012	2IP3039	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	02/09/2012	2IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/08/2012	3IP3039	100	111	µg/L	111 CH

Samples associated with this Continuing Calibration Verification:

Laboratory Number	Instrument Batch	Sample Description
12020402	2IP3039	McLean-Composite
12020403	2IP3039	McLean-Upstream

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Tot. Rec., ICP-MS	02/09/2012	3IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/15/2012	4IP3046	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	02/09/2012	5IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	02/09/2012	6IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/08/2012	2IP3039	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	2IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/08/2012	3IP3039	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	3IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/15/2012	4IP3046	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	5IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	6IP3040	CCV recovery acceptable for this Instrument Batch.			
BOD	02/03/2012	120203-1	CCV recovery acceptable for this Instrument Batch.			
BOD	02/03/2012	120203-2	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	02/16/2012	120216-1	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	02/16/2012	120216-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	02/17/2012	120217-1	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	02/17/2012	120217-2	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/08/2012	1IC2039	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/08/2012	2IC2039	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	02/07/2012	120207-2	CCV recovery acceptable for this Instrument Batch.			

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101254

Kjeldahl Nitrogen, as N (TKN)	02/07/2012	120207-3	CCV recovery acceptable for this Instrument Batch.
Hardness (Calculated)	02/06/2012	10IP4037	CCV recovery acceptable for this Instrument Batch.
Hardness (Calculated)	02/07/2012	11IP4037	CCV recovery acceptable for this Instrument Batch.
Hardness (Calculated)	02/07/2012	7IP4038	CCV recovery acceptable for this Instrument Batch.
Hardness (Calculated)	02/07/2012	8IP4038	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/08/2012	2IP3039	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	2IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/08/2012	3IP3039	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	3IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/15/2012	4IP3046	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	5IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	6IP3040	CCV recovery acceptable for this Instrument Batch.

Data Qualifiers:
CH - The continuing calibration verification (CCV) standard recovery for this analyte was above the method or SOP limit. The reported concentration for this analyte may be biased high.

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO: 10204

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information			Invoice Information		
Company Name: City of Wichita Sewage Treatment			Company Name: City of Wichita Sewage Treatment		
Address: 2305 E. 57th Street South			Address: 2305 E. 57th Street South		
City: Wichita	State: KS	Zip: 67216	City: Wichita	State: KS	Zip: 67216
Contact: Jim Hardesty	E-mail:		Contact: Jim Hardesty	E-mail:	
Phone Number (316)303-8700	Fax Number: (316)303-8712		Phone Number: (316)303-8700	Fax Number: (316)303-8712	

Sampler's Name: (Printed) Justin Murphy
Sampler's Name: (Signature)
Purchase Order Number:
File Number: 5611
Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER	Cadmium, Copper, Zinc - Total Recoverable 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Hexane Extractable Material 2 - 1000ml Amber Glass - H2SO4	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P	COMMENTS 5 Gal. container to be poured off at lab as needed for required tests. Remainining volume will be saved for organics if needed
McLean-Grab	WW	N	2/3/12	0600	G	4			1	2	1		X	X	X						
McLean-Composite	WW	N	2/3/12	0600	C	1					1					X					
McLean-Upstream	WW	N	2/3/12	0600	G	4			1	1	2						X	X	X	X	

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround Rush & Emergency subject to additional charge)
Standard TAT (15 working days) Rush TAT (5 working days) Emergency TAT (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
	2/3/12	1000			
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
RECEIVED AT LAB BY:	DATE	TIME:	SHIPPED VIA:	SEAL #:	
	2-3-12	1425	AIRBILL	SEAL DATE.	

H:\melissa\Wichita Stormwater COCs.xlsx\2/2/2012

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 101254

Client Name: Wichita

CAS File No.: 8339

Sample ID's in cooler: 5 COC

McLean

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: _____ / (Client's Cooler) / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 2/3/12 14:35

Delivered By: UPS / FedX / AB Express / (Field Svcs) / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / (Foam) / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.8 Corrected Reading (°C) 1.2
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 535 Thermo. Correction Factor (°C): 0.4

☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes (See below for discrepancies.)

Note: **If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.**

☐ Chain of Custody not present - information taken from:
Cover Letter ☐ Container ☐
PO ☐ CAS Proj. Mgr. ☐
☐ Container label absent
☐ Chain of Custody incomplete [see detail below]
☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
☐ Date or Time sampled obtained from container label
☐ Chain of Custody missing sampler's name
☐ Chain of Custody missing matrix (sample type)
☐ Missing relinquished information: signature date time
☐ Sample excluded from Chain of Custody
☐ Sample listed on Chain of Custody, not received
☐ Sample description on container and Chain of Custody do not agree
☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement
[Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
☐ Broken or leaking containers (detail actions below)
☐ Sample container type or labeled chemical preservation inappropriate
☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: MES Date Completed: 2-3-12

Continental
Analytical Services, Inc.

05/04/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 04/12/2012 1620
Continental File No.: 8339
Continental Order No.: 102697
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 11 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12041019	McLean-Grab	Liquid	4/12/2012
12041020	McLean-Composite	Liquid	4/12/2012
12041021	McLean-Upstream	Liquid	4/12/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

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Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
765-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102697

Lab Number: 12041019
Sample Description: McLean-Grab

Date Sampled: 04/12/2012
Time Sampled: 1130

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/125
Cadmium, Tot. Rec., ICP-MS	3	µg/L	7202/123
Copper, Dissolved, ICP-MS	7 DM	µg/L	7202/125
Copper, Tot. Rec., ICP-MS	15	µg/L	7202/123
Hardness (Calculated)	48.4	mg/L as CaCO3	7157/251
Zinc, Dissolved, ICP-MS	23 DM	µg/L	7202/127
Zinc, Tot. Rec., ICP-MS	150.	µg/L	7202/123
Chloride	2.4	mg/L	7276/22
Hexane Extractable Material	ND(5.0)	mg/L	7198/85
Solids, Total Dissolved	40.	mg/L	7059/859
Solids, Total Suspended	61	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2247	120419-4	7IP3114	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2243	120417-1	5IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2247	120419-4	7IP3114	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2243	120417-1	5IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/17/12 1131	04/17/12 2053	120417-5	7IP4108	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/19/12 1121	04/25/12 1252	120419-4	2IP3116	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2243	120417-1	5IP3109	KMW	200.8 Rev. 5.4
Chloride	N/A	04/26/12 1725	1IC1117	3IC1117	MLL	300.0
Hexane Extractable Materia	N/A	05/01/12 0831	120501-1	120501-1	JND	1664
Solids, Total Dissolved	N/A	04/19/12 1437	120419-1	120419-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1331	120419-1	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B
HEM Preparation Method						1664

Conclusion of Lab Number: 12041019

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Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102697

Lab Number: 12041020
Sample Description: McLean-Composite

Date Sampled: 04/12/2012
Time Sampled: 1130

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/122
Cadmium, Tot. Rec., ICP-MS	4	µg/L	7202/123
Copper, Dissolved, ICP-MS	6 DM	µg/L	7202/122
Copper, Tot. Rec., ICP-MS	17	µg/L	7202/123
Hardness (Calculated)	57.3	mg/L as CaCO3	7157/248
Zinc, Dissolved, ICP-MS	21 DM	µg/L	7202/122
Zinc, Tot. Rec., ICP-MS	183	µg/L	7202/123
BOD	ND(5)	mg/L	7060/413
Chloride	2.7	mg/L	7277/35
Kjeldahl Nitrogen, as N (TKN)	1.1	mg/L	6854/505
Nitrate, as N	0.6	mg/L	7277/35
Nitrite, as N	ND(0.1)	mg/L	7277/35
Nitrogen (TKN + NO3/NO2), as N	1.7	mg/L	9998/57
Phosphorus, Total, as P	ND(0.2)	mg/L	7061/315
Solids, Total Dissolved	50.	mg/L	7059/859
Solids, Total Suspended	72	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2353	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0143	120417-2	8IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2353	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0143	120417-2	8IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/13/12 1234	04/14/12 0228	120413-5	12IP4104	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2353	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0143	120417-2	8IP3109	KMW	200.8 Rev. 5.4
BOD	N/A	04/13/12 1700	120413-2	120413-1	MLL	SM 5210B
Chloride	N/A	04/13/12 0907	2IC2103	6IC2103	MLL	300.0
Kjeldahl Nitrogen, as N (T	04/17/12 1756	04/24/12 1116	120417-2	120424-3	JND	EPA 351.2
Nitrate, as N	N/A	04/13/12 0907	2IC2103	6IC2103	MLL	300.0
Nitrite, as N	N/A	04/13/12 0907	2IC2103	6IC2103	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	04/27/12 0831				Calculation
Phosphorus, Total, as P	N/A	04/26/12 1414	120426-1	120426-2	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	04/19/12 1438	120419-1	120419-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1331	120419-1	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041020

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Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102697

Lab Number: 12041021
Sample Description: McLean-Upstream

Date Sampled: 04/12/2012
Time Sampled: 1130

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/122
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/122
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/123
Hardness (Calculated)	259	mg/L as CaCO3	7157/251
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/122
Zinc, Tot. Rec., ICP-MS	26	µg/L	7202/123
BOD	ND(5)	mg/L	7060/413
Chloride	361	mg/L	7277/35
Kjeldahl Nitrogen, as N (TKN)	1.4	mg/L	6854/505
Nitrate, as N	0.9	mg/L	7277/35
Nitrite, as N	ND(0.1)	mg/L	7277/35
Nitrogen (TKN + NO3/NO2), as N	2.3	mg/L	9998/57
Phosphorus, Total, as P	ND(0.2)	mg/L	7061/315
Solids, Total Dissolved	880.	mg/L	7059/859
Solids, Total Suspended	96	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2358	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2248	120417-1	5IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2358	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2248	120417-1	5IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/17/12 1131	04/17/12 2057	120417-5	7IP4108	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2358	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2248	120417-1	5IP3109	KMW	200.8 Rev. 5.4
BOD	N/A	04/13/12 1700	120413-2	120413-1	MLL	SM 5210B
Chloride	N/A	04/13/12 1003	2IC2103	6IC2103	MLL	300.0
Kjeldahl Nitrogen, as N (T	04/17/12 1756	04/24/12 1118	120417-2	120424-3	JND	EPA 351.2
Nitrate, as N	N/A	04/13/12 0944	2IC2103	6IC2103	MLL	300.0
Nitrite, as N	N/A	04/13/12 0944	2IC2103	6IC2103	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	04/27/12 0831				Calculation
Phosphorus, Total, as P	N/A	04/26/12 1414	120426-1	120426-2	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	04/19/12 1438	120419-1	120419-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1332	120419-1	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041021

Appendix

Client: City of Wichita
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Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102697

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12041020	BOD	04/12/2012 1130	04/13/2012 1700	29:30
12041020	Nitrate, as N	04/12/2012 1130	04/13/2012 0907	21:37
12041020	Nitrite, as N	04/12/2012 1130	04/13/2012 0907	21:37
12041021	BOD	04/12/2012 1130	04/13/2012 1700	29:30
12041021	Nitrate, as N	04/12/2012 1130	04/13/2012 0944	22:14
12041021	Nitrite, as N	04/12/2012 1130	04/13/2012 0944	22:14

