STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.	MO-0114375
Owner:	Jefferson City Landfill, LLC
Address:	5605 Moreau River Access Road, Jefferson City, MO 65101
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	Jefferson City Landfill
Facility Address:	5605 Moreau River Access Road, Jefferson City, MO 65101
Legal Description:	See page 2
UTM Coordinates:	See page 2
Receiving Stream:	See page 2
First Classified Stream and ID:	See page 2
USGS Basin & Sub-watershed No.:	See page 2

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Active Landfill; SIC #4953. Stormwater only. This facility does not require a certified wastewater operator. Domestic wastewater and leachate is managed by sending to the Algoa Regional WWTF.

Leachate cannot be discharged. Stormwater which has come into contact with leachate is considered leachate and cannot be discharged. Leachate, and stormwater which has come into contact with leachate, must be managed in accordance with the provisions contained in the Missouri Solid Waste Management Laws, regulations, and Sanitary Landfill Operating Permit; and Hazardous Waste Program (if applicable).

This permit authorizes only stormwater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Sections 640.013, 621.250, and 644.051.6 of the Law.

March 1, 2020

Edward B. Galbraith, Director, Division of Environmental Quality

February 28, 2025
Expiration Date

Chris Wieberg, Director, Water Protection Program

FACILITY DESCRIPTION (CONTINUED)

OUTFALL #001 – Stormwater
Stormwater basin for the western side of the landfill.

Legal Description:	Landgrant #2680, Cole County
UTM Coordinates:	X = 578980, Y = 4267113
Receiving Waterbody:	100K Extent-Remaining Stream
First Classified Waterbody and ID:	Moreau River (P) (0941)
USGS Basin & Sub-watershed No.:	Lower Missouri-Moreau (10300102-1207)
Design Flow:	5.6 MGD
Actual Flow:	Dependent on Precipitation

OUTFALL #003 – Stormwater
Stormwater basin for the eastern side of the landfill.

Legal Description:	Landgrant #2680, Cole County
UTM Coordinates:	X = 578983, Y = 4267121
Receiving Waterbody:	100K Extent-Remaining Stream
First Classified Waterbody and ID:	Moreau River (P) (0941)
USGS Basin & Sub-watershed No.:	Lower Missouri-Moreau (10300102-1207)
Design Flow:	2.2 MGD
Actual Flow:	Dependent on Precipitation

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL #001 & #003 *Stormwater Only*	**TABLE A-1** **FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**				
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on **March 1, 2020** and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:					
EFFLUENT PARAMETERS	UNITS	FINAL LIMITATIONS		BENCH-MARKS	MONITORING REQUIREMENTS	
		DAILY MAXIMUM	MONTHLY AVERAGE		MEASUREMENT FREQUENCY	SAMPLE TYPE
LIMIT SET: Q						
PHYSICAL						
Flow	MGD	*		-	once/quarter ◊	24 Hr Est.
Precipitation	inches	*		-	once/quarter ◊	measured
CONVENTIONAL						
Chemical Oxygen Demand	mg/L	**		90	once/quarter ◊	grab
Oil & Grease	mg/L	**		10	once/quarter ◊	grab
pH †	SU	6.5 to 9.0		-	once/quarter ◊	grab
Settleable Solids	mL/L/hr	**		1.5	once/quarter ◊	grab
Total Suspended Solids	mg/L	**		100	once/quarter ◊	grab
METALS						
Aluminum, Total Recoverable	µg/L	*		-	once/quarter ◊	grab
Chromium (VI), Dissolved Ω	µg/L	*		-	once/quarter ◊	grab
Copper, Total Recoverable	µg/L	*		-	once/quarter ◊	grab
Iron, Total Recoverable	µg/L	**		4,000	once/quarter ◊	grab
Selenium, Total Recoverable ¥	µg/L	*		-	once/quarter ◊	grab
Zinc, Total Recoverable	µg/L	*		-	once/quarter ◊	grab
NUTRIENTS						
Ammonia as N	mg/L	*		-	once/quarter ◊	grab
OTHER						
Benzene	µg/L	*		-	once/quarter ◊	grab
Chloride	mg/L	*		-	once/quarter ◊	grab
Chloride+Sulfate	mg/L	**		1,000	once/quarter ◊	grab
Sulfate	mg/L	*		-	once/quarter ◊	grab
MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE JULY 28, 2020. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

* Monitoring and reporting requirement only

** Monitoring and reporting requirement with benchmark. See Special Conditions for additional requirements.

† pH: the facility will report the minimum and maximum values; pH is not to be averaged

¥ This permit establishes monitoring for total recoverable selenium. Selenium water quality standards are below the most commonly used analytical methods detection limits. However, 40 CFR 136 indicates effluent characteristics can be effectively quantified using EPA approved method 200.9 or 3113B. These methods have detection limits of 0.6 µg/L and 2 µg/L respectively; either may be used to determine compliance with this permit. Additionally, if monitoring only, the facility must choose one of the above methods to attain compliance with Standard Conditions Part I Section A 4.

Ω This permit establishes monitoring for dissolved hexavalent chromium. This permit establishes the requirement to use Standard Method 3500-Cr C-2011 or newer to assure data submitted to the Department conforms to the most sensitive method as required by Standard Conditions Part I Section A 4 and is analyzed within the required method holding times.

◊ Quarterly sampling

MINIMUM QUARTERLY SAMPLING REQUIREMENTS			
QUARTER	MONTHS	QUARTERLY EFFLUENT PARAMETERS	REPORT IS DUE
First	January, February, March	Sample at least once during any month of the quarter	April 28th
Second	April, May, June	Sample at least once during any month of the quarter	July 28th
Third	July, August, September	Sample at least once during any month of the quarter	October 28th
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28th

B. STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Part I standard conditions dated August 1, 2014, respectively, and hereby incorporated as though fully set forth herein.

C. SPECIAL CONDITIONS

1. Spills, Overflows, and Other Unauthorized Discharges.
   (a) Any spill, overflow, or other discharge(s) not specifically authorized above are unauthorized discharges.
   (b) Should an unauthorized discharge cause or permit any contaminants to discharge or enter waters of the state, the unauthorized discharge must be reported to the regional office as soon as practicable but no more than 24 hours after the discovery of the discharge. If the spill or overflow needs to be reported after normal business hours or on the weekend, the facility must call the Department's 24 hour spill line at 573-634-2436.

2. Electronic Discharge Monitoring Report (eDMR) Submission System.
   (a) Discharge Monitoring Reporting Requirements. The permittee must electronically submit compliance monitoring data via the eDMR system. Standard Conditions Part I, Section B, #7 indicates the eDMR system is currently the only Department approved reporting method for this permit.
   (b) Programmatic Reporting Requirements. All reports must be electronically submitted as an attachment to the eDMR system until such a time when the current or a new system is available to allow direct input of the data. After such a system has been made available by the Department, required data shall be directly input into the system by the next report due date
      (1) Collection System Maintenance Annual Reports;
      (2) Any additional report required by the permit excluding bypass reporting.
   (c) The following shall be submitted electronically after such a system has been made available by the Department:
      (1) General Permit Applications/Notices of Intent to discharge (NOIs);
      (2) Notices of Termination (NOTs);
      (3) No Exposure Certifications (NOEs);
   (d) Electronic Submission: access the eDMR system via: https://edmr.dnr.mo.gov/edmr/E2/Shared/Pages/Main/Login.aspx
   (e) Electronic Reporting Waivers. The permittee must electronically submit compliance monitoring data and reports unless a waiver is granted by the Department in compliance with 40 CFR Part 127. The permittee may obtain an electronic reporting waiver by first submitting an eDMR Waiver Request Form: http://dnr.mo.gov/forms/780-2692-f.pdf. The Department will either approve or deny this electronic reporting waiver request within 120 calendar days. Only permittees with an approved waiver request may submit monitoring data and reports on paper to the Department for the period the approved electronic reporting waiver is effective.

3. Stormwater Pollution Prevention Plan (SWPPP).
   The facility's SIC code or description is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2) and hence shall implement a Stormwater Pollution Prevention Plan (SWPPP) which must be prepared and implemented upon permit effective date. The SWPPP must be kept on-site and should not be sent to the Department unless specifically requested. The SWPPP must be reviewed and updated annually or if site conditions affecting stormwater change. The permittee shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in: *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (EPA 833-B-09-002) published by the EPA in 2015 https://www.epa.gov/sites/production/files/2015-11/documents/swppp_guide_industrial_2015.pdf The purpose of the SWPPP and the Best Management Practices (BMPs) listed herein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was not effective at preventing pollution [10 CSR 20-2.010(56)] to waters of the state. Corrective action describes the steps the facility took to eliminate the deficiency.
   The SWPPP must include:
   (a) A listing of specific contaminants and their control measures (or BMPs) and a narrative explaining how BMPs are implemented to control and minimize the amount of contaminants potentially entering stormwater.
   (b) A map with all outfalls and structural BMPs marked.
   (c) A schedule for at least once per month site inspections and brief written reports. The inspection report must include precipitation information for the entire period since last inspection, as well as observations and evaluations of BMP

C. SPECIAL CONDITIONS (CONTINUED)

effectiveness. Throughout coverage under this permit, the facility must perform ongoing SWPPP review and revision to incorporate any site condition changes.

i. Operational deficiencies must be corrected within seven (7) calendar days.
ii. Minor structural deficiencies must be corrected within fourteen (14) calendar days.
iii. Major structural deficiencies (deficiencies projected to take longer than 14 days to correct) must be reported as an uploaded attachment through the eDMR system with the DMRs. The initial report shall consist of the deficiency noted, the proposed remedies, the interim or temporary remedies (including proposed timing of the placement of the interim measures), and an estimate of the timeframe needed to wholly complete the repairs or construction. If required by the Department, the permittee shall work with the regional office to determine the best course of action. The permittee should consider temporary structures to control stormwater runoff. The facility shall correct the major structural deficiency as soon as reasonably achievable.
iv. All actions taken to correct the deficiencies shall be included with the written report, including photographs, and kept with the SWPPP. Additionally, corrective action of major structural deficiencies shall be reported as an uploaded attachment through the eDMR system with the DMRs.
v. BMP failure causing discharge through an unregistered outfall is considered an illicit discharge and must be reported in accordance with Standard Conditions Part I.
vi. Inspection reports must be kept on site with the SWPPP and maintained for a period of five (5) years. These must be made available to Department personnel upon request. Electronic versions of the documents and photographs are acceptable.

(d) A provision for designating an individual to be responsible for environmental matters and a provision for providing training to all personnel involved in housekeeping, material handling (including but not limited to loading and unloading), storage, and staging of all operational, maintenance, storage, and cleaning areas. Proof of training shall be submitted upon request by the Department.

4. Site-wide minimum Best Management Practices (BMPs). At a minimum, the permittee shall adhere to the following:
   (a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, warehouse activities, and other areas, and thereby prevent the contamination of stormwater from these substances.
   (b) Ensure adequate provisions are provided to protect embankments from erosion.
   (c) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
   (d) Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so these materials are not exposed to stormwater or provide other prescribed BMPs such as plastic lids and/or portable spill pans to prevent the commingling of stormwater with container contents. Commingled water may not be discharged under this permit. Provide spill prevention control, and/or management sufficient to prevent any spills of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater. Spill records should be retained on-site.
   (e) Provide good housekeeping practices on the site to keep trash from entry into waters of the state.
   (f) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property.

5. Stormwater Benchmarks. This permit stipulates pollutant benchmarks applicable to your stormwater discharges.
   (a) The benchmarks do not constitute direct numeric effluent limitations; therefore, a benchmark exceedance alone is not a permit violation. Benchmark monitoring and visual inspections shall be used to determine the overall effectiveness of the SWPPP and to assist you in knowing when additional corrective action may be necessary to protect water quality. If a sample exceeds a benchmark concentration you must review your SWPPP and your BMPs to determine what improvements or additional controls are needed to reduce the pollutant in your stormwater discharge(s).
   (b) Any time a benchmark exceedance occurs, a Corrective Action Report (CAR) must be completed. A CAR is a document recording the efforts undertaken by the facility to improve BMPs to meet benchmarks in future samples. CARs must be retained with the SWPPP and be available to the Department upon request. If the efforts taken by the facility are not sufficient and subsequent exceedances of a benchmark occur, the facility must contact the Department if a benchmark value cannot be achieved. Failure to take corrective action to address a benchmark exceedance and failure to make measureable progress towards achieving the benchmarks is a permit violation.

6. Petroleum Secondary Containment.
   Before releasing water accumulated in petroleum secondary containment areas, it must be examined for hydrocarbon odor and presence of sheen to protect the general criteria found at 10 CSR 20-7.031(4).
   (a) If odor or sheen is found, the water shall not be discharged without treatment and shall be disposed of in accordance with legally approved methods, such as being sent to an accepting wastewater treatment facility.
   (b) If the facility wishes to discharge the accumulated stormwater with hydrocarbon odor or presence of sheen, the water shall be

C. SPECIAL CONDITIONS (CONTINUED)

treated using an appropriate removal method. Following treatment and before release, the water shall be tested for oil and grease, benzene, toluene, ethylbenzene, and xylene using 40 CFR part 136 methods. All pollutant levels must be below the most protective, applicable standards for the receiving stream, found in 10 CSR 20-7.031 Table A before discharge is authorized. Records of all testing and treatment of water accumulated in secondary containment shall be stored in the SWPPP and be available on demand to the Department.

7. The full implementation of this operating permit, which includes implementation of any applicable schedules of compliance, shall constitute compliance with all applicable federal and state statutes and regulations in accordance with §644.051.16, RSMo, and the CWA section 402(k); however, this permit may be reopened and modified, or alternatively revoked and reissued to comply with any applicable effluent standard or limitation issued or approved under Clean Water Act Sections 301(b)(2)(C) and (D), §304(b)(2), and §307(a) (2), if the effluent standard or limitation so issued or approved contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or controls any pollutant not limited in the permit. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, termination, notice of planned changes, or anticipated non-compliance does not stay any permit condition.

8. All outfalls must be clearly marked in the field.

9. All fueling facilities present on site shall adhere to applicable federal and state regulations concerning underground storage, above ground storage, and dispensers, including spill prevention, control and counter measures.

10. Report no discharge when a discharge does not occur during the report period. It is a violation of this permit to report no-discharge when a discharge has occurred.

11. Changes in Discharges of Toxic Pollutant.
In addition to the reporting requirements under §122.41(1), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:
    (a) That an activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
        (1) One hundred micrograms per liter (100 µg/L);
        (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile;
        (3) Five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol;
        (4) One milligram per liter (1 mg/L) for antimony;
        (5) Five (5) times the maximum concentration value reported for the pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
        (6) The notification level established by the Department in accordance with 40 CFR 122.44(f).
    (b) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
        (1) Five hundred micrograms per liter (500 µg/l);
        (2) One milligram per liter (1 mg/l) for antimony;
        (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with §122.21(g)(7).
        (4) The level established by the Director in accordance with §122.44(f).

12. Reporting of Non-Detects.
    (a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way the precision and accuracy of the analyzed result can be enumerated.
    (b) The permittee shall not report a sample result as "non-detect" without also reporting the detection limit of the test or the reporting limit of the laboratory. Reporting as "non-detect" without also including the detection/reporting limit will be considered failure to report, which is a violation of this permit.
    (c) The permittee shall report the non-detect result using the less than "<" symbol and the laboratory's detection/reporting limit (e.g. <6).
    (d) See sufficiently sensitive method requirements in Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.
    (e) When calculating monthly averages, one-half of the minimum detection limit (MDL) should be used instead of a zero. Where all data are below the MDL, the "<MDL" shall be reported as indicated in item (C).

13. Failure to pay fees associated with this permit is a violation of the Missouri Clean Water Law (644.055 RSMo).

C. SPECIAL CONDITIONS (CONTINUED)

14. This permit does not authorize the placement of fill materials in flood plains, placement of solid materials into any waterway, the obstruction of stream flow, or changing the channel of a defined drainage course. The facility must contact the U.S. Army Corps of Engineers (Corps) to determine if a CWA §404 Department of Army permit is required.

15. Renewal Application Requirements.
    (a) This facility shall submit an appropriate and complete application to the Department no less than 180 days from the expiration date listed on page 1 of the permit.
    (b) Application materials shall include complete Form A andForm C. If the form names have changed, then the facility should assure they are submitting the correct forms as required by regulation.
    (c) The facility must sample the stormwater outfalls and provide analysis for every parameter contained in the permit at any outfall for at the site in accordance with 10 CSR 20-6.200(2)(C)1.E(I) and (II)
    (d) The facility may use the electronic submission system to submit the application to the Program.
    (e) This facility must submit any CARs completed for the last permit term if a benchmark exceedance occurred.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-0114375
JEFFERSON CITY LANDFILL, LLC

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollutant Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of stormwater from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified for less.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)(A)2.] a factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (MSOP or operating permit) listed below. A factsheet is not an enforceable part of an operating permit.

PART I. FACILITY INFORMATION

Facility Type: Industrial – Industrial stormwater, >1 MGD
SIC Code(s): 4953
NAICS Code(s): 562212
Application Date: 03/27/2019
Expiration Date: 10/31/2019
Last Inspection: 12/10/2015

FACILITY DESCRIPTION:
This facility is an open sanitary landfill that began operation in the 1970s. Outfall #001 is associated with the stormwater sedimentation basin located on the west side of the landfill. Outfall #003 is associated with the stromwater sedimentation basin located on the east side of the landfill. Any leachate collected from the facility flows to a lift station on site and is pumped to the Jefferson City's Algoa Regional Wastewater Treatment Facility.

The charter number for the continuing authority for this facility is FL0016218; this number was verified by the permit writer to be associated with the facility and precisely matches the continuing authority reported by the facility.

In accordance with 40 CFR 122.21(f)(6), the Department evaluated other permits currently held by this facility. This facility has the following permits: Solid Waste Management Permit #0105106; Air Pollution Control Program Permit #OP2017-076.

PERMITTED FEATURES TABLE:

OUTFALL	AVERAGE FLOW	DESIGN FLOW	TREATMENT LEVEL	EFFLUENT TYPE
#001	Dependent on rainfall	5.6 MGD	Sedimentation Basin	Industrial Stormwater
#003	Dependent on rainfall	2.2 MGD	Sedimentation Basin	Industrial Stormwater

FACILITY PERFORMANCE HISTORY & COMMENTS:
The electronic discharge monitoring reports were reviewed for the last permit term. There were elevated levels of Iron (1st quarter 2016; 1,360µg/L), Selenium (1st quarter 2015; 15µg/L), Silver (1st quarter 2015; 7µg/L), and Thallium (1st quarter 2015; 20µg/L). From 2016 to 2019, DMRs show consistently low levels or non-detects of the above mentioned metals. The last inspection was December 10, 2015. The facility was found to be in compliance with the Missouri Clean Water Law, the Clean Water Commission Regulations, and Missouri State Operating Permit #MO-0114375.

FACILITY MAP:

PART II. RECEIVING WATERBODY INFORMATION

RECEIVING WATERBODY'S WATER QUALITY:
The receiving waterbody has no relevant water quality data available.

303(D) LIST:
Section 303(d) of the federal Clean Water Act requires each state identify waters not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock, and wildlife. The 303(d) list helps state and federal agencies keep track of impaired waters not addressed by normal water pollution control programs. http://dnr.mo.gov/env/wpp/waterquality/303d/303d.htm

✓ Not applicable; this facility does not discharge to an impaired segment of a 303(d) listed stream.

TOTAL MAXIMUM DAILY LOAD (TMDL):
A TMDL is a calculation of the maximum amount of a given pollutant a water body can absorb before its water quality is affected; hence, the purpose of a TMDL is to determine the pollutant loading a specific waterbody can assimilate without exceeding water quality standards. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan or TMDL may be developed. The TMDL shall include the WLA calculation. http://dnr.mo.gov/env/wpp/tmdl/

- ✓ Applicable; The Missouri River watershed is associated with the 2006 EPA approved TMDL for Chlordane and PCBs in fish tissue.
  - This facility is not considered to be a source of the above listed pollutant(s) or considered to contribute to the impairment.

UPSTREAM OR DOWNSTREAM IMPAIRMENTS:
The permit writer has reviewed upstream and downstream stream segments of this facility for impairments.

- ✓ The Missouri River watershed is associated with the 2006 EPA approved TMDL for Chlordane and PCBs in fish tissue.

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:
Per Missouri's Effluent Regulations [10 CSR 20-7.015(1)(B)], waters of the state are divided into seven categories. This facility is subject to effluent limitations derived on a site specific basis which are presented in each outfall's effluent limitation table and further discussed in Part IV: Effluents Limits Determinations.

- ✓ All Other Waters

RECEIVING WATERBODY TABLE:

OUTFALL	WATERBODY NAME	CLASS	WBID	DESIGNATED USES	DISTANCE TO SEGMENT	12-DIGIT HUC
#001	Moreau River	P	0941	ALP, IRR, LWW, SCR, WBC-A, HHP	0.02 mi	10300102-1207 Lower Missouri-Moreau
#003	100K Extent-Remaining Stream	C	n/a	ALP, IRR, LWW, SCR, WBC-B, HHP	0.02 mi	
	Moreau River	P	0941	ALP, IRR, LWW, SCR, WBC-A, HHP	0.4 mi	

n/a not applicable

Classes are hydrologic classes as defined in 10 CSR 20-7.031(1)(F). L1: Lakes with drinking water supply - wastewater discharges are not permitted to occur to L1 watersheds per 10 CSR 20-7.015(3)(C); L2: major reservoirs; L3: all other public and private lakes; P: permanent streams; C: streams which may cease flow in dry periods but maintain pools supporting aquatic life; E: streams which do not maintain surface flow; and W: wetland. Losing streams are defined in 10 CSR 20-7.031(1)(O) and are designated on the Losing Stream dataset or determined by the Department to lose 30% or more of flow to the subsurface.

WBID = Waterbody Identification: Missouri Use Designation Dataset per 10 CSR 20-7.031(1)(Q) and (S) as 100K Extant-Remaining Streams or newer; data can be found as an ArcGIS shapefile on MSDIS at ftp://msdis.missouri.edu/pub/Inland_Water_Resources/MO_2014_WQS_Stream_Classifications_and_Use_shp.zip; New C streams described on the dataset per 10 CSR 20-7.031(2)(A)3. as 100K Extent Remaining Streams.

