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-0119300
Owner:	Enterprise Refined Products Company LLC
Address:	P.O. Box 4324, Houston, TX 77210
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	Cape Girardeau Terminal
Facility Address:	10653 State Highway North, Scott City, MO 63780
Legal Description:	Landgrant 794, Scott County
UTM Coordinates:	X=812225, Y=4125987
Receiving Stream:	Tributary to Dorrity Creek
First Classified Stream and ID:	8-20-13 MUDD V. 1.0 (C) (3960), locally known as Dorrity Creek
USGS Basin & Sub-watershed No.:	07140105-0801

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

FACILITY DESCRIPTION

OUTFALL #001 - Petroleum pipeline terminal; SIC #4613
Receives stormwater from diked areas for aboveground petroleum product storage, truck loading area, ethanol truck off-loading area, and pipe and equipment testing and maintenance areas.
Est. Flow in 10 yr/24 hr precipitation event: 2.8 MGD
Average Flow: Dependent on precipitation

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.

October 1, 2018
Effective Date

Edward B. Galbraith, Director, Division of Environmental Quality

September 30, 2023
Expiration Date

Chris Wieberg, Director, Water Protection Program

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL #001 *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 **October 1, 2018** 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
PHYSICAL						
Flow	MGD	*		-	once/quarter ◊	24 hr. estimate
CONVENTIONAL						
Chemical Oxygen Demand	mg/L	**		120	once/quarter ◊	grab ∞
Oil & Grease	mg/L	**		10	once/quarter ◊	grab ∞
pH Ω	SU	6.5 to 9.0		-	once/quarter ◊	grab ∞
Total Suspended Solids	mg/L	**		120	once/quarter ◊	grab ∞
OTHER						
Benzene	µg/L	*		-	once/quarter ◊	grab ∞
Naphthalene	µg/L	*		-	once/quarter ◊	grab ∞
MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE JANUARY 28, 2019. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

* Monitoring requirement only.

Ω The facility will report the minimum and maximum values. pH is not to be averaged.

** Monitoring requirement with associated benchmark. See Special Condition #4

∞ All samples shall be collected from a discharge resulting from a precipitation event greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable precipitation event. If a discharge does not occur within the reporting period, report as no discharge. The total amount of precipitation should be noted from the event from which the samples were collected.

◊ 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 and hereby incorporated as though fully set forth herein.

C. SPECIAL CONDITIONS

1. Electronic Discharge Monitoring Report (eDMR) Submission System
   (a) Discharge Monitoring Reporting Requirements. The permittee must electronically submit compliance monitoring data via the eDMR system. In regards to Standard Conditions Part I, Section B, #7, the eDMR system is currently the only Department approved reporting method for this permit.
   (b) Programmatic Reporting Requirements. The following reports (if required by this permit) 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:
      (1) Any additional report required by the permit excluding bypass reporting.
      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.
   (c) Other actions. 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);
      (4) Low Erosivity Waivers and Other Waivers from Stormwater Controls (LEWs); and
      (5) Bypass reporting.
   (d) Electronic Submissions. To access the eDMR system, use the following link in your web browser: https://edmr.dnr.mo.gov/edmr/E2/Shared/Pages/Main/Login.aspx.
   (e) Waivers from Electronic Reporting. 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 that the approved electronic reporting waiver is effective.

2. The purpose of the Stormwater Pollution Prevention Plan (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 preventing pollution [10 CSR 20-2.010(56)] of waters of the state, and corrective actions means the facility took steps to eliminate the deficiency.

3. The facility's SIC code(s) or description is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2) hence shall implement a SWPPP which must be prepared and implemented upon permit issuance. 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 every five years or as site conditions change (see Part III: Antidegradation Analysis and SWPPP sections in the fact sheet). 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 February 2009 (www.epa.gov/npdes/pubs/industrial_swppp_guide.pdf). 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) The SWPPP must include a schedule for 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 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 must be reported to the regional office within seven (7) days of discovery. The initial report shall consist of the deficiency noted, the proposed remedies, the interim or temporary remedies (including the general timing of the placement of the interim measures), and an estimate of the timeframe needed to wholly complete the repairs or construction. The permittee will work with the regional office to determine the best course of action, including but not limited to 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.
      v. 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 and EPA personnel upon request.
   (c) A provision for designating an individual to be responsible for environmental matters.
   (d) A provision for providing training to all personnel involved in material handling and storage, and housekeeping of maintenance and cleaning areas. Proof of training shall be submitted on request of the Department.

C. SPECIAL CONDITIONS (CONTINUED)

4. This permit stipulates pollutant benchmarks applicable to your discharge. 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 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 that pollutant in your stormwater discharge(s).

   Any time a benchmark exceedance occurs a Corrective Action Report (CAR) must be completed. A CAR is a document that records the efforts undertaken by the facility to improve BMPs to meet benchmarks in future samples. CARs must be retained with the SWPPP and 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.

5. Permittee shall adhere to the following minimum Best Management Practices (BMPs):
   (a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent the contamination of stormwater from these substances.
   (b) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
   (c) Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so that 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. Any spills should be noted in the SWPPP.
   (d) Provide good housekeeping practices on the site to keep trash from entry into waters of the state.
   (e) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property to comply with general water quality criteria, effluent limits, or benchmarks. This could include the use of straw bales, silt fences, or sediment basins, if needed.

6. To protect the general criteria found at 10 CSR 20-7.031(4), before releasing water accumulated in secondary containment areas, it must be examined for hydrocarbon odor and presence of sheen. If the presence of odor or sheen is indicated, the water shall be disposed of in accordance with legally approved methods, such as being sent to a wastewater treatment facility. Record of the shipping bill of lading for the wastewater treatment facility, or another viable form of proof of removal, shall be stored with the SWPPP to be available on demand to DNR and EPA personnel. Analytical testing is not required for water which is sent to a wastewater treatment facility.

   If the water is not sent to a wastewater treatment facility, on-site treatment of the water must occur to remove sheen and/or hydrocarbon odor. Following treatment, 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. Records of all testing and treatment of water accumulated in secondary containment shall be stored in the SWPPP to be available on demand to DNR and EPA personnel.

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 Sections 301(b)(2)(C) and (D), §304(b)(2), and §307(a) (2) of the Clean Water Act, 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.

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

9. 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);

C. SPECIAL CONDITIONS (CONTINUED)

(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).

10. Report as no-discharge when a discharge does not occur during the report period. The permittee may report 'No-Discharge' if all reasonable attempts to collect a sample of a known or anticipated discharge throughout the reporting period has resulted in the inability to collect an effluent sample.

11. Reporting of Non-Detects
(a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way that 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. Reporting as "non-detect" without also including the detection 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 sign and the minimum detection limit (e.g. <10).
(d) Where the permit contains a Minimum Level (ML) and the permittee is granted authority in the permit to report zero in lieu of the < ML for a specified parameter (conventional, priority pollutants, metals, etc.), then zero (0) is to be reported for that parameter.
(e) See Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.
(f) 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).