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
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Continental File No: 8339
Continental Order No: 102697

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Quality Control Report
Batch Summary

Client: City of Wichita
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City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102697

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120413-5	120413BLK5 04/14/12 01:03	120413LCS5 04/14/12 01:16	12041017MS 04/14/12 02:16
Lab numbers associated with this batch: 12041020					
SL156	Cadmium, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL162	Copper, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL183	Zinc, Dissolved, ICP-MS	120416-2	120416BLK2 04/16/12 22:18	120416LCS2 04/16/12 22:23	12041027MS 04/17/12 00:35
Lab numbers associated with this batch: 12041020 12041021					
SL006	Cadmium, Tot. Rec., ICP-MS	120417-1	120417BLK1	120417LCS1	12040878MS
SL012	Copper, Tot. Rec., ICP-MS	120417-1	120417BLK1	120417LCS1	12040878MS
SL033	Zinc, Tot. Rec., ICP-MS	120417-1	120417BLK1 04/18/12 20:58	120417LCS1 04/18/12 21:03	12040878MS 04/18/12 21:13
Lab numbers associated with this batch: 12041019 12041021					
SL006	Cadmium, Tot. Rec., ICP-MS	120417-2	120417BLK2	120417LCS2	12040880MS
SL012	Copper, Tot. Rec., ICP-MS	120417-2	120417BLK2	120417LCS2	12040880MS
SL033	Zinc, Tot. Rec., ICP-MS	120417-2	120417BLK2 04/18/12 23:15	120417LCS2 04/18/12 23:20	12040880MS 04/18/12 23:41
Lab numbers associated with this batch: 12041020					
SL323	Hardness (Calculated)	120417-5	120417BLK5 04/17/12 19:41	120417LCS5 04/17/12 19:45	12041000MS 04/17/12 20:05
Lab numbers associated with this batch: 12041019 12041021					
SL156	Cadmium, Dissolved, ICP-MS	120419-4	120419BLK4	120419LCS4	12041016MS
SL162	Copper, Dissolved, ICP-MS	120419-4	120419BLK4	120419LCS4	12041016MS
SL183	Zinc, Dissolved, ICP-MS	120419-4	120419BLK4 04/23/12 21:17	120419LCS4 04/23/12 21:23	12041016MS 04/23/12 22:21
Lab numbers associated with this batch: 12041019					
GL123	BOD	120413-2	120413BLK2 04/13/12 17:00	120413LCS2 04/13/12 17:00	12041018MS 04/13/12 17:00
Lab numbers associated with this batch: 12041020 12041021					
GL502	Chloride	1IC1117	BLK1IC1117 04/26/12 09:23	LCS1IC1117 04/26/12 10:07	12041939MS 04/26/12 16:05
Lab numbers associated with this batch: 12041019					
GL502	Chloride	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
Lab numbers associated with this batch: 12041020 12041021					

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Quality Control Report
Batch Summary

Client: City of Wichita
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Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102697

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL188	Hexane Extractable Material	120501-1	120501BLK1 05/01/12 08:24	120501LCS1 05/01/12 08:25	12042101MS 05/01/12 08:25
Lab numbers associated with this batch: 12041019					
GL595	Kjeldahl Nitrogen, as N (TKN)	120417-2	120417BLK2 04/24/12 10:26	120417LCS2 04/24/12 10:29	12040969MS 04/24/12 10:35
Lab numbers associated with this batch: 12041020 12041021					
GL505	Nitrate, as N	2IC2103	BLK2IC2103	LCS2IC2103	12041027MS
GL503	Nitrite, as N	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
Lab numbers associated with this batch: 12041020 12041021					
GL343	Nitrogen (TKN + NO3/NO2), as N				
Lab numbers associated with this batch: 12041020 12041021					
GL218	Phosphorus, Total, as P	120426-1	120426BLK1 04/26/12 1359	120426LCS1 04/26/12 1400	12041012MS 04/26/12 1409
Lab numbers associated with this batch: 12041020 12041021					
GL242	Solids, Total Dissolved	120419-1	120419BLK1	120419LCS1	12041127MS
GL243	Solids, Total Suspended	120419-1	120419BLK1 04/19/12 13:25	120419LCS1 04/19/12	12041002MS 04/19/12 13:25
Lab numbers associated with this batch: 12041019 12041020 12041021					

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Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
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455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102697

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120413-2	**For sample analyzed on: 04/13/2012**					**Spiked sample: 12041018**						
BOD	ND(5)	84.5 LB	85.3-109	198	mg/L	MN	MN	#		mg/L	**	16.4
QC Batch: 120413-5	**For samples prepared on: 04/13/2012 1234**					**Spiked sample: 12041017**						
Hardness (Calculated)	ND(5.0)	105	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120416-2	**For samples prepared on: 04/16/2012 0902**					**Spiked sample: 12041027**						
Cadmium, Dissolved, ICP-MS	ND(1)	96.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	93.0	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	99.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-1	**For samples prepared on: 04/17/2012 0717**					**Spiked sample: 12040878**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	91.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-2	**For samples prepared on: 04/17/2012 0756**					**Spiked sample: 12040880**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	100.	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	92.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-2	**For samples prepared on: 04/17/2012 1756**					**Spiked sample: 12040969**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	111	85.0-115	4.0	mg/L	MN	MN	81.2-133	20.0	mg/L	**	6.7
QC Batch: 120417-5	**For samples prepared on: 04/17/2012 1131**					**Spiked sample: 12041000**						
Hardness (Calculated)	ND(5.0)	104	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120419-1	**For sample analyzed on: 04/19/2012**					**Spiked sample: 12041002**						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120419-1	**For sample analyzed on: 04/19/2012**					**Spiked sample: 12041127**						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120419-4	**For samples prepared on: 04/19/2012 1121**					**Spiked sample: 12041016**						
Cadmium, Dissolved, ICP-MS	ND(1)	98.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	91.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	94.6	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120426-1	**For sample analyzed on: 04/26/2012**					**Spiked sample: 12041012**						
Phosphorus, Total, as P	ND(0.2)	98.3	88.8-110	2.0	mg/L	MN	MN	80.5-117	2.0	mg/L	**	5.7
QC Batch: 120501-1	**For sample analyzed on: 05/01/2012**					**Spiked sample: 12042101**						
Hexane Extractable Material	ND(1.4)	85.5	78.0-114	40.0	mg/L	MN	MN	78.0-114	40.0	mg/L	**	18.0
QC Batch: 1IC1117	**For sample analyzed on: 04/26/2012**					**Spiked sample: 12041939**						
Chloride	ND(1.0)	98.8	90.0-110	4.0	mg/L	MN	MN	75.1-131	40.0	mg/L	**	5.7
QC Batch: 2IC2103	**For sample analyzed on: 04/12/2012**					**Spiked sample: 12041027**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	4.0	mg/L	**	5.7
Nitrite, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	77.5-116	2.0	mg/L	**	10.2
Nitrate, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	81.7-121	2.0	mg/L	**	8.2

Data Qualifiers:

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102697

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit

LB - The recovery was below the method limit but within the laboratory statistically derived limits based on historical data. The reported sample concentration may be biased low.

MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

N/A - Not Applicable

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102697

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/23/2012	8IP3114	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/23/2012	8IP3114	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-1	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-2	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	05/01/2012	120501-1	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	05/01/2012	120501-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-3	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/26/2012	3IC1117	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/26/2012	4IC1117	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/13/2012	6IC2103	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/13/2012	7IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/13/2012	6IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/13/2012	7IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/13/2012	6IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/13/2012	7IC2103	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-3	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-4	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	12IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	13IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	7IP4108	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	8IP4108	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/25/2012	2IP3116	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/25/2012	3IP3116	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO 156161

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information			Invoice Information		
Company Name: City of Wichita Sewage Treatment			Company Name: City of Wichita Sewage Treatment		
Address: 2305 E. 57th Street South			Address: 2305 E. 57th Street South		
City: Wichita	State: KS	Zip: 67216	City: Wichita	State: KS	Zip: 67216
Contact: Jim Hardesty	E-mail:		Contact: Jim Hardesty	E-mail:	
Phone Number: (316)303-8700	Fax Number: (316)303-8712		Phone Number: (316)303-8700	Fax Number: (316)303-8712	

Sampler's Name:(Printed) Justin Murphy

Sampler's Name:(Signature)

Purchase Order Number:

File Number: 5611

Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER	Cadmium, Copper, Zinc - Total Recoverable 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Hexane Extractable Material 2 - 1000ml Amber Glass - H2SO4	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P	COMMENTS 5
McLean-Grab	WW	N	4/12/12	1130	G	4			1	2	1		X	X	X						
McLean-Composite	WW	N	4/12/12	1130	C	1					1					X					
McLean-Upstream	WW	N	4/12/12	1130	G	4			1	1	2						X	X	X	X	

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT (15 working days) Rush TAT (5 working days) Emergency TAT (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE:	TIME:
	4/12/12	1500			
RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
RECEIVED AT LAB BY	DATE	TIME	SHIPPED VIA:	SEAL #:	
	4-12-12	1600	AIRBILL	SEAL DATE	

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 102697

Client Name: Wichita

CAS File No.: 8339

Sample ID's in cooler: 5. Gal

McClean

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: _____ / (Client's Cooler) / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 4 / 12 / 12 16 : 20

Delivered By: UPS / FedX / AB Express / (Field Svcs) / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 1.9 Corrected Reading (°C) 2.3
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 58r Thermo. Correction Factor (°C): 0.5

my
4-12-12

☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

- ☐ Chain of Custody not present - information taken from: Cover Letter ☐ Container ☐ PO ☐ CAS Proj. Mgr. ☐
- ☐ Container label absent
- ☐ Chain of Custody incomplete [see detail below]
- ☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
- ☐ Date or Time sampled obtained from container label
- ☐ Chain of Custody missing sampler's name
- ☐ Chain of Custody missing matrix (sample type)
- ☐ Missing relinquished information: signature date time
- ☐ Sample excluded from Chain of Custody
- ☐ Sample listed on Chain of Custody, not received
- ☐ Sample description on container and Chain of Custody do not agree
- ☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
- ☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement [Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
- ☐ Broken or leaking containers (detail actions below)
- ☐ Sample container type or labeled chemical preservation inappropriate
- ☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: [signature] Date Completed: 4-12-12

CITY OF WICHITA SEWAGE TREATMENT DIVISION
TOTAL SUSPENDED SOLIDS COMPOSITE SAMPLE BENCHSHEET
(SM 2540 D)

S.O.P. NO. : # 012
Revision NO : 12
Revision Date : 9/17/2010

MDL : 1.0 mg/l
Report Limit : 1.0 mg/l

Little Arkansas Bank
Riverside Erosion Control Project
#5 rerun

Date: 8/8/12
Analyst : JN
Time : 8:05
Temp. in: 104°/105°C Time in : 9:31 / 11:4
Temp. out: 104°/105°C Time out : 10:32 / 11:6
#5 rerun