Per 10 CSR 20-7.031, the Department defines the Clean Water Commission's water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and 1st classified receiving stream's beneficial water uses are to be maintained in the receiving streams in accordance with [10 CSR 20-7.031(1)(C)]. Uses which may be found in the receiving streams table, above:

10 CSR 20-7.031(1)(C)1.: **ALP** = Aquatic Life Protection (formerly AQL; current uses are defined to ensure the protection and propagation of fish shellfish and wildlife, further subcategorized as: WWH = Warm Water Habitat; CLH = Cool Water Habitat; CDH = Cold Water Habitat; EAH = Ephemeral Aquatic Habitat; MAH = Modified Aquatic Habitat; LAH = Limited Aquatic Habitat. This permit uses ALP effluent limitations in 10 CSR 20-7.031 Table A1-A2 for all habitat designations unless otherwise specified.
10 CSR 20-7.031(1)(C)2.: Recreation in and on the water
WBC = Whole Body Contact recreation where the entire body is capable of being submerged;
WBC-A = whole body contact recreation supporting swimming uses and has public access;
WBC-B = whole body contact recreation not supported in WBC-A;
SCR = Secondary Contact Recreation (like fishing, wading, and boating)
10 CSR 20-7.031(1)(C)3. to 7.:
HHP (formerly HHF) = Human Health Protection as it relates to the consumption of fish and drinking of water;
IRR = irrigation for use on crops utilized for human or livestock consumption
LWW = Livestock and Wildlife Watering (current narrative use is defined as LWP = Livestock and Wildlife Protection);
DWS = Drinking Water Supply
IND = industrial water supply
10 CSR 20-7.031(1)(C)8-11.: Wetlands (10 CSR 20-7.031 Tables A1-B3 currently does not have corresponding habitat use criteria for these defined uses): WSA = storm- and flood-water storage and attenuation; WHP = habitat for resident and migratory wildlife species; WRC = recreational, cultural, educational, scientific, and natural aesthetic values and uses; WHC = hydrologic cycle maintenance.
10 CSR 20-7.031(6): **GRW** = Groundwater

RECEIVING WATERBODY MONITORING REQUIREMENTS:
No receiving water monitoring requirements are recommended at this time.

RECEIVING STREAM LOW-FLOW VALUES:
The below values are for information purposes only. There are no limitations of toxic parameters in this permit which require mixing considerations.

OUTFALL	RECEIVING STREAM	LOW-FLOW VALUES (CFS)				
		GAGING STATION	1Q10	7Q10	30Q10	60Q10
#001 & #002	Moreau River	Jefferson City, MO #06910750	0.63	0.88	1.49	3.36

Data were obtained for the last 20 years and were calculated using a Departmentally developed spreadsheet (available upon request).

MIXING CONSIDERATIONS TABLE:

MIXING ZONE (CFS) (CHRONIC) [10 CSR 20-7.031(5)(A)5.A.4.B.(II)(a)]				ZONE OF INITIAL DILUTION (CFS) (ACUTE) [10 CSR 20-7.031(5)(A)4.B.(II)(b)]			
1Q10	7Q10	30Q10	60Q10	1Q10	7Q10	30Q10	60Q10
0.16 cfs	0.22 cfs	0.37 cfs	0.84 cfs	0.016 cfs	0.022 cfs	0.037 cfs	0.084 cfs

PART III. RATIONALE AND DERIVATION OF PERMIT CONDITIONS

ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:
As per [10 CSR 20-7.015(4)(A)], discharges to losing streams shall be permitted only after other alternatives including land application, discharges to a gaining stream and connection to a regional wastewater treatment facility have been evaluated and determined to be unacceptable for environmental and/or economic reasons.

- ✓ Not applicable; the facility does not discharge to a losing stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)], and is an existing facility.

ANTIBACKSLIDING:
Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(l)] require a reissued permit to be as stringent as the previous permit with some exceptions. Backsliding (a less stringent permit limitation) is only allowed under certain conditions.

- ✓ Limitations in this operating permit for the reissuance conform to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, and 40 CFR Part 122.44.
  - ✓ The Department determined technical mistakes or mistaken interpretations of law were made in issuing the permit under section 402(a)(1)(b).
    - The previous permit limits for outfalls #001 and #003 were established in error, based on limits for process wastewater, however, these are stormwater outfalls. The renewal establishes limits and benchmarks appropriate for stormwater discharges. There will be no changes to industrial activities onsite or the composition of the stormwater discharge as a result of this renewal. The benchmark concentrations and required corrective actions within this permit are protective of the receiving stream's uses to be maintained. COD, oil & grease, settleable solids, total suspended solids, iron, and chloride+sulfate were converted to benchmarks in this permit after review of the available DMR data showed no reasonable potential to exceed water quality standards either numeric or narrative.
    - Total hardness will be removed from this permit. The previous permit required monitoring for this parameter. The Department uses a default hardness depending on which ecoregion the site is located to calculate daily maximum limits and benchmarks for metals with hardness based toxicity when site specific instream hardness values are not available. It is no longer necessary to sample for this parameter.
    - Antimony, arsenic, barium, beryllium, boron, cadmium, chromium III, cobalt, ethylbenzene, fluoride, lead, manganese, mercury, nickel, nitrate, silver, thallium, toluene, and xylene were removed from this permit as DMR data showed they are not a pollutant of concern at this site.
    - Monthly averages were not implemented for outfalls #001 and #003 in this permit as the discharge consists of only stormwater which is not continuous pursuant to 40 CFR 122.45(d). Further, average monthly limitations are impracticable measures of non-continuous stormwater discharges because they vary widely in frequency, magnitude, and duration. This permit applies only acute short-term or daily maximum measures which represent stormwater discharges which are acute and sporadic in nature. Discharges of industrial stormwater rarely persist for long durations, making them impracticable to assess using measures with long term exposures or averaging periods. Last, the instream water quality target remains unchanged and the conditions of this permit are protective of both narrative and numeric water quality criteria.

- Previous permit required monitoring with a daily maximum benchmark of 1,000 µg/L for iron. Due to the sporadic nature of stormwater discharges, the Department, under the direction of EPA guidance, has determined chronic standards are capricious measures of stormwater discharges. Chronic effluent limitations are based on the organism's ability to survive within the designated concentration for four days. Stormwater is rarely discharged continuously for four days. Conversely, acute water quality standards are applicable, but are non-existent for iron. It is in the best professional judgment of the permit writer that a discharge from these outfalls at 4000 µg/L per storm event is unlikely to cause an exceedance of the chronic water quality standard of 1000µg/L over four days. After reviewing other sources of data and studies, it is in the permit writer's best professional judgment to require a 4000 µg/L daily maximum benchmark for this facility
- The previous permit special conditions contained a specific set of prohibitions related to general criteria (GC) found in 10 CSR 20-7.031(4); however, there was no determination as to whether the discharges have reasonable potential to cause or contribute to excursion of those general water quality criteria in the previous permit. This permit assesses each general criteria as listed in the previous permit's special conditions. Federal regulations 40 CFR 122.44(d)(1)(iii) requires instances where reasonable potential (RP) to cause or contribute to an exceedance of a water quality standard exists, a numeric limitation must be included in the permit. Rather than conducting the appropriate RP determination, the previous permit simply placed the prohibitions in the permit. These conditions were removed from the permit. Appropriate reasonable potential determinations were conducted for each general criterion listed in 10 CSR 20-7.031(4)(A) through (I) and effluent limitations were placed in the permit for those general criteria where it was determined the discharge had reasonable potential to cause or contribute to excursions of the general criteria. Specific effluent limitations were not included for those general criteria where it was determined the discharges will not cause or contribute to excursions of general criteria. Removal of the prohibitions does not reduce the protections of the permit or allow for impairment of the receiving stream. The permit maintains sufficient effluent limitations, monitoring requirements and best management practices to protect water quality while maintaining permit conditions applicable to permittee disclosures and in accordance with 10 CSR 20-7.031(4) where no water contaminant by itself or in combination with other substances shall prevent the water of the state from meeting the following conditions:
  (A) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses.
    - For all outfalls, there is no RP for putrescent bottom deposits preventing full maintenance of beneficial uses because nothing disclosed by the permittee indicates putrescent wastewater would be discharged from the facility.
    - For all outfalls, there is no RP for unsightly or harmful bottom deposits preventing full maintenance of beneficial uses because nothing disclosed by the permittee indicates unsightly or harmful bottom deposits would be discharged from the facility.
    - Solid waste regulations found at 10 CSR 80-3.010(7)(B) require operation of the landfill in such a manner as to prevent flow onto the active portion of the sanitary landfill during peak discharge from at least a 25 year storm. In addition, 10 CSR 80-3.010(7)(C) requires water which has contacted solid waste at the working face to be treated as leachate and sent to the leachate disposal system.
  (B) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses.
    - For all outfalls, there is no RP for oil in sufficient amounts to be unsightly preventing full maintenance of beneficial uses because nothing disclosed by the permittee indicates oil will be present in sufficient amounts to impair beneficial uses.
    - For all outfalls, there is no RP for scum and floating debris in sufficient amounts to be unsightly preventing full maintenance of beneficial uses because nothing disclosed by the permittee indicates scum and floating debris will be present in sufficient amounts to impair beneficial uses.
    - Solid waste regulations found at 10 CSR 80-3.010(7)(B) require operation of the landfill in such a manner as to prevent flow onto the active portion of the sanitary landfill during peak discharge from at least a 25 year storm. In addition, 10 CSR 80-3.010(7)(C) requires water which has contacted solid waste at the working face to be treated as leachate and sent to the leachate disposal system. These regulations mean no RP for solid waste to contact effluent which is discharged to the receiving stream.
  (C) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses.
    - For all outfalls, there is no RP for unsightly color or turbidity in sufficient amounts preventing full maintenance of beneficial uses because nothing disclosed by the permittee indicates unsightly color or turbidity will be present in sufficient amounts to impair beneficial uses.
    - For all outfalls, there is no RP for offensive odor in sufficient amounts preventing full maintenance of beneficial uses because nothing disclosed by the permittee indicates offensive odor will be present in sufficient amounts to impair beneficial uses.
    - Solid waste regulations found at 10 CSR 80-3.010(7)(B) require operation of the landfill in such a manner as to prevent flow onto the active portion of the sanitary landfill during peak discharge from at least a 25 year storm. In addition, 10 CSR 80-3.010(7)(C) requires water which has contacted solid waste at the working face to be

treated as leachate and sent to the leachate disposal system. These regulations mean no RP for solid waste to contact effluent which is discharged to the receiving stream.

(D) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life.
- The permit writer considered specific toxic pollutants when writing this permit. Numeric effluent limitations are included for those pollutants could be discharged in toxic amounts. These effluent limitations are protective of human health, animals, and aquatic life.

(E) There shall be no significant human health hazard from incidental contact with the water.
- Much like the condition above, the permit writer considered specific toxic pollutants when writing this permit, including those pollutants could cause human health hazards. The discharge is limited by numeric effluent limitations for those conditions could result in human health hazards.

(F) There shall be no acute toxicity to livestock or wildlife watering.
- The permit writer considered specific toxic pollutants when writing this permit. Numeric effluent limitations are included for those pollutants could be discharged in toxic amounts. These effluent limitations are protective of livestock and wildlife watering.

(G) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community.
- For all outfalls, there is no RP for physical changes impairing the natural biological community because nothing disclosed by the permittee indicates this is occurring.
- It has been established any chemical changes are covered by the specific numeric effluent limitations established in the permit.
- For all outfalls, there is no RP for hydrologic changes impairing the natural biological community because nothing disclosed by the permittee indicates this is occurring.

(H) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
- There is no reasonable potential for the wastes listed above to be found in the receiving stream at any of the outfalls at this solid waste facility. 10 CSR 80-3.010(16)(A)-(C) require litter and solid wastes be controlled on the site for aesthetic purposes, preventing it from entering the stream. In addition, these regulations require salvaged materials be removed from the landfill daily or stored in aesthetically acceptable containers or enclosures.

ANTIDEGRADATION REVIEW:
Process water discharges with new, altered, or expanding flows, the Department is to document, by means of antidegradation review, if the use of a water body's available assimilative capacity is justified. In accordance with Missouri's water quality regulations for antidegradation [10 CSR 20-7.031(3)], degradation may be justified by documenting the socio-economic importance of a discharge after determining the necessity of the discharge. Facilities must submit the antidegradation review request to the Department prior to establishing, altering, or expanding discharges. See http://dnr.mo.gov/env/wpp/permits/antideg-implementation.htm

✓ Not applicable; the facility has not submitted information proposing expanded or altered process water discharge; no further degradation proposed therefore no further review necessary.

This permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) which must include an alternative analysis (AA) of the BMPs. The SWPPP must be developed, implemented, updated, and maintained at the facility. Failure to implement and maintain the chosen alternative, is a permit violation. The AA is a structured evaluation of BMPs to determine which are reasonable and cost effective. Analysis should include practices designed to be 1) non-degrading, 2) less degrading, or 3) degrading water quality. The chosen BMP will be the most reasonable and cost effective while ensuring the highest statutory and regulatory requirements are achieved and the highest quality water attainable for the facility is discharged. The analysis must demonstrate why "no discharge" or "no exposure" are not feasible alternatives at the facility. Existing facilities with established SWPPPs and BMPs need not conduct an additional alternatives analysis unless new BMPs are established to address BMP failures or benchmark exceedances. This structured analysis of BMPs serves as the antidegradation review, fulfilling the requirements of 10 CSR 20-7.015(9)(A)5 and 7.031(3). For stormwater discharges with new, altered, or expanding discharges, the stormwater BMP chosen for the facility, through the AA performed by the facility, must be implemented and maintained at the facility. Failure to implement and maintain the chosen BMP alternative is a permit violation; see SWPPP.

✓ Applicable; the facility must review and maintain stormwater BMPs as appropriate.

BEST MANAGEMENT PRACTICES:
Minimum site-wide best management practices are established in this permit to assure all permittees are managing their sites equally to protect waters of the state from certain activities which could cause negative effects in receiving water bodies. While not all sites require a SWPPP because the SIC codes are specifically exempted in 40 CFR 122.26(b)(14), these best management practices are not specifically included for stormwater purposes. These practices are minimum requirements for all industrial sites to protect waters of the state. If the minimum best management practices are not followed, the facility may violate general criteria [10 CSR 20-7.031(4)]. Statutes are applicable to all permitted facilities in the state, therefore pollutants cannot be released unless in accordance with RSMo 644.011 and 644.016 (17).

CHANGES IN DISCHARGES OF TOXIC POLLUTANT:
This special condition reiterates the federal rules found in 40 CFR 122.44(f) and 122.42(a)(1). In these rules, the facility is required to report changes in amounts of toxic substances discharged. Toxic substances are defined in 40 CFR 122.2 as "…any pollutant listed as toxic under section 307(a)(1) or, in the case of "sludge use or disposal practices," any pollutant identified in regulations implementing section 405(d) of the CWA." Section 307 of the clean water act then refers to those parameters found in 40 CFR 401.15. The permittee should also consider any other toxic pollutant in the discharge as reportable under this condition.

COMPLIANCE AND ENFORCEMENT:
Enforcement is the action taken by the Water Protection Program (WPP) to bring an entity into compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the WPP is to resolve violations and return the entity to compliance.
✓ Not applicable; the permittee/facility is not currently under Water Protection Program enforcement action.

DOMESTIC WASTEWATER, SLUDGE, AND BIOSOLIDS:
Domestic wastewater is defined as wastewater (i.e., human sewage) originating primarily from the sanitary conveyances of bathrooms and kitchens. Domestic wastewater excludes stormwater, animal waste, process waste, and other similar waste.
✓ Not applicable; this facility discharges domestic wastewater to an off-site permitted wastewater treatment facility (POTW).

Sewage sludge is solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works. Biosolids are solid materials resulting from domestic wastewater treatment meeting federal and state criteria for productive use (i.e. fertilizer) and after having pathogens removed.
Additional information: http://extension.missouri.edu/main/DisplayCategory.aspx?C=74 (WQ422 through WQ449).
✓ Not applicable; the facility does not manage domestic wastewater on-site.

EFFLUENT LIMITATIONS:
Effluent limitations derived and established for this permit are based on current operations of the facility and applied per 10 CSR 20-7.015(9)(A). Any flow through the outfall is considered a discharge and must be sampled and reported as provided in the permit. Future permit action due to facility modification may contain new operating permit terms and conditions which supersede the terms and conditions, including effluent limitations, of this operating permit. Daily maximums and monthly averages are required per 40 CFR 122.45(d)(1) for continuous discharges (not from a POTW).

EFFLUENT LIMITATION GUIDELINE:
Effluent Limitation Guidelines, or ELGs, are found at 40 CFR 400-499. These are limitations established by the EPA based on the SIC code and the type of work a facility is conducting. Most ELGs are for process wastewater and some address stormwater. All are technology based limitations which must be met by the applicable facility at all times.
✓ The facility has an associated ELG (40 CFR Part 445) but does not discharge wastewater to waters of the state; uncontaminated stormwater discharges are not addressed by the ELG.

ELECTRONIC DISCHARGE MONITORING REPORT (EDMR) SUBMISSION SYSTEM:
The U.S. Environmental Protection Agency (EPA) promulgated a final rule on October 22, 2015, to modernize Clean Water Act reporting for municipalities, industries, and other facilities by converting to an electronic data reporting system. The final rule requires regulated entities and state and federal regulators to use information technology to electronically report data required by the National Pollutant Discharge Elimination System (NPDES) permit program instead of filing paper reports. To comply with the federal rule, the Department is requiring all permittees to begin submitting discharge monitoring data and reports online.

Per 40 CFR 127.15 and 127.24, permitted facilities may request a temporary waiver for up to 5 years or a permanent waiver from electronic reporting from the Department. To obtain an electronic reporting waiver, a permittee must first submit an eDMR Waiver Request Form: http://dnr.mo.gov/forms/780-2692-f.pdf. A request must be made for each facility. If more than one facility is owned or operated by a single entity, then the entity must submit a separate request for each facility based on its specific circumstances. An approved waiver is not transferable.

The Department must review and notify the facility within 120 calendar days of receipt if the waiver request has been approved or rejected [40 CFR 124.27(a)]. During the Department review period as well as after a waiver is granted, the facility must continue submitting a hard-copy of any reports required by their permit. The Department will enter data submitted in hard-copy from those facilities allowed to do so and electronically submit the data to the EPA on behalf of the facility.

To assist the facility in entering data into the eDMR system, the permit describes limit sets in each table in Part A of the permit. The data entry personnel should use these identifiers to assure data entry is being completed appropriately.

✓ The permittee/facility is currently using the eDMR data reporting system.

GENERAL CRITERIA CONSIDERATIONS:

In accordance with 40 CFR 122.44(d)(1), effluent limitations shall be placed into permits for pollutants determined to cause, have reasonable potential to cause, or to contribute to, an excursion above any water quality standard, including narrative water quality criteria. In order to comply with this regulation, the permit writer has completed a reasonable potential determination on whether discharges have reasonable potential to cause, or contribute to an excursion of the general criteria listed in 10 CSR 20-7.031(4). In instances where reasonable potential exists, the permit includes limitations within the permit to address the reasonable potential. In discharges where reasonable potential does not exist, the permit may include monitoring to later determine the discharge's potential to impact the narrative criteria. Additionally, §644.076.1, RSMo as well as Section D – Administrative Requirements of Standard Conditions Part I of this permit state it shall be unlawful for any person to cause or allow any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law or any standard, rule, or regulation promulgated by the commission.

GROUNDWATER MONITORING:

Groundwater is a water of the state according to RSMo 644.016(27), is subject to regulations at 10 CSR 20-7.015(7) and 10 CSR 20-7.031(6), and must be protected accordingly.

✓ This facility is not required to monitor groundwater for the water protection program.

LAND APPLICATION:

Land application of wastewater or sludge is performed by facilities to maintain a basin as no-discharge.

✓ Not applicable; this permit does not authorize operation of a land application system to disperse wastewater or sludge.

MAJOR WATER USER:

Any surface or groundwater user with a water source and the equipment necessary to withdraw or divert 100,000 gallons (or 70 gallons per minute) or more per day combined from all sources from any stream, river, lake, well, spring, or other water source is considered a major water user in Missouri. All major water users are required by law to register water use annually (Missouri Revised Statues Chapter 256.400 Geology, Water Resources and Geodetic Survey Section). https://dnr.mo.gov/pubs/pub2236.htm

✓ Not applicable; this permittee cannot withdraw water from the state in excess of 70 gpm/0.1 MGD.

OIL/WATER SEPARATORS:

Oil water separator (OWS) tank systems are frequently found at industrial sites where process water and stormwater may contain oils and greases, oily wastewaters, or other immiscible liquids requiring separation. Food industry discharges typically require pretreatment prior to discharge to municipally owned treatment works. Per 10 CSR 26-2.010(2)(B), all oil water separator tanks must be operated according to manufacturer's specifications and authorized in NPDES permits per 10 CSR 26-2.010(2) or may be regulated as a petroleum tank.

✓ Not applicable; the permittee has not disclosed the use of any oil water separators they wish to include under the NPDES permit at this facility and therefore oil water separator tanks are not authorized by this permit.

REASONABLE POTENTIAL (RP):
Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants which are (or may be) discharged at a level causing or have the reasonable potential to cause (or contribute to) an in-stream excursion above narrative or numeric water quality standards. Per 10 CSR 20-7.031(4), general criteria shall be applicable to all waters of the state at all times; however, acute toxicity criteria may be exceeded by permit in zones of initial dilution, and chronic toxicity criteria may be exceeded by permit in mixing zones. If the permit writer determines any given pollutant has the reasonable potential to cause or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for the pollutant per 40 CFR Part 122.44(d)(1)(iii) and the most stringent limits per 10 CSR 20-7.031(9)(A). Permit writers may use mathematical reasonable potential analysis (RPA) using the Technical Support Document for Water Quality Based Toxics Control (TSD) methods (EPA/505/2-90-001) as found in Section 3.3.2, or may also use reasonable potential determinations (RPD) as provided in Sections 3.1.2, 3.1.3, and 3.2 of the TSD.

✓ Not applicable; a mathematical RPA was not conducted for this facility. This facility discharges stormwater. This permit establishes benchmarks for stormwater. The Department has determined stormwater is not a continuous discharge and is therefore not necessarily dependent on mathematical RPAs. However, the permit writer completed an RPD, a reasonable potential determination, using best professional judgment for all of the appropriate parameters in this permit. An RPD consists of reviewing application data and/or discharge monitoring data for the last five years and comparing those data to narrative or numeric water quality criteria.

SAMPLING FREQUENCY JUSTIFICATION:
Sampling frequency for stormwater-only outfalls is typically quarterly even though BMP inspection occurs monthly. The facility may sample more frequently if additional data is required to determine if best management operations and technology are performing as expected.

SAMPLING TYPE JUSTIFICATION:
Sampling type was continued from the previous permit. The sampling types are representative of the discharges, and are protective of water quality. Discharges with altering effluent should have composite sampling; discharges with uniform effluent can have grab samples. Grab samples are usually appropriate for stormwater. Parameters which must have grab sampling are: pH, ammonia, *E. coli*, total residual chlorine, free available chlorine, hexavalent chromium, dissolved oxygen, total phosphorus, volatile organic compounds, and others.