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

MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-0119300
CAPE GIRARDEAU TERMINAL

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution 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 Stormwater
Facility SIC Code(s): 4613
Application Date: 03/09/2018
Expiration Date: 09/30/2018
Last Inspection: 09/29/2016 in compliance

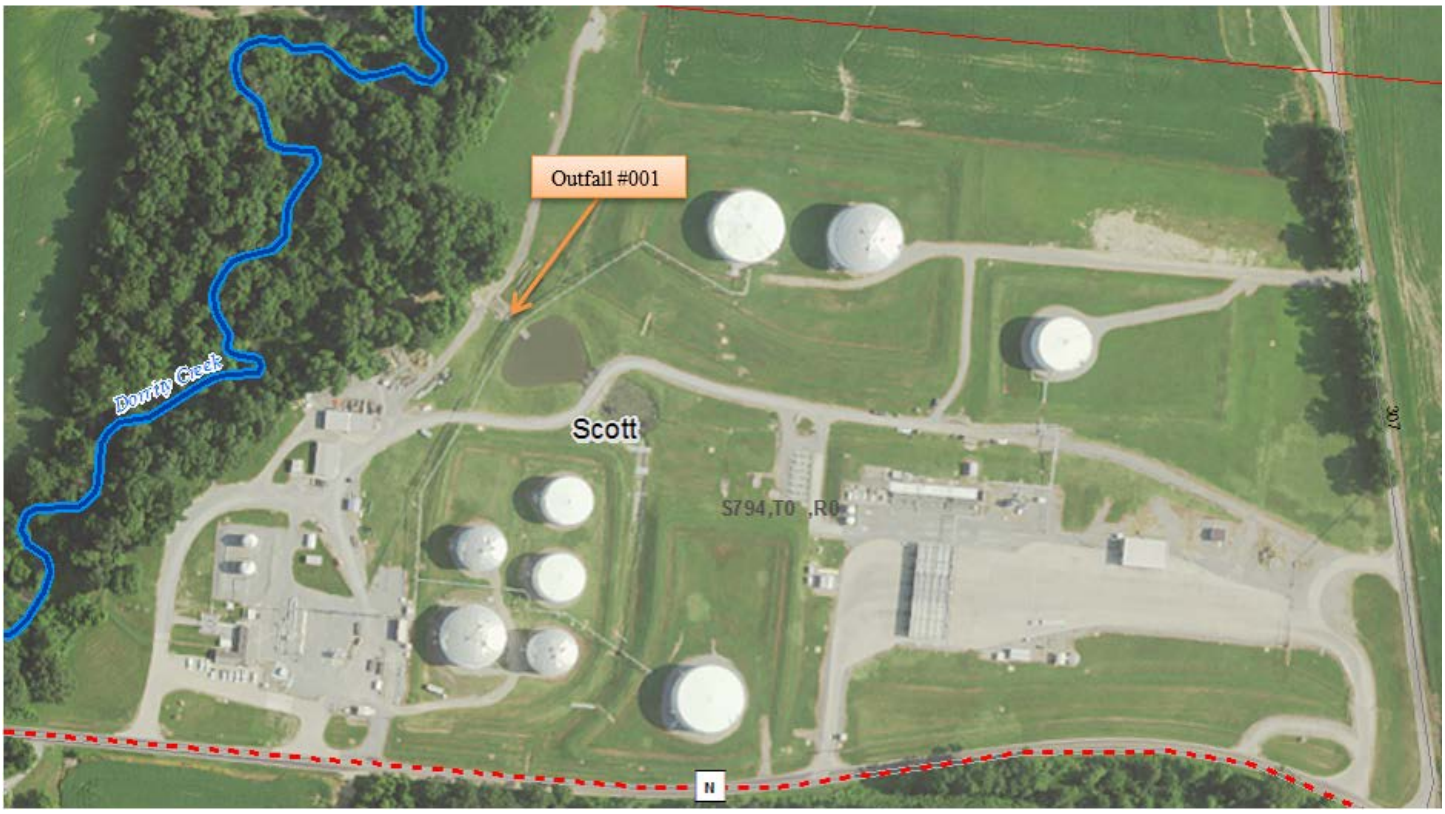
FACILITY DESCRIPTION:
The Cape Girardeau Terminal is a petroleum pipeline terminal which transports and stores refined petroleum products, including gasoline, diesel fuels, fuel additives, and ethanol. Smaller quantities of used oil, methanol, herbicides and ethylene glycol are stored on site. The site is approximately 27 acres, with 3.2 acres of impervious area. A series of berms and dikes are present prior to outfall #001. Application materials state wastewater is not generated through any industrial process at the site, and discharge is limited to stormwater only. Outfall #001 receives stormwater flow from the aboveground storage tank area, which store petroleum products and ethanol with earthen secondary containment structures in place; the truck loading area, which is covered with a roof and curbed and graded to prevent run-on; and the pipe and equipment testing area. This stormwater first enters a series of two stormwater retention ponds. The discharge from each retention pond is by submerged invert pipe which discharges water without discharge of lighter petroleum products which may potentially be floating on the water surface. All containers on-site are kept covered and sealed and are routinely inspected for leaks.

PERMITTED FEATURES TABLE:

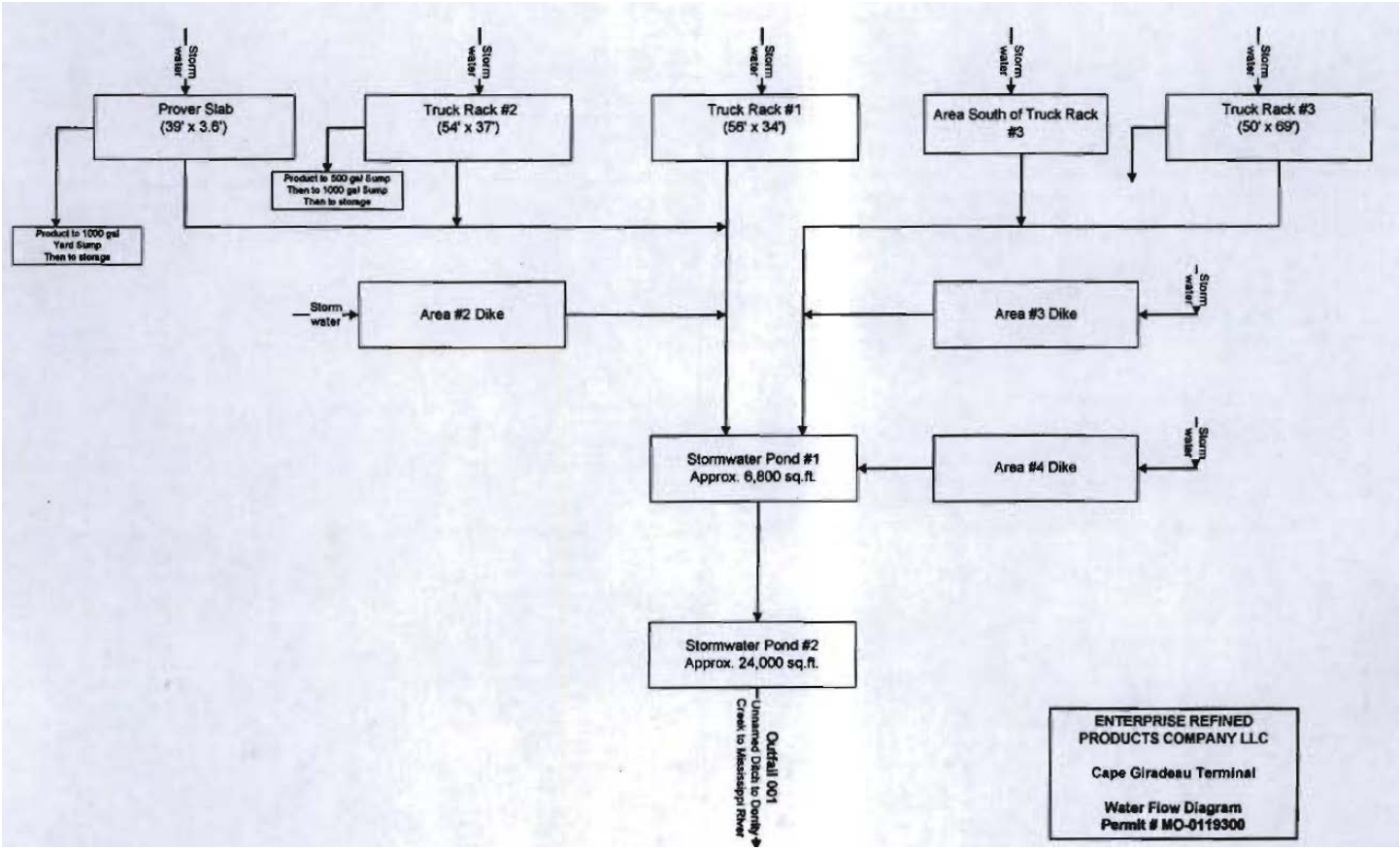
OUTFALL	AVERAGE FLOW (MGD)	EST FLOW IN 10 YR 24 HR EVENT (MGD)	TREATMENT LEVEL	EFFLUENT TYPE
#001	dependent on precipitation	2.8 MGD	BMPs, Sedimentation	Industrial Stormwater