Mettler Toledo AG 204 Balance : # 114293256
Millipore Lot # ROCA12529
Opened: 7 19 12

Julian No.	SAMPLE POINT	NO.	CRUCIBLE WT.(GM)	LOADED WT.(GM)	RESIDUE WT.(GM)	SAMPLE VOL.(ML)	RESULT MG/L	
220	Riverside Park#1	1	26.2840	26.3323	0.0483	25.0	1932	(96%)
	Riverside Park#1	2	30.6953	30.7498	0.0505	25.0	2020	x=1976
220	Riverside Park#2	3	27.2570	27.2633	0.0063	30.0	210	(97%)
	Riverside Park#2	4	24.8839	24.8904	0.0065	30.0	217	x=214
220	Riverside Park#3	5	26.8028	26.8742	0.0714	35.0	897	(96%)
	Riverside Park#3	6	25.0383	25.0685	0.0302	35.0	863	x=880
220	Riverside Park#4	7	30.9162	30.9210	0.0048	50.0	96.0	(98%)
	Riverside Park#4	8	25.5979	25.6026	0.0047	50.0	94.0	x=95.0
220	Riverside Park#5	9	30.2596	30.3028	0.0432	35.0	1234	(70%)
	Riverside Park#5	10	26.0272	26.0891	0.0619	35.0	1769	x=1502
220	Riverside Park#6	11	24.9107	24.9231	0.0124	50.0	248	(98%)
	Riverside Park#6	12	24.7383	24.7509	0.0126	50.0	252	x=250
								(%)
								x=
								(%)
								x=
rerun 220	Riverside Park#5	28	28.3076	28.3760	0.0684	35.0	1954	(81%)
	Riverside Park#5	29	24.4329	24.5174	0.0845	35.0	2414	x=2184
								$\frac{4}{x}$=1843
								(%)
								x=
	Blank		28.2230	28.2221	-0.0009	100	<1.0	(%)
								x=
								(%)
								x=
								(%)
								x=
								(%)
								x=
								(%)
								x=
								(%)
								x=

pH 7 8/8/12

Sample #5 contained non-uniform solids, making it hard to get agood duplicate. JN

CHAIN OF CUSTODY RECORD AND ANALYTICAL REQUEST

TRANSMITTED TO:	RECEIVED FROM:
WICHITA WATER & SEWER DEPARTMENT LABORATORY PRODUCTION & PUMPING DIVISION	PRETREATMENT SEWAGE TREATMENT DIVISION

Little Arkansas Bank
Riverside Erosion Control Project

Sample ID	Lab Log #	Date	Time	Container Info #:	Container Info P/G	Preservative: H2SO	HNO3	ASC+	NACH	NONE	ANALYSIS REQUEST: BOD	COD	TSS	PH	SURF	CN	PHENOL	O&G	H2S	As	Cd	Cr	Cu	Pb	Ni	Zn	Hg	Organic Metals
Riverside #1		8/07/12	10:15AM																									
Riverside #2		8/07/12	10:22AM																									
Riverside #3		8/07/12	10:30AM																									
Riverside #4		8/07/12	10:39AM																									
Riverside #5		8/07/12	10:47AM																									
Riverside #6		8/07/12	11:01AM																									

Comments:

CUSTODY RECORD:	Date	Time		Date	Time
Relinquished by: Hoyt Hillman	Aug 7	1:45PM	Received by: Jesse Nichols	8-7-12	1:45
Print Name:			Print Name: Jesse Nichols		
Relinquished by:			Received by:		
Print by:			Print Name:		
Relinquished by:			Received by:		
Print Name:			Print Name:		

FIGURE VI.B1
Chain-of-Custody Form

Continental Analytical Services, Inc.

02/20/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 02/03/2012 14:25
Continental File No.: 8339
Continental Order No.: 101252
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 12 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12020395	Towne East-Grab	Liquid	2/3/2012
12020396	Towne East-Composite	Liquid	2/3/2012
12020397	Towne East-Upstream	Liquid	2/3/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101252

Lab Number: 12020395
Sample Description: Towne East-Grab

Date Sampled: 02/03/2012
Time Sampled: 0525

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/90
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/88
Copper, Dissolved, ICP-MS	6 DM	µg/L	7202/90
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/88
Hardness (Calculated)	20.3	mg/L as CaCO3	7157/194
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/90
Zinc, Tot. Rec., ICP-MS	27	µg/L	7202/88
Chloride	2.0	mg/L	7107/222
Hexane Extractable Material	ND(5.0)	mg/L	7198/60
Solids, Total Dissolved	34	mg/L	7059/732
Solids, Total Suspended	14	mg/L	7059/733

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2137	120210-2	4IP3046	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1827	120208-1	2IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2137	120210-2	4IP3046	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1827	120208-1	2IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/07/12 1301	02/07/12 1900	120207-4	7IP4038	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/10/12 0952	02/15/12 2137	120210-2	4IP3046	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0805	02/09/12 1827	120208-1	2IP3040	JDL	200.8 Rev. 5.4
Chloride	N/A	02/08/12 1754	1IC2039	2IC2039	MLL	300.0
Hexane Extractable Materia	02/16/12 0900	02/16/12 0854	120216-1	120216-1	JND	1664
Solids, Total Dissolved	N/A	02/08/12 1405	120208-1	120208-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/09/12 1241	120209-1	120209-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B
HEM Preparation Method						1664

Conclusion of Lab Number: 12020395

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101252

Lab Number: 12020396
Sample Description: Towne East-Composite

Date Sampled: 02/03/2012
Time Sampled: 0525

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM QC	µg/L	7202/87
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/88
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/87
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/88
Hardness (Calculated)	20.4	mg/L as CaCO3	7157/192
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/87
Zinc, Tot. Rec., ICP-MS	28	µg/L	7202/88
BOD	ND(5)	mg/L	7060/353
Chloride	2.1	mg/L	7107/218
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	6854/436
Nitrate, as N	0.2	mg/L	7107/218
Nitrite, as N	ND(0.1)	mg/L	7107/218
Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L	9999/873
Phosphorus, Total, as P	ND(0.2)	mg/L	7061/267
Solids, Total Dissolved	ND(30)	mg/L	7059/732
Solids, Total Suspended	14	mg/L	7059/733

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1703	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2044	120208-2	4IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1703	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2044	120208-2	4IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/06/12 1304	02/06/12 2326	120206-3	9IP4037	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1703	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2044	120208-2	4IP3040	JDL	200.8 Rev. 5.4
BOD	N/A	02/03/12 1800	120203-1	120203-1	ASK	SM 5210B
Chloride	N/A	02/03/12 1834	1IC2034	1IC2034	MLL	300.0
Kjeldahl Nitrogen, as N (T	02/06/12	02/07/12 1156	120206-2	120207-1	JND	EPA 351.2
Nitrate, as N	N/A	02/03/12 1834	1IC2034	1IC2034	MLL	300.0
Nitrite, as N	N/A	02/03/12 1834	1IC2034	1IC2034	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	02/10/12 0801				Calculation
Phosphorus, Total, as P	N/A	02/11/12 1509	120211-1	120211-3	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	02/08/12 1405	120208-1	120208-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/09/12 1242	120209-1	120209-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12020396

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101252

Lab Number: 12020397
Sample Description: Towne East-Upstream

Date Sampled: 02/03/2012
Time Sampled: 0525

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM QC	µg/L	7202/87
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/88
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/87
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/88
Hardness (Calculated)	29.9	mg/L as CaCO3	7157/192
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/87
Zinc, Tot. Rec., ICP-MS	28	µg/L	7202/88
BOD	ND(5)	mg/L	7060/353
Chloride	11.7	mg/L	7107/218
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	6854/436
Nitrate, as N	0.5	mg/L	7107/218
Nitrite, as N	ND(0.1)	mg/L	7107/218
Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L	9999/873
Phosphorus, Total, as P	ND(0.20)	mg/L	7061/272
Solids, Total Dissolved	60.	mg/L	7059/732
Solids, Total Suspended	24	mg/L	7059/733

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1708	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2049	120208-2	4IP3040	JDL	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1708	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2049	120208-2	4IP3040	JDL	200.8 Rev. 5.4
Hardness (Calculated)	02/06/12 1304	02/06/12 2330	120206-3	9IP4037	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	02/06/12 1426	02/08/12 1708	120206-4	2IP3039	JDL	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	02/08/12 0915	02/09/12 2049	120208-2	4IP3040	JDL	200.8 Rev. 5.4
BOD	N/A	02/03/12 1800	120203-1	120203-1	ASK	SM 5210B
Chloride	N/A	02/04/12 0043	1IC2034	3IC2034	MLL	300.0
Kjeldahl Nitrogen, as N (T	02/06/12	02/07/12 1158	120206-2	120207-1	JND	EPA 351.2
Nitrate, as N	N/A	02/04/12 0043	1IC2034	3IC2034	MLL	300.0
Nitrite, as N	N/A	02/04/12 0043	1IC2034	3IC2034	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	02/10/12 0801				Calculation
Phosphorus, Total, as P	N/A	02/17/12 1411	120217-1	120217-1	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	02/08/12 1410	120208-1	120208-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	02/09/12 1242	120209-1	120209-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12020397

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101252

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12020396	BOD	02/03/2012 0525	02/03/2012 1800	12:35
12020396	Nitrate, as N	02/03/2012 0525	02/03/2012 1834	13:09
12020396	Nitrite, as N	02/03/2012 0525	02/03/2012 1834	13:09
12020397	BOD	02/03/2012 0525	02/03/2012 1800	12:35
12020397	Nitrate, as N	02/03/2012 0525	02/04/2012 0043	19:18
12020397	Nitrite, as N	02/03/2012 0525	02/04/2012 0043	19:18

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

QC - QC data qualifiers were noted. See the Quality Control Report.