SCHEDULE OF COMPLIANCE (SOC):
A schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, effluent limits, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit. SOCs are allowed under 40 CFR 122.47 and 10 CSR 20-7.031(11) providing certain conditions are met.
A SOC is not allowed:

- For effluent limitations based on technology-based standards established in accordance with federal requirements, if the deadline for compliance established in federal regulations has passed. 40 CFR § 125.3.
- For a newly constructed facility in most cases. Newly constructed facilities must meet applicable effluent limitations when discharge begins, because the facility has installed the appropriate control technology as specified in a permit or antidegradation review. A SOC is allowed for a new water quality based effluent limit not included in a previously public noticed permit or antidegradation review, which may occur if a regulation changes during construction.
- To develop a TMDL, UAA, or other study associated with development of a site specific criterion. A facility is not prohibited from conducting these activities, but a SOC may not be granted for conducting these activities.

In order to provide guidance in developing SOCs, and to attain a greater level of consistency, the Department issued a policy on development of SOCs on October 25, 2012. The policy provides guidance to permit writers on standard time frames for schedules for common activities, and guidance on factors to modify the length of the schedule.

✓ Not applicable; this permit does not contain a SOC. Limits have not become more restrictive. No SOC is allowed because the permittee is already capable of meeting the new effluent limits.

SPILLS, OVERFLOWS, AND OTHER UNAUTHORIZED DISCHARGE REPORTING:
Per 260.505 RSMo, any emergency involving a hazardous substance must be reported to the Department's 24 hour Environmental Emergency Response hotline at (573) 634-2436 at the earliest practicable moment after discovery. The Department may require the submittal of a written report detailing measures taken to clean up a spill. These reporting requirements apply whether or not the spill results in chemicals or materials leaving the permitted property or reaching waters of the state. This requirement is in addition to the noncompliance reporting requirement found in Standard Conditions Part I. http://dnr.mo.gov/env/esp/spillbill.htm

Any other spills, overflows, or unauthorized discharges reaching waters of the state must be reported to the regional office during normal business hours, or after normal business hours, to the Department's 24 hour Environmental Emergency Response spill line at 573-634-2436.

SLUDGE – INDUSTRIAL:
Industrial sludge is solid, semi-solid, or liquid residue generated during the treatment of industrial process or non-process wastewater in a treatment works; including but not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment process; scum and solids filtered from water supplies and backwashed; and any material derived from industrial sludge.
✓ Applicable; sludge is stored in the stormwater basins.

STANDARD CONDITIONS:
The standard conditions Part I attached to this permit incorporate all sections of 40 CFR 122.41(a) through (n) by reference as required by law. These conditions, in addition to the conditions enumerated within the standard conditions should be reviewed by the permittee to ascertain compliance with this permit, state regulations, state statues, federal regulations, and the Clean Water Act.

STORMWATER PERMITTING: LIMITATIONS AND BENCHMARKS:
Because of the fleeting nature of stormwater discharges, the Department, under the direction of EPA guidance, has determined monthly averages are capricious measures of stormwater discharges. The *Technical Support Document for Water Quality Based Toxics Control* (EPA/505/2-90-001; 1991) Section 3.1 indicates most procedures within the document apply only to water quality based approaches, not end-of-pipe technology-based controls. Hence, stormwater-only outfalls will generally only contain a maximum daily limit (MDL), benchmark, or monitoring requirement as dictated by site specific conditions, the BMPs in place, past performance of the facility, and the receiving water's current quality.

Sufficient rainfall to cause a discharge for one hour or more from a facility would not necessarily cause significant flow in a receiving stream. Acute Water Quality Standards (WQSs) are based on one hour of exposure, and must be protected at all times. Therefore, industrial stormwater facilities with toxic contaminants present in the stormwater may have the potential to cause a violation of acute WQSs if toxic contaminants occur in sufficient amounts. In this instance, the permit writer may apply daily maximum limitations.

Conversely, it is unlikely for rainfall to cause a discharge for four continuous days from a facility; if this does occur however, the receiving stream will also likely sustain a significant amount of flow providing dilution. Most chronic WQSs are based on a four-day exposure with some exceptions. Under this scenario, most industrial stormwater facilities have limited potential to cause a violation of chronic water quality standards in the receiving stream.

A standard mass-balance equation cannot be calculated for stormwater because stormwater flow and flow in the receiving stream cannot be determined for conditions on any given day or storm event. The amount of stormwater discharged from the facility will vary based on current and previous rainfall, soil saturation, humidity, detention time, BMPs, surface permeability, etc. Flow in the receiving stream will vary based on climatic conditions, size of watershed, area of surfaces with reduced permeability (houses, parking lots, and the like) in the watershed, hydrogeology, topography, etc. Decreased permeability may increase the stream flow dramatically over a short period of time (flash).

Numeric benchmark values are based on site specific requirements taking in to account a number of factors but cannot be applied to any process water discharges. First, the technology in place at the site to control pollutant discharges in stormwater is evaluated. The permit writer also evaluates other similar permits for similar activities. A review of the guidance forming the basis of Environmental Protection Agency's (EPA's) *Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity* (MSGP) may also occur. Because precipitation events are sudden and momentary, benchmarks based on state or federal standards or recommendations use the Criteria Maximum Concentration (CMC) value, or acute standard may also be used. The CMC is the estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed briefly without resulting in an unacceptable effect. The CMC for aquatic life is intended to be protective of the vast majority of the aquatic communities in the United States. If a facility has not disclosed BMPs applicable to the pollutants for the site, the permittee may not be eligible for benchmarks.

40 CFR 122.44(b)(1) requires the permit implement the most stringent limitations for each discharge, including industrially exposed stormwater; and 40 CFR 122.44(d)(1)(i) and (iii) requires the permit to include water-quality based effluent limitations where reasonable potential has been found. However, because of the non-continuous nature of stormwater discharges, staff are unable to perform statistical Reasonable Potential Analysis (RPA) under most stormwater discharge scenarios. Reasonable potential determinations (RPDs; see REASONABLE POTENTIAL above) using best professional judgment are performed.

Benchmarks require the facility to monitor, and if necessary, replace and update stormwater control measures. Benchmark concentrations are not effluent limitations. A benchmark exceedance, therefore, is not a permit violation; however, failure to take corrective action is a violation of the permit. Benchmark monitoring data is used to determine the overall effectiveness of control measures and to assist the permittee in knowing when additional corrective actions may be necessary to comply with the conditions of the permit.

BMP inspections typically occur more frequently than sampling. Sampling frequencies are based on the facility's ability to comply with the benchmarks and the requirements of the permit. Inspections should occur after large rain events and any other time an issue is noted; sampling after a benchmark exceedance may need to occur to show the corrective active taken was meaningful.

When a permitted feature or outfall consists of only stormwater, a benchmark may be implemented at the discretion of the permit writer, if there is no RP for water quality excursions.

- ✓ Applicable, this facility has stormwater-only outfalls where benchmarks or limitations were deemed appropriate contaminant measures.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP):

In accordance with 40 CFR 122.44(k), Best Management Practices (BMPs) must be used to control or abate the discharge of pollutants when: 1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; 2) Authorized under section 402(p) of the CWA for the control of stormwater discharges; 3) Numeric effluent limitations are infeasible; or 4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (EPA 833-B-09-002) published by the EPA in 2015 https://www.epa.gov/sites/production/files/2015-11/documents/swppp_guide_industrial_2015.pdf, BMPs are measures or practices used to reduce the amount of pollution entering waters of the state from a permitted facility. BMPs may take the form of a process, activity, or physical structure. Additionally in accordance with the Stormwater Management, a SWPPP is a series of steps and activities to 1) identify sources of pollution or contamination, and 2) select and carry out actions which prevent or control the pollution of storm water discharges. Additional information can be found in *Stormwater Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices* (EPA 832-R-92-006; September 1992).

A SWPPP must be prepared by the permittee if the SIC code is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2). A SWPPP may be required of other facilities where stormwater has been identified as necessitating better management. The purpose of a SWPPP is to comply with all applicable stormwater regulations by creating an adaptive management plan to control and mitigate stream pollution from stormwater runoff. Developing a SWPPP provides opportunities to employ appropriate BMPs to minimize the risk of pollutants being discharged during storm events. The following paragraph outlines the general steps the permittee should take to determine which BMPs will work to achieve the benchmark values or limits in the permit. This section is not intended to be all encompassing or restrict the use of any physical BMP or operational and maintenance procedure assisting in pollution control. Additional steps or revisions to the SWPPP may be required to meet the requirements of the permit.

Areas which should be included in the SWPPP are identified in 40 CFR 122.26(b)(14). Once the potential sources of stormwater pollution have been identified, a plan should be formulated to best control the amount of pollutant being released and discharged by each activity or source. This should include, but is not limited to, minimizing exposure to stormwater, good housekeeping measures, proper facility and equipment maintenance, spill prevention and response, vehicle traffic control, and proper materials handling. Once a plan has been developed the facility will employ the control measures determined to be adequate to achieve the benchmark values discussed above. The facility will conduct monitoring and inspections of the BMPs to ensure they are working properly and re-evaluate any BMP not achieving compliance with permitting requirements. For example, if sample results from an outfall show values of TSS above the benchmark value, the BMP being employed is deficient in controlling stormwater pollution. Corrective action should be taken to repair, improve, or replace the failing BMP. This internal evaluation is required at least once per month but should be continued more frequently if BMPs continue to fail. If failures do occur, continue this trial and error process until appropriate BMPs have been established.

For new, altered, or expanded stormwater discharges, the SWPPP shall identify reasonable and effective BMPs while accounting for environmental impacts of varying control methods. The antidegradation analysis must document why no discharge or no exposure options are not feasible. The selection and documentation of appropriate control measures shall serve as an alternative analysis of technology and fulfill the requirements of antidegradation [10 CSR 20-7.031(3)]. For further guidance, consult the antidegradation implementation procedure (http://dnr.mo.gov/env/wpp/docs/AIP050212.pdf).

Alternative Analysis (AA) evaluation of the BMPs is a structured evaluation of BMPs which are reasonable and cost effective. The AA evaluation should include practices designed to be: 1) non-degrading; 2) less degrading; or 3) degrading water quality. The glossary of AIP defines these three terms. The chosen BMP will be the most reasonable and effective management strategy while ensuring the highest statutory and regulatory requirements are achieved and the highest quality water attainable for the facility is discharged. The AA evaluation must demonstrate why "no discharge" or "no exposure" is not a feasible alternative at the facility. This structured analysis of BMPs serves as the antidegradation review, fulfilling the requirements of 10 CSR 20-7.031(3) Water Quality Standards and *Antidegradation Implementation Procedure* (AIP), Section II.B.

If parameter-specific numeric benchmark exceedances continue to occur and the permittee feels there are no practicable or cost-effective BMPs which will sufficiently reduce a pollutant concentration in the discharge to the benchmark values established in the permit, the permittee can submit a request to re-evaluate the benchmark values. This request needs to include 1) a detailed explanation of why the facility is unable to comply with the permit conditions and unable to establish BMPs to achieve the benchmark values; 2) financial data of the company and documentation of cost associated with BMPs for review and 3) the SWPPP, which should contain adequate documentation of BMPs employed, failed BMPs, corrective actions, and all other required information. This will allow the Department to conduct a cost analysis on control measures and actions taken by the facility to determine cost-effectiveness of BMPs. The request shall be submitted in the form of an operating permit modification, which includes an appropriate fee; the application is found at: https://dnr.mo.gov/forms/#WaterPollution

✓ Applicable; a SWPPP shall be developed and implemented for this facility.

SUFFICIENTLY SENSITIVE ANALYTICAL METHODS:

Please review Standard Conditions Part 1, section A, number 4. The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 and/or 40 CFR 136 unless alternates are approved by the Department. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is "sufficiently sensitive" when; 1) the method quantifies the pollutant below the level of the applicable water quality criterion or; 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility's discharge is high enough the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015 and or 40 CFR 136. These methods are also required for parameters listed as monitoring only, as the data collected may be used to determine if numeric limitations need to be established. A permittee is responsible for working with their contractors to ensure the analysis performed is sufficiently sensitive. 40 CFR 136 lists the approved methods accepted by the Department. Tables A1-B3 at 10 CSR 20-7.031 shows water quality standards.

UNDERGROUND INJECTION CONTROL (UIC):

The UIC program for all classes of wells in the State of Missouri is administered by the Missouri Department of Natural Resources and approved by EPA pursuant to section 1422 and 1425 of the Safe Drinking Water Act (SDWA) and 40 CFR 147 Subpart AA. Injection wells are classified based on the liquids which are being injected. Class I wells are hazardous waste wells which are banned by RSMo 577.155; Class II wells are established for oil and natural gas production; Class III wells are used to inject fluids to extract minerals; Class IV wells are also banned by Missouri in RSMo 577.155; Class V wells are shallow injection wells; some examples are heat pump wells and groundwater remediation wells. Domestic wastewater being disposed of sub-surface is also considered a Class V well. In accordance with 40 CFR 144.82, construction, operation, maintenance, conversion, plugging, or closure of injection wells shall not cause movement of fluids containing any contaminant into Underground Sources of Drinking Water (USDW) if the presence of any contaminant may cause a violation of drinking water standards or groundwater standards under 10 CSR 20-7.031, or other health based standards, or may otherwise adversely affect human health. If the director finds the injection activity may endanger USDWs, the Department may require closure of the injection wells, or other actions listed in 40 CFR 144.12(c), (d), or (e). In accordance with 40 CFR 144.26, the permittee shall submit a Class V Well Inventory Form for each active or new underground injection well drilled, or when the status of a well changes, to the Missouri Department of Natural Resources, Geological Survey Program, P.O. Box 250, Rolla, Missouri 65402. The Class V Well Inventory Form can be requested from the Geological Survey Program or can be found at the following web address: http://dnr.mo.gov/forms/780-1774-f.pdf

✓ Not applicable; the permittee has not submitted materials indicating the facility will be performing UIC at this site.

VARIANCE:

Per the Missouri Clean Water Law §644.061.4, variances shall be granted for such period of time and under such terms and conditions as shall be specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law §§644.006 to 644.141 or any standard, rule or regulation promulgated pursuant to Missouri Clean Water Law §§644.006 to 644.141.

✓ Not applicable; this permit is not drafted under premise of a petition for variance.

WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:

As per [10 CSR 20-2.010; definitions], the WLA is the amount of pollutant each discharger is allowed to discharge into the receiving stream without endangering water quality. Two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs) are reviewed. If one limit does not provide adequate protection for the receiving water, then the other must be used per 10 CSR 20-7.015(9)(A). Total Maximum Daily Loads, if required for this facility, were also reviewed.

✓ Not applicable; wasteload allocations were either not calculated or were not based on TSD methods.

WASTELOAD ALLOCATION (WLA) MODELING:

Permittees may submit site specific studies to better determine the site specific wasteload allocations applied in permits.

✓ Not applicable; a WLA study was either not submitted or determined not applicable by Department staff.

WATER QUALITY STANDARD REVISION:
In accordance with section 644.058, RSMo, the Department is required to utilize an evaluation of the environmental and economic impacts of modifications to water quality standards of twenty-five percent or more when making individual site-specific permit decisions.

✓ This operating permit does not contain requirements for a water quality standard that has changed twenty-five percent or more since the previous operating permit.

PART IV. EFFLUENT LIMITS DETERMINATIONS

OUTFALL #001 & #003 – MAIN FACILITY OUTFALLS

EFFLUENT LIMITATIONS TABLE:

PARAMETERS	UNIT	DAILY MAXIMUM LIMIT	BENCH-MARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL							
FLOW	MGD	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	24 HR. ESTIMATE
PRECIPITATION	inches	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	24 HR. TOT
CONVENTIONAL							
COD	mg/L	**	90	90/60	ONCE/QUARTER	ONCE/QUARTER	GRAB
OIL & GREASE	mg/L	**	10	15/10	ONCE/QUARTER	ONCE/QUARTER	GRAB
pH †	SU	6.5 TO 9.0	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
SETTLEABLE SOLIDS	mL/L/hr	**	1.5	1.5/1.0	ONCE/QUARTER	ONCE/QUARTER	GRAB
TSS	mg/L	**	100	80/50	ONCE/QUARTER	ONCE/QUARTER	GRAB
METALS							
ALUMINUM, TR	µg/L	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
ANTIMONY, TR	REMOVED						
ARSENIC, TR	REMOVED						
BARIUM, TR	REMOVED						
BERYLLIUM, TR	REMOVED						
BORON, TR	REMOVED						
CADMIUM, TR	REMOVED						
CHROMIUM III, TR	REMOVED						
CHROMIUM VI, DISSOLVED	µg/L	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
COBALT, TR	REMOVED						
COPPER, TR	µg/L	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
LEAD, TR	REMOVED						
IRON, TR	µg/L	**	4,000	1,000/-	ONCE/QUARTER	ONCE/QUARTER	GRAB
MANGANESE, TR	REMOVED						
MERCURY, TR	REMOVED						
NICKEL, TR	REMOVED						
SELENIUM, TR	µg/L	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
SILVER, TR	REMOVED						
THALLIUM, TR	REMOVED						
TOTAL HARDNESS	REMOVED						
ZINC, TR	µg/L	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
NUTRIENTS							
AMMONIA, AS N	mg/L	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
NITRATE AS N	REMOVED						
OTHER							
BENZENE	µg/L	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB

CHLORIDE	mg/L	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
SULFATE	mg/L	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
CHLORIDE+SULFATE	mg/L	**	1,000	1,000/-	ONCE/QUARTER	ONCE/QUARTER	GRAB
ETHYLBENZENE	REMOVED						
FLUORIDE	REMOVED						
TOLUENE	REMOVED						
TOTAL XYLENE	REMOVED						

*	monitoring and reporting requirement only
**	monitoring with associated benchmark
†	report the minimum and maximum pH values; pH is not to be averaged
new	parameter not established in previous state operating permit
TR	total recoverable

DERIVATION AND DISCUSSION OF LIMITS:

PHYSICAL:

Flow

In accordance with [40 CFR Part 122.44(i)(1)(ii)] the estimated volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain estimated effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification. The facility will report the estimated total flow in millions of gallons per day (MGD).

Precipitation

Monitoring only requirement; measuring the amount of precipitation [(10 CSR 20-6.200(2)(C)1.E(VI)] during an event is necessary to ensure adequate stormwater management exists at the site. Knowing the amount of potential stormwater runoff can provide the permittee a better understanding of any specific control measures be employed to ensure protection of water quality. The facility will provide the 24 hour accumulation value of precipitation from the day of sampling the other parameters.

CONVENTIONAL:

Chemical Oxygen Demand (COD)

Monitoring with a daily maximum benchmark of 90 mg/L. The previous permit required a daily maximum limit of 90 mg/L with a monthly average limit of 60 mg/L. Limits were removed from this parameter, as the permit writer reviewed the submitted DMR data and determined no reasonable potential to exceed water quality standards either numeric or narrative. A benchmark value will be implemented for this parameter. The benchmark value falls within the range of values implemented in other permits that have similar industrial activities. There is no water quality standards for COD; however, increased oxygen demand may impact instream water quality. COD is also a valuable indicator parameter. COD monitoring allows the permittee to identify increases in COD that may indicate materials/chemicals coming into contact with stormwater that cause an increase in oxygen demand. Increases in COD may indicate a need for maintenance or improvement of BMPs.

Oil & Grease

Monitoring with a daily maximum benchmark of 10 mg/L. The previous permit required a daily maximum limit of 15 mg/L, with a monthly average limit of 10 mg/L. Limits were removed from this parameter, as the permit writer reviewed the submitted DMR data and determined no reasonable potential to exceed water quality standards either numeric or narrative. Oil and grease is considered a conventional pollutant. Oil and grease is a comprehensive test which measures for gasoline, diesel, crude oil, creosote, kerosene, heating oils, heavy fuel oils, lubricating oils, waxes, and some asphalt and pitch. The test can also detect some volatile organics such as benzene, toluene, ethylbenzene, or toluene, but these constituents are often lost during testing due to their boiling points. It is recommended to perform separate testing for these constituents if they are a known pollutant of concern at the site, i.e. aquatic life toxicity or human health is a concern. Results do not allow for separation of specific pollutants within the test, they are reported, totaled, as “oil and grease”. Per 10 CSR 20-7.031 Table A: Criteria for Designated Uses; 10 mg/L is the standard for protection of aquatic life. 10 mg/L is the level at which sheen is expected to form on receiving waters. Oils and greases of different densities will possibly form sheen or unsightly bottom deposits at levels which vary from 10 mg/L. To protect the general criteria, it is the responsibility of the permittee to visually observe the discharge and receiving waters for sheen or bottom deposits.

pH

6.5 to 9.0 SU, continued from the previous permit. The Water Quality Standard at 10 CSR 20-7.031(5)(E) states water contaminants shall not cause pH to be outside the range of 6.5 to 9.0 standard pH units.

Settleable Solids (SS)
Monitoring with a daily maximum benchmark of 1.5 mL/L/hr. Limits were removed from this parameter, as the permit writer reviewed the submitted DMR data and determined no reasonable potential to exceed water quality standards either numeric or narrative. There is no water quality standard for SS; however, solids are a primary pollutant of concern in landfill stormwater, and sediment discharges can negatively impact aquatic life habitat. Settleable solids are also a valuable indicator parameter. Solids monitoring allows the permittee to identify increases in sediment and solids that may indicate uncontrolled materials leaving the site. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at 1.5 mL/L/hr. This value falls within the range of values implemented in other permits that have similar industrial activities.

Total Suspended Solids (TSS)
Monitoring with a daily maximum benchmark of 100 mg/L. Limits were removed from this parameter, as the permit writer reviewed the submitted DMR data and determined no reasonable potential to exceed water quality standards either numeric or narrative. There is no water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS that may indicate uncontrolled materials leaving the site. Increased suspended solids in runoff can lead to decreased available oxygen for aquatic life and an increase of surface water temperatures in a receiving stream. Suspended solids can also be carriers of toxins, which can adsorb to the suspended particles; therefore, total suspended solids are a valuable indicator parameter for other pollution. A benchmark value will be implemented for this parameter. The benchmark value is achievable through proper operation and maintenance of BMPs and falls within the range of values implemented in other permits having similar industrial activities.

METALS:

Hardness, Total
This parameter will be removed from this permit. The previous permit required monitoring for this parameter. The Department will use a default hardness of 208 mg/L to calculate daily maximum limits for metals with hardness based toxicity if necessary. It is no longer necessary to sample for this parameter as default in-stream hardness values will be utilized.

Aluminum, Total Recoverable
Monitoring only. This is a new parameter for this facility and is added per the permit writer's best professional judgment. Aluminum is a non-ferrous metal widely used in industrial applications. It is used to manufacture beverage cans, foil, other packaging, construction materials, and other products too numerous to list. It is a common constituent of both sanitary and industrial solid waste and is a common pollutant of concern at landfills.

Antimony, Total Recoverable
Monitoring is removed from this permit. DMR data showed this is not a pollutant of concern at this site.

Arsenic, Total Recoverable
Monitoring is removed from this permit. DMR data showed this is not a pollutant of concern at this site.

Barium, Total Recoverable
Monitoring is removed from this permit. DMR data showed this is not a pollutant of concern at this site.

Beryllium, Total Recoverable
Monitoring is removed from this permit. DMR data showed this is not a pollutant of concern at this site.