FACILITY PERFORMANCE HISTORY & COMMENTS:
The electronic discharge monitoring reports were reviewed for the last permit cycle. No exceedances were noted. The facility was found to be in compliance during the last inspection.

FACILITY MAP:



WATER BALANCE DIAGRAM:



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/pub2337.htm
✓ Not applicable; this permittee cannot withdraw water from the state in excess of 70 gpm/0.1 MGD.

Part II. RECEIVING WATERBODY INFORMATION

RECEIVING WATER BODY'S WATER QUALITY:
The receiving stream Dorrity Creek (C) has no concurrent water quality data available. No stream surveys or other water quality information is available or relevant to this waterbody.

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 that 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/
✓ Not applicable; this facility is not associated with a TMDL.

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:
✓ As per Missouri's Effluent Regulations [10 CSR 20-7.015(1)(B)], the waters of the state are divided into the following seven categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall's effluent limitation table and further discussed in the derivation & discussion of limits section.

Missouri or Mississippi River: ☐
Lake or Reservoir: ☐
Losing: ☐
Metropolitan No-Discharge: ☐
Special Stream: ☐
Subsurface Water: ☐
All Other Waters: ☒

RECEIVING STREAMS TABLE:

OUTFALL	WATERBODY NAME	CLASS	WBID	DESIGNATED USES*	DISTANCE TO SEGMENT (MILES)	12-DIGIT HUC
#001	Tributary to Dorrity Creek	n/a	n/a	GEN	0.06	07140105-0801 Holden Creek-Mississippi River
#001	8-20-13 MUDD V. 1.0 Locally known as Dorrity Creek	C	3960	HHP, IRR, LWW, SCR, WBC-B, WWH (AQL)		

n/a not applicable
WBID = Waterbody IDentification: Missouri Use Designation Dataset 8-20-13 MUDD V1.0 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
* As per 10 CSR 20-7.031 Missouri Water Quality Standards, 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 to be maintained are in the receiving stream table 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.:
AQL = Protection of aquatic life (Current narrative use(s) are defined to ensure the protection and propagation of fish shellfish and wildlife, which is 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 AQL effluent limitations in 10 CSR 20-7.031 Table A 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 supporting swimming;
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;
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 Table A 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

MIXING CONSIDERATIONS:
Mixing zone: not allowed [10 CSR 20-7.031(5)(A)4.B.(I)(a)].
Zone of initial dilution: not allowed [10 CSR 20-7.031(5)(A)4.B.(I)(b)].

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

Part III. RATIONALE AND DERIVATION OF EFFLUENT LIMITATIONS & 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.

ANTI-BACKSLIDING:
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 contained a specific set of prohibitions related to general criteria 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 standards in the previous permit. Federal regulations 40 CFR 122.44(d)(1)(iii) requires that in instances were 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 and establishing numeric effluent limitations for specific pollutant parameters, the previous permit simply placed the prohibitions in the permit. Appropriate reasonable potential determinations were conducted for each general criterion listed in 10 CSR 20-7.031(4) 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 that 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.

ANTIDEGRADATION REVIEW:
For process water discharge with new, altered, or expanding discharges, 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.

For stormwater discharges with new, altered, or expanding discharges, the stormwater BMP chosen for the facility, through the antidegradation analysis 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.

BENCHMARKS:
When a permitted feature or outfall consists of only stormwater, a benchmark may be implemented at the discretion of the permit writer. 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 limitations of the permit.

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 determined by the site specific conditions including the receiving water's current quality. While inspections of the stormwater BMPs occur monthly, facilities with no compliance issues are usually expected to sample stormwater quarterly.

Numeric benchmark values are based on water quality standards or other stormwater permits including guidance forming the basis of Environmental Protection Agency's (EPA's) *Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity* (MSGP). 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. 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.

- ✓ Applicable; this facility has stormwater-only outfalls with benchmark constraints. The benchmarks listed are consistently achieved in stormwater discharges by a variety of other industries with SWPPPs.

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.

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.

- ✓ This facility does not have an associated ELG.

GROUNDWATER MONITORING:
Groundwater is a water of the state according to 10 CSR 20-7.015(1)11, and 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.

REASONABLE POTENTIAL ANALYSIS (RPA):
Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants that 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. 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 that pollutant [40 CFR Part 122.44(d)(1)(iii)].

- ✓ Not applicable; an RPA was not conducted for this facility. This permit establishes permit limits and 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.
- ✓ Permit writers use the Department's permit writer's manual (http://dnr.mo.gov/env/wpp/permits/manual/permit-manual.htm), the EPA's permit writer's manual (https://www.epa.gov/npdes/npdes-permit-writers-manual), program policies, and best professional judgment. For each parameter in each permit, the permit writer carefully considers all applicable information regarding: technology based effluent limitations, effluent limitation guidelines, water quality standards, stream flows and uses, and all applicable site specific information and data gathered by the permittee through discharge monitoring reports and renewal (or new) application sampling. Best professional judgment is based on the experience of the permit writer, cohorts in the Department and resources at the EPA, research, and maintaining continuity of permits if necessary. For stormwater permits, the permit writer is required per 10 CSR 6.200(6)(B)2 to consider: A. application and other information supplied by the permittee; B. effluent guidelines; C. best professional judgment of the permit writer; D. water quality; and E. BMPs. Part V provides specific decisions related to this permit.