Accreditation Summary

Client: City of Wichita
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NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
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455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
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Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120206-3	120206BLK3 02/06/12 23:10	120206LCS3 02/06/12 23:14	12020397MS 02/06/12 23:34
Lab numbers associated with this batch: 12020396 12020397					
SL156	Cadmium, Dissolved, ICP-MS	120206-4	120206BLK4	120206LCS4	12020415MS
SL162	Copper, Dissolved, ICP-MS	120206-4	120206BLK4	120206LCS4	12020415MS
SL183	Zinc, Dissolved, ICP-MS	120206-4	120206BLK4 02/08/12 16:32	120206LCS4 02/08/12 16:37	12020415MS 02/08/12 18:27
Lab numbers associated with this batch: 12020396 12020397					
SL323	Hardness (Calculated)	120207-4	120207BLK4 02/07/12 18:00	120207LCS4 02/07/12 18:12	12020348MS 02/07/12 18:36
Lab numbers associated with this batch: 12020395					
SL006	Cadmium, Tot. Rec., ICP-MS	120208-1	120208BLK1	120208LCS1	12020401MS
SL012	Copper, Tot. Rec., ICP-MS	120208-1	120208BLK1	120208LCS1	12020401MS
SL033	Zinc, Tot. Rec., ICP-MS	120208-1	120208BLK1 02/09/12 18:17	120208LCS1 02/09/12 18:22	12020401MS 02/09/12 18:38
Lab numbers associated with this batch: 12020395					
SL006	Cadmium, Tot. Rec., ICP-MS	120208-2	120208BLK2	120208LCS2	12020398MS
SL012	Copper, Tot. Rec., ICP-MS	120208-2	120208BLK2	120208LCS2	12020398MS
SL033	Zinc, Tot. Rec., ICP-MS	120208-2	120208BLK2 02/09/12 20:18	120208LCS2 02/09/12 20:23	12020398MS 02/09/12 21:00
Lab numbers associated with this batch: 12020396 12020397					
SL156	Cadmium, Dissolved, ICP-MS	120210-2	120210BLK2	120210LCS2	12020410MS
SL162	Copper, Dissolved, ICP-MS	120210-2	120210BLK2	120210LCS2	12020410MS
SL183	Zinc, Dissolved, ICP-MS	120210-2	120210BLK2 02/15/12 21:21	120210LCS2 02/15/12 21:26	12020410MS 02/15/12 22:19
Lab numbers associated with this batch: 12020395					
GL123	BOD	120203-1	120203BLK1 02/03/12 18:00	120203LCS1 02/03/12 18:00	12020390MS 02/03/12 18:00
Lab numbers associated with this batch: 12020396 12020397					
GL502	Chloride	1IC2034	BLK1IC2034 02/03/12 16:25	LCS1IC2034 02/03/12 16:44	12020330MS 02/03/12 17:20
Lab numbers associated with this batch: 12020396 12020397					
GL502	Chloride	1IC2039	BLK1IC2039 02/08/12 14:12	LCS1IC2039 02/08/12 14:31	12020352MS 02/08/12 18:49
Lab numbers associated with this batch: 12020395					

Continental Analytical Services, Inc.

Quality Control Report
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Continental Order No: 101252

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL188	Hexane Extractable Material	120216-1	120216BLK1 02/16/12 08:50	120216LCS1 02/16/12 08:50	12020350MS 02/16/12 08:51
Lab numbers associated with this batch: 12020395					
GL595	Kjeldahl Nitrogen, as N (TKN)	120206-2	120206BLK2 02/07/12 11:41	120206LCS2 02/07/12 11:43	12020351MS 02/07/12 16:29
Lab numbers associated with this batch: 12020396 12020397					
GL505	Nitrate, as N	1IC2034	BLK1IC2034	LCS1IC2034	12020330MS
GL503	Nitrite, as N	1IC2034	BLK1IC2034 02/03/12 16:25	LCS1IC2034 02/03/12 16:44	
Lab numbers associated with this batch: 12020396 12020397					
GL343	Nitrogen (TKN + NO3/NO2), as N				
Lab numbers associated with this batch: 12020396 12020397					
GL218	Phosphorus, Total, as P	120211-1	120211BLK1 02/11/12 1449	120211LCS1 02/11/12 1449	12020098MS 02/11/12 1455
Lab numbers associated with this batch: 12020396					
GL218	Phosphorus, Total, as P	120217-1	120217BLK1 02/17/12 1409	120217LCS1 02/17/12 1410	12020397MS 02/17/12 1412
Lab numbers associated with this batch: 12020397					
GL242	Solids, Total Dissolved	120208-1	120208BLK1 02/08/12 14:02	120208LCS1 02/08/12	12020376MS 02/08/12 14:03
Lab numbers associated with this batch: 12020395 12020396 12020397					
GL243	Solids, Total Suspended	120209-1	120209BLK1 02/09/12 12:37	120209LCS1 02/09/12	12020392MS 02/09/12 12:40
Lab numbers associated with this batch: 12020395 12020396 12020397					

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
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Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101252

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120203-1	For sample analyzed on: 02/03/2012					Spiked sample: 12020390						
BOD	ND(5)	81.3	70.5-110	198	mg/L	MN	MN	#		mg/L	**	13.2
QC Batch: 120206-2	For samples prepared on: 02/06/2012					Spiked sample: 12020351						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	104	85.0-115	4.0	mg/L	MN	MN	81.5-133	20.0	mg/L	**	18.3
QC Batch: 120206-3	For samples prepared on: 02/06/2012 1304					Spiked sample: 12020397						
Hardness (Calculated)	ND(5.0)	101	80.0-120	337	mg/L a	103	98.0	80.0-120	337	mg/L as	5.0	20.0
QC Batch: 120206-4	For samples prepared on: 02/06/2012 1426					Spiked sample: 12020415						
Cadmium, Dissolved, ICP-MS	ND(1)	104	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	92.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	102	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120207-4	For samples prepared on: 02/07/2012 1301					Spiked sample: 12020348						
Hardness (Calculated)	ND(5.0)	101	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120208-1	For sample analyzed on: 02/08/2012					Spiked sample: 12020376						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.2
QC Batch: 120208-1	For samples prepared on: 02/08/2012 0805					Spiked sample: 12020401						
Cadmium, Tot. Rec., ICP-MS	1 J	102	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	93.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	105	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120208-2	For samples prepared on: 02/08/2012 0915					Spiked sample: 12020398						
Cadmium, Tot. Rec., ICP-MS	ND(1)	103	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	92.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	105	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120209-1	For sample analyzed on: 02/09/2012					Spiked sample: 12020392						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	18.2
QC Batch: 120210-2	For samples prepared on: 02/10/2012 0952					Spiked sample: 12020410						
Cadmium, Dissolved, ICP-MS	ND(1)	102	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	95.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	99.6	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120211-1	For sample analyzed on: 02/11/2012					Spiked sample: 12020098						
Phosphorus, Total, as P	ND(0.2)	94.4	90.0-110	2.0	mg/L	MN	MN	71.2-135	2.0	mg/L	**	21.2
QC Batch: 120216-1	For samples prepared on: 02/16/2012 0900					Spiked sample: 12020350						
Hexane Extractable Material	ND(1.4)	93.5	78.0-114	40.0	mg/L	MN	MN	78.0-114	40.0	mg/L	**	18.0
QC Batch: 120217-1	For sample analyzed on: 02/17/2012					Spiked sample: 12020397						
Phosphorus, Total, as P	ND(0.20)	95.5	90.0-110	2.0	mg/L	97.8	91.7	71.2-135	2.0	mg/L	6.4	21.2
QC Batch: 1IC2034	For sample analyzed on: 02/03/2012					Spiked sample:						
Nitrite, as N	ND(0.1)	95.1	90.0-110	2.0	mg/L	MN	MN	78.5-127			**	10.1
QC Batch: 1IC2034	For sample analyzed on: 02/03/2012					Spiked sample: 12020330						
Chloride	ND(1.0)	96.6	90.0-110	4.0	mg/L	MN	MN	82.1-126	80.0	mg/L	**	12.5
Nitrate, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	79.3-118	40.0	mg/L	**	12.1

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
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Date Reported: 02/20/2012
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Continental File No: 8339
Continental Order No: 101252

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 1IC2039	For sample analyzed on: 02/08/2012					Spiked sample: 12020352						
Chloride	ND(1.0)	96.7	90.0-110	4.0	mg/L	MN	MN	82.1-126	400	mg/L	**	12.5

Data Qualifiers:
MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

N/A - Not Applicable

J - The concentration or not detected (ND) value is below the Limit of Quantitation (LOQ) and is considered an estimated value.

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 02/20/2012
Date Received: 02/03/2012
Continental File No: 8339
Continental Order No: 101252

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	02/08/2012	2IP3039	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	02/09/2012	2IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/08/2012	3IP3039	100	111	µg/L	111 CH

Samples associated with this Continuing Calibration Verification:

Laboratory Number	Instrument Batch	Sample Description
12020396	2IP3039	Towne East-Composite
12020397	2IP3039	Towne East-Upstream

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Tot. Rec., ICP-MS	02/09/2012	3IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/15/2012	4IP3046	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	02/09/2012	5IP3040	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/08/2012	2IP3039	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	2IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/08/2012	3IP3039	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	3IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/15/2012	4IP3046	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	02/09/2012	5IP3040	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.			
BOD	02/03/2012	120203-1	CCV recovery acceptable for this Instrument Batch.			
BOD	02/03/2012	120203-2	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	02/16/2012	120216-1	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	02/16/2012	120216-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	02/11/2012	120211-3	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	02/11/2012	120211-4	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	02/17/2012	120217-1	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	02/17/2012	120217-2	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/03/2012	1IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/08/2012	2IC2039	CCV recovery acceptable for this Instrument Batch.			
Chloride	02/08/2012	3IC2039	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/03/2012	1IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/03/2012	1IC2034	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	02/03/2012	2IC2034	CCV recovery acceptable for this Instrument Batch.			

Quality Control Report
Continuing Calibration Data Summary

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Nitrate, as N	02/03/2012	3IC2034	CCV recovery acceptable for this Instrument Batch.
Nitrate, as N	02/04/2012	4IC2034	CCV recovery acceptable for this Instrument Batch.
Kjeldahl Nitrogen, as N (TKN)	02/07/2012	120207-1	CCV recovery acceptable for this Instrument Batch.
Kjeldahl Nitrogen, as N (TKN)	02/07/2012	120207-2	CCV recovery acceptable for this Instrument Batch.
Hardness (Calculated)	02/06/2012	10IP4037	CCV recovery acceptable for this Instrument Batch.
Hardness (Calculated)	02/07/2012	7IP4038	CCV recovery acceptable for this Instrument Batch.
Hardness (Calculated)	02/07/2012	8IP4038	CCV recovery acceptable for this Instrument Batch.
Hardness (Calculated)	02/06/2012	9IP4037	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/08/2012	2IP3039	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	2IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/08/2012	3IP3039	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	3IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	4IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/15/2012	4IP3046	CCV recovery acceptable for this Instrument Batch.
Zinc, Tot. Rec., ICP-MS	02/09/2012	5IP3040	CCV recovery acceptable for this Instrument Batch.
Zinc, Dissolved, ICP-MS	02/15/2012	5IP3046	CCV recovery acceptable for this Instrument Batch.

Data Qualifiers:
CH - The continuing calibration verification (CCV) standard recovery for this analyte was above the method or SOP limit. The reported concentration for this analyte may be biased high.