Boron, Total Recoverable
Monitoring is removed from this permit. DMR data showed this is not a pollutant of concern at this site.

Cadmium, Total Recoverable
Monitoring is removed from this permit. DMR data showed this is not a pollutant of concern at this site.

Chromium III, Total Recoverable
Monitoring is removed from this permit. DMR data showed this is not a pollutant of concern at this site.

Chromium VI, Dissolved
Monitoring only continued from previous permit. Chromium VI has several industrial uses, including chrome plating, the manufacture of dye and pigments, leather and wood preservation, and as an alloy with other metals. It was also used as "chromic acid" for a glass cleaner in industrial settings. There is a potential for wastes from these uses to be found at a solid waste disposal site. DMR data shows no reasonable potential to cause or contribute to excursions of the water quality standard.

Cobalt, Total Recoverable
Monitoring is removed from this permit. DMR data showed this is not a pollutant of concern at this site.

Copper, Total Recoverable
Monitoring only continued from pervious permit. Copper has numerous industrial uses, from alloys and antimicrobial applications, to wires, cable and paints. It is used as a stabilizing agent in chemical products. There is a high potential for wastes from these varying uses to be found at a waste disposal site; therefore, monitoring is continued. DMR data shows no reasonable potential to cause or contribute to excursions of the water quality standard.

Lead, Total Recoverable
Monitoring is removed from this permit. DMR data showed this is not a pollutant of concern at this site.

Iron, Total Recoverable
Monitoring with a technology based daily maximum benchmark of 4,000 µg/L. Iron has numerous industrial uses, being the most widely used of all metals. There is a high potential for iron to be found in wastes at a landfill. Previous permit required monitoring with a daily maximum benchmark of 1,000 µg/L. Due to the sporadic nature of stormwater discharges, the Department, under the direction of EPA guidance, has determined chronic standards are capricious measures of stormwater discharges. Chronic effluent limitations are based on the organism's ability to survive within the designated concentration for four days. Stormwater is rarely discharged continuously for four days. Conversely, acute water quality standards are applicable, but are non-existent for iron. It is in the best professional judgment of the permit writer that a discharge from these outfalls at 4,000 µg/L per storm event is unlikely to cause an exceedance of the chronic water quality standard of 1000µg/L over four days. After reviewing other sources of data and studies, it is in the permit writer's best professional judgment to require a 4000 µg/L daily maximum benchmark for this facility. In accordance with the department's current stormwater permitting, under the direction of EPA guidance, it is the permit writer's best professional judgment that an iron limit of 4000 µg/L is protective of water quality as this facility.

Manganese, Total Recoverable
Monitoring is removed from this permit. DMR data showed this is not a pollutant of concern at this site.

Mercury, Total Recoverable
Monitoring is removed from this permit. DMR data showed this is not a pollutant of concern at this site.

Nickel, Total Recoverable
Monitoring is removed from this permit. DMR data showed this is not a pollutant of concern at this site.

Selenium, Total Recoverable
Monitoring only continued from previous permit. Selenium is primarily used in the production of glass and electronics. It can also be found as an alloy with other metals. It is a known pollutant of concern at waste disposal sites.

Silver, Total Recoverable
Monitoring is removed from this permit. DMR data showed this is not a pollutant of concern at this site.

Thallium, Total Recoverable
Monitoring is removed from this permit. DMR data showed this is not a pollutant of concern at this site.

Zinc, Total Recoverable
Monitoring only continued from previous permit. Zinc has numerous industrial applications, the most prevalent of which are batteries and anti-corrosion agents. It is also commonly used as an alloy and in industrial chemical compounds such as flame retardants and wood preservatives. Zinc is a pollutant of concern at solid waste landfills as identified in the landfill ELG found at 40 CFR 445. DMR data shows no reasonable potential to cause or contribute to excursions of the water quality standard.

NUTRIENTS:

Ammonia, Total as Nitrogen
Monitoring only continued from previous permit. Ammonia is a primary component of leachate, and is listed in the landfill ELG, found at 40 CFR 445. DMR data shows no reasonable potential to cause or contribute to excursions of the water quality standard.

Nitrate as N
Monitoring is removed from this permit. DMR data showed this is not a pollutant of concern at this site.

OTHER:

Benzene
Monitoring only continued from previous permit. Benzene is a volatile organic compound and a common component of many fuel and oil products. It is used as an intermediate in the production of numerous other chemicals, especially phnols and acetones. Benzene is a reliable indicator pollutant for hydrocarbon pollutants. Monitoring for this pollutant will aid in indication of other hydrocarbon issues at the site not monitored for in the permit. If benzene is detected in the effluent, this indicates the potential that other hydrocarbons may need to be added to the permit to ensure water quality standards are being maintained. Additionally, truck traffic at the site indicates potential to release benzene. DMR data shows no reasonable potential to cause or contribute to excursions of the water quality standard.

Chloride
Monitoring only. This is a reporting requirement only, as chloride is required to be monitored due to the chloride and sulfate parameter. Chloride is a known pollutant of concern at landfills.

Sulfate
Monitoring required to determine chloride plus sulfate below. The facility shall sample and independently report the analytical value of sulfate.

Chloride + Sulfate
Monitoring with a daily maximum benchmark of 1,000 mg/L, continued from the previous permit. Chloride and sulfate are pollutants of concern at landfill sites. This technology based value is achievable through proper operation and maintenance of BMPs and falls within the range of values implemented in other permits having similar industrial activities. DMR data shows no reasonable potential to cause or contribute to excursions of the water quality standard.

Ethylbenzene
Monitoring is removed from this permit. DMR data showed this is not a pollutant of concern at this site.

Fluoride
Monitoring is removed from this permit. DMR data showed this is not a pollutant of concern at this site.

Toluene
Monitoring is removed from this permit. DMR data showed this is not a pollutant of concern at this site.

Total Xylene
Monitoring is removed from this permit. DMR data showed this is not a pollutant of concern at this site.

PART V. ADMINISTRATIVE REQUIREMENTS

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

PERMIT SYNCHRONIZATION:
The Department of Natural Resources is currently undergoing a synchronization process for operating permits. Permits are normally issued on a five-year term, but to achieve synchronization many permits will need to be issued for less than the full five years allowed by regulation. The intent is all permits within a watershed will move through the Watershed Based Management (WBM) cycle together will all expire in the same fiscal year. http://dnr.mo.gov/env/wpp/cpp/docs/watershed-based-management.pdf. This will allow further streamlining by placing multiple permits within a smaller geographic area on public notice simultaneously, thereby reducing repeated administrative efforts. This will also allow the Department to explore a watershed based permitting effort at some point in the future. Renewal applications must continue to be submitted within 180 days of expiration, however, in instances where effluent data from the previous renewal is less than two years old, such data may be re-submitted to meet the requirements of the renewal application. If the permit provides a schedule of compliance for meeting new water quality based effluent limits beyond the expiration date of the permit, the time remaining in the schedule of compliance will be allotted in the renewed permit.

- ✓ This permit is not being synchronized at this time because the permit would expire during the 2nd quarter of 2020 which would cause the permit to be issued for six months. This permit will be renewed for a full five years term.

PUBLIC NOTICE:
The Department shall give public notice a draft permit has been prepared and its issuance is pending. http://dnr.mo.gov/env/wpp/permits/pn/index.html Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in or with water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

The Public Notice period for this operating permit was from December 20, 2019 to January 21, 2020. No responses were received.

DATE OF FACT SHEET: NOVEMBER 27, 2019
COMPLETED BY:
KYLE O'ROURKE, ENVIRONMENTAL SPECIALIST
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION - INDUSTRIAL UNIT
(573) 526-1289
Kyle.O'Rourke@dnr.mo.gov

STANDARD CONDITIONS FOR NPDES PERMITS
ISSUED BY
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION
REVISED
AUGUST 1, 2014

These Standard Conditions incorporate permit conditions as required by 40 CFR 122.41 or other applicable state statutes or regulations. These minimum conditions apply unless superseded by requirements specified in the permit.

Part I – General Conditions
Section A – Sampling, Monitoring, and Recording

1. **Sampling Requirements.**
   a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
   b. All samples shall be taken at the outfall(s) or Missouri Department of Natural Resources (Department) approved sampling location(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.

2. **Monitoring Requirements**.
   a. Records of monitoring information shall include:
      i. The date, exact place, and time of sampling or measurements;
      ii. The individual(s) who performed the sampling or measurements;
      iii. The date(s) analyses were performed;
      iv. The individual(s) who performed the analyses;
      v. The analytical techniques or methods used; and
      vi. The results of such analyses.
   b. If the permittee monitors any pollutant more frequently than required by the permit at the location specified in the permit using test procedures approved under 40 CFR Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reported to the Department with the discharge monitoring report data (DMR) submitted to the Department pursuant to Section B, paragraph 7.

3. **Sample and Monitoring Calculations.** Calculations for all sample and monitoring results which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.

4. **Test Procedures**. The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 unless alternates are approved by the Department. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure that the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations that are low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is "sufficiently sensitive" when; 1) the method minimum level is at or below the level of the applicable water quality criterion for the pollutant or, 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility's discharge is high enough that the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015. These methods are also required for parameters that are listed as monitoring only, as the data collected may be used to determine if limitations need to be established. A permittee is responsible for working with their contractors to ensure that the analysis performed is sufficiently sensitive.

5. **Record Retention.** Except for records of monitoring information required by the permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five (5) years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

6. **Illegal Activities.**
   a. The Federal Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than two (2) years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four (4) years, or both.
   b. The Missouri Clean Water Law provides that any person or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than six (6) months, or by both. Second and successive convictions for violation under this paragraph by any person shall be punished by a fine of not more than $50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

Section B – Reporting Requirements

1. **Planned Changes.**
   a. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility when:
      i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
      ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42;
      iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
      iv. Any facility expansions, production increases, or process modifications which will result in a new or substantially different discharge or sludge characteristics must be reported to the Department 60 days before the facility or process modification begins. Notification may be accomplished by application for a new permit. If the discharge does not violate effluent limitations specified in the permit, the facility is to submit a notice to the Department of the changed discharge at least 30 days before such changes. The Department may require a construction permit and/or permit modification as a result of the proposed changes at the facility.

2. **Non-compliance Reporting.**
   a. The permittee shall report any noncompliance which may endanger health or the environment. Relevant information shall be provided orally or via the current electronic method approved by the Department, within 24 hours from the time the permittee becomes aware of the circumstances, and shall be reported to the appropriate Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. A written submission shall also be provided within five (5) business days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

b. The following shall be included as information which must be reported within 24 hours under this paragraph.
   i. Any unanticipated bypass which exceeds any effluent limitation in the permit.
   ii. Any upset which exceeds any effluent limitation in the permit.
   iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit required to be reported within 24 hours.

c. The Department may waive the written report on a case-by-case basis for reports under paragraph 2. b. of this section if the oral report has been received within 24 hours.

3. **Anticipated Noncompliance**. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The notice shall be submitted to the Department 60 days prior to such changes or activity.

4. **Compliance Schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date. The report shall provide an explanation for the instance of noncompliance and a proposed schedule or anticipated date, for achieving compliance with the compliance schedule requirement.

5. **Other Noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs 2, 3, and 6 of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph 2. a. of this section.

6. **Other Information**. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

7. **Discharge Monitoring Reports.**
   a. Monitoring results shall be reported at the intervals specified in the permit.
   b. Monitoring results must be reported to the Department via the current method approved by the Department, unless the permittee has been granted a waiver from using the method. If the permittee has been granted a waiver, the permittee must use forms provided by the Department.
   c. Monitoring results shall be reported to the Department no later than the 28th day of the month following the end of the reporting period.

Section C – Bypass/Upset Requirements

1. **Definitions.**
   a. *Bypass*: the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending.
   b. *Severe Property Damage*: substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
   c. *Upset*: an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

2. **Bypass Requirements.**
   a. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2. b. and 2. c. of this section.
   b. Notice.
      i. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
      ii. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section B – Reporting Requirements, paragraph 5 (24-hour notice).
   c. Prohibition of bypass.
      i. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
         1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
         2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
         3. The permittee submitted notices as required under paragraph 2. b. of this section.
      ii. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three (3) conditions listed above in paragraph 2. c. i. of this section.

3. **Upset Requirements.**
   a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph 3. b. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
   b. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
      i. An upset occurred and that the permittee can identify the cause(s) of the upset;
      ii. The permitted facility was at the time being properly operated; and
      iii. The permittee submitted notice of the upset as required in Section B – Reporting Requirements, paragraph 2. b. ii. (24-hour notice).
      iv. The permittee complied with any remedial measures required under Section D – Administrative Requirements, paragraph 4.
   c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

Section D – Administrative Requirements

1. **Duty to Comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Missouri Clean Water Law and Federal Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
   a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
   b. The Federal Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed $25,000 per day for each violation. The Federal Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement

imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

c. Any person may be assessed an administrative penalty by the EPA Director for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000.

d. It is unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law, or any standard, rule or regulation promulgated by the commission. In the event the commission or the director determines that any provision of sections 644.006 to 644.141 of the Missouri Clean Water Law or standard, rules, limitations or regulations promulgated pursuant thereto, or permits issued by, or any final abatement order, other order, or determination made by the commission or the director, or any filing requirement pursuant to sections 644.006 to 644.141 of the Missouri Clean Water Law or any other provision which this state is required to enforce pursuant to any federal water pollution control act, is being, was, or is in imminent danger of being violated, the commission or director may cause to have instituted a civil action in any court of competent jurisdiction for the injunctive relief to prevent any such violation or further violation or for the assessment of a penalty not to exceed $10,000 per day for each day, or part thereof, the violation occurred and continues to occur, or both, as the court deems proper. Any person who willfully or negligently commits any violation in this paragraph shall, upon conviction, be punished by a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both. Second and successive convictions for violation of the same provision of this paragraph by any person shall be punished by a fine of not more than $50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

2. **Duty to Reapply.**
   a. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
   b. A permittee with a currently effective site-specific permit shall submit an application for renewal at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
   c. A permittees with currently effective general permit shall submit an application for renewal at least 30 days before the existing permit expires, unless the permittee has been notified by the Department that an earlier application must be made. The Department may grant permission for a later submission date. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

3. **Need to Halt or Reduce Activity Not a Defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

4. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

5. **Proper Operation and Maintenance**. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

6. **Permit Actions.**
   a. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
      i. Violations of any terms or conditions of this permit or the law;
      ii. Having obtained this permit by misrepresentation or failure to disclose fully any relevant facts;
      iii. A change in any circumstances or conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
      iv. Any reason set forth in the Law or Regulations.
   b. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

7. **Permit Transfer.**
   a. Subject to 10 CSR 20-6.010, an operating permit may be transferred upon submission to the Department of an application to transfer signed by the existing owner and the new owner, unless prohibited by the terms of the permit. Until such time the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
   b. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Missouri Clean Water Law or the Federal Clean Water Act.
   c. The Department, within 30 days of receipt of the application, shall notify the new permittee of its intent to revoke or reissue or transfer the permit.

8. **Toxic Pollutants.** The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Federal Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

9. **Property Rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.

10. **Duty to Provide Information.** The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

11. **Inspection and Entry.** The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon presentation of credentials and other documents as may be required by law, to:
    a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
    c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
    d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Federal Clean Water Act or Missouri Clean Water Law, any substances or parameters at any location.

12. **Closure of Treatment Facilities.**
    a. Persons who cease operation or plan to cease operation of waste, wastewater, and sludge handling and treatment facilities shall close the facilities in accordance with a closure plan approved by the Department.
    b. Operating Permits under 10 CSR 20-6.010 or under 10 CSR 20-6.015 are required until all waste, wastewater, and sludges have been disposed of in accordance with the closure plan approved by the Department and any disturbed areas have been properly stabilized. Disturbed areas will be considered stabilized when perennial vegetation, pavement, or structures using permanent materials cover all areas that have been disturbed. Vegetative cover, if used, shall be at least 70% plant density over 100% of the disturbed area.

13. **Signatory Requirement.**
    a. All permit applications, reports required by the permit, or information requested by the Department shall be signed and certified. (See 40 CFR 122.22 and 10 CSR 20-6.010)
    b. The Federal Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six (6) months per violation, or by both.
    c. The Missouri Clean Water Law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both.

14. **Severability.** The provisions of the permit are severable, and if any provision of the permit, or the application of any provision of the permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of the permit, shall not be affected thereby.

Weaver Consultants Group

March 22, 2019

Michael Abbott
Chief, Permits Section
Missouri Department of Natural Resources
Water Protection Program
P.O. Box 176
Jefferson City, MO 65102

RE: NPDES Permit Application Renewal, Permit Number MO-0114375
Jefferson City Landfill, LLC, Jefferson City, Missouri.

Dear Ms. Shultz:

The Jefferson City Landfill, LLC (Jefferson City Landfill) is submitting the enclosed permit renewal application of the National Pollution Discharge Elimination System (NPDES) permit for the Jefferson City Landfill, located in Jefferson City, Missouri. The attached application includes the following:

- MDNR Form A: Application for Construction or Operating Permit
- MDNR Form C: Application for Discharge Permit – Manufacturing, Commercial, Mining, Silviculture Operations, Process and Storm Water (for Outfalls #001 & #003)
- MDNR Form D: Application for Discharge Permit – Primary Industries (for Outfalls #001 & #003)

Per NPDES Permit MO-0114375 there are two permitted outfalls (Outfall #001 & #003). The locations of the outfalls are included on the attached site plan. Below is a description of the outfalls and their drainage area:

- Outfall #001 is located at a tributary to the Moreau River. Outfall #001 is associated with the west drainage area of the landfill. This area includes the borrow area, scale house, storage facility, truck parking area, maintenance shop and the west portion of the solid waste footprint. The storm water runoff is controlled through a sedimentation basin to the east of Outfall #001 and a retention basin which overflows to Outfall #001.

- Outfall #003 is located at a tributary of the Moreau River. Outfall #003 is associated with the east drainage area of the landfill. The drainage area for Outfall #003 includes storm water from an outer structural slope east of the active landfill. Prior to entering the tributary, storm water is directed to a sedimentation basin located east of the solid waste disposal area.

MDNR Form A

Application for Construction or Operating Permit

RECEIVED
MAR 27 2019
Water Protection Program

32091

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM

FORM A – APPLICATION FOR NONDOMESTIC PERMIT UNDER MISSOURI CLEAN WATER LAW

FOR AGENCY USE ONLY	
CHECK NUMBER	
DATE RECEIVED: 3-27-19	FEE SUBMITTED: 608

NOTE: PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM.

1. This application is for: (Select only one.)
- ☐ An operating permit for a new or unpermitted facility. Number of original construction permit: MO _____
- ☑ Renewal of an operating permit. Permit number: MO 0114375 Expiration date: October 31, 2019
- ☐ Modification of an operating permit. Permit number: MO _____ Modification reason: _____

1.1 Is the appropriate fee included with the application? (See instructions for appropriate fee.) ☐ Yes ☐ No

2. FACILITY

NAME	TELEPHONE NUMBER WITH AREA CODE		
Jefferson City Landfill, LLC	573-636-1140		
	EMAIL: cabbott@republicservices.com		
PHYSICAL ADDRESS (PHYSICAL): 5605 Moreau River Access Road	CITY: Jefferson City	STATE: MO	ZIP CODE: 65101

3. OWNER

NAME	TELEPHONE NUMBER WITH AREA CODE		
Jefferson City Landfill, LLC	573-636-1140		
	EMAIL: cabbott@republicservices.com		
MAILING ADDRESS: 5605 Moreau River Access Road	CITY: Jefferson City	STATE: MO	ZIP CODE: 65101

3.1 Do you want to review draft permit prior to public notice? ☑ Yes ☐ No

4. CONTINUING AUTHORITY

NAME	TELEPHONE NUMBER WITH AREA CODE		
Jefferson City Landfill, LLC	573-636-1140		
	EMAIL: cabbott@republicservices.com		
MAILING ADDRESS: 5605 Moreau River Access Road	CITY: Jefferson City	STATE: MO	ZIP CODE: 65101

5. OPERATOR

NAME	CERTIFICATE NUMBER	TELEPHONE NUMBER WITH AREA CODE	
Jefferson City Landfill, LLC	MO-0114375	573-636-1140	
	EMAIL: cabbott@republicservices.com		
MAILING ADDRESS: 5605 Moreau River Access Road	CITY: Jefferson City	STATE: MO	ZIP CODE: 65101

6. FACILITY CONTACT

NAME	TITLE	TELEPHONE NUMBER WITH AREA CODE
Craig Abbott	Environmental Manager	573-636-1140
	EMAIL: cabbott@republicservices.com	

7. ADDITIONAL FACILITY INFORMATION

7.1 Legal description of outfalls (Attach additional sheets, if necessary.)

001 NE ¼ SW ¼ Sec 23 T 44N R 11W Cole County
UTM Coordinates Easting (X): 578030 Northing (Y): 4266725

For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

002 ____ ¼ ____ ¼ Sec ____ T ____ R ____ ____ County
UTM Coordinates Easting (X): ____ Northing (Y): ____

003 NE ¼ SW ¼ Sec 23 T 44N R 11W Cole County
UTM Coordinates Easting (X): 578996 Northing (Y): 4266994

004 ____ ¼ ____ ¼ Sec ____ T ____ R ____ ____ County
UTM Coordinates Easting (X): ____ Northing (Y): ____

7.2 Primary standard industrial classification (SIC) and North American Industrial Classification System (NAICS) codes

001 – SIC 4953 and NAICS 562212 002 – SIC 4953 and NAICS 562212
003 – SIC 4953 and NAICS 562212 004 – SIC ____ and NAICS ____

8. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE APPLICATION (Complete all applicable forms.)

A.	Is your facility a manufacturing, commercial, mining or silviculture waste treatment facility? If yes, complete Form C or 2F. (2F is EPA's Application for Storm Water Discharges Associated with Industrial Activity.)	Yes ☑	No ☐
B.	Is application for stormwater discharges only? If yes, complete Form C or 2F.	Yes ☑	No ☐
C.	Is your facility considered a "primary industry" under EPA guidelines: If yes, complete Forms C or 2F and D.	Yes ☑	No ☐
D.	Is wastewater land-applied? If yes, complete Form I.	Yes ☐	No ☑
E.	Are biosolids, sludge, ash or residuals generated, treated, stored or land-applied? If yes, complete Form R.	Yes ☐	No ☑
F.	If you are a Class IA CAFO, disregard Parts D and E, above, but attach any revisions to the nutrient management plan.		
G.	Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale.		

9. ELECTRONIC DISCHARGE MONITORING REPORT (eDMR) SUBMISSION SYSTEM

Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, permittee shall report effluent limits and monitoring via an electronic system to ensure timely, complete, accurate and nationally consistent data.
Check one of the following for this application to be considered complete. (Check only one.)
To access the facility participation package, visit dnr.mo.gov/env/wpp/edmr.htm.

☐ You completed and submitted with this permit application the required documentation to participate in the eDMR system.

☑ You previously submitted required documentation to participate in the eDMR system and/or you currently use the eDMR system.