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 providing certain conditions are met.
✓ Not applicable; this permit does not contain a SOC.

SECONDARY CONTAINMENT STRUCTURES SPECIAL CONDITION:
The previous permit's special conditions required sampling of total petroleum hydrocarbons (TPH) under the decision model to discharge stormwater having a sheen in secondary containment. The special condition has been revised in all permits beginning in 2015 to include oil and grease and BTEX (benzene, toluene, ethylbenzene, and xylene) sampling of the potentially contaminated stormwater in secondary containment. This change was due to 1) no water quality standards for TPH; and 2) there are no approved methods found in 40 CFR 136 for TPH. The facility need only sample for these constituents prior to release when a sheen or petroleum odor is present.

SPILL REPORTING:
Per 10 CSR 24-3.010, 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

SLUDGE – DOMESTIC BIOSOLIDS:
Biosolids are solid materials resulting from domestic wastewater treatment meeting federal and state criteria for beneficial use (i.e. fertilizer). 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. Additional information: http://extension.missouri.edu/main/DisplayCategory.aspx?C=74 (WQ422 through WQ449).
✓ Not applicable; this condition is not applicable to the permittee for this facility.

SLUDGE – INDUSTRIAL:
Industrial sludge is solid, semi-solid, or liquid residue generated during the treatment of industrial 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 a material derived from industrial sludge.
✓ Not applicable; sludge is not generated at this facility.

STORMWATER PERMITTING:
A standard mass-balance equation cannot be calculated for stormwater from this facility because the stormwater flow and flow in the receiving stream cannot be determined for conditions on any given day. The amount of stormwater discharged from the facility will vary based on 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, amount of surfaces with reduced permeability (houses, parking lots, and the like) in the watershed, hydrogeology, topography, etc. Decreased permeability increases the flash of the stream.

It is likely sufficient rainfall to cause a discharge for four continuous days from a facility will also cause some significant amount of flow in the receiving stream. Chronic WQSs are based on a four-day exposure (except ammonia, which is based on a thirty day exposure). In the event a discharge does occur from this facility for four continuous days, some amount of flow will occur in the receiving stream. This flow will dilute stormwater discharges from a facility. For these reasons, most industrial stormwater facilities have limited potential to cause a violation of chronic water quality standards in the receiving stream.

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 WQSs are based on a one hour of exposure, and must be protected at all times in unclassified streams, and within mixing zones of class P streams [10 CSR 20-7.031(4) and (5)(4)4.B.]. Therefore, industrial stormwater facilities with toxic contaminants do have the potential to cause a violation of acute WQSs if those toxic contaminants occur in sufficient amounts.

It is due to the items stated above staff are unable to perform statistical Reasonable Potential Analysis (RPA). However, staff will use their best professional judgment in determining if a facility has a potential to violate Missouri's Water Quality Standards.

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*, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009], 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.

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 that are reasonable and cost effective. The AA evaluation should include practices that are 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 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; the application is found at: http://dnr.mo.gov/forms/index.html.

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

TECHNOLOGY-BASED EFFLUENT LIMITATIONS (TBEL):
One of the major strategies of the Clean Water Act (CWA) in making "reasonable further progress toward the national goal of eliminating the discharge of all pollutants" is to require effluent limitations based on the capabilities of the technologies available to control those discharges. Technology-based effluent limitations (TBELs) aim to prevent pollution by requiring a minimum level of effluent quality attainable using demonstrated technologies for reducing discharges of pollutants or pollution into the waters of the United States. TBELs are developed independently of the potential impact of a discharge on the receiving water, which is addressed through water quality standards and water quality-based effluent limitations (WQBELs).
✓ Not applicable; this facility does not discharge process wastewater therefore is not subject to TBEL POC analysis.

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(78)], 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 waters, then the other must be used.
✓ Not applicable; wasteload allocations were not calculated.

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 STANDARDS:
Per 10 CSR 20-7.031(4), general criteria shall be applicable to all waters of the state at all times including mixing zones. Additionally, 40 CFR 122.44(d)(1) directs the Department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including state narrative criteria for water quality.

WHOLE EFFLUENT TOXICITY (WET) TEST:
A WET test is a quantifiable method to determine discharges from the facility cause toxicity to aquatic life by itself, in combination with, or through synergistic responses, when mixed with receiving stream water.
✓ Not applicable; at this time, the permittee is not required to conduct WET testing for this facility.

Part IV. EFFLUENT LIMITS DETERMINATION

Effluent limitations derived and established for this permit are based on current operations of the facility. Effluent means both process water and stormwater. Any flow through the outfall is considered a discharge and must be sampled and reported as provided below. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

GENERAL CRITERIA CONSIDERATIONS:
In accordance with 40 CFR 122.44(d)(1), effluent limitations shall be placed into permits for pollutants which have been determined to cause, have the reasonable potential to cause, or to contribute to an excursion above any State water quality standard, including State narrative criteria for water quality. The rule further states pollutants which have been determined to cause, have the reasonable potential to cause, or contribute to an excursion above a narrative criterion within an applicable State water quality standard, the permit shall contain a numeric effluent limitation to protect that narrative criterion. The previous permit included the narrative criteria as specific prohibitions placed upon the discharge. These prohibitions were included in the permit absent any discussion of the discharge's reasonable potential to cause or contribute to an excursion of the criterion. In order to comply with this regulation, the permit writer has completed a reasonable potential determination on whether the discharge has reasonable potential to cause, or contribute to an excursion of the general criteria listed in 10 CSR 20-7.031(4). These specific requirements are listed below followed by derivation and discussion (the lettering matches that of the rule itself, under 10 CSR 20-7.031(4)). In instances where reasonable potential exists, the permit includes numeric limitations to address the reasonable potential. In instances where reasonable potential does not exist the permit includes monitoring of the discharges potential to impact the receiving stream's narrative criteria. Finally, all of the previous permit narrative criteria prohibitions have been removed from the permit given they are addressed by numeric limits where reasonable potential exists. It should also be noted that Section 644.076.1, RSMo as well as Section D – Administrative Requirements of Standard Conditions Part I of this permit state that it shall be unlawful for any person to cause or permit any

discharge of water contaminants from any water contaminant or point source located in Missouri that is 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.

(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 at renewal for this outfall 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 at renewal for this outfall indicates unsightly or harmful bottom deposits would be discharged by the facility.

(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 at renewal or during prior sampling for DMR requirements for these outfalls 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 at renewal for these outfalls indicates scum and floating debris will be present in sufficient amounts to impair beneficial uses

(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 at renewal for these outfalls 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 at renewal for these outfalls indicates offensive odor will be present in sufficient amounts to impair beneficial uses.

(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 that 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.
- It is the permit writer’s opinion that this criterion is the same as (D).

(F) There shall be no acute toxicity to livestock or wildlife watering.
- It is the permit writer’s opinion that this criterion is the same as (D).