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO. 10,035

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information	Invoice Information
Company Name: City of Wichita Sewage Treatment	Company Name: City of Wichita Sewage Treatment
Address: 2305 E. 57th Street South	Address: 2305 E. 57th Street South
City: Wichita State: KS Zip: 67216	City: Wichita State: KS Zip: 67216
Contact: Jim Hardesty E-mail:	Contact: Jim Hardesty E-mail
Phone Number: (316)303-8700 Fax Number: (316)303-8712	Phone Number: (316)303-8700 Fax Number: (316)303-8712

Sampler's Name (Printed): Justin Murphy
Sampler's Name (Signature):
Purchase Order Number:
File Number: 5611
Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER	Cadmium, Copper, Zinc - Total Recoverable 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Hexane Extractable Material 2 - 1000ml Amber Glass - H2SO4	Total Metal's, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P	COMMENTS 5 Gal. container to be poured off at lab as needed for required tests. Remaininig volume will be saved for organics if needed
Towne East-Grab	WW	N	2/3/12	0525	G	4			1	2	1		X	X	X						
Towne East-Composite	WW	N	2/3/12	0525	C	1					1					X					
Towne East-Upstream	WW	N	2/3/12	0525	G	4			1	1	2						X	X	X	X	

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT. (15 working days) Rush TAT (5 working days) Emergency TAT (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY	DATE: 2/3/12	TIME: 0525	RECEIVED BY:	DATE:	TIME:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
RECEIVED AT LAB BY: Mark Wheeler	DATE: 2-3-12	TIME: 1425	SHIPPED VIA: AIRBILL	SEAL #: SEAL DATE:	

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 101252

Client Name: Wichita CAS File No.: 8339

Sample ID's in cooler: See COC
Towne East

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: _____ / (Client's Cooler) / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 2 / 3 / 12 14 : 35

Delivered By: UPS / FedX / AB Express / (Field Svcs) / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / (Foam) / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 1.4 Corrected Reading (°C) 1.8
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
Thermo. ID No.: 585 Thermo. Correction Factor (°C): 0.4

☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

☐ Chain of Custody not present - information taken from:
Cover Letter ☐ Container ☐
PO ☐ CAS Proj. Mgr. ☐
☐ Container label absent
☐ Chain of Custody incomplete [see detail below]
☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
☐ Date or Time sampled obtained from container label
☐ Chain of Custody missing sampler's name
☐ Chain of Custody missing matrix (sample type)
☐ Missing relinquished information: signature date time
☐ Sample excluded from Chain of Custody
☐ Sample listed on Chain of Custody, not received
☐ Sample description on container and Chain of Custody do not agree
☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement
[Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
☐ Broken or leaking containers (detail actions below)
☐ Sample container type or labeled chemical preservation inappropriate
☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: MWS Date Completed: 2-3-12

Continental
Analytical Services, Inc.

05/04/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 04/12/2012 1620
Continental File No.: 8339
Continental Order No.: 102695
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 11 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12041013	Towne East-Grab	Liquid	4/12/2012
12041014	Towne East-Composite	Liquid	4/12/2012
12041015	Towne East-Upstream	Liquid	4/12/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102695

Lab Number: 12041013
Sample Description: Towne East-Grab

Date Sampled: 04/12/2012
Time Sampled: 1210

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/125
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/125
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/123
Hardness (Calculated)	29.6	mg/L as CaCO3	7157/251
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/125
Zinc, Tot. Rec., ICP-MS	30.	µg/L	7202/123
Chloride	5.3	mg/L	7276/22
Hexane Extractable Material	ND(5.0)	mg/L	7198/85
Solids, Total Dissolved	44	mg/L	7059/856
Solids, Total Suspended	81	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2210	120419-4	6IP3114	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0121	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2210	120419-4	6IP3114	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0121	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/17/12 1131	04/17/12 2033	120417-5	6IP4108	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2210	120419-4	6IP3114	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0121	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Chloride	N/A	04/26/12 1658	1IC1117	3IC1117	MLL	300.0
Hexane Extractable Materia	N/A	05/01/12 0830	120501-1	120501-1	JND	1664
Solids, Total Dissolved	N/A	04/18/12 1504	120418-1	120418-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1330	120419-1	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B
HEM Preparation Method						1664

Conclusion of Lab Number: 12041013

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102695

Lab Number: 12041014
Sample Description: Towne East-Composite

Date Sampled: 04/12/2012
Time Sampled: 1210

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/122
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/122
Copper, Tot. Rec., ICP-MS	ND(5)	µg/L	7202/123
Hardness (Calculated)	28.0	mg/L as CaCO3	7157/248
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/122
Zinc, Tot. Rec., ICP-MS	31	µg/L	7202/123
BOD	ND(5)	mg/L	7060/412
Chloride	5.3	mg/L	7277/35
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	mg/L	6854/505
Nitrate, as N	0.2	mg/L	7277/35
Nitrite, as N	ND(0.1)	mg/L	7277/35
Nitrogen (TKN + NO3/NO2), as N	ND(1.0)	mg/L	9998/57
Phosphorus, Total, as P	ND(0.2)	mg/L	7061/315
Solids, Total Dissolved	46	mg/L	7059/856
Solids, Total Suspended	41	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2332	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2211	120417-1	4IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2332	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2211	120417-1	4IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/13/12 1234	04/14/12 0204	120413-5	12IP4104	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2332	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0717	04/18/12 2211	120417-1	4IP3109	KMW	200.8 Rev. 5.4
BOD	N/A	04/13/12 1455	120413-1	120413-1	MLL	SM 5210B
Chloride	N/A	04/13/12 0603	2IC2103	5IC2103	MLL	300.0
Kjeldahl Nitrogen, as N (T	04/17/12 1756	04/24/12 1103	120417-2	120424-2	JND	EPA 351.2
Nitrate, as N	N/A	04/13/12 0603	2IC2103	5IC2103	MLL	300.0
Nitrite, as N	N/A	04/13/12 0603	2IC2103	5IC2103	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	04/27/12 0831				Calculation
Phosphorus, Total, as P	N/A	04/26/12 1410	120426-1	120426-2	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	04/18/12 1504	120418-1	120418-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1330	120419-1	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041014

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102695

Lab Number: 12041015
Sample Description: Towne East-Upstream

Date Sampled: 04/12/2012
Time Sampled: 1210

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/122
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/122
Copper, Tot. Rec., ICP-MS	7	µg/L	7202/123
Hardness (Calculated)	38.9	mg/L as CaCO3	7157/248
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/122
Zinc, Tot. Rec., ICP-MS	39	µg/L	7202/123
BOD	7	mg/L	7060/412
Chloride	6.3	mg/L	7277/35
Kjeldahl Nitrogen, as N (TKN)	1.9	mg/L	6854/505
Nitrate, as N	0.3	mg/L	7277/35
Nitrite, as N	ND(0.1)	mg/L	7277/35
Nitrogen (TKN + NO3/NO2), as N	2.2	mg/L	9998/57
Phosphorus, Total, as P	ND(0.2)	mg/L	7061/315
Solids, Total Dissolved	52	mg/L	7059/859
Solids, Total Suspended	46	mg/L	7059/858

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2337	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0127	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2337	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0127	120417-2	7IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/13/12 1234	04/14/12 0208	120413-5	12IP4104	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2337	120416-2	3IP3107	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0127	120417-2	7IP3109	KMW	200.8 Rev. 5.4
BOD	N/A	04/13/12 1455	120413-1	120413-1	MLL	SM 5210B
Chloride	N/A	04/13/12 0717	2IC2103	6IC2103	MLL	300.0
Kjeldahl Nitrogen, as N (T	04/17/12 1756	04/24/12 1105	120417-2	120424-2	JND	EPA 351.2
Nitrate, as N	N/A	04/13/12 0717	2IC2103	6IC2103	MLL	300.0
Nitrite, as N	N/A	04/13/12 0717	2IC2103	6IC2103	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	04/27/12 0831				Calculation
Phosphorus, Total, as P	N/A	04/26/12 1411	120426-1	120426-2	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	04/19/12 1436	120419-1	120419-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/19/12 1330	120419-1	120419-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12041015

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102695

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12041014	BOD	04/12/2012 1210	04/13/2012 1455	26:45
12041014	Nitrate, as N	04/12/2012 1210	04/13/2012 0603	17:53
12041014	Nitrite, as N	04/12/2012 1210	04/13/2012 0603	17:53
12041015	BOD	04/12/2012 1210	04/13/2012 1455	26:45
12041015	Nitrate, as N	04/12/2012 1210	04/13/2012 0717	19:07
12041015	Nitrite, as N	04/12/2012 1210	04/13/2012 0717	19:07

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102695

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102695

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120413-5	120413BLK5 04/14/12 01:03	120413LCS5 04/14/12 01:16	12041017MS 04/14/12 02:16
Lab numbers associated with this batch: 12041014 12041015					
SL156	Cadmium, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL162	Copper, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL183	Zinc, Dissolved, ICP-MS	120416-2	120416BLK2 04/16/12 22:18	120416LCS2 04/16/12 22:23	12041027MS 04/17/12 00:35
Lab numbers associated with this batch: 12041014 12041015					
SL006	Cadmium, Tot. Rec., ICP-MS	120417-1	120417BLK1	120417LCS1	12040878MS
SL012	Copper, Tot. Rec., ICP-MS	120417-1	120417BLK1	120417LCS1	12040878MS
SL033	Zinc, Tot. Rec., ICP-MS	120417-1	120417BLK1 04/18/12 20:58	120417LCS1 04/18/12 21:03	12040878MS 04/18/12 21:13
Lab numbers associated with this batch: 12041014					
SL006	Cadmium, Tot. Rec., ICP-MS	120417-2	120417BLK2	120417LCS2	12040880MS
SL012	Copper, Tot. Rec., ICP-MS	120417-2	120417BLK2	120417LCS2	12040880MS
SL033	Zinc, Tot. Rec., ICP-MS	120417-2	120417BLK2 04/18/12 23:15	120417LCS2 04/18/12 23:20	12040880MS 04/18/12 23:41
Lab numbers associated with this batch: 12041013 12041015					
SL323	Hardness (Calculated)	120417-5	120417BLK5 04/17/12 19:41	120417LCS5 04/17/12 19:45	12041000MS 04/17/12 20:05
Lab numbers associated with this batch: 12041013					
SL156	Cadmium, Dissolved, ICP-MS	120419-4	120419BLK4	120419LCS4	12041016MS
SL162	Copper, Dissolved, ICP-MS	120419-4	120419BLK4	120419LCS4	12041016MS
SL183	Zinc, Dissolved, ICP-MS	120419-4	120419BLK4 04/23/12 21:17	120419LCS4 04/23/12 21:23	12041016MS 04/23/12 22:21
Lab numbers associated with this batch: 12041013					
GL123	BOD	120413-1	120413BLK1 04/13/12 14:55	120413LCS1 04/13/12 14:55	12040999MS 04/13/12 14:55
Lab numbers associated with this batch: 12041014 12041015					
GL502	Chloride	1IC1117	BLK1IC1117 04/26/12 09:23	LCS1IC1117 04/26/12 10:07	12041939MS 04/26/12 16:05
Lab numbers associated with this batch: 12041013					
GL502	Chloride	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
Lab numbers associated with this batch: 12041014 12041015					