☐ You submitted a written request for a waiver from electronic reporting. See instructions for information regarding waivers.

9. DOWNSTREAM LANDOWNER(S) Attach additional sheets as necessary. See Instructions.
PLEASE SHOW LOCATION ON MAP. SEE 8(D) ABOVE.

NAME			
James and Anna Knaebel			
ADDRESS	**CITY**	**STATE**	**ZIP CODE**
5901 Algoa Road	Jefferson City	MO	65101

11. I certify that I am familiar with the information contained in this application. To the best of my knowledge and belief, such information is true, complete and accurate. If granted this permit, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders and decisions subject to any legitimate appeal to the Missouri Clean Water Commission available to the applicant under the Missouri Clean Water Law.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE NUMBER WITH AREA CODE
Craig Abbott, Environmental Manager	573-636-1140
SIGNATURE	**DATE SIGNED**
Craig Abbott	3/15/19

MO 780-1470 (04-18)

BEFORE MAILING, PLEASE ENSURE ALL SECTIONS ARE COMPLETE.
ALSO INCLUDE APPLICABLE ADDITIONAL FORMS.
Submitting an incomplete application may result in the application being returned.

HAVE YOU INCLUDED THE FOLLOWING?

- ☐ Appropriate fees
- ☑ Map at 1" = 2000' scale
- ☑ Signature
- ☑ Form C or 2F, if applicable
- ☑ Form D, if applicable
- ☐ Form I (Irrigation), if applicable
- ☐ Form R (Sludge), if applicable
- ☐ Revised nutrient management plan, if applicable

MDNR Form C

Application for Discharge Permit – Manufacturing, Commercial, Mining, Silviculture Operations, Process and Storm Water

Completed for Outfalls #001 & #003

Outfall #001

RECEIVED
MAR 2 7 2019
Water Protection Program

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH

FORM C – APPLICATION FOR DISCHARGE PERMIT MANUFACTURING, COMMERCIAL, MINING, SILVICULTURE OPERATIONS, PROCESS AND STORMWATER

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

NOTE: DO NOT ATTEMPT TO COMPLETE THIS FORM BEFORE READING THE ACCOMPANYING INSTRUCTIONS

1.00 NAME OF FACILITY

Jefferson City Landfill, LLC

1.10 THIS FACILITY IS NOW IN OPERATION UNDER MISSOURI OPERATING PERMIT NUMBER

MO-0114375

1.20 THIS IS A NEW FACILITY AND WAS CONSTRUCTED UNDER MISSOURI CONSTRUCTION PERMIT NUMBER (COMPLETE ONLY IF THIS FACILITY DOES NOT HAVE AN OPERATING PERMIT).

2.00 LIST THE STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES APPLICABLE TO YOUR FACILITY (FOUR DIGIT CODE)

A. FIRST 4953 B. SECOND _____

C. THIRD _____ D. FOURTH _____

2.10 FOR EACH OUTFALL GIVE THE LEGAL DESCRIPTION.

OUTFALL NUMBER (LIST) NE 1/4 SW 1/4 SEC 23 T 44N R 11W Cole COUNTY

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

OUTFALL NUMBER (LIST)	RECEIVING WATER
001	Moreau River

2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS

Solid Waste Landfill

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

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

1. OUTFALL NO.	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
(LIST)	A. OPERATION (LIST)	B. AVERAGE FLOW (INCLUDE UNITS) (MAXIMUM FLOW)	A. DESCRIPTION	B. LIST CODES FROM TABLE A
001	Storm Water Runoff	(5.6 MGD)	Sedimentation	1-U

2.40 CONTINUED

C. EXCEPT FOR STORM RUNOFF, LEAKS OR SPILLS, ARE ANY OF THE DISCHARGES DESCRIBED IN ITEMS A OR B INTERMITTENT OR SEASONAL?

☐ YES *(COMPLETE THE FOLLOWING TABLE)* ☑ NO *(GO TO SECTION 2.50)*

1. OUTFALL NUMBER *(list)*	2. OPERATION(S) CONTRIBUTING FLOW *(list)*	3. FREQUENCY		4. FLOW				C. DURATION *(in days)*
				A. FLOW RATE *(in mgd)*		B. TOTAL VOLUME (specify with units)		
		A. DAYS PER WEEK *(specify average)*	B. MONTHS PER YEAR *(specify average)*	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	4. LONG TERM DAILY	3. MAXIMUM AVERAGE	

2.50 MAXIMUM PRODUCTION

A. DOES AN EFFLUENT GUIDELINE LIMITATION PROMULGATED BY EPA UNDER SECTION 304 OF THE CLEAN WATER ACT APPLY TO YOUR FACILITY?

☐ YES *(COMPLETE B.)* ☑ NO *(GO TO SECTION 2.60)*

B. ARE THE LIMITATIONS IN THE APPLICABLE EFFLUENT GUIDELINES EXPRESSED IN TERMS OF PRODUCTION (OF OTHER MEASURE OF OPERATION)?

☐ YES *(COMPLETE c.)* ☑ NO *(GO TO SECTION 2.60)*

C. IF YOU ANSWERED "YES" TO B. LIST THE QUANTITY THAT REPRESENTS AN ACTUAL MEASUREMENT OF YOUR MAXIMUM LEVEL OF PRODUCTION, EXPRESSED IN THE TERMS AND UNITS USED IN THE APPLICABLE EFFLUENT GUIDELINE AND INDICATE THE AFFECTED OUTFALLS.

1. MAXIMUM QUANTITY			2. AFFECTED OUTFALLS *(list outfall numbers)*
A. QUANTITY PER DAY	B. UNITS OF MEASURE	C. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)*	

2.60 IMPROVEMENTS

A. ARE YOU NOW REQUIRED BY ANY FEDERAL, STATE OR LOCAL AUTHORITY TO MEET, ANY IMPLEMENTATION SCHEDULE FOR THE CONSTRUCTION, UPGRADING OR OPERATION OF WASTEWATER TREATMENT EQUIPMENT OR PRACTICES OR ANY OTHER ENVIRONMENTAL PROGRAMS THAT MAY AFFECT THE DISCHARGES DESCRIBED IN THIS APPLICATION? THIS INCLUDES, BUT IS NOT LIMITED TO, PERMIT CONDITIONS, ADMINISTRATIVE OR ENFORCEMENT ORDERS, ENFORCEMENT COMPLIANCE SCHEDULE LETTERS, STIPULATIONS, COURT ORDERS AND GRANT OR LOAN CONDITIONS.

☐ YES *(COMPLETE THE FOLLOWING TABLE)* ☑ NO *(GO TO 3.00)*

1. IDENTIFICATION OF CONDITION AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
				A. REQUIRED	B. PROJECTED

B. OPTIONAL: YOU MAY ATTACH ADDITIONAL SHEETS DESCRIBING ANY ADDITIONAL WATER POLLUTION CONTROL PROGRAMS *(OR OTHER ENVIRONMENTAL PROJECTS WHICH MAY AFFECT YOUR DISCHARGES)* YOU NOW HAVE UNDER WAY OR WHICH YOU PLAN. INDICATE WHETHER EACH PROGRAM IS NOW UNDER WAY OR PLANNED, AND INDICATE YOUR ACTUAL OR PLANNED SCHEDULES FOR CONSTRUCTION.

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

3.00 INTAKE AND EFFLUENT CHARACTERISTICS

A. & B. SEE INSTRUCTIONS BEFORE PROCEEDING – COMPLETE ONE TABLE FOR EACH OUTFALL – ANNOTATE THE OUTFALL NUMBER IN THE SPACE PROVIDED.
NOTE: TABLE 1 IS INCLUDED ON SEPARATE SHEETS NUMBERED FROM PAGE 6 TO PAGE 7.

C. USE THE SPACE BELOW TO LIST ANY OF THE POLLUTANTS LISTED IN PART B OF THE INSTRUCTIONS, WHICH YOU KNOW OR HAVE REASON TO BELIEVE IS DISCHARGED OR MAY BE DISCHARGED FROM ANY OUTFALL. FOR EVERY POLLUTANT YOU LIST, BRIEFLY DESCRIBE THE REASONS YOU BELIEVE IT TO BE PRESENT AND REPORT ANY ANALYTICAL DATA IN YOUR POSSESSION.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE

3.10 BIOLOGICAL TOXICITY TESTING DATA

DO YOU HAVE ANY KNOWLEDGE OR REASON TO BELIEVE THAT ANY BIOLOGICAL TEST FOR ACUTE OR CHRONIC TOXICITY HAS BEEN MADE ON ANY OF YOUR DISCHARGES OR ON RECEIVING WATER IN RELATION TO YOUR DISCHARGE WITHIN THE LAST THREE YEARS?

☐ YES (IDENTIFY THE TEST(S) AND DESCRIBE THEIR PURPOSES BELOW.) ☑ NO (GO TO 3.20)

3.20 CONTRACT ANALYSIS INFORMATION

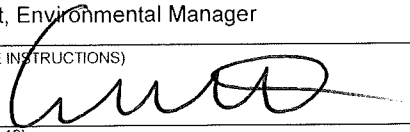
WERE ANY OF THE ANALYSES REPORTED PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

☑ YES (*LIST THE NAME, ADDRESS AND TELEPHONE NUMBER OF AND POLLUTANTS ANALYZED BY EACH SUCH LABORATORY OR FIRM BELOW.*) ☐ NO (*GO TO 3.30*)

A. NAME	B. ADDRESS	C. TELEPHONE *(area code and number)*	D. POLLUTANTS ANALYZED *(list)*
Pace Laboratories	7901 W. Morris St. Indianapolis, IN 46231	(317) 243-8304	BOD, pH, Settleable Solids, COD, Suspended Solids, Ammonia, Nitrogen, Chloride, Sulfate, Fluoride, Benzene, Ethylbenzene, Toluene, Xylene, Oil and Grease, Hardness, Sb, As, Be, Ba, B, Cd, Cr(III), Cr(VI), Co, Cu, Fe, Pb, Hg, Ni, Se, Ag, Tl, and Zn.

3.30 CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS APPLICATION AND ALL ATTACHMENTS AND THAT, BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE NUMBER WITH AREA CODE
Craig Abbott, Environmental Manager	(573) 636-1140
SIGNATURE (SEE INSTRUCTIONS)	DATE SIGNED
	3/15/19

PLEASE PRINT OR TYPE. You may report some or all of this information on separate sheet *(Use the same format)* instead of completing these pages.
SEE INSTRUCTIONS

FORM C
TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS

OUTFALL NO. 001

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

1. POLLUTANT	2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE *(if available)*		C. LONG TERM AVRG. VALUE *(if available)*		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
A. Biochemical Oxygen Demand (BOD)	N/A											
B. Chemical Oxygen Demand (COD)	22	0.14					6	mg/L	lb/day			
C. Total organic Carbon (TOC)	N/A											
D. Total Suspended Solids (TSS)	34	0.23					6	mg/L	lb/day			
E. Ammonia *(as N)*	<0.10						6	mg/L				
F. Flow	VALUE 4.01 MGD		VALUE		VALUE					VALUE		
G. Temperature *(winter)*	VALUE 5.3		VALUE		VALUE			°C		VALUE		
H. Temperature *(summer)*	VALUE 34.1		VALUE		VALUE			°C		VALUE		
I. pH	MINIMUM 7.94	MAXIMUM 8.2	MINIMUM 7.94	MAXIMUM 8.2				STANDARD UNITS				

PART B – Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark column 2A for any pollutant, you must provide the results for at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE *(if available)*		C. LONG TERM AVRG. VALUE *(if available)*		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
CONVENTIONAL AND NONCONVENTIONAL POLLUTANTS														
A. Bromide (24959-67-9)		X												
B. Chlorine, Total Residual		X												
C. Color		X												
D. Fecal Coliform		X												
E. Fluoride (16984-48-8)	X		0.2	0.12					6	mg/L	lb/day			
F. Nitrate - Nitrate *(as N)*	X		0.22	0.13					6	mg/L	lb/day			

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE *(if available)*		C. LONG TERM AVRG. VALUE *(if available)*		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
G. Nitrogen, Total Organic *(as N)*		X												
H. Oil and Grease	X		<5						6	mg/L				
I. Phosphorus *(as P)*, Total (7723-14-0)		X												
J. Sulfate *(as SO^4)* (14808-79-8)	X		22.1	13.09					6	mg/L	lb/day			
K. Sulfide *(as S)*		X												
L. Sulfite (as SO^3) (14265-45-3)		X												
M. Surfactants		X												
N. Aluminum, Total (7429-90-5)		X												
O. Barium, Total (7440-39-3)	X		122						3	ug/L (TR)				
P. Boron, Total (7440-42-8)		X	<100						3	ug/L (TR)				
Q. Cobalt, Total (7440-48-4)		X												
R. Iron, Total (7439-89-6)	X		1.36	0.8					7	ug/L (TR)	lb/day			
S. Magnesium, Total (7439-95-4)		X												
T. Molybdenum, Total (7439-98-7)		X												
U. Manganese, Total (7439-96-5)		X	167	N/A					3	ug/L (TR)				
V. Tin, Total (7440-31-5)		X												
W. Titanium, Total (7440-32-6)		X												

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE *(if available)*		C. LONG TERM AVRG. VALUE *(if available)*		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, AND TOTAL PHENOLS														
1M. Antimony, Total (7440-36-9)		X	<10						3	ug/L (TR)				
2M. Arsenic, Total (7440-38-2)		X	<10						3	ug/L (TR)				
3M. Beryllium, Total (7440-41-7)		X	<1						6	ug/L (TR)				
4M. Cadmium, Total (7440-43-9)		X	<5						6	ug/L (TR)				
5M. Chromium III (16065-83-1)		X	<5						3	ug/L (TR)				
6M. Chromium VI (18540-29-9)		X	<10						6	ug/L				
7M. Copper, Total (7440-50-8)		X	<10						6	ug/L (TR)				
8M. Lead, Total (7439-92-1)		X	<5						3	ug/L (TR)				
9M. Mercury, Total (7439-97-6)		X	<0.2						6	ug/L (TR)				
10M. Nickel, Total (7440-02-0)		X	<5						3	ug/L (TR)				
11M. Selenium, Total (7782-49-2)		X	<1						6	ug/L (TR)				
12M. Silver, Total (7440-22-4)		X	<0.5						6	ug/L (TR)				
13M. Thallium, Total (7440-28-0)		X	<1						6	ug/L (TR)				
14M. Zinc, Total (7440-66-6)		X	<50						6	ug/L (TR)				
15M. Cyanide, Amenable to Chlorination		X												
16M. Phenols, Total		X												
RADIOACTIVITY														
(1) Alpha Total		X												
(2) Beta Total		X												
(3) Radium Total		X												
(4) Radium 226 Total		X												

Outfall #003

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH

FORM C – APPLICATION FOR DISCHARGE PERMIT – MANUFACTURING, COMMERCIAL, MINING, SILVICULTURE OPERATIONS, PROCESS AND STORMWATER

RECEIVED
MAR 27 2019
Water Protection Program

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

NOTE: DO NOT ATTEMPT TO COMPLETE THIS FORM BEFORE READING THE ACCOMPANYING INSTRUCTIONS

1.00 NAME OF FACILITY

Jefferson City Landfill, LLC

1.10 THIS FACILITY IS NOW IN OPERATION UNDER MISSOURI OPERATING PERMIT NUMBER

MO-0114375

1.20 THIS IS A NEW FACILITY AND WAS CONSTRUCTED UNDER MISSOURI CONSTRUCTION PERMIT NUMBER (COMPLETE ONLY IF THIS FACILITY DOES NOT HAVE AN OPERATING PERMIT).

2.00 LIST THE STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES APPLICABLE TO YOUR FACILITY (FOUR DIGIT CODE)

A. FIRST 4953 B. SECOND _____

C. THIRD _____ D. FOURTH _____

2.10 FOR EACH OUTFALL GIVE THE LEGAL DESCRIPTION.

OUTFALL NUMBER (LIST) NE 1/4 SW 1/4 SEC 23 T 44N R 11W Cole COUNTY

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

OUTFALL NUMBER (LIST)	RECEIVING WATER
003	Moreau River

2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS

Solid Waste Landfill

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

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

1. OUTFALL NO.	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
(LIST)	A. OPERATION (LIST)	B. AVERAGE FLOW (INCLUDE UNITS) (MAXIMUM FLOW)	A. DESCRIPTION	B. LIST CODES FROM TABLE A
003	Storm Water Runoff	(2.2 MGD)	Sedimentation	1-U

2.40 CONTINUED

C. EXCEPT FOR STORM RUNOFF, LEAKS OR SPILLS, ARE ANY OF THE DISCHARGES DESCRIBED IN ITEMS A OR B INTERMITTENT OR SEASONAL?

☐ YES *(COMPLETE THE FOLLOWING TABLE)* ☑ NO *(GO TO SECTION 2.50)*

1. OUTFALL NUMBER *(list)*	2. OPERATION(S) CONTRIBUTING FLOW *(list)*	3. FREQUENCY		4. FLOW				C. DURATION *(in days)*
				A. FLOW RATE *(in mgd)*		B. TOTAL VOLUME (specify with units)		
		A. DAYS PER WEEK *(specify average)*	B. MONTHS PER YEAR *(specify average)*	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	4. LONG TERM DAILY	3. MAXIMUM AVERAGE	

2.50 MAXIMUM PRODUCTION

A. DOES AN EFFLUENT GUIDELINE LIMITATION PROMULGATED BY EPA UNDER SECTION 304 OF THE CLEAN WATER ACT APPLY TO YOUR FACILITY?

☐ YES *(COMPLETE B.)* ☑ NO *(GO TO SECTION 2.60)*

B. ARE THE LIMITATIONS IN THE APPLICABLE EFFLUENT GUIDELINES EXPRESSED IN TERMS OF PRODUCTION (OF OTHER MEASURE OF OPERATION)?

☐ YES *(COMPLETE c.)* ☑ NO *(GO TO SECTION 2.60)*

C. IF YOU ANSWERED "YES" TO B. LIST THE QUANTITY THAT REPRESENTS AN ACTUAL MEASUREMENT OF YOUR MAXIMUM LEVEL OF PRODUCTION, EXPRESSED IN THE TERMS AND UNITS USED IN THE APPLICABLE EFFLUENT GUIDELINE AND INDICATE THE AFFECTED OUTFALLS.

1. MAXIMUM QUANTITY			2. AFFECTED OUTFALLS *(list outfall numbers)*
A. QUANTITY PER DAY	B. UNITS OF MEASURE	C. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)*	

2.60 IMPROVEMENTS

A. ARE YOU NOW REQUIRED BY ANY FEDERAL, STATE OR LOCAL AUTHORITY TO MEET, ANY IMPLEMENTATION SCHEDULE FOR THE CONSTRUCTION, UPGRADING OR OPERATION OF WASTEWATER TREATMENT EQUIPMENT OR PRACTICES OR ANY OTHER ENVIRONMENTAL PROGRAMS THAT MAY AFFECT THE DISCHARGES DESCRIBED IN THIS APPLICATION? THIS INCLUDES, BUT IS NOT LIMITED TO, PERMIT CONDITIONS, ADMINISTRATIVE OR ENFORCEMENT ORDERS, ENFORCEMENT COMPLIANCE SCHEDULE LETTERS, STIPULATIONS, COURT ORDERS AND GRANT OR LOAN CONDITIONS.

☐ YES *(COMPLETE THE FOLLOWING TABLE)* ☑ NO *(GO TO 3.00)*

1. IDENTIFICATION OF CONDITION AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
				A. REQUIRED	B. PROJECTED

B. OPTIONAL: YOU MAY ATTACH ADDITIONAL SHEETS DESCRIBING ANY ADDITIONAL WATER POLLUTION CONTROL PROGRAMS *(OR OTHER ENVIRONMENTAL PROJECTS WHICH MAY AFFECT YOUR DISCHARGES)* YOU NOW HAVE UNDER WAY OR WHICH YOU PLAN. INDICATE WHETHER EACH PROGRAM IS NOW UNDER WAY OR PLANNED, AND INDICATE YOUR ACTUAL OR PLANNED SCHEDULES FOR CONSTRUCTION.

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

3.00 INTAKE AND EFFLUENT CHARACTERISTICS

A. & B. SEE INSTRUCTIONS BEFORE PROCEEDING – COMPLETE ONE TABLE FOR EACH OUTFALL – ANNOTATE THE OUTFALL NUMBER IN THE SPACE PROVIDED.
NOTE: TABLE 1 IS INCLUDED ON SEPARATE SHEETS NUMBERED FROM PAGE 6 TO PAGE 7.

C. USE THE SPACE BELOW TO LIST ANY OF THE POLLUTANTS LISTED IN PART B OF THE INSTRUCTIONS, WHICH YOU KNOW OR HAVE REASON TO BELIEVE IS DISCHARGED OR MAY BE DISCHARGED FROM ANY OUTFALL. FOR EVERY POLLUTANT YOU LIST, BRIEFLY DESCRIBE THE REASONS YOU BELIEVE IT TO BE PRESENT AND REPORT ANY ANALYTICAL DATA IN YOUR POSSESSION.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE

3.10 BIOLOGICAL TOXICITY TESTING DATA

DO YOU HAVE ANY KNOWLEDGE OR REASON TO BELIEVE THAT ANY BIOLOGICAL TEST FOR ACUTE OR CHRONIC TOXICITY HAS BEEN MADE ON ANY OF YOUR DISCHARGES OR ON RECEIVING WATER IN RELATION TO YOUR DISCHARGE WITHIN THE LAST THREE YEARS?

☐ YES (IDENTIFY THE TEST(S) AND DESCRIBE THEIR PURPOSES BELOW.) ☑ NO (GO TO 3.20)

3.20 CONTRACT ANALYSIS INFORMATION

WERE ANY OF THE ANALYSES REPORTED PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

☑ YES (*LIST THE NAME, ADDRESS AND TELEPHONE NUMBER OF AND POLLUTANTS ANALYZED BY EACH SUCH LABORATORY OR FIRM BELOW.*) ☐ NO (*GO TO 3.30*)

A. NAME	B. ADDRESS	C. TELEPHONE *(area code and number)*	D. POLLUTANTS ANALYZED *(list)*
Pace Laboratories	7901 W. Morris St. Indianapolis, IN 46231	(317) 243-8304	BOD, pH, Settleable Solids, COD, Suspended Solids, Ammonia, Nitrogen, Chloride, Sulfate, Fluoride, Benzene, Ethylbenzene, Toluene, Xylene, Oil and Grease, Hardness, Sb, As, Be, Ba, B, Cd, Cr(III), Cr(VI), Co, Cu, Fe, Pb, Hg, Ni, Se, Ag, Tl, and Zn.