(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 that would impair the natural biological community because nothing disclosed by the permittee at renewal for these outfalls indicates physical changes that would impair the natural biological community.
- For all outfalls, there is no RP for hydrologic changes that would impair the natural biological community because nothing disclosed by the permittee at renewal for these outfalls indicates hydrologic changes that would impair the natural biological community.
- It has previously been established that any chemical changes are covered by the specific numeric effluent limitations established in the permit.

(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 are no solid waste disposal activities or any operation that has reasonable potential to cause or contribute to the materials listed above being discharged through any outfall.

OUTFALL #001 – STORMWATER OUTFALL

EFFLUENT LIMITATIONS TABLE:

PARAMETERS	UNIT	DAILY MAXIMUM LIMIT	BENCH-MARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL							
FLOW	MGD	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	24 HR. ESTIMATE
CONVENTIONAL							
COD	mg/L	**	120	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
OIL & GREASE	mg/L	**	10	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
pH ǂ	SU	6.5 TO 9.0	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
TSS	mg/L	**	120	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
OTHER							
BENZENE	µg/L	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
NAPHTHALENE	µg/L	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB

* Monitoring requirement only
** Monitoring with associated benchmark
ǂ Report the minimum and maximum pH values; pH is not to be averaged.

DERIVATION AND DISCUSSION OF LIMITS:

PHYSICAL:

Flow
In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain 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 total flow in millions of gallons per day (MGD).

CONVENTIONAL:

Chemical Oxygen Demand (COD)
Monitoring with a daily maximum benchmark of 120 mg/L, continued from the last permit. There is no water quality standard 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. Additionally, 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.

Oil & Grease
Monitoring, with a daily maximum benchmark of 10 mg/L, continued from the previous permit. There were no exceedances of this benchmark in the previous permit period. 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 the protection of aquatic life. 10 mg/L is also the level at which sheen is estimated 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
Limited to 6.5 to 9.0 SU, continued from last 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.

Total Suspended Solids (TSS)
Monitoring, with a daily maximum benchmark of 120 mg/L, continued from the previous permit. 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 will be set at 120 mg/L. This value is achievable through proper operational and maintenance of BMPs and falls within the range of values implemented in other permits having similar industrial activities.

OTHER:

Benzene
Monitoring only, continued from the previous permit. The permittee indicated on their application BTEX is a pollutant of concern at this site. The permit writer determines benzene to be an acceptable indicator pollutant for this suite of pollutants.

Napthalene
Monitoring only, continued from the previous permit. The permittee indicated on their application naphthalene is a pollutant of concern at this site.

Part V. SAMPLING AND REPORTING REQUIREMENTS:

See Standard Conditions Part I attached at the end of this permit and fully incorporated within.

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. This 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 non-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.

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

SAMPLING FREQUENCY JUSTIFICATION:
Sampling and reporting frequency was generally retained from previous permit. 40 CFR 122.45(d)(1) indicates all continuous discharges shall be permitted with daily maximum and monthly average limits. 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, and volatile organic samples.

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 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 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 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 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. Table A at 10 CSR 20-7.031 shows water quality standards.

Part VI. 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 that 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 three years old, that 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 will remain synchronized by expiring the end of the 3rd quarter, 2023.*

PUBLIC NOTICE:
The Department shall give public notice that 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 and 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 06/23/2018 to 07/23/2018. No responses were received.

DATE OF FACT SHEET: 05/15/2018

COMPLETED BY:

AMBERLY SCHULZ, ENVIRONMENTAL SPECIALIST
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION - INDUSTRIAL UNIT
(573) 751-8049
Amberly.schulz@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.

ENTERPRISE REFINED PRODUCTS COMPANY LLC
CAPE GIRARDEAU TERMINAL
Scott County, Missouri

State Operating Permit Renewal Application
Permit No. MO-0119300

FEBRUARY 2018

ATTACHMENT A

MDNR FORM A

RECEIVED
MAR 09 2018
WATER PROTECTION PROGRAM

29520

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 3-29-18	FEE SUBMITTED 0 SB

Note ▶ PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM.

1. This application is for:

☐ An operating permit for a new or unpermitted facility:
Please indicate the original Construction Permit # _____

☑ An operating permit renewal:
Please indicate the permit # MO- 0119300 Expiration Date 9-30-2018

☐ An operating permit modification:
Please indicate the permit # 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	
Cape Girardeau Terminal		(713) 381-6595	
		FAX (713) 381-6660	
ADDRESS (PHYSICAL)	CITY	STATE	ZIP CODE
10653 State Highway North	Scott City	MO	63780

3. OWNER

NAME	EMAIL ADDRESS	TELEPHONE NUMBER WITH AREA CODE	
Enterprise Refined Products Company LLC	snolan@eprod.com	(713) 381-6595	
		FAX (713) 381-6660	
ADDRESS (MAILING)	CITY	STATE	ZIP CODE
P O Box 4324 / ENV	Houston	TX	77210-4324

3.1 Request review of draft permit prior to public notice? ■ YES ☐ NO

4. CONTINUING AUTHORITY

NAME	EMAIL ADDRESS	TELEPHONE NUMBER WITH AREA CODE	
Enterprise Refined Products Company LLC	snolan@eprod.com	(713) 381-6595	
		FAX (713) 381-6660	
ADDRESS (MAILING)	CITY	STATE	ZIP CODE
P O Box 4324 / ENV	Houston	TX	77210-4324

5. OPERATOR

NAME	CERTIFICATE NUMBER	TELEPHONE NUMBER WITH AREA CODE	
Enterprise Products Operating LLC	N/A	(713) 381-6595	
		FAX (713) 381-6660	
ADDRESS (MAILING)	CITY	STATE	ZIP CODE
P O Box 4324 / ENV	Houston	TX	77210-4324

6. FACILITY CONTACT

NAME	TITLE	TELEPHONE NUMBER WITH AREA CODE
Mark Hathcote	Field Environmental Scientist	(501) 955-3910
	E-MAIL ADDRESS mhathcote@eprod.com	FAX (501) 955-3927

7. ADDITIONAL FACILITY INFORMATION

7.1 Legal Description of Outfalls. (Attach additional sheets if necessary.)

001 SW ¼ NE ¼ Sec ____ T ____ R ____ Scott County
UTM Coordinates Easting (X): 812225 Northing (Y): 4125987
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 ____ ¼ ____ ¼ Sec ____ T ____ R ____ ____ County
UTM Coordinates Easting (X): _____ Northing (Y): _____

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

7.2 Primary Standard Industrial Classification (SIC) and Facility North American Industrial Classification System (NAICS) Codes.

001 – SIC 4613 and NAICS 486910 002 – SIC _____ and NAICS _____
003 – SIC _____ and NAICS _____ 004 – SIC _____ and NAICS _____

8.	ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE THIS APPLICATION (Complete all forms that are applicable.)		
A.	Is your facility a manufacturing, commercial, mining or silviculture waste treatment facility? If yes, complete Form C or 2F. (2F is the U.S. EPA's Application for Storm Water Discharges Associate with Industrial Activity.)	YES ☐	NO ☑
B.	Is application for storm water 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.	Is sludge, biosolids, ash or residuals generated, treated, stored or land applied? If yes, complete Form R.	YES ☐	NO ☑
F.	If you are a Class IA CAFO, please disregard part D and E of this section. However, please attach any revision to your Nutrient Management Plan.		
F.	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, reporting of effluent limits and monitoring shall be submitted by the permittee via an electronic system to ensure timely, complete, accurate, and nationally consistent set of data. **One of the following must be checked in order for this application to be considered complete.** Please visit http://dnr.mo.gov/env/wpp/edmr.htm to access the Facility Participation Package.