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102695

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL188	Hexane Extractable Material	120501-1	120501BLK1 05/01/12 08:24	120501LCS1 05/01/12 08:25	12042101MS 05/01/12 08:25
	Lab numbers associated with this batch: 12041013				
GL595	Kjeldahl Nitrogen, as N (TKN)	120417-2	120417BLK2 04/24/12 10:26	120417LCS2 04/24/12 10:29	12040969MS 04/24/12 10:35
	Lab numbers associated with this batch: 12041014 12041015				
GL505	Nitrate, as N	2IC2103	BLK2IC2103	LCS2IC2103	12041027MS
GL503	Nitrite, as N	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
	Lab numbers associated with this batch: 12041014 12041015				
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12041014 12041015				
GL218	Phosphorus, Total, as P	120426-1	120426BLK1 04/26/12 1359	120426LCS1 04/26/12 1400	12041012MS 04/26/12 1409
	Lab numbers associated with this batch: 12041014 12041015				
GL242	Solids, Total Dissolved	120418-1	120418BLK1 04/18/12 15:00	120418LCS1 04/18/12	12041006MS 04/18/12 15:01
	Lab numbers associated with this batch: 12041013 12041014				
GL242	Solids, Total Dissolved	120419-1	120419BLK1 04/19/12 14:36	120419LCS1 04/19/12	12041127MS 04/19/12 14:41
	Lab numbers associated with this batch: 12041015				
GL243	Solids, Total Suspended	120419-1	120419BLK1 04/19/12 13:25	120419LCS1 04/19/12	12041002MS 04/19/12 13:25
	Lab numbers associated with this batch: 12041013 12041014 12041015				

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102695

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120413-1	**For sample analyzed on: 04/13/2012**					**Spiked sample: 12040999**						
BOD	ND(5)	85.6	75.3-109	198	mg/L	MN	MN	#		mg/L	**	16.4
QC Batch: 120413-5	**For samples prepared on: 04/13/2012 1234**					**Spiked sample: 12041017**						
Hardness (Calculated)	ND(5.0)	105	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120416-2	**For samples prepared on: 04/16/2012 0902**					**Spiked sample: 12041027**						
Cadmium, Dissolved, ICP-MS	ND(1)	96.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	93.0	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	99.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-1	**For samples prepared on: 04/17/2012 0717**					**Spiked sample: 12040878**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	91.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-2	**For samples prepared on: 04/17/2012 0756**					**Spiked sample: 12040880**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	100	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	92.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-2	**For samples prepared on: 04/17/2012 1756**					**Spiked sample: 12040969**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	111	85.0-115	4.0	mg/L	MN	MN	81.2-133	20.0	mg/L	**	6.7
QC Batch: 120417-5	**For samples prepared on: 04/17/2012 1131**					**Spiked sample: 12041000**						
Hardness (Calculated)	ND(5.0)	104	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120418-1	**For sample analyzed on: 04/18/2012**					**Spiked sample: 12041006**						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120419-1	**For sample analyzed on: 04/19/2012**					**Spiked sample: 12041002**						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120419-1	**For sample analyzed on: 04/19/2012**					**Spiked sample: 12041127**						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120419-4	**For samples prepared on: 04/19/2012 1121**					**Spiked sample: 12041016**						
Cadmium, Dissolved, ICP-MS	ND(1)	98.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	91.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	94.6	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120426-1	**For sample analyzed on: 04/26/2012**					**Spiked sample: 12041012**						
Phosphorus, Total, as P	ND(0.2)	98.3	88.8-110	2.0	mg/L	MN	MN	80.5-117	2.0	mg/L	**	5.7
QC Batch: 120501-1	**For sample analyzed on: 05/01/2012**					**Spiked sample: 12042101**						
Hexane Extractable Material	ND(1.4)	85.5	78.0-114	40.0	mg/L	MN	MN	78.0-114	40.0	mg/L	**	18.0
QC Batch: 1IC1117	**For sample analyzed on: 04/26/2012**					**Spiked sample: 12041939**						
Chloride	ND(1.0)	98.8	90.0-110	4.0	mg/L	MN	MN	75.1-131	40.0	mg/L	**	5.7
QC Batch: 2IC2103	**For sample analyzed on: 04/12/2012**					**Spiked sample: 12041027**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	4.0	mg/L	**	5.7
Nitrite, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	77.5-116	2.0	mg/L	**	10.2

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102695

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 2IC2103	For sample analyzed on: 04/12/2012					Spiked sample: 12041027						
Nitrate, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	81.7-121	2.0	mg/L	**	8.2

Data Qualifiers:

MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

N/A - Not Applicable

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102695

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	04/18/2012	4IP3109	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/23/2012	6IP3114	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/18/2012	4IP3109	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/23/2012	6IP3114	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-1	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-2	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	05/01/2012	120501-1	CCV recovery acceptable for this Instrument Batch.			
Hexane Extractable Material	05/01/2012	120501-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-3	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/26/2012	3IC1117	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/26/2012	4IC1117	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/13/2012	6IC2103	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/13/2012	7IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/13/2012	6IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/13/2012	7IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/13/2012	6IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/13/2012	7IC2103	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-2	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-3	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	12IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	13IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	6IP4108	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	7IP4108	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/18/2012	4IP3109	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/18/2012	5IP3109	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/23/2012	6IP3114	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

CAS ORDER NO: 102643

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information			Invoice Information		
Company Name: City of Wichita Sewage Treatment			Company Name: City of Wichita Sewage Treatment		
Address: 2305 E. 57th Street South			Address: 2305 E. 57th Street South		
City: Wichita	State: KS	Zip: 67216	City: Wichita	State: KS	Zip: 67216
Contact: Jim Hardesty	E-mail:		Contact: Jim Hardesty	E-mail:	
Phone Number: (316)303-8700	Fax Number: (316)303-8712		Phone Number: (316)303-8700	Fax Number: (316)303-8712	

Sampler's Name:(Printed) Justin Murphy

Sampler's Name:(Signature) JM

Purchase Order Number:

File Number: 5611

Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER:	Cadmium, Copper, Zinc - Total Recoverable 250ml Plastic - HNO3	Cadmium, Copper, Zinc - Dissolved, Hardness, TSS TDS, Cl 1000ml Plastic - None	Hexane Extractable Material 2 - 1000ml Amber Glass - H2SO4	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD Large Carboy	Hardness, TSS, TDS, Cl, BOD, NO3, NO2, Ni	Total Metals	Dissolved Metals	TKN, Total P	COMMENTS 5 Gal container to be poured off at lab as needed for required tests. Remaininig volume will be saved for organics if needed
Towne East-Grab	WW	N	4/12/12	1210	G	4			1	2	1		X	X	X						
Towne East-Composite	WW	N	4/12/12	1210	C	1					1					X					
Towne East-Upstream	WW	N	4/12/12	1210	G	4			1	1	2						X	X	X	X	

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT (15 working days) Rush TAT (5 working days) Emergency TAT (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL=Oil/Organic Liquid, O=Other

RELINQUISHED BY: JM	DATE: 4/12/12	TIME: 1500	RECEIVED BY	DATE:	TIME:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY	DATE:	TIME:
RECEIVED AT LAB BY: Paulette Bryan	DATE: 4-12-12	TIME:	SHIPPED VIA: AIRBILL	SEAL #: SEAL DATE:	

H:\melissa\...chita Stormwater COCs.xls\4/12/2012

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 102695

Client Name: Wichita

CAS File No.: 8339

Sample ID's in cooler: Sa. Col

Town East

Cooler 1 of 1 for this CAS Order No.

Cooler Identification: CAS Cooler #: _____ / (Client's Cooler) / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 4 / 12 / 12 16 : 20

Delivered By: UPS / FedX / AB Express / (Field Svcs) / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / (N/A)

Type of Packing Material: Blue Ice / (Ice) / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 2.0 Corrected Reading (°C) 2.5
Temp. By: (Temp. Blank) Cooler Surface: Glass / Plastic /Metal /Other: _____
MWS 4-12-12 Thermo. ID No.: 585 Thermo. Correction Factor (°C): 0.5
☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

☐ Chain of Custody not present - information taken from:
Cover Letter ☐ Container ☐
PO ☐ CAS Proj. Mgr. ☐
☐ Container label absent
☐ Chain of Custody incomplete [see detail below]
☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
☐ Date or Time sampled obtained from container label
☐ Chain of Custody missing sampler's name
☐ Chain of Custody missing matrix (sample type)
☐ Missing relinquished information: signature date time
☐ Sample excluded from Chain of Custody
☐ Sample listed on Chain of Custody, not received
☐ Sample description on container and Chain of Custody do not agree
☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement
[Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
☐ Broken or leaking containers (detail actions below)
☐ Sample container type or labeled chemical preservation inappropriate
☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: [signature] Date Completed: 4/12

Continental
Analytical Services, Inc.

05/04/2012

City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date and Time Received: 04/12/2012 1620
Continental File No.: 8339
Continental Order No.: 102689
Project ID: Stormwater
Purchase Auth: BP800121

Dear Mr. Hardesty:

This laboratory report containing the samples indicated below, includes 10 pages for the analytical report, 1 page(s) for the chain of custody and/or analysis request, and 1 page(s) for the sample receipt form.

CAS LAB ID #	SAMPLE DESCRIPTION	SAMPLE TYPE	DATE SAMPLED
12040998	Westlink-Grab	Liquid	4/12/2012
12040999	Westlink-Composite	Liquid	4/12/2012

The Appendix and Quality Control sections are integral parts of this laboratory report and may contain important data qualifiers.

All results are reported on a wet weight basis unless otherwise stated.

Samples will be retained for thirty days unless Continental is otherwise notified.

Continental is accredited by the State of Kansas through the National Environmental Laboratory Accreditation Program (NELAP). The results contained in this report were obtained using Continental's Standard Operating Procedures. These procedures are in substantial compliance with the approved methods referenced and the standards published by NELAP unless otherwise noted in the Appendix and Quality Control sections of this report.

Thank you for choosing Continental for this project.