3.30 CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS APPLICATION AND ALL ATTACHMENTS AND THAT, BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE NUMBER WITH AREA CODE
Craig Abbott, Environmental Manager	(573) 636-1140
SIGNATURE (SEE INSTRUCTIONS)	DATE SIGNED
	3-15-19

PLEASE PRINT OR TYPE. You may report some or all of this information on separate sheet *(Use the same format)* instead of completing these pages.
SEE INSTRUCTIONS

FORM C
TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS

OUTFALL NO. 003

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

1. POLLUTANT	2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE *(if available)*		C. LONG TERM AVRG. VALUE *(if available)*		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
A. Biochemical Oxygen Demand (BOD)	N/A											
B. Chemical Oxygen Demand (COD)	49.1	29.09					6	mg/L	lb/day			
C. Total organic Carbon (TOC)	N/A											
D. Total Suspended Solids (TSS)	39.6	0.04					6	mg/L	lb/day			
E. Ammonia *(as N)*	<0.10						6	mg/L	lb/day			
F. Flow	VALUE 1.01 MGD		VALUE		VALUE					VALUE		
G. Temperature *(winter)*	VALUE 5.3		VALUE		VALUE			°C		VALUE		
H. Temperature *(summer)*	VALUE 34.1		VALUE		VALUE			°C		VALUE		
I. pH	MINIMUM 7.6	MAXIMUM 8.8	MINIMUM 7.6	MAXIMUM 8.8				STANDARD UNITS				

PART B – Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark column 2A for any pollutant, you must provide the results for at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE *(if available)*		C. LONG TERM AVRG. VALUE *(if available)*		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
CONVENTIONAL AND NONCONVENTIONAL POLLUTANTS														
A. Bromide (24959-67-9)		X												
B. Chlorine, Total Residual		X												
C. Color		X												
D. Fecal Coliform		X												
E. Fluoride (16984-48-8)	X		0.53	0.006					6	mg/L	lb/day			
F. Nitrate - Nitrate *(as N)*		X												

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE *(if available)*		C. LONG TERM AVRG. VALUE *(if available)*		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
G. Nitrogen, Total Organic *(as N)*		X												
H. Oil and Grease		X	<5						6	mg/L				
I. Phosphorus *(as P)*, Total (7723-14-0)		X												
J. Sulfate *(as SO^4)* (14808-79-8)	X		24.9	0.038					6	mg/L	lb/day			
K. Sulfide *(as S)*		X												
L. Sulfite (as SO^3) (14265-45-3)		X												
M. Surfactants		X												
N. Aluminum, Total (7429-90-5)		X												
O. Barium, Total (7440-39-3)	X		123	N/A					2	ug/L (TR)				
P. Boron, Total (7440-42-8)		X	<100						2	ug/L (TR)				
Q. Cobalt, Total (7440-48-4)		X												
R. Iron, Total (7439-89-6)	X		766	0.0008					6	ug/L (TR)	lb/day			
S. Magnesium, Total (7439-95-4)		X												
T. Molybdenum, Total (7439-98-7)		X												
U. Manganese, Total (7439-96-5)	X		222	N/A					2	ug/L (TR)				
V. Tin, Total (7440-31-5)		X												
W. Titanium, Total (7440-32-6)		X												

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE *(if available)*		C. LONG TERM AVRG. VALUE *(if available)*		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, AND TOTAL PHENOLS														
1M. Antimony, Total (7440-36-9)		X	<10						2	ug/L (TR)				
2M. Arsenic, Total (7440-38-2)		X	<10						2	ug/L (TR)				
3M. Beryllium, Total (7440-41-7)		X	<1						6	ug/L (TR)				
4M. Cadmium, Total (7440-43-9)		X	<5						6	ug/L (TR)				
5M. Chromium III (16065-83-1)		X	<5						2	ug/L (TR)				
6M. Chromium VI (18540-29-9)		X	<10						6	ug/L				
7M. Copper, Total (7440-50-8)		X	<10						6	ug/L (TR)				
8M. Lead, Total (7439-92-1)		X	<5						2	ug/L (TR)				
9M. Mercury, Total (7439-97-6)		X	<0.2						6	ug/L (TR)				
10M. Nickel, Total (7440-02-0)		X	<5						2	ug/L (TR)				
11M. Selenium, Total (7782-49-2)		X	<1						6	ug/L (TR)				
12M. Silver, Total (7440-22-4)		X	<0.5						6	ug/L (TR)				
13M. Thallium, Total (7440-28-0)		X	<1						6	ug/L (TR)				
14M. Zinc, Total (7440-66-6)		X	<50						6	ug/L (TR)				
15M. Cyanide, Amenable to Chlorination		X												
16M. Phenols, Total		X												
RADIOACTIVITY														
(1) Alpha Total		X												
(2) Beta Total		X												
(3) Radium Total		X												
(4) Radium 226 Total		X												

MDNR Form D
Application for Discharge Permit – Primary Industries
Completed for Outfalls #001 & #003

Outfall #001

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH

FORM D – APPLICATION FOR DISCHARGE PERMIT – PRIMARY INDUSTRIES

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

NOTE: DO NOT ATTEMPT TO COMPLETE THIS FORM BEFORE READING THE ACCOMPANYING INSTRUCTIONS

1.00 NAME OF FACILITY
Jefferson City Landfill, LLC

1.10 THIS FACILITY IS NOW IN OPERATION UNDER MISSOURI OPERATING PERMIT NUMBER
MO - 0114375

This form is to be filled out in addition to forms A and C "Application for Discharge Permit" for the Industries listed below:

INDUSTRY CATEGORY

Adhesives and sealants
Aluminum forming
Auto and other laundries
Battery manufacturing
Coal mining
Coil coating
Copper forming
Electric and electronic compounds
Electroplating
Explosives manufacturing
Foundries
Gum and wood chemicals
Inorganic chemicals manufacturing
Iron and steel manufacturing
Leather tanning and finishing
Landfill
Mechanical products manufacturing
Nonferrous metals manufacturing
Ore mining
Organic chemicals manufacturing
Paint and ink formulation
Pesticides
Petroleum refining
Pharmaceutical preparations
Photographic equipment and supplies
Plastic and synthetic materials manufacturing
Plastic processing
Porcelain enameling
Printing and publishing
Pulp and paperboard mills
Rubber processing
Soap and detergent manufacturing
Steam electric power plants
Textile mills
Timber products processing

APPLICATION FOR DISCHARGE PERMIT
FORM D – PRIMARY INDUSTRIES

TABLE II

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
MO-0114375	001

1.30 If you are a primary industry and this outfall contains process wastewater, refer to Table A in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-A for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. Mark "X" in column 2-B for each pollutant you know or have reason to believe is present. Mark "X" in column 2-C for each pollutant you believe to be absent. If you mark either columns 2-A or 2-B for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part, please review each carefully. Complete one table (*all seven pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TEST-ING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-9)	—	☐	☑	<10 (TR)						6	ug/L				
2M. Arsenic, Total (7440-38-2)	—	☐	☑	<10 (TR)						3	ug/L				
3M. Beryllium, Total (7440-41-7)	—	☐	☑	<1 (TR)						6	ug/L				
4M. Cadmium, Total (7440-43-9)	—	☐	☑	<5 (TR)						6	ug/L				
5M. Chromium III (16065-83-1)	—	☐	☑	<5 (TR)						3	ug/L				
6M. Chromium VI (18540-29-9)	—	☐	☑	<10						6	ug/L				
7M. Copper, Total (7440-50-8)	—	☐	☑	<10 (TR)						6	ug/L				
8M. Lead, Total (7439-92-1)	—	☐	☑	<5 (TR)						3	ug/L				
9M. Magnesium Total (7439-95-4)	—	☐	☑												
10M. Mercury, Total (7439-97-6)	—	☐	☑	<0.2 (TR)						6	ug/L				
11M. Molybdenum Total (7439-98-7)	—	☐	☑												
12M. Nickel, Total (7440-02-0)	—	☐	☑	<5 (TR)						6	ug/L				
13M. Selenium, Total (7782-49-2)	—	☐	☑	<1 (TR)						6	ug/L				
14M. Silver, Total (7440-22-4)	—	☐	☑	<0.5 (TR)						6	ug/L				
15M. Thallium, Total (7440-28-0)	—	☐	☑	<1 (TR)						6	ug/L				
16M. Tin Total (7440-31-5)	—	☐	☑												
17M. Titanium Total (7440-32-6)	—	☐	☑												
18M. Zinc, Total (7440-66-6)	—	☐	☑	<50 (TR)						6	ug/L				

CONTINUED FROM PAGE 3

19M. Cyanide, Amenable to Chlorination	☐	☐	☑												
20M. Phenols, Total	☐	☐	☑												
DIOXIN															
2,3,7,8 – Tetra – chlorodibenzo-P-Dioxin (1764-01-6)	☐	☐	☑	**DESCRIBE RESULTS**											

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE *(if available)*		C. LONG TERM AVRG. VALUE *(if available)*		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)	☐	☐	☑												
2V. Acrylonitrile (107-13-1)	☐	☐	☑												
3V. Benzene (71-43-2)	☐	☐	☑	<1						6	ug/ml				
4V. Bis (*Chloromethyl*) Ether (542-88-1)	☐	☐	☑												
5V. Bromoform (75-25-2)	☐	☐	☑												
6V. Carbon Tetrachloride (56-23-5)	☐	☐	☑												
7V. Chlorobenzene (108-90-7)	☐	☐	☑												
8V. Chlorodibromomethane (124-48-1)	☐	☐	☑												
9V. Chloroethane (75-00-3)	☐	☐	☑												
10V. 2-Chloroethylvinyl Ether (110-75-8)	☐	☐	☑												
11V. Chloroform (67-66-3)	☐	☐	☑												
12V. Dichlorobromomethane (75-27-4)	☐	☐	☑												
13V. Dichloro-difluoromethane (75-71-8)	☐	☐	☑												
14V. 1,1 – Dichloroethane (75-34-3)	☐	☐	☑												
15V. 1,2 – Dichloroethane (107-06-2)	☐	☐	☑												
16V. 1,1 – Dichloroethylene (75-35-4)	☐	☐	☑												
17V. 1,3 – Dichloropropane (78-87-5)	☐	☐	☑												
18V. 1,2 –Dichloropropylene (542-75-6)	☐	☐	☑												
19V. Ethylbenzene (100-41-4)	☐	☐	☑	<1						6	ug/ml				
20V. Methyl Bromide (74-83-9)	☐	☐	☑												
21V. Methyl Chloride (74-87-3)	☐	☐	☑												

CONTINUE ON PAGE 4

NPDES # (IF ASSIGNED)	OUTFALL NUMBER
MO-0114375	001

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC.MS FRACTION – VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)	☐	☐	☑												
23V. 1,1,2,2 – Tetra-chloroethane (79-34-5)	☐	☐	☑												
24V. Tetrachloroethylene (127-18-4)	☐	☐	☑												
25V. Toluene (108-88-3)	☐	☐	☑	<1						6	ug/ml				
26V. 1,2 – Trans Dichloroethylene (156-60-5)	☐	☐	☑												
27V. 1,1,1 – Tri – chloroethane (71-55-6)	☐	☐	☑												
28V. 1,1,2 – Tri-chloroethane (79-00-5)	☐	☐	☑												
29V. Trichloro – ethylene (79-01-6)	☐	☐	☑												
30V. Trichloro – fluoromethane (75-69-4)	☐	☐	☑												
31V. Vinyl Chloride (75-01-4)	☐	☐	☑												
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2 – Chlorophenol (95-57-8)	☐	☐	☑												
2A. 2,4 – Dichloro – phenol (120-83-2)	☐	☐	☑												
3A. 2,4 – Dimethyl – phenol (105-67-9)	☐	☐	☑												
4A. 4,6 – Dinitro - O-Cresol (534-52-1)	☐	☐	☑												
5A. 2,4 – Dinitro – phenol (51-28-5)	☐	☐	☑												
6A. 2-Nitrophenol (88-75-5)	☐	☐	☑												
7A. 4-Nitrophenol (100-02-7)	☐	☐	☑												
8A. P – Chloro – M Cresol (59-50-7)	☐	☐	☑												
9A. Pentachloro – phenol (87-86-5)	☐	☐	☑												
10A. Phenol (108-952)	☐	☐	☑												
11A. 2,4,6 – Trichloro-phenol (88-06-2)	☐	☐	☑												
12A. 2 - methyl – 4,6 dinitrophenol (534-52-1)	☐	☐	☑												

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	☐	☐	☑												
2B. Acenaphtylene (208-96-8)	☐	☐	☑												
3B. Anthracene (120-12-7)	☐	☐	☑												
4B. Benzidine (92-87-5)	☐	☐	☑												
5B. Benzo (a) Anthracene (56-55-3)	☐	☐	☑												
6B. Benzo (a) Pyrene (50-32-8)	☐	☐	☑												
7B. 3,4 – Benzofluoranthene (205-99-2)	☐	☐	☑												
8B. Benzo (ghi) Perylene (191-24-2)	☐	☐	☑												
9B. Benzo (k) Fluoranthene (207-08-9)	☐	☐	☑												
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	☐	☐	☑												
11B. Bis (2-Chloroethyl) Ether (111-44-4)	☐	☐	☑												
12B. Bis (2-Chloroisopropyl) Ether (39638-32-9)	☐	☐	☑												
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	☐	☐	☑												
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	☐	☐	☑												
15B. Butyl Benzyl Phthalate (85-68-7)	☐	☐	☑												
16B. 2-Chloronaphthalene (91-58-7)	☐	☐	☑												
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	☐	☐	☑												
18B. Chrysene (218-01-9)	☐	☐	☑												
19B. Dibenzo (a.h) Anthracene (53-70-3)	☐	☐	☑												
20B. 1,2 – Dichlorobenzene (95-50-1)	☐	☐	☑												
21B. 1,3 – Dichlorobenzene (541-73-1)	☐	☐	☑												

CONTINUED FROM PAGE 5

NPDES # (IF ASSIGNED)	OUTFALL NUMBER
MO-0114375	001

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1, 4-Dichlorobenzene (106-46-7)	☐	☐	☑												
23B. 3, 3'-Dichlorobenzidine (91-94-1)	☐	☐	☑												
24B. Diethyl Phthalate (84-66-2)	☐	☐	☑												
25B. Dimethyl Phthalate (131-11-3)	☐	☐	☑												
26B. Di-N-butyl Phthalate (84-74-2)	☐	☐	☑												
27B. 2,4-Dinitrotoluene (121-14-2)	☐	☐	☑												
28B. 2,6-Dinitrotoluene (606-20-2)	☐	☐	☑												
29B. Di-N-Octyphthalate (117-84-0)	☐	☐	☑												
30B. 1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)	☐	☐	☑												
31B. Fluoranthene (206-44-0)	☐	☐	☑												
32B. Fluorene (86-73-7)	☐	☐	☑												
33B. Hexachlorobenzene (87-68-3)	☐	☐	☑												
34B. Hexachlorobutadiene (87-68-3)	☐	☐	☑												
35B. Hexachloro-cyclopentadiene (77-47-4)	☐	☐	☑												
36B. Hexachloroethane (67-72-1)	☐	☐	☑												
37B. Indeno (1,2,3-c-d) Pyrene (193-39-5)	☐	☐	☑												
38B. Isophorone (78-59-1)	☐	☐	☑												
39B. Naphthalene (91-20-3)	☐	☐	☑												
40B. Nitrobenzene (98-95-3)	☐	☐	☑												
41B. N-Nitro-sodimethylamine (62-75-9)	☐	☐	☑												

CONTINUE ON PAGE 7

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TES-ING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
42B. N-Nitroso N-Propylamine (621-64-7)			✓												
43B. N-Nitro-sodiphenylamine (86-30-6)			✓												
44B. Phenanthrene (85-01-8)			✓												
45B. Pyrene (129-00-0)			✓												
46B. 1,2,4-Tri chlorobenzene (120-82-1)			✓												
GC/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)			✓												
2P. α-BHC (319-84-6)			✓												
3P. β-BHC (319-84-6)			✓												
4P. γ-BHC (58-89-9)			✓												
5P. δ-BHC (319-86-8)			✓												
6P. Chlordane (57-74-9)			✓												
7P. 4,4'-DDT (50-29-3)			✓												
8P. 4,4'-DDE (72-55-9)			✓												
9P. 4,4'-DDD (72-54-8)			✓												
10P. Dieldrin (60-57-1)			✓												
11P. α-Endosulfan (115-29-7)			✓												
12P. β-Endosultan (115-29-7)			✓												
13P. Endosulfan Sulfate (1031-07-8)			✓												
14P. Endrin (72-20-8)			✓												
15P. Endrin Aldehyde (7421-93-4)			✓												
16P. Heptachlor (76-44-8)			✓												

CONTINUED ON PAGE 8

CONTINUED FROM PAGE 7

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
MO-0114375	001

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICISES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			☑												
18P. PCB-1242 (53469-21-9)			☑												
19P. PBC-1254 (11097-69-1)			☑												
20P. PCB-1221 (11104-28-2)			☑												
21P. PCB-1232 (11141-16-5)			☑												
22P. PCB-1248 (12672-29-6)			☑												
23P. PCB-1260 (11096-82-5)			☑												
24P. PCB-1016 (12674-11-2)			☑												
25P. Toxaphene (8001-35-2)	☐	☐	☑												
J. RADIOACTIVITY															
(1) Alpha Total	☐	☐	☑												
(2) Beta Total	☐	☐	☑												
(3) Radium Total	☐	☐	☑												
(4) Radium 226 Total	☐	☐	☑												

2.00 POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

A. IS ANY POLLUTANT LISTED IN ITEM 1.30 A SUBSTANCE OR A COMPONENT OF A SUBSTANCE WHICH YOU DO OR EXPECT THAT YOU WILL OVER THE NEXT FIVE YEARS USE OR MANUFACTURE AS AN INTERMEDIATE OR FINAL PRODUCT OR BYPRODUCT?

☐ YES *(LIST ALL SUCH POLLUTANTS BELOW)* ■ NO *(GO TO B)*

B. ARE YOUR OPERATIONS SUCH THAT YOUR RAW MATERIALS, PROCESSES OR PRODUCTS CAN REASONABLE BE EXPECTED TO VARY SO THAT YOUR DISCHARGES OF POLLUTANTS MAY DURING THE NEXT FIVE YEARS EXCEED TWO TIMES THE MAXIMUM VALUES REPORTED IN ITEM 1.30?

☐ YES *(COMPLETE C BELOW)* ■ NO *(GO TO SECTION 3.00)*

C. IF YOU ANSWERED "YES" TO ITEM B, EXPLAIN BELOW AND DESCRIBE IN DETAIL THE SOURCES AND EXPECTED LEVELS OF SUCH POLLUTANTS THAT YOU ANTICIPATE WILL BE DISCHARGED FROM EACH OUTFALL OVER THE NEXT FIVE YEARS, TO THE BEST OF YOUR ABILIITY AT THIS TIME. CONTINUE ON ADDITIONAL SHEETS IF YOU NEED MORE SPACE.

3.00 CONTRACT ANALYSIS INFORMATION

WERE ANY OF THE ANALYSES REPORTED IN 1.30 PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

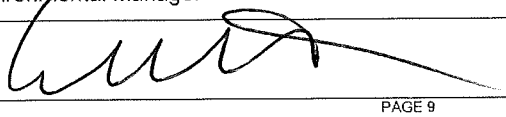
☐ YES *(LIST THE NAME, ADDRESS, AND TELEPHONE NUMBER OF, AND ANALYZED BY, EACH SUCH LABORATORY OR FIRM BELOW)*

■ NO *(GO TO SECTION 4.00)*

A. NAME	B. ADDRESS	C. TELEPHONE *(area code and number)*	D. POLLUTANTS ANALYZED *(list)*

4.00 CERTIFICATION

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

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	PHONE NUMBER (AREA CODE AND NUMBER)
Craig Abbott, Environmental Manager	(573) 636-1140
SIGNATURE	DATE SIGNED
	3/15/19

Outfall #003

RECEIVED
MAR 27 2019
Water Protection Program

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH

FORM D – APPLICATION FOR DISCHARGE PERMIT – PRIMARY INDUSTRIES

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

NOTE: DO NOT ATTEMPT TO COMPLETE THIS FORM BEFORE READING THE ACCOMPANYING INSTRUCTIONS

1.00 NAME OF FACILITY
Jefferson City Landfill, LLC

1.10 THIS FACILITY IS NOW IN OPERATION UNDER MISSOURI OPERATING PERMIT NUMBER
MO - 0114375

This form is to be filled out in addition to forms A and C "Application for Discharge Permit" for the Industries listed below:

INDUSTRY CATEGORY

Adhesives and sealants
Aluminum forming
Auto and other laundries
Battery manufacturing
Coal mining
Coil coating
Copper forming
Electric and electronic compounds
Electroplating
Explosives manufacturing
Foundries
Gum and wood chemicals
Inorganic chemicals manufacturing
Iron and steel manufacturing
Leather tanning and finishing
Landfill
Mechanical products manufacturing
Nonferrous metals manufacturing
Ore mining
Organic chemicals manufacturing
Paint and ink formulation
Pesticides
Petroleum refining
Pharmaceutical preparations
Photographic equipment and supplies
Plastic and synthetic materials manufacturing
Plastic processing
Porcelain enameling
Printing and publishing
Pulp and paperboard mills
Rubber processing
Soap and detergent manufacturing
Steam electric power plants
Textile mills
Timber products processing

APPLICATION FOR DISCHARGE PERMIT
FORM D – PRIMARY INDUSTRIES

TABLE II

NPDES # *(IF ASSIGNED)*	OUTFALL NUMBER
MO-0114375	003

1.30 If you are a primary industry and this outfall contains process wastewater, refer to Table A in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-A for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. Mark "X" in column 2-B for each pollutant you know or have reason to believe is present. Mark "X" in column 2-C for each pollutant you believe to be absent. If you mark either columns 2-A or 2-B for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part, please review each carefully. Complete one table (*all seven pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"			3. EFFLUENT						D. NO. OF ANALYSES	4. UNITS		5. INTAKE *(optional)*		
	A. TEST-ING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE *(if available)*		C. LONG TERM AVRG. VALUE *(if available)*			A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-9)	—	☐	☑	<10 (TR)						3	ug/L				
2M. Arsenic, Total (7440-38-2)	—	☐	☑	<10 (TR)						3	ug/L				
3M. Beryllium, Total (7440-41-7)	—	☐	☑	<1 (TR)						6	ug/L				
4M. Cadmium, Total (7440-43-9)	—	☐	☑	<5 (TR)						6	ug/L				
5M. Chromium III (16065-83-1)	—	☐	☑	<5 (TR)						3	ug/L				
6M. Chromium VI (18540-29-9)	—	☐	☑	<10						6	ug/L				
7M. Copper, Total (7440-50-8)	—	☐	☑	<10 (TR)						6	ug/L				
8M. Lead, Total (7439-92-1)	—	☐	☑	<5 (TR)						3	ug/L				
9M. Magnesium Total (7439-95-4)	—	☐	☑												
10M. Mercury, Total (7439-97-6)	—	☐	☑	<0.2 (TR)						6	ug/L				
11M. Molybdenum Total (7439-98-7)	—	☐	☑												
12M. Nickel, Total (7440-02-0)	—	☐	☑	<5 (TR)						3	ug/L				
13M. Selenium, Total (7782-49-2)	—	☐	☑	<1 (TR)						6	ug/L				
14M. Silver, Total (7440-22-4)	—	☐	☑	<0.5 (TR)						6	ug/L				
15M. Thallium, Total (7440-28-0)	—	☐	☑	<1 (TR)						6	ug/L				
16M. Tin Total (7440-31-5)	—	☐	☑												
17M. Titanium Total (7440-32-6)	—	☐	☑												
18M. Zinc, Total (7440-66-6)	—	☐	☑	<50 (TR)						6	ug/L				