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

☑ - You have previously submitted the required documentation to participate in the eDMR system and/or you are currently using the eDMR system.

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

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

NAME			
William Sanford Jr. Revocable Trust / Effie Marie Sanford Revocable Trust (See Attachment C- Location Map)			
ADDRESS	CITY	STATE	ZIP CODE
103 Country Club	Scott City	MO	63780

11. I certify that I am familiar with the information contained in the application, that to the best of my knowledge and belief such information is true, complete and accurate, and 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 available to applicant under the Missouri Clean Water Law to the Missouri Clean Water Commission.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE NUMBER WITH AREA CODE
Graham W. Bacon, Executive Vice President	(713) 381-6595
SIGNATURE	DATE SIGNED
	3/2/18

MO 780-1479 (09-16)

BEFORE MAILING, PLEASE ENSURE ALL SECTIONS ARE COMPLETED AND ADDITIONAL FORMS, IF APPLICABLE, ARE INCLUDED.

Submittal of an incomplete application may result in the application being returned.

HAVE YOU INCLUDED:

- ☐ 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?

ATTACHMENT B

EPA FORM 2F
AND SUPPLEMENTAL INFORMATION

Please print or type in the unshaded areas only.

EPA ID Number (*copy from Item 1 of Form 1*)
MO-0119300

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

FORM 2F NPDES

EPA

U.S. Environmental Protection Agency
Washington, DC 20460

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

Paperwork Reduction Act Notice

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

I. Outfall Location

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

A. Outfall Number (*list*)	B. Latitude			C. Longitude			D. Receiving Water (*name*)
001	37.00	13.00	40.88	89.00	28.00	50.71	Unnamed tributary to Dorrity Creek to Mississippi River

II. Improvements

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

1. Identification of Conditions, Agreements, Etc.	2. Affected Outfalls		3. Brief Description of Project	4. Final Compliance Date	
	number	source of discharge		a. req.	b. proj.
Not Applicable					

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

III. Site Drainage Map

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

Continue on Page 2

Continued from the Front

IV. Narrative Description of Pollutant Sources

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

Outfall Number	Area of Impervious Surface *(provide units)*	Total Area Drained *(provide units)*	Outfall Number	Area of Impervious Surface *(provide units)*	Total Area Drained *(provide units)*
001	3.2 Acres	27 Acres			

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

Refined petroleum products, including gasoline, diesel fuels, fuel additives, and ethanol. Smaller quantities of used oil, methanol, herbicides and ethylene glycol are stored onsite, see Supplemental Information for more details.

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

Outfall Number	Treatment	List Codes from Table 2F-1
001	see supplemental information	

V. Nonstormwater Discharges

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

Name and Official Title *(type or print)*	Signature	Date Signed
Graham Bacon, EVP, Operations & Eng.		

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

The analysis was done by evaluation of conditions at the site, not testing. The Cape Girardeau terminal does not have any equipment or processes that produce wastewater. The terminal stores and loads Refined Petroleum Products and Ethanol, but does not have any manufacturing or chemical process operations. There are no processes that use water. The only source of water that leaves the site is precipitation (rainfall) and subsequent run-off .

VI. Significant Leaks or Spills

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

No reportable leaks or Significant spills occured within the last three years.

 Continue on Page 3

Continued from Page 2

EPA ID Number *(copy from Item 1 of Form 1)*
MO-0119300

VII. Discharge Information

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

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

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

Components of stored products or additives
Benzene
Toluene
Ethylbenzene
Xylenes
Napthalene

VIII. Biological Toxicity Testing Data

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

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

IX. Contract Analysis Information

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

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

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed
TestAmerica Laboratories, Inc	TestAmerica St. Louis 13715 Rider Trail North Earth CIty, MO 63045	(314) 298 - 8566	Oil & Grease Total Suspended solids COD pH Benzene Naphthalene

X. Certification

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

A. Name & Official Title (*Type Or Print*)	B. Area Code and Phone No.
Graham W. Bacon, Executive Vice President	(713) 381-6595
C. Signature	D. Date Signed
	3/2/18

EPA ID Number (*copy from Item 1 of Form 1*)
MO-0119300

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

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

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

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	<5.6 mg/L		<5.0 mg/L		3.00	
Biological Oxygen Demand (BOD5)	<6.0 mg/L		<6.0 mg/L		2.00	
Chemical Oxygen Demand (COD)	59 mg/L		50.5 mg/L		2.00	
Total Suspended Solids (TSS)	69 mg/L		62.5 mg/L		2.00	
Total Nitrogen	2.0 mg/L		2.0 mg/L		1.00	
Total Phosphorus	160 ug/L		160 ug/L		1.00	
pH	Minimum 7.10	Maximum 7.40	Minimum	Maximum	2.00	

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

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Benzene	11 ug/L		11 ug/L		1.00	
Naphthalene	2.2 ug/L		2.2 ug/L		1.00	

Continue on Reverse

Continued from the Front

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

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
BTEX						Only in the event of a release

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

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

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

The time required to fill a container of known volume is measured with a stopwatch to measure instantaneous flow, which is than converted to a 24-hour total.

Supplemental Information

Item I: Outfall Location & Description

There is one stormwater outfall (Outfall 001) subject to Permit MO-0119300 at Enterprise Refined Products Company LLC (Enterprise) Cape Girardeau Terminal. Outfall 001 is located at the discharge point from the submerged invert pipe from the westernmost stormwater retention pond located in the northwestern part of the site. The ponds are operated in series i.e. water flows only from pond 1 to pond 2 and then to outfall 001. Discharge from the ponds is intermittent and only occurs during or after periods of heavy rainfall.

Item III: Site Drainage Map

Only stormwater is discharged from the facility. The sources of stormwater are:

- Diked areas for aboveground petroleum product, ethanol and additive storage tanks
- A truck loading area, referred to as Rack 3, where Petroleum Products are transferred from tank storage into trucks for off-site distribution.
- An ethanol truck off-loading area
- The Prover slab area in the southeast corner of the site. Periodic pipe and equipment testing and maintenance occur in this area.
- Sheet flow runoff (uncontaminated) that flows to the site drainage ditches and stormwater retention ponds.

Please see the Facility Plot Plan and the stormwater flow diagram in Attachment D for illustration of these sources of runoff.