CONTINENTAL ANALYTICAL SERVICES, INC.

for Clifford J. Baker
Technical Manager

Gregory J. Groene
Project Manager

525 N. Eighth St. - P.O. Box 3737 - Salina, KS 67402-3737
785-827-1273 800-535-3076 Fax 785-823-7830
KDHE Environmental Laboratory Accreditation No. E-10146

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102689

Lab Number: 12040998
Sample Description: **Westlink-Grab**

Date Sampled: 04/12/2012
Time Sampled: 1315

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/125
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/123
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/132
Copper, Tot. Rec., ICP-MS	6	µg/L	7202/123
Hardness (Calculated)	38.6	mg/L as CaCO3	7157/251
Zinc, Dissolved, ICP-MS	46 DM	µg/L	7202/127
Zinc, Tot. Rec., ICP-MS	68	µg/L	7202/123
Chloride	5.9	mg/L	7276/21
Solids, Total Dissolved	78	mg/L	7059/848
Solids, Total Suspended	109	mg/L	7059/853

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/19/12 1121	04/23/12 2144	120419-4	6IP3114	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0013	120417-2	6IP3109	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/30/12 1121	05/01/12 2047	120430-3	7IP3122	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0013	120417-2	6IP3109	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/17/12 1131	04/17/12 1949	120417-5	5IP4108	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/19/12 1121	04/25/12 1236	120419-4	2IP3116	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0756	04/19/12 0013	120417-2	6IP3109	KMW	200.8 Rev. 5.4
Chloride	N/A	04/25/12 1827	1IC1116	1IC1116	MLL	300.0
Solids, Total Dissolved	N/A	04/16/12 1622	120416-1	120416-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/18/12 1306	120418-1	120418-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12040998

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102689

Lab Number: 12040999
Sample Description: Westlink-Composite

Date Sampled: 04/12/2012
Time Sampled: 1315

Analysis	Concentration	Units	Book/Page
Cadmium, Dissolved, ICP-MS	ND(1) DM	µg/L	7202/122
Cadmium, Tot. Rec., ICP-MS	ND(1)	µg/L	7202/125
Copper, Dissolved, ICP-MS	ND(5) DM	µg/L	7202/122
Copper, Tot. Rec., ICP-MS	8	µg/L	7202/124
Hardness (Calculated)	42.2	mg/L as CaCO3	7157/248
Zinc, Dissolved, ICP-MS	ND(20) DM	µg/L	7202/122
Zinc, Tot. Rec., ICP-MS	96	µg/L	7202/124
BOD	13	mg/L	7060/412
Chloride	6.5	mg/L	7277/35
Kjeldahl Nitrogen, as N (TKN)	2.7	mg/L	6854/505
Nitrate, as N	0.4	mg/L	7277/35
Nitrite, as N	ND(0.1)	mg/L	7277/35
Nitrogen (TKN + NO3/NO2), as N	3.1	mg/L	9998/57
Phosphorus, Total, as P	0.44	mg/L	7061/315
Solids, Total Dissolved	88	mg/L	7059/848
Solids, Total Suspended	141	mg/L	7059/853

Analysis	Date/Time Prepared	Date/Time Analyzed	QC Batch	Inst. Batch	Analyst	Method(s)
Cadmium, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2229	120416-2	2IP3107	KMW	200.8 Rev. 5.4
Cadmium, Tot. Rec., ICP-MS	04/17/12 0717	04/23/12 1705	120417-1	1IP3114	KMW	200.8 Rev. 5.4
Copper, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2229	120416-2	2IP3107	KMW	200.8 Rev. 5.4
Copper, Tot. Rec., ICP-MS	04/17/12 0717	04/20/12 1651	120417-1	1IP3111	KMW	200.8 Rev. 5.4
Hardness (Calculated)	04/13/12 1234	04/14/12 0119	120413-5	11IP4104	KMW	200.7 & SM 2340B
Zinc, Dissolved, ICP-MS	04/16/12 0902	04/16/12 2229	120416-2	2IP3107	KMW	200.8 Rev. 5.4
Zinc, Tot. Rec., ICP-MS	04/17/12 0717	04/20/12 1651	120417-1	1IP3111	KMW	200.8 Rev. 5.4
BOD	N/A	04/13/12 1455	120413-1	120413-1	MLL	SM 5210B
Chloride	N/A	04/12/12 2355	2IC2103	4IC2103	MLL	300.0
Kjeldahl Nitrogen, as N (T	04/17/12 1756	04/24/12 1039	120417-2	120424-1	JND	EPA 351.2
Nitrate, as N	N/A	04/12/12 2355	2IC2103	4IC2103	MLL	300.0
Nitrite, as N	N/A	04/12/12 2355	2IC2103	4IC2103	MLL	300.0
Nitrogen (TKN + NO3/NO2),	N/A	04/27/12 0831				Calculation
Phosphorus, Total, as P	N/A	04/26/12 1401	120426-1	120426-1	KJH	SM 4500-P(B&F)(M)
Solids, Total Dissolved	N/A	04/16/12 1622	120416-1	120416-1	KJH	SM20th 2540C
Solids, Total Suspended	N/A	04/18/12 1306	120418-1	120418-1	KJH	SM20th 2540D
Dissolved Metals Preparation Method						200.7/200.8
Total Recoverable Metals Preparation Method						200.7/200.8
Calculated as Hardness Preparation Method						200.7/6010B

Conclusion of Lab Number: 12040999

Appendix

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102689

ND(), where reported, indicates the analyte was not detected above the Limit of Quantitation (LOQ). The concentration of the LOQ is inside the parentheses.

All samples which require cooling were received at a temperature of less than 6 degrees Celsius.

The following table presents the date and time sampled, the date and time analyzed, and the total time elapsed for each analysis with an EPA recommended holding time of seventy-two hours or less.

CAS LAB ID #	ANALYSIS	DATE/TIME SAMPLED	DATE/TIME ANALYZED	ELAPSED HRS:MIN
12040999	BOD	04/12/2012 1315	04/13/2012 1455	25:40
12040999	Nitrate, as N	04/12/2012 1315	04/12/2012 2355	10:40
12040999	Nitrite, as N	04/12/2012 1315	04/12/2012 2355	10:40

DM - NPDES requirements specify that dissolved metals and orthophosphate must be filtered within 15 minutes of the time of collection. This analysis did not meet these criteria.

Accreditation Summary

Client: City of Wichita
Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102689

NELAP accreditation is issued under each EPA regulatory program for a given matrix/analyte/method combination. Continental is NELAP accredited for each matrix/analyte/method and EPA program cited in this Laboratory Report, except for those listed in the table below and for analyses performed in the field. For most of the analyses listed in the table, NELAP accreditation is not offered under the listed EPA program and Continental is NELAP accredited for the analysis, using the same analytical technology, but under a different EPA program. Continental's full NELAP accreditation status may be viewed at www.kdheks.gov/envlab. Note that unless qualified otherwise in the Laboratory Report, Continental performs all analyses, including each analysis listed in the table below, utilizing NELAP protocol.

Test	Analysis	Matrix-Regulatory Program	Method	CAS NELAP Accredited in Other Reg. Program
GL343	Nitrogen (TKN + NO3/NO2), as N	L-NPDES	Calculation	N

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102689

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
SL323	Hardness (Calculated)	120413-5	120413BLK5 04/14/12 01:03	120413LCS5 04/14/12 01:16	12041017MS 04/14/12 02:16
Lab numbers associated with this batch: 12040999					
SL156	Cadmium, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL162	Copper, Dissolved, ICP-MS	120416-2	120416BLK2	120416LCS2	12041027MS
SL183	Zinc, Dissolved, ICP-MS	120416-2	120416BLK2 04/16/12 22:18	120416LCS2 04/16/12 22:23	12041027MS 04/17/12 00:35
Lab numbers associated with this batch: 12040999					
SL006	Cadmium, Tot. Rec., ICP-MS	120417-1	120417BLK1	120417LCS1	12040878MS
SL012	Copper, Tot. Rec., ICP-MS	120417-1	120417BLK1	120417LCS1	12040878MS
SL033	Zinc, Tot. Rec., ICP-MS	120417-1	120417BLK1 04/18/12 20:58	120417LCS1 04/18/12 21:03	12040878MS 04/18/12 21:13
Lab numbers associated with this batch: 12040999					
SL006	Cadmium, Tot. Rec., ICP-MS	120417-2	120417BLK2	120417LCS2	12040880MS
SL012	Copper, Tot. Rec., ICP-MS	120417-2	120417BLK2	120417LCS2	12040880MS
SL033	Zinc, Tot. Rec., ICP-MS	120417-2	120417BLK2 04/18/12 23:15	120417LCS2 04/18/12 23:20	12040880MS 04/18/12 23:41
Lab numbers associated with this batch: 12040998					
SL323	Hardness (Calculated)	120417-5	120417BLK5 04/17/12 19:41	120417LCS5 04/17/12 19:45	12041000MS 04/17/12 20:05
Lab numbers associated with this batch: 12040998					
SL156	Cadmium, Dissolved, ICP-MS	120419-4	120419BLK4	120419LCS4	12041016MS
SL183	Zinc, Dissolved, ICP-MS	120419-4	120419BLK4 04/23/12 21:17	120419LCS4 04/23/12 21:23	12041016MS 04/23/12 22:21
Lab numbers associated with this batch: 12040998					
SL162	Copper, Dissolved, ICP-MS	120430-3	120430BLK3 05/01/12 20:05	120430LCS3 05/01/12 20:10	
Lab numbers associated with this batch: 12040998					
GL123	BOD	120413-1	120413BLK1 04/13/12 14:55	120413LCS1 04/13/12 14:55	12040999MS 04/13/12 14:55
Lab numbers associated with this batch: 12040999					
GL502	Chloride	1IC1116	BLK1IC1116 04/25/12 16:41	LCS1IC1116 04/25/12 16:54	
Lab numbers associated with this batch: 12040998					

Continental Analytical Services, Inc.

Quality Control Report
Batch Summary

Client: City of Wichita
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City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102689

Test	Testname	QC Batch	Method Blank Date Analyzed	LCS Date Analyzed	MS Lab No. Date Analyzed
GL502	Chloride	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
	Lab numbers associated with this batch: 12040999				
GL595	Kjeldahl Nitrogen, as N (TKN)	120417-2	120417BLK2 04/24/12 10:26	120417LCS2 04/24/12 10:29	12040969MS 04/24/12 10:35
	Lab numbers associated with this batch: 12040999				
GL505	Nitrate, as N	2IC2103	BLK2IC2103	LCS2IC2103	12041027MS
GL503	Nitrite, as N	2IC2103	BLK2IC2103 04/12/12 22:41	LCS2IC2103 04/12/12 22:59	12041027MS 04/13/12 13:07
	Lab numbers associated with this batch: 12040999				
GL343	Nitrogen (TKN + NO3/NO2), as N				
	Lab numbers associated with this batch: 12040999				
GL218	Phosphorus, Total, as P	120426-1	120426BLK1 04/26/12 1359	120426LCS1 04/26/12 1400	12041012MS 04/26/12 1409
	Lab numbers associated with this batch: 12040999				
GL242	Solids, Total Dissolved	120416-1	120416BLK1 04/16/12 16:15	120416LCS1 04/16/12	12041063MS 04/16/12 16:21
	Lab numbers associated with this batch: 12040998 12040999				
GL243	Solids, Total Suspended	120418-1	120418BLK1 04/18/12 13:00	120418LCS1 04/18/12	12040861MS 04/18/12 13:00
	Lab numbers associated with this batch: 12040998 12040999				