CONTINUED FROM PAGE 3

19M. Cyanide, Amenable to Chlorination	☐	☐	☑												
20M. Phenols, Total	☐	☐	☑												
DIOXIN															
2,3,7,8 – Tetra – chlorodibenzo-P-Dioxin (1764-01-6)	☐	☐	☑	**DESCRIBE RESULTS**											

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)	☐	☐	☑												
2V. Acrylonitrile (107-13-1)	☐	☐	☑												
3V. Benzene (71-43-2)	☐	☐	☑	<1						6	ug/ml				
4V. Bis (*Chloromethyl*) Ether (542-88-1)	☐	☐	☑												
5V. Bromoform (75-25-2)	☐	☐	☑												
6V. Carbon Tetrachloride (56-23-5)	☐	☐	☑												
7V. Chlorobenzene (108-90-7)	☐	☐	☑												
8V. Chlorodibromomethane (124-48-1)	☐	☐	☑												
9V. Chloroethane (75-00-3)	☐	☐	☑												
10V. 2-Chloroethylvinyl Ether (110-75-8)	☐	☐	☑												
11V. Chloroform (67-66-3)	☐	☐	☑												
12V. Dichlorobromomethane (75-27-4)	☐	☐	☑												
13V. Dichloro-difluoromethane (75-71-8)	☐	☐	☑												
14V. 1,1 – Dichloroethane (75-34-3)	☐	☐	☑												
15V. 1,2 – Dichloroethane (107-06-2)	☐	☐	☑												
16V. 1,1 – Dichloroethylene (75-35-4)	☐	☐	☑												
17V. 1,3 – Dichloropropane (78-87-5)	☐	☐	☑												
18V. 1,2 –Dichloropropylene (542-75-6)	☐	☐	☑												
19V. Ethylbenzene (100-41-4)	☐	☐	☑	<1						6	ug/ml				
20V. Methyl Bromide (74-83-9)	☐	☐	☑												
21V. Methyl Chloride (74-87-3)	☐	☐	☑												

CONTINUE ON PAGE 4

CONTINUED FROM THE FRONT

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
MO-0114375	003

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING RE-QUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC.MS FRACTION – VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)	☐	☐	☑												
23V. 1,1,2,2 – Tetra-chloroethane (79-34-5)	☐	☐	☑												
24V. Tetrachloroethylene (127-18-4)	☐	☐	☑												
25V. Toluene (108-88-3)	☐	☐	☑	<1						6	ug/ml				
26V. 1,2 – Trans Dichloroethylene (156-60-5)	☐	☐	☑												
27V. 1,1,1 – Tri – chloroethane (71-55-6)	☐	☐	☑												
28V. 1,1,2 – Tri-chloroethane (79-00-5)	☐	☐	☑												
29V. Trichloro – ethylene (79-01-6)	☐	☐	☑												
30V. Trichloro – fluoromethane (75-69-4)	☐	☐	☑												
31V. Vinyl Chloride (75-01-4)	☐	☐	☑												
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2 – Chlorophenol (95-57-8)	☐	☐	☑												
2A. 2,4 – Dichloro – phenol (120-83-2)	☐	☐	☑												
3A. 2,4 – Dimethyl – phenol (105-67-9)	☐	☐	☑												
4A. 4,6 – Dinitro - O-Cresol (534-52-1)	☐	☐	☑												
5A. 2,4 – Dinitro – phenol (51-28-5)	☐	☐	☑												
6A. 2-Nitrophenol (88-75-5)	☐	☐	☑												
7A. 4-Nitrophenol (100-02-7)	☐	☐	☑												
8A. P – Chloro – M Cresol (59-50-7)	☐	☐	☑												
9A. Pentachloro – phenol (87-86-5)	☐	☐	☑												
10A. Phenol (108-952)	☐	☐	☑												
11A. 2,4,6 – Trichloro-phenol (88-06-2)	☐	☐	☑												
12A. 2 - methyl – 4,6 dinitrophenol (534-52-1)	☐	☐	☑												

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	☐	☐	☑												
2B. Acenaphtylene (208-96-8)	☐	☐	☑												
3B. Anthracene (120-12-7)	☐	☐	☑												
4B. Benzidine (92-87-5)	☐	☐	☑												
5B. Benzo (a) Anthracene (56-55-3)	☐	☐	☑												
6B. Benzo (a) Pyrene (50-32-8)	☐	☐	☑												
7B. 3,4 – Benzofluoranthene (205-99-2)	☐	☐	☑												
8B. Benzo (ghi) Perylene (191-24-2)	☐	☐	☑												
9B. Benzo (k) Fluoranthene (207-08-9)	☐	☐	☑												
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	☐	☐	☑												
11B. Bis (2-Chloroethyl) Ether (111-44-4)	☐	☐	☑												
12B. Bis (2-Chloroisopropyl) Ether (39638-32-9)	☐	☐	☑												
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	☐	☐	☑												
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	☐	☐	☑												
15B. Butyl Benzyl Phthalate (85-68-7)	☐	☐	☑												
16B. 2-Chloronaphthalene (91-58-7)	☐	☐	☑												
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	☐	☐	☑												
18B. Chrysene (218-01-9)	☐	☐	☑												
19B. Dibenzo (a.h) Anthracene (53-70-3)	☐	☐	☑												
20B. 1,2 – Dichlorobenzene (95-50-1)	☐	☐	☑												
21B. 1,3 – Dichlorobenzene (541-73-1)	☐	☐	☑												

CONTINUED FROM PAGE 5

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
MO-0114375	003

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
22B. 1, 4-Dichlorobenzene (106-46-7)	☐	☐	☑												
23B. 3, 3'-Dichlorobenzidine (91-94-1)	☐	☐	☑												
24B. Diethyl Phthalate (84-66-2)	☐	☐	☑												
25B. Dimethyl Phthalate (131-11-3)	☐	☐	☑												
26B. Di-N-butyl Phthalate (84-74-2)	☐	☐	☑												
27B. 2,4-Dinitrotoluene (121-14-2)	☐	☐	☑												
28B. 2,6-Dinitrotoluene (606-20-2)	☐	☐	☑												
29B. Di-N-Octyphthalate (117-84-0)	☐	☐	☑												
30B. 1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)	☐	☐	☑												
31B. Fluoranthene (206-44-0)	☐	☐	☑												
32B. Fluorene (86-73-7)	☐	☐	☑												
33B. Hexachlorobenzene (87-68-3)	☐	☐	☑												
34B. Hexachlorobutadiene (87-68-3)	☐	☐	☑												
35B. Hexachloro-cyclopentadiene (77-47-4)	☐	☐	☑												
36B. Hexachloroethane (67-72-1)	☐	☐	☑												
37B. Indeno (1,2,3-c-d) Pyrene (193-39-5)	☐	☐	☑												
38B. Isophorone (78-59-1)	☐	☐	☑												
39B. Naphthalene (91-20-3)	☐	☐	☑												
40B. Nitrobenzene (98-95-3)	☐	☐	☑												
41B. N-Nitro-sodimethylamine (62-75-9)	☐	☐	☑												

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
42B. N-Nitroso N-Propylamine (621-64-7)	☐	☐	☑												
43B. N-Nitro-sodiphenylamine (86-30-6)	☐	☐	☑												
44B. Phenanthrene (85-01-8)	☐	☐	☑												
45B. Pyrene (129-00-0)	☐	☐	☑												
46B. 1,2,4-Tri chlorobenzene (120-82-1)	☐	☐	☑												
GC/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)	☐	☐	☑												
2P. α-BHC (319-84-6)	☐	☐	☑												
3P. β-BHC (319-84-6)	☐	☐	☑												
4P. γ-BHC (58-89-9)	☐	☐	☑												
5P. δ-BHC (319-86-8)	☐	☐	☑												
6P. Chlordane (57-74-9)	☐	☐	☑												
7P. 4,4'-DDT (50-29-3)	☐	☐	☑												
8P. 4,4'-DDE (72-55-9)	☐	☐	☑												
9P. 4,4'-DDD (72-54-8)	☐	☐	☑												
10P. Dieldrin (60-57-1)	☐	☐	☑												
11P. α-Endosulfan (115-29-7)	☐	☐	☑												
12P. β-Endosultan (115-29-7)	☐	☐	☑												
13P. Endosulfan Sulfate (1031-07-8)	☐	☐	☑												
14P. Endrin (72-20-8)	☐	☐	☑												
15P. Endrin Aldehyde (7421-93-4)	☐	☐	☑												
16P. Heptachlor (76-44-8)	☐	☐	☑												

CONTINUED ON PAGE 8

CONTINUED FROM PAGE 7

NPDES # (IF ASSIGNED)	OUTFALL NUMBER
MO-0114375	003

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICISES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			✓												
18P. PCB-1242 (53469-21-9)			✓												
19P. PBC-1254 (11097-69-1)			✓												
20P. PCB-1221 (11104-28-2)			✓												
21P. PCB-1232 (11141-16-5)			✓												
22P. PCB-1248 (12672-29-6)			✓												
23P. PCB-1260 (11096-82-5)			✓												
24P. PCB-1016 (12674-11-2)			✓												
25P. Toxaphene (8001-35-2)			✓												
J. RADIOACTIVITY															
(1) Alpha Total			✓												
(2) Beta Total			✓												
(3) Radium Total			✓												
(4) Radium 226 Total			✓												

2.00 POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

A. IS ANY POLLUTANT LISTED IN ITEM 1.30 A SUBSTANCE OR A COMPONENT OF A SUBSTANCE WHICH YOU DO OR EXPECT THAT YOU WILL OVER THE NEXT FIVE YEARS USE OR MANUFACTURE AS AN INTERMEDIATE OR FINAL PRODUCT OR BYPRODUCT?

☐ YES *(LIST ALL SUCH POLLUTANTS BELOW)* ■ NO *(GO TO B)*

B. ARE YOUR OPERATIONS SUCH THAT YOUR RAW MATERIALS, PROCESSES OR PRODUCTS CAN REASONABLE BE EXPECTED TO VARY SO THAT YOUR DISCHARGES OF POLLUTANTS MAY DURING THE NEXT FIVE YEARS EXCEED TWO TIMES THE MAXIMUM VALUES REPORTED IN ITEM 1.30?

☐ YES *(COMPLETE C BELOW)* ■ NO *(GO TO SECTION 3.00)*

C. IF YOU ANSWERED "YES" TO ITEM B, EXPLAIN BELOW AND DESCRIBE IN DETAIL THE SOURCES AND EXPECTED LEVELS OF SUCH POLLUTANTS THAT YOU ANTICIPATE WILL BE DISCHARGED FROM EACH OUTFALL OVER THE NEXT FIVE YEARS, TO THE BEST OF YOUR ABILIITY AT THIS TIME. CONTINUE ON ADDITIONAL SHEETS IF YOU NEED MORE SPACE.

3.00 CONTRACT ANALYSIS INFORMATION

WERE ANY OF THE ANALYSES REPORTED IN 1.30 PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

☐ YES *(LIST THE NAME, ADDRESS, AND TELEPHONE NUMBER OF, AND ANALYZED BY, EACH SUCH LABORATORY OR FIRM BELOW)*

■ NO *(GO TO SECTION 4.00)*

A. NAME	B. ADDRESS	C. TELEPHONE *(area code and number)*	D. POLLUTANTS ANALYZED *(list)*

4.00 CERTIFICATION

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

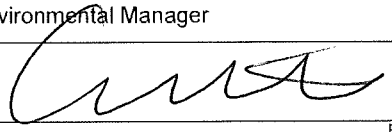
NAME AND OFFICIAL TITLE (TYPE OR PRINT)	PHONE NUMBER (AREA CODE AND NUMBER)
Craig Abbott, Environmental Manager	(573) 636-1140
SIGNATURE 	DATE SIGNED 3/15/19

Figure 1 – Site/Outfall Location Map

Figure 2 – Site Layout Drawing

1st Quarter 2019 Laboratory Report – Outfalls #001 & #003

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

January 22, 2019

CURT ROBERTSON
REPUBLIC SERVICES
5605 MOREAU RIVER ACCESS RD
Jefferson City, MO 65101

RE: Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

Dear CURT ROBERTSON:
Enclosed are the analytical results for sample(s) received by the laboratory on January 11, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angie Brown
Angie.Brown@pacelabs.com
1(913)563-1402
Project Manager

Enclosures

cc: CRAIG ABBOTT, REPUBLIC SERVICES
Michele Clark, Weaver Consultants
Lab Data, Trihydro

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
Arkansas Drinking Water
Missouri Certification Number: 10090
WY STR Certification #: 2456.01
Arkansas Certification #: 18-016-0
Arkansas Drinking Water
Illinois Certification #: 004455
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116 / E10426
Louisiana Certification #: 03055
Nevada Certification #: KS000212018-1
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407-18-11
Utah Certification #: KS000212018-8
Kansas Field Laboratory Accreditation: # E-92587
Missouri Certification: 10070
Missouri Certification Number: 10090

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60291657001	OUTFALL 001	Water	01/10/19 10:20	01/11/19 06:05
60291657002	OUTFALL 003	Water	01/10/19 10:05	01/11/19 06:05

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60291657001	OUTFALL 001	EPA 200.7	EMR	6
		EPA 200.8	JGP	3
		EPA 245.1	HKC	1
		EPA 624 Low	EAG	8
		EPA 1664A	JDA	1
		SM 2540D	AJS	1
		SM 2540F	AJS	1
		SM 4500-H+B	MJK	1
		EPA 300.0	MGS	3
		EPA 350.1	RLG	1
		EPA 353.2	RAD	1
		EPA 410.4	MJK	1
		EPA 7196	RMT	1
60291657002	OUTFALL 003	EPA 200.7	EMR	6
		EPA 200.8	JGP	3
		EPA 245.1	HKC	1
		EPA 624 Low	EAG	8
		EPA 1664A	JDA	1
		SM 2540D	AJS	1
		SM 2540F	AJS	1
		SM 4500-H+B	MJK	1
		EPA 300.0	MGS	3
		EPA 350.1	RLG	1
		EPA 353.2	RAD	1
		EPA 410.4	MJK	1
		EPA 7196	RMT	1

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

Sample: OUTFALL 001 **Lab ID: 60291657001** Collected: 01/10/19 10:20 Received: 01/11/19 06:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Beryllium, Total Recoverable	ND	ug/L	1.0	1	01/14/19 15:52	01/15/19 09:56	7440-41-7	
Cadmium, Total Recoverable	ND	ug/L	5.0	1	01/14/19 15:52	01/15/19 09:56	7440-43-9	
Copper, Total Recoverable	ND	ug/L	10.0	1	01/14/19 15:52	01/15/19 09:56	7440-50-8	
Iron, Total Recoverable	**329**	ug/L	50.0	1	01/14/19 15:52	01/15/19 09:56	7439-89-6	
Total Hardness by 2340B, Total Recoverable	**129000**	ug/L	500	1	01/14/19 15:52	01/15/19 09:56		
Zinc, Total Recoverable	ND	ug/L	50.0	1	01/14/19 15:52	01/15/19 09:56	7440-66-6	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Selenium, Total Recoverable	ND	ug/L	1.0	1	01/14/19 16:19	01/15/19 16:10	7782-49-2	
Silver, Total Recoverable	ND	ug/L	0.50	1	01/14/19 16:19	01/15/19 16:10	7440-22-4	
Thallium, Total Recoverable	ND	ug/L	1.0	1	01/14/19 16:19	01/15/19 16:10	7440-28-0	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND	ug/L	0.20	1	01/15/19 11:33	01/16/19 12:53	7439-97-6	
624 Volatile Organics LowLevel	Analytical Method: EPA 624 Low							
Benzene	ND	ug/L	1.0	1		01/15/19 18:07	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		01/15/19 18:07	100-41-4	
Toluene	ND	ug/L	1.0	1		01/15/19 18:07	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		01/15/19 18:07	1330-20-7	N2
Surrogates								
4-Bromofluorobenzene (S)	99	%	80-120	1		01/15/19 18:07	460-00-4	
Toluene-d8 (S)	101	%	80-120	1		01/15/19 18:07	2037-26-5	
1,2-Dichloroethane-d4 (S)	98	%	80-120	1		01/15/19 18:07	17060-07-0	
Preservation pH	**1.0**		1.0	1		01/15/19 18:07		
HEM, Oil and Grease	Analytical Method: EPA 1664A							
Oil and Grease	ND	mg/L	5.0	1		01/18/19 08:38		
2540D Total Suspended Solids	Analytical Method: SM 2540D							
Total Suspended Solids	**35.0**	mg/L	5.0	1		01/11/19 09:41		
2540F Total Settleable Solids	Analytical Method: SM 2540F							
Total Settleable Solids	ND	mL/L/hr	0.20	1		01/11/19 08:30		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B							
pH at 25 Degrees C	**7.9**	Std. Units	0.10	1		01/16/19 12:14		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**15.3**	mg/L	1.0	1		01/14/19 20:10	16887-00-6	
Fluoride	ND	mg/L	0.20	1		01/14/19 20:10	16984-48-8	
Sulfate	**22.5**	mg/L	2.0	2		01/15/19 18:25	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1							
Nitrogen, Ammonia	ND	mg/L	0.10	1		01/15/19 12:45	7664-41-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

Sample: OUTFALL 001 **Lab ID: 60291657001** Collected: 01/10/19 10:20 Received: 01/11/19 06:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.12**	mg/L	0.10	1		01/11/19 11:25		
410.4 COD	Analytical Method: EPA 410.4							
Chemical Oxygen Demand	**23.1**	mg/L	10.0	1		01/21/19 11:39		
7196 Chromium, Hexavalent Diss	Analytical Method: EPA 7196							
Chromium, Hexavalent,Dissolved	ND	mg/L	0.010	1		01/11/19 08:37	18540-29-9	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

Sample: OUTFALL 003 **Lab ID: 60291657002** Collected: 01/10/19 10:05 Received: 01/11/19 06:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Beryllium, Total Recoverable	ND	ug/L	1.0	1	01/14/19 15:52	01/15/19 09:58	7440-41-7	
Cadmium, Total Recoverable	ND	ug/L	5.0	1	01/14/19 15:52	01/15/19 09:58	7440-43-9	
Copper, Total Recoverable	ND	ug/L	10.0	1	01/14/19 15:52	01/15/19 09:58	7440-50-8	
Iron, Total Recoverable	**498**	ug/L	50.0	1	01/14/19 15:52	01/15/19 09:58	7439-89-6	
Total Hardness by 2340B, Total Recoverable	**79500**	ug/L	500	1	01/14/19 15:52	01/15/19 09:58		
Zinc, Total Recoverable	ND	ug/L	50.0	1	01/14/19 15:52	01/15/19 09:58	7440-66-6	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Selenium, Total Recoverable	**1.3**	ug/L	1.0	1	01/14/19 16:19	01/15/19 16:14	7782-49-2	
Silver, Total Recoverable	ND	ug/L	0.50	1	01/14/19 16:19	01/15/19 16:14	7440-22-4	
Thallium, Total Recoverable	ND	ug/L	1.0	1	01/14/19 16:19	01/15/19 16:14	7440-28-0	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND	ug/L	0.20	1	01/15/19 11:33	01/16/19 12:55	7439-97-6	
624 Volatile Organics LowLevel	Analytical Method: EPA 624 Low							
Benzene	ND	ug/L	1.0	1		01/15/19 18:21	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		01/15/19 18:21	100-41-4	
Toluene	ND	ug/L	1.0	1		01/15/19 18:21	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		01/15/19 18:21	1330-20-7	N2
Surrogates								
4-Bromofluorobenzene (S)	99	%	80-120	1		01/15/19 18:21	460-00-4	
Toluene-d8 (S)	102	%	80-120	1		01/15/19 18:21	2037-26-5	
1,2-Dichloroethane-d4 (S)	98	%	80-120	1		01/15/19 18:21	17060-07-0	
Preservation pH	**1.0**		1.0	1		01/15/19 18:21		
HEM, Oil and Grease	Analytical Method: EPA 1664A							
Oil and Grease	ND	mg/L	5.0	1		01/18/19 08:38		
2540D Total Suspended Solids	Analytical Method: SM 2540D							
Total Suspended Solids	**9.3**	mg/L	5.0	1		01/11/19 09:42		
2540F Total Settleable Solids	Analytical Method: SM 2540F							
Total Settleable Solids	ND	mL/L/hr	0.20	1		01/11/19 08:30		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B							
pH at 25 Degrees C	**7.7**	Std. Units	0.10	1		01/16/19 12:13		H6
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**7.4**	mg/L	1.0	1		01/14/19 20:24	16887-00-6	
Fluoride	**0.34**	mg/L	0.20	1		01/14/19 20:24	16984-48-8	
Sulfate	**9.0**	mg/L	1.0	1		01/14/19 20:24	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1							
Nitrogen, Ammonia	ND	mg/L	0.10	1		01/15/19 12:46	7664-41-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

Sample: OUTFALL 003 **Lab ID: 60291657002** Collected: 01/10/19 10:05 Received: 01/11/19 06:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		01/11/19 11:23		
410.4 COD	Analytical Method: EPA 410.4							
Chemical Oxygen Demand	**23.3**	mg/L	10.0	1		01/21/19 11:39		
7196 Chromium, Hexavalent Diss	Analytical Method: EPA 7196							
Chromium, Hexavalent,Dissolved	ND	mg/L	0.010	1		01/11/19 08:34	18540-29-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

QC Batch: 564693
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Associated Lab Samples: 60291657001, 60291657002

METHOD BLANK: 2316919 Matrix: Water
Associated Lab Samples: 60291657001, 60291657002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	01/16/19 12:07	

LABORATORY CONTROL SAMPLE: 2316920

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2316922 2316923

Parameter	Units	60291408001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.9	4.9	98	97	70-130	0	20	

MATRIX SPIKE SAMPLE: 2316924

Parameter	Units	60291529001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	5	4.8	94	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

QC Batch: 564572
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Associated Lab Samples: 60291657001, 60291657002

METHOD BLANK: 2316418
Matrix: Water
Associated Lab Samples: 60291657001, 60291657002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Beryllium	ug/L	ND	1.0	01/15/19 09:47	
Cadmium	ug/L	ND	5.0	01/15/19 09:47	
Copper	ug/L	ND	10.0	01/15/19 09:47	
Iron	ug/L	ND	50.0	01/15/19 09:47	
Total Hardness by 2340B	ug/L	ND	500	01/15/19 09:47	
Zinc	ug/L	ND	50.0	01/15/19 09:47	