Item IV-B: Narrative Description of Significant Materials[1]

SIGNIFICANT MATERIAL	MATERIAL FORM AND CONTAINER	ON-SITE USE OR MANAGEMENT
Refined Petroleum Products & Ethanol	Liquids, stored in ASTs with earthen dike secondary containment	Storage and loading, no onsite use
Fuel Additives	Liquids, stored in ASTs with concrete lined secondary containment	Storage, added to fuels prior to loading into trucks
Used Oil	Liquid, stored in aboveground 500-gallon tank with concrete lined secondary containment	Storage only, recycled off-site
Methanol	Liquid, stored in 55 gallon drums within concrete lined secondary containment area	De-icing valves and tank roof drains. Runoff contained and placed in product storage
Herbicides[2]	Liquid, 5 – gallon or smaller containers stored in the workshop	Diluted and applied in selected areas to control vegetative growth
Fertilizer & Ice-Melt	Granules, stored in drums in the workshop	Road and sidewalk de-icing
Ethylene Glycol	Liquid, stored in 55 – gallon drums in a concrete lined secondary containment area	Used in the Vapor Recovery unit

[1] These materials are not treated or disposed of on site.

[2] Herbicides are applied on an annual basis to selected areas to inhibit vegetative growth in key operational areas. The manner of application involves dilution of the liquid concentrate and spraying the solution on the designated areas. These areas are shown on the site drainage map as gravel and rock covered areas and include: 1) an 8 – 10 foot wide strip immediately surrounding each tank, plus the area around any pumps or valves within the containment dike. 2) Area 1 containment on the Southwest side of the facility (by Tanks 1961 & 1962) 3), the yard area east of the control building in the SW part of the site and, 4) the area immediately fringing the unpaved roads on-site.

Item IV- C: Description of Structural and Non-Structural Control Measures

Petroleum products arrive on-site via the Enterprise pipeline system and are piped directly into aboveground storage tanks. The tanks are located within earthen secondary containment structures. Stormwater from the secondary containment is only discharged after visual inspection indicates no sheen is present. Product from the bulk storage tanks is loaded onto trucks at Rack #3 truck loading area for off-site distribution (See Attachment D). The truck loading areas are provided with roof covers to reduce exposure to precipitation. Loading rack area concrete slabs are also curbed and / or graded to reduce precipitation run-on from surrounding areas. Stormwater collected from the concrete slab areas at each loading rack is routed to the on-site retention ponds. The ethanol tank receives material by truck at the ethanol unloading area.

The final control measure for runoff subject to Permit MO-0119300 are the two retention ponds connected in series. The discharge from each retention pond is by submerged invert pipe that discharges water without discharging lighter petroleum products that may potentially be floating on the water surface.

The loading and access area for the fuel additives, used oil, ethylene glycol, and methanol are restricted to the additives containment area (See Attachment D). These materials are transported to and from the site by truck. Incidental drips or spills that may occur during product delivery and use are promptly contained and remediated. The containers are kept covered or sealed to minimize potential contact with stormwater. The containers are located inside a concrete lined secondary containment area and are routinely inspected for leaks.

The loading and access area for the herbicides and fertilizer is restricted to the area immediately adjacent to the Work Shop. These materials are stored in closed drums inside the Work Shop to prevent contact with stormwater. Drainage from the Work Shop area flows through the retention ponds.

Stormwater also has the potential to contact petroleum products in the Prover slab area where periodic pipe and equipment testing and maintenance is performed. The Prover slab is curbed / graded to reduce run-on precipitation from surrounding areas.

The facility utilizes several Best Management Practices (BMPs) to minimize the potential for contact of significant materials with stormwater. Facility equipment and storage structures are inspected and repaired on a regular basis to minimize the potential for any leaks or spills. Employees are trained in identifying leaks and spills and in corrective actions when they are discovered. The valves on the dike discharge pipes are kept locked and sealed at all times other than during monitored draining.

The stormwater from the Area 1 dike (southwest part of the site) is routed off-site via sheet flow and is not included in the permit. Water from the other product tank diked areas is routed via drainage ditches to the on-site stormwater retention ponds and is discharged at Outfall 001.

Item VII - A: Discharge Information

- Sample collection will be completed according to the requirements of the current permit.

ATTACHMENT C

Location Map of Enterprise Cape Girardeau Terminal

DELORME

XMap® 6

Data use subject to license.

© DeLorme. XMap® 6.

www.delorme.com

TN

MN (1.3°W)