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102689

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit
QC Batch: 120413-1	**For sample analyzed on: 04/13/2012**					**Spiked sample: 12040999**						
BOD	ND(5)	85.6	75.3-109	198	mg/L	13 T	12 T	#		mg/L	8.0	16.4
QC Batch: 120413-5	**For samples prepared on: 04/13/2012 1234**					**Spiked sample: 12041017**						
Hardness (Calculated)	ND(5.0)	105	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120416-1	**For sample analyzed on: 04/16/2012**					**Spiked sample: 12041063**						
Solids, Total Dissolved	ND(30)	N/A			mg/L	MN	MN	#		mg/L	**	5.9
QC Batch: 120416-2	**For samples prepared on: 04/16/2012 0902**					**Spiked sample: 12041027**						
Cadmium, Dissolved, ICP-MS	ND(1)	96.2	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Dissolved, ICP-MS	ND(5)	93.0	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	99.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-1	**For samples prepared on: 04/17/2012 0717**					**Spiked sample: 12040878**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	91.5	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-2	**For samples prepared on: 04/17/2012 0756**					**Spiked sample: 12040880**						
Cadmium, Tot. Rec., ICP-MS	ND(1)	100.	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Copper, Tot. Rec., ICP-MS	ND(5)	92.7	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Tot. Rec., ICP-MS	ND(20)	101	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120417-2	**For samples prepared on: 04/17/2012 1756**					**Spiked sample: 12040969**						
Kjeldahl Nitrogen, as N (TKN)	ND(1.0)	111	85.0-115	4.0	mg/L	MN	MN	81.2-133	20.0	mg/L	**	6.7
QC Batch: 120417-5	**For samples prepared on: 04/17/2012 1131**					**Spiked sample: 12041000**						
Hardness (Calculated)	ND(5.0)	104	80.0-120	337	mg/L a	MN	MN	80.0-120	337	mg/L as	**	20.0
QC Batch: 120418-1	**For sample analyzed on: 04/18/2012**					**Spiked sample: 12040961**						
Solids, Total Suspended	ND(5)	N/A			mg/L	MN	MN	#		mg/L	**	27.6
QC Batch: 120419-4	**For samples prepared on: 04/19/2012 1121**					**Spiked sample: 12041016**						
Cadmium, Dissolved, ICP-MS	ND(1)	98.8	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
Zinc, Dissolved, ICP-MS	ND(20)	94.6	85.0-115	500	µg/L	MN	MN	80.0-120	500	µg/L	**	20.0
QC Batch: 120426-1	**For sample analyzed on: 04/26/2012**					**Spiked sample: 12041012**						
Phosphorus, Total, as P	ND(0.2)	98.3	88.8-110	2.0	mg/L	MN	MN	80.5-117	2.0	mg/L	**	5.7
QC Batch: 120430-3	**For samples prepared on: 04/30/2012 1017**					**Spiked sample:**						
Copper, Dissolved, ICP-MS	ND(5)	91.8	85.0-115	500	µg/L	MN	MN	80.0-120			**	20.0
QC Batch: 1IC1116	**For sample analyzed on: 04/25/2012**					**Spiked sample:**						
Chloride	ND(1.0)	104	90.0-110	4.0	mg/L	MN	MN	75.1-131			**	5.7
QC Batch: 2IC2103	**For sample analyzed on: 04/12/2012**					**Spiked sample: 12041027**						
Chloride	ND(1.0)	101	90.0-110	4.0	mg/L	MN	MN	75.1-131	4.0	mg/L	**	5.7
Nitrite, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	77.5-116	2.0	mg/L	**	10.2
Nitrate, as N	ND(0.1)	103	90.0-110	2.0	mg/L	MN	MN	81.7-121	2.0	mg/L	**	8.2

Data Qualifiers:
T - MS/MSD cannot be performed for this analysis. The MS result is the same as the sample result. The MSD result is a duplicate of the sample.

Continental Analytical Services, Inc.

Quality Control Report
Method Blank, LCS, MS/MSD Data

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102689

Analysis	Blank Data	% Rec LCS	Limits	Spike Level	Units	Spiked Sample (% Recovery) MS	MSD	Limits	Spike Level	Units	Spiked Sample Precision Data RPD	Limit

MN - The MS/MSD sample analyses were not performed on a sample from this Continental order number.

N/A - Not Applicable

- Limits not available.

** - RPD cannot be calculated.

Continental Analytical Services, Inc.

Quality Control Report
Continuing Calibration Data Summary

Client: City of Wichita
Attn: Jim Hardesty
City Hall, 8th Floor
455 N. Main
Wichita, KS 67202

Date Reported: 05/04/2012
Date Received: 04/12/2012
Continental File No: 8339
Continental Order No: 102689

Analysis	Date of Analysis	Instrument Batch ID	Amount in Standard	Amount Detected	Units	Percent Recovery
Cadmium, Tot. Rec., ICP-MS	04/23/2012	1IP3114	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/16/2012	2IP3107	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	04/23/2012	2IP3114	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/23/2012	6IP3114	CCV recovery acceptable for this Instrument Batch.			
Cadmium, Dissolved, ICP-MS	04/23/2012	7IP3114	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/20/2012	1IP3111	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/16/2012	2IP3107	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/20/2012	2IP3111	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Copper, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	05/01/2012	7IP3122	CCV recovery acceptable for this Instrument Batch.			
Copper, Dissolved, ICP-MS	05/01/2012	8IP3122	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-1	CCV recovery acceptable for this Instrument Batch.			
BOD	04/13/2012	120413-2	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-1	CCV recovery acceptable for this Instrument Batch.			
Phosphorus, Total, as P	04/26/2012	120426-2	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/25/2012	1IC1116	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/25/2012	2IC1116	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/12/2012	4IC2103	CCV recovery acceptable for this Instrument Batch.			
Chloride	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/12/2012	4IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrite, as N	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/12/2012	4IC2103	CCV recovery acceptable for this Instrument Batch.			
Nitrate, as N	04/13/2012	5IC2103	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-1	CCV recovery acceptable for this Instrument Batch.			
Kjeldahl Nitrogen, as N (TKN)	04/24/2012	120424-2	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	11IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/14/2012	12IP4104	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	5IP4108	CCV recovery acceptable for this Instrument Batch.			
Hardness (Calculated)	04/17/2012	6IP4108	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/20/2012	1IP3111	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/16/2012	2IP3107	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/20/2012	2IP3111	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/25/2012	2IP3116	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/16/2012	3IP3107	CCV recovery acceptable for this Instrument Batch.			
Zinc, Dissolved, ICP-MS	04/25/2012	3IP3116	CCV recovery acceptable for this Instrument Batch.			
Zinc, Tot. Rec., ICP-MS	04/18/2012	6IP3109	CCV recovery acceptable for this Instrument Batch.			

- Laboratory Report Conclusion -

Continental Analytical Services, Inc.

525 N. 8th Street, Salina, KS 67401
(785)827-1273 (800)535-3076 Fax (785)823-7830
www.cas-lab.com

GAS ORDER NO. 10400

CHAIN OF CUSTODY RECORD

Continental Shipping Order Number: _____

Client/Reporting Information			Invoice Information		
Company Name: City of Wichita Sewage Treatment			Company Name: City of Wichita Sewage Treatment		
Address: 2305 E. 57th Street South			Address: 2305 E. 57th Street South		
City: Wichita	State: KS	Zip: 67216	City: Wichita	State: KS	Zip: 67216
Contact: Jim Hardesty	E-mail:		Contact: Jim Hardesty	E-mail:	
Phone Number: (316)303-8700	Fax Number (316)303-8712		Phone Number: (316)303-8700	Fax Number (316)303-8712	

Sampler's Name:(Printed): Justin Murphy

Sampler's Name:(Signature):

Purchase Order Number:

File Number: 5611

Project Name: Stormwater

SAMPLE IDENTIFICATION (30 Characters or less)	Matrix (Sample Type)	Regulatory Program	Date Sampled	Time Sampled	C-Composite G-Grab	Total Containers	Number of Preserved Bottles: HCL	NaOH	HNO3	H2SO4	NONE	OTHER:	Cadmium, Copper, Zinc - Total Recoverable 250ml Plastic - HNO3	Hardness, TSS TDS, Cl, Diss. - Cd, Cu, Zn 1000ml Plastic - None	Total Metals, Dissolved Metals, Hardness, TSS, TDS, Cl, BOD, TKN, Total P, NO3 Large Carboy						COMMENTS
Westlink-Grab	WW	N	4/12/12	1315	G	2			1		1		X	X							
Westlink-Composite	WW	N	4/12/12	1315	C	1					1				X						5 Gal. Container to be poured off at lab
																					as needed for required tests.
																					Remaining volume will be saved for
																					for organics if needed.

Regulatory Program: N=NPDES, R=RCRA, D=Drinking Water, SL=503 Sludge, O=Other

(Please note if non-standard turnaround. Rush & Emergency subject to additional charge)
Standard TAT (15 working days) Rush TAT (5 working days) Emergency TAT (3 working days)

Matrix (Sample Type): DW=Drinking Water, GW=Ground Water, WW=Waste Water, W=Wipe, S=Solid/Soil, SL=Sludge, A=Air, OL = Oil/Organic Liquid, O=Other

RELINQUISHED BY	DATE: 4/12/12	TIME 1500	RECEIVED BY	DATE	TIME
RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE:	TIME:
RECEIVED AT LAB BY	DATE 4-12-12	TIME 1620	SHIPPED VIA: AIRBILL	SEAL #: SEAL DATE:	

H:\melissa\...chita Stormwater COCs xlsx\4/12/2012

Continental Analytical Services, Inc.
Cooler/Sample Receipt Form (C/S RF)

CAS Order No.: 102689

Client Name: Wichita

CAS File No.: 8339

Sample ID's in cooler: See COC

Worthington

Cooler _____ of _____ for this CAS Order No.

Cooler Identification: CAS Cooler #: 3201 / Client's Cooler / Box / Letter / Hand-delivered
Other: _____

Date/Time Cooler Received: 4 / 12 / 12 16 : 20

Delivered By: UPS / FedX / AB Express / Field Svcs / Mail / Walk-In / Other: _____

Custody Seal: Present: Intact / Broken Absent: X Seal No: _____
Seal Name: _____ Seal Date: _____
Seal matches Chain of Custody: Yes / No / N/A

Type of Packing Material: Blue Ice / Ice / Melted Ice / Bubble / Foam / Paper / Peanuts / Vermiculite / None / Other: _____

Cooler Temperature (°C): Original Reading (°C) 0.9 Corrected Reading (°C) 1.4
Temp. By: Temp. Blank Cooler Surface: Glass / Plastic /Metal /Other: _____
mw 4-12-12 Thermo. ID No.: 585 Thermo. Correction Factor (°C): 0.5

☐ Evidence of Cooling and date received = date sampled

Sample Receipt Discrepancies: ☒ No ☐ Yes **(See below for discrepancies.)**

Note: If discrepancies are present, CAS will proceed with analyses until/unless directed otherwise by the client.

☐ Chain of Custody not present - information taken from:
Cover Letter ☐ Container ☐
PO ☐ CAS Proj. Mgr. ☐
☐ Container label absent
☐ Chain of Custody incomplete [see detail below]
☐ Chain of Custody missing date/time sampled (excl. TB or Dup.)
☐ Date or Time sampled obtained from container label
☐ Chain of Custody missing sampler's name
☐ Chain of Custody missing matrix (sample type)
☐ Missing relinquished information: signature date time

☐ **Sample excluded from Chain of Custody**
☐ Sample listed on Chain of Custody, not received
☐ Sample description on container and Chain of Custody do not agree
☐ Air bubbles in Aqueous VOA vials larger than pea-size [approx. 6 mm]
☐ Cooler temperature exceeded 0.1 - 6.0 °C requirement
[Do not mark if samples do not require cooling to 0.1 - 6.0 °C.]
☐ Broken or leaking containers (detail actions below)
☐ Sample container type or labeled chemical preservation inappropriate
☐ Other discrepancies: _____

Detail to discrepancies/comments:

Completed by: _____ **Date Completed:** 4-12-12