LABORATORY CONTROL SAMPLE: 2316419

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	1000	977	98	85-115	
Cadmium	ug/L	1000	971	97	85-115	
Copper	ug/L	1000	985	99	85-115	
Iron	ug/L	10000	10400	104	85-115	
Total Hardness by 2340B	ug/L		64600			
Zinc	ug/L	1000	1000	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2316420 2316421

Parameter	Units	60291657002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	ND	1000	1000	975	976	97	98	70-130	0	20	
Cadmium	ug/L	ND	1000	1000	964	967	96	97	70-130	0	20	
Copper	ug/L	ND	1000	1000	985	991	98	98	70-130	1	20	
Iron	ug/L	498	10000	10000	10800	11400	103	109	70-130	5	20	
Total Hardness by 2340B	ug/L	79500			143000	144000				1		
Zinc	ug/L	ND	1000	1000	992	1010	98	100	70-130	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

QC Batch: 564595
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Associated Lab Samples: 60291657001, 60291657002

METHOD BLANK: 2316497
Matrix: Water
Associated Lab Samples: 60291657001, 60291657002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Selenium	ug/L	ND	1.0	01/15/19 15:44	
Silver	ug/L	ND	0.50	01/15/19 15:44	
Thallium	ug/L	ND	1.0	01/15/19 15:44	

LABORATORY CONTROL SAMPLE: 2316498

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Selenium	ug/L	40	39.4	98	85-115	
Silver	ug/L	20	21.5	107	85-115	
Thallium	ug/L	40	39.7	99	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2316499 2316500

Parameter	Units	60291736006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Selenium	ug/L	ND	40	40	41.1	40.8	96	95	70-130	1	20	
Silver	ug/L	ND	20	20	17.5	18.2	86	89	70-130	4	20	
Thallium	ug/L	ND	40	40	41.4	41.0	103	102	70-130	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

QC Batch: 564764
QC Batch Method: EPA 624 Low
Analysis Method: EPA 624 Low
Analysis Description: 624 MSV Low Level
Associated Lab Samples: 60291657001, 60291657002

METHOD BLANK: 2317170 Matrix: Water
Associated Lab Samples: 60291657001, 60291657002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	01/15/19 11:04	
Ethylbenzene	ug/L	ND	1.0	01/15/19 11:04	
Toluene	ug/L	ND	1.0	01/15/19 11:04	
Xylene (Total)	ug/L	ND	3.0	01/15/19 11:04	N2
1,2-Dichloroethane-d4 (S)	%	102	80-120	01/15/19 11:04	
4-Bromofluorobenzene (S)	%	99	80-120	01/15/19 11:04	
Toluene-d8 (S)	%	101	80-120	01/15/19 11:04	

LABORATORY CONTROL SAMPLE: 2317171

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	20.0	100	81-111	
Ethylbenzene	ug/L	20	20.4	102	80-111	
Toluene	ug/L	20	19.9	99	78-110	
Xylene (Total)	ug/L	60	58.3	97	80-111	N2
1,2-Dichloroethane-d4 (S)	%			100	80-120	
4-Bromofluorobenzene (S)	%			101	80-120	
Toluene-d8 (S)	%			98	80-120	

MATRIX SPIKE SAMPLE: 2317172

Parameter	Units	60291527001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	ND	20	20.2	101	37-151	
Ethylbenzene	ug/L	ND	20	20.0	100	64-127	
Toluene	ug/L	ND	20	19.7	98	47-150	
Xylene (Total)	ug/L	ND	60	58.0	97	52-134	N2
1,2-Dichloroethane-d4 (S)	%				102	80-120	
4-Bromofluorobenzene (S)	%				99	80-120	
Toluene-d8 (S)	%				101	80-120	
Preservation pH		1.0		1.0			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

QC Batch: 565199
QC Batch Method: EPA 1664A
Analysis Method: EPA 1664A
Analysis Description: 1664 HEM, Oil and Grease
Associated Lab Samples: 60291657001, 60291657002

METHOD BLANK: 2318978
Matrix: Water
Associated Lab Samples: 60291657001, 60291657002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	5.0	01/18/19 08:34	

LABORATORY CONTROL SAMPLE: 2318979

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	40	36.5	91	64-132	

MATRIX SPIKE SAMPLE: 2318980

Parameter	Units	60291407001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	7.8	40	29.8	55	78-114	M1

SAMPLE DUPLICATE: 2318981

Parameter	Units	60291407002 Result	Dup Result	RPD	Max RPD	Qualifiers
Oil and Grease	mg/L	15.3	20.3	28	18	D6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

QC Batch: 564280
QC Batch Method: SM 2540D
Analysis Method: SM 2540D
Analysis Description: 2540D Total Suspended Solids
Associated Lab Samples: 60291657001, 60291657002

METHOD BLANK: 2315129
Matrix: Water
Associated Lab Samples: 60291657001, 60291657002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	5.0	01/11/19 09:41	

SAMPLE DUPLICATE: 2315130

Parameter	Units	60291657001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	35.0	37.0	6	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

QC Batch: 564645
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Associated Lab Samples: 60291657001, 60291657002

SAMPLE DUPLICATE: 2316734

Parameter	Units	60291663002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.9	7.9	0	5	H6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

QC Batch: 564489
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Associated Lab Samples: 60291657001, 60291657002

METHOD BLANK: 2316078 Matrix: Water
Associated Lab Samples: 60291657001, 60291657002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	01/14/19 13:03	
Fluoride	mg/L	ND	0.20	01/14/19 13:03	
Sulfate	mg/L	ND	1.0	01/14/19 13:03	

LABORATORY CONTROL SAMPLE: 2316079

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.8	96	90-110	
Fluoride	mg/L	2.5	2.5	102	90-110	
Sulfate	mg/L	5	4.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2316080 2316081

Parameter	Units	60291673001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	20.6	25	25	46.6	46.0	104	102	90-110	1	15	

MATRIX SPIKE SAMPLE: 2316082

Parameter	Units	60291346003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	105	50	155	101	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

QC Batch: 564715
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Associated Lab Samples: 60291657001

METHOD BLANK: 2316994 Matrix: Water
Associated Lab Samples: 60291657001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.0	01/15/19 12:20	

LABORATORY CONTROL SAMPLE: 2316995

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	4.8	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2316996 2316997

Parameter	Units	60291653007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	ND	10000	10000	10600	10500	103	102	90-110	1	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

QC Batch: 564584
QC Batch Method: EPA 350.1
Analysis Method: EPA 350.1
Analysis Description: 350.1 Ammonia
Associated Lab Samples: 60291657001, 60291657002

METHOD BLANK: 2316457
Matrix: Water
Associated Lab Samples: 60291657001, 60291657002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	01/15/19 12:32	

LABORATORY CONTROL SAMPLE: 2316458

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	5	5.0	101	90-110	

MATRIX SPIKE SAMPLE: 2316461

Parameter	Units	60291607002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	ND	5	5.5	108	90-110	

SAMPLE DUPLICATE: 2316460

Parameter	Units	60291657002 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Ammonia	mg/L	ND	ND		18	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

QC Batch: 564287
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 60291657001, 60291657002

METHOD BLANK: 2315168
Matrix: Water
Associated Lab Samples: 60291657001, 60291657002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	01/11/19 11:22	

LABORATORY CONTROL SAMPLE: 2315169

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.88	88	70-130	

MATRIX SPIKE SAMPLE: 2315170

Parameter	Units	60291657002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	0.87	87	70-130	

SAMPLE DUPLICATE: 2315171

Parameter	Units	60291657001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	mg/L	0.12	0.11	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

QC Batch: 565361
QC Batch Method: EPA 410.4
Analysis Method: EPA 410.4
Analysis Description: 410.4 COD
Associated Lab Samples: 60291657001, 60291657002

METHOD BLANK: 2319656
Matrix: Water
Associated Lab Samples: 60291657001, 60291657002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	10.0	01/21/19 11:37	

LABORATORY CONTROL SAMPLE: 2319657

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	50	48.4	97	90-110	

MATRIX SPIKE SAMPLE: 2319658

Parameter	Units	60291581002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	28.5	50	76.5	96	90-110	

MATRIX SPIKE SAMPLE: 2319660

Parameter	Units	60291746007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	47.3	50	92.8	91	90-110	

SAMPLE DUPLICATE: 2319659

Parameter	Units	60291657002 Result	Dup Result	RPD	Max RPD	Qualifiers
Chemical Oxygen Demand	mg/L	23.3	22.9	1	25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

QC Batch: 564258
QC Batch Method: EPA 7196
Analysis Method: EPA 7196
Analysis Description: 7196 Chromium, Hexavalent Diss
Associated Lab Samples: 60291657001, 60291657002

METHOD BLANK: 2315057 Matrix: Water
Associated Lab Samples: 60291657001, 60291657002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent,Dissolved	mg/L	ND	0.010	01/11/19 08:29	

LABORATORY CONTROL SAMPLE: 2315058

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent,Dissolved	mg/L	0.1	0.090	90	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2315059 2315060

Parameter	Units	60291657002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Hexavalent,Dissolved	mg/L	ND	0.1	0.1	0.094	0.095	94	95	85-115	1	20	

SAMPLE DUPLICATE: 2315061

Parameter	Units	60291657002 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent,Dissolved	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
H6	Analysis initiated outside of the 15 minute EPA required holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JEFFERSON CITY LANDFILL QTR
Pace Project No.: 60291657

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60291657001	OUTFALL 001	EPA 200.7	564572	EPA 200.7	564620
60291657002	OUTFALL 003	EPA 200.7	564572	EPA 200.7	564620
60291657001	OUTFALL 001	EPA 200.8	564595	EPA 200.8	564639
60291657002	OUTFALL 003	EPA 200.8	564595	EPA 200.8	564639
60291657001	OUTFALL 001	EPA 245.1	564693	EPA 245.1	564779
60291657002	OUTFALL 003	EPA 245.1	564693	EPA 245.1	564779
60291657001	OUTFALL 001	EPA 624 Low	564764		
60291657002	OUTFALL 003	EPA 624 Low	564764		
60291657001	OUTFALL 001	EPA 1664A	565199		
60291657002	OUTFALL 003	EPA 1664A	565199		
60291657001	OUTFALL 001	SM 2540D	564280		
60291657002	OUTFALL 003	SM 2540D	564280		
60291657001	OUTFALL 001	SM 2540F	564238		
60291657002	OUTFALL 003	SM 2540F	564238		
60291657001	OUTFALL 001	SM 4500-H+B	564645		
60291657002	OUTFALL 003	SM 4500-H+B	564645		
60291657001	OUTFALL 001	EPA 300.0	564489		
60291657001	OUTFALL 001	EPA 300.0	564715		
60291657002	OUTFALL 003	EPA 300.0	564489		
60291657001	OUTFALL 001	EPA 350.1	564584		
60291657002	OUTFALL 003	EPA 350.1	564584		
60291657001	OUTFALL 001	EPA 353.2	564287		
60291657002	OUTFALL 003	EPA 353.2	564287		
60291657001	OUTFALL 001	EPA 410.4	565361		
60291657002	OUTFALL 003	EPA 410.4	565361		
60291657001	OUTFALL 001	EPA 7196	564258		
60291657002	OUTFALL 003	EPA 7196	564258		

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt

WO# : 60291657

60291657

Client Name: Republic Services

Courier: FedEx ☐ UPS ☐ VIA ☑ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☑ Foam ☐ None ☐ Other ☑ ziplc

Thermometer Used: T-298 **Type of Ice:** ~~Wet~~ Blue None

Cooler Temperature (°C): **As-read** 2.1, 3.1 **Corr. Factor** 0.0 **Corrected** 2.1, 3.1

Date and initials of person examining contents: 11/11/19 EC

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☑Yes ☐No ☐N/A	CR6+, Soft. Sol.
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO3, H2SO4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	☑Yes ☐No ☐N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☑No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☑No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

Section A — Required Client Information:

Company:	Republic Services
Address:	5605 Moreau River Access Rd
	Jefferson City, MO 65101
Email To:	crobertson@republicservices.com
Phone: 573-636-1140	Fax:
Requested Due Date/TAT:	

Section B — Required Project Information:

Report To:	Curtis Robertson / Jefferson City Landfill
Copy To:	Craig Abbott/Republic
	Michele Clark/Weaver Boos
Purchase Order No.:	
Project Name:	Jefferson City Landfill QTR / Annual
Project Number:	

Section C — Invoice Information:

Attention:	Craig Abbott
Company Name:	REPUBLIC SERVICES
Address:	
Pace Quote Reference:	
Pace Project Manager:	Angie Brown 913-563-1402
Pace Profile #:	8151 Line 1 Qtr, Line 2 Annual

REGULATORY AGENCY

☑ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: MO

Section D — Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	Sb,As,Ba,Bo,Co	Pb,Mn,Ni,Cr	Cr+6 AND Cr+3 calc	Total Settleable Solids	Oil/Grease	Ammonia, COD	NO3, Cl, SO4, F, TSS, pH	BTEX	TR-Se,Fe,Be,Cd,Cu,Ag	TR-Tl, Zn, Hg	Cr+6 / Dissolved (LF)	Hardness	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	Outfall 001	G	WT	1/10/19	1020	4D694			14	2	BP1U				2 A61	1H	3	BP3U	BP3U	BP3S		x	x	x	x	x	x	x	x	x	13P3N(2)	60291657 Qtr 001
2	Outfall 003	G	WT	1/10/19	1005	↓			14		↓				↓					↓		x	x	x	x	x	x	x	x	x	↓	Qtr 002
3	~~Outfall 001~~	G	WT																x	x	x											~~Annual~~
4	~~Outfall 003~~																		x	x	x											~~Annual~~
5																																
6																																
7	Expidite TSS on Both Outfalls																															
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
001 003	JHolt	1/10/19	11:00	E Brackett / Pace	1/11/19	0605	2.1	Y	Y	Y
ph 7.68 ph 7.71							3.1	↓	↓	↓
Temp 2.8 Temp 2.7										
Con 397 Con 689										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: JENNY HOLT

SIGNATURE of SAMPLER: JHolt DATE Signed (MM/DD/YY): 1/10/19

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

NOTES:

1. AERIAL IMAGERY IS TAKEN FROM THE FLYOVER FROM COOPER AERIAL SURVEY CO.

APPROXIMATE GRAPHIC SCALE

500 0 250 500 1000

1 inch = 500 ft.

N

PREPARED FOR:
JEFFERSON CITY LANDFILL, LLC.

FIGURE 1 - SITE/OUTFALL LOCATION
JEFFERSON CITY LANDFILL
5605 MOREAU RIVER ACCESS RD
JEFFERSON CITY, MO

No.	DATE	REVISION DESCRIPTION

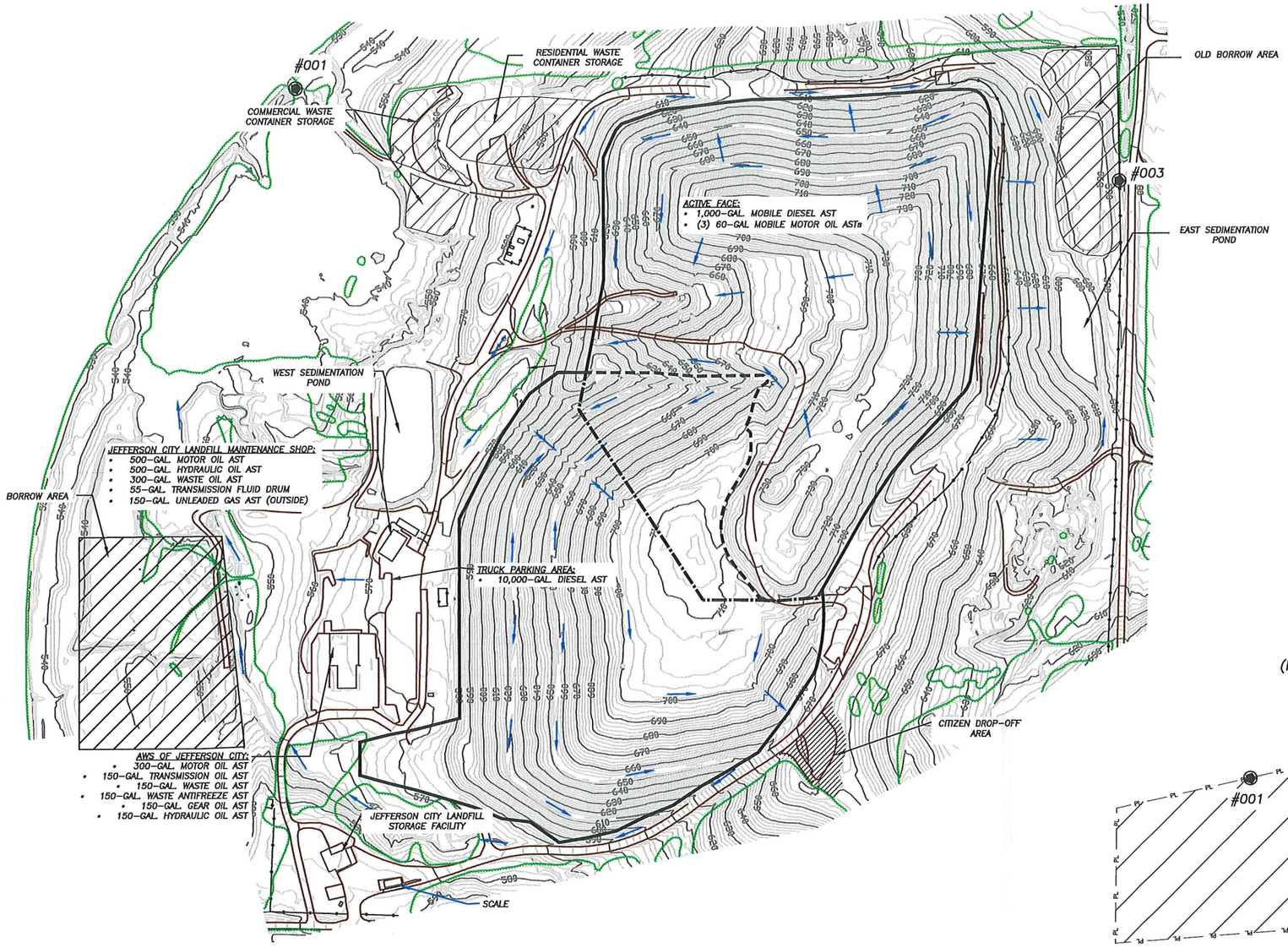
Weaver Consultants Group

WEAVER CONSULTANTS GROUP
6301 EAST HWY AB
COLUMBIA, MISSOURI 65201
(888) 660-0346
www.wcgrp.com

DRAWN BY:	ZBP
REVIEWED BY:	DM
DATE:	2/11/2019
FILE:	0120-133-10
CAD:	D1_Site and Outfall Locations.dwg

FIGURE 1

I:\PROJECTS\120\133 JCLF\2019 NPDES Renewal\Figures\D1_Site and Outfall Locations.dwg;zpurol;February 11, 2019



APPROXIMATE GRAPHIC SCALE

450 0 225 450 900

1 inch = 450 ft.

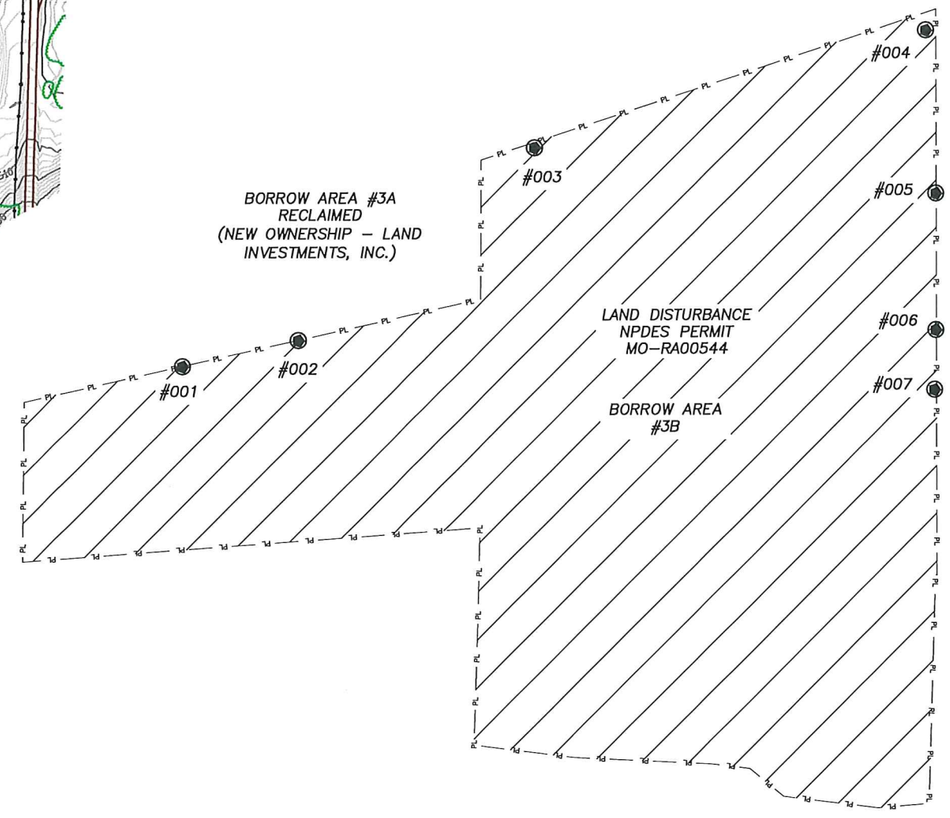
N

LEGEND:

- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING ROAD
- TREELINE
- FENCE
- BUILDINGS/STRUCTURES
- PERMITTED BOUNDARY
- CONSTRUCTED AREA FOR LANDFILL DISPOSAL
- PERMIT #0105106 BOUNDARY
- SURFACE WATER FLOW DIRECTION
- #001 OUTFALL

NOTES:

1. EXISTING GRADE CONTOURS SHOWN ARE FROM AN AERIAL SURVEY COMPLETED BY COOPER AERIAL SURVEY CO. DATED DECEMBER 12, 2018.
2. OUTFALL #002 WAS ELIMINATED IN 2014.



PREPARED FOR:
JEFFERSON CITY LANDFILL, LLC.

FIGURE 2 - SITE LAYOUT
JEFFERSON CITY LANDFILL
5605 MOREAU RIVER ACCESS RD
JEFFERSON CITY, MO

No.	DATE	REVISION DESCRIPTION

Weaver Consultants Group

WEAVER CONSULTANTS GROUP
6301 EAST HWY AB
COLUMBIA, MISSOURI 65201
(888) 660-0346
www.wcgrp.com

DRAWN BY:	ZBP
REVIEWED BY:	DM
DATE:	2/8/2019
FILE:	0120-133-10
CAD:	D2_Site Layout.dwg

FIGURE 2

I:\PROJECTS\120\133 JCLF\2019 Jefferson City Landfill NPDES Renewal\Figures\D2_Site Layout.dwg;zpurol;February 8, 2019