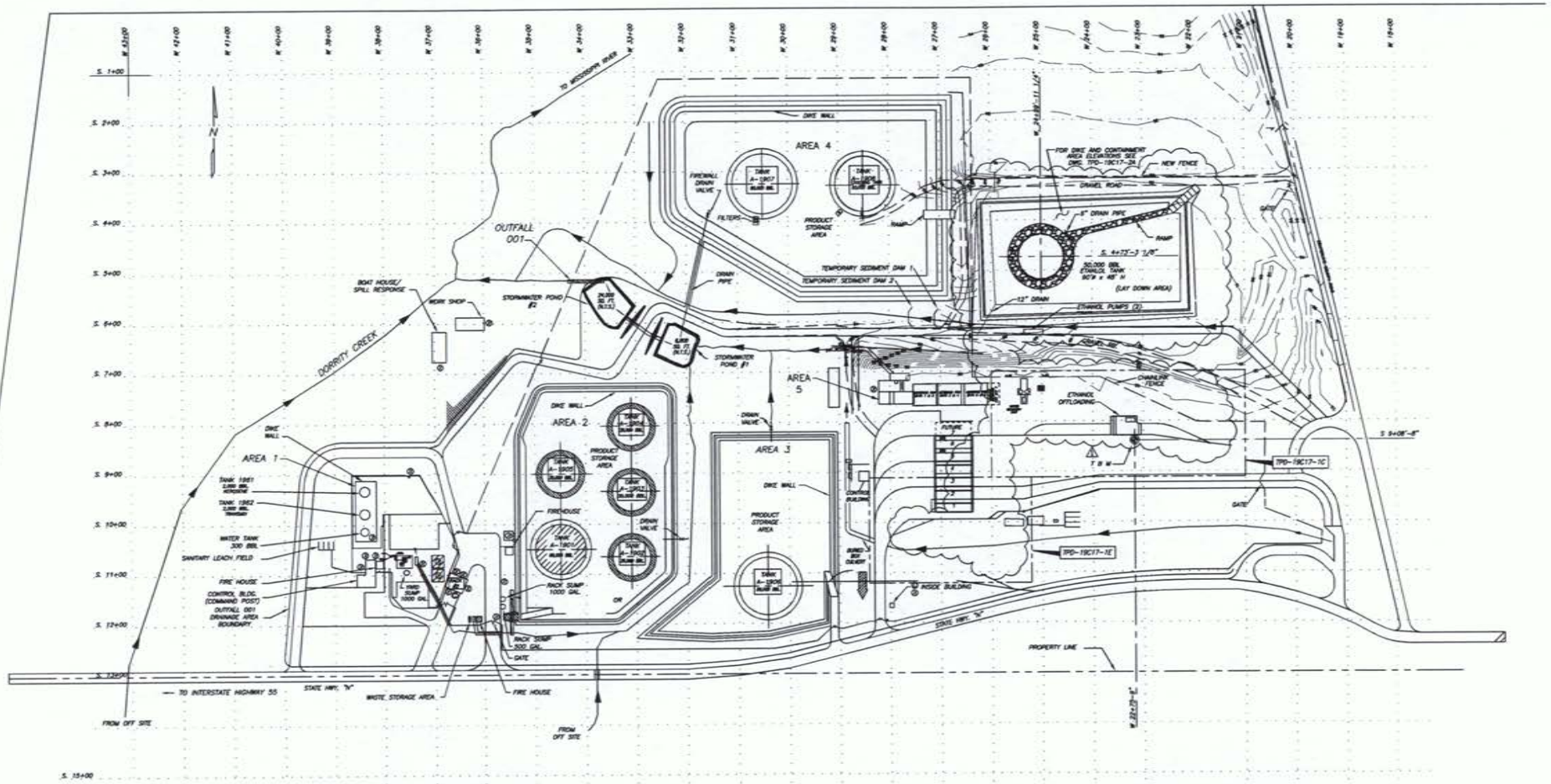
Scale 1 : 25,000

1" = 2,083.3 ft

Data Zoom 13-0

ATTACHMENT D

Facility Plot Plan / Stormwater Flow Diagram



0 100' 200

LEGEND

INDICATES AREA OF NEW WORK

TBM TEMPORARY BENCH MARK

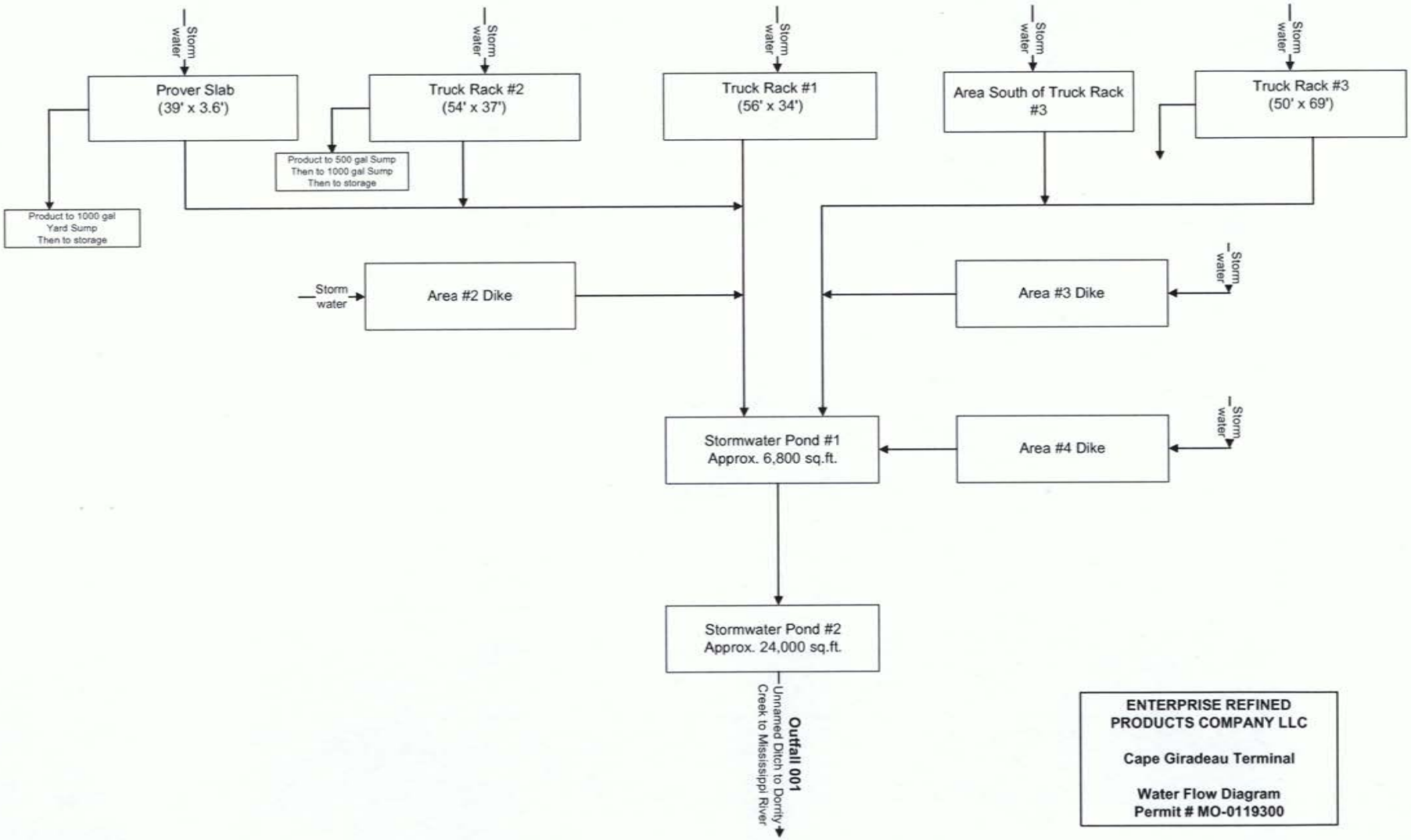
NO.	DATE	REVISION	DWN	CHK	APP	CLASS
2	7/08	AS BUILT				
1	6/12/07	UPDATE LOCATION OF OFFLOADING AREA	MJS	RC	STS	
0	4/26/07	ISSUED FOR CONSTRUCTION	MJS	RC	STS	

ELECTRICAL SYSTEMS DESIGN & CONTROL, INC.
11211 Katy Freeway, Ste. 610
Houston, Texas 77079
713-932-9948

ENTERPRISE REFINED PRODUCTS TERMINALS

PLOT PLAN
CAPE GIRARDEAU TERMINAL–ETHANOL BLENDING
CAPE GIRARDEAU, SCOTT CO., MISSOURI

DRAWN BY SS	DATE 04/05/07	TEPPCO APPROVED BY	DATE
CHECKED BY RC	06/05/07	ISABEL GARCIA	5/21/07
APPROVED BY RM	06/05/07	PROJECT MANAGER / PROJECT ENGINEER	
PROJ. # 000007031	SCALE 1" =100'	TPD-19C17-1A	
	SHIP TO CODE CAPE 1		



ENTERPRISE REFINED PRODUCTS COMPANY LLC

Cape Giradeau Terminal

Water Flow Diagram
Permit # MO-0119300

ATTACHMENT E

Laboratory Analysis

(for March, May, and December 2017)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Tel: (314)298-8566

TestAmerica Job ID: 160-26191-1
Client Project/Site: Enterprise Products

For:
Enterprise Products Operating LLC
241 Newman Drive
North Little Rock, Arkansas 72117

Attn: Mark Hathcote

Authorized for release by:
1/9/2018 5:03:46 PM

Jayna Awalt, Project Manager II
(314)298-8566
jayna.awalt@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client Sample Results 10
QC Sample Results 11
QC Association Summary 13
Surrogate Summary 14
Subcontract Data 15

Job ID: 160-26191-1

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

Client: Enterprise Products Operating LLC

Project: Enterprise Products

Report Number: 160-26191-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica St. Louis attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results for Chemistry analyses are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header. All soil/sediment sample results for radiochemistry analyses are based upon sample as dried and disaggregated with the exception of tritium, carbon-14, and iodine-129 by gamma spectroscopy unless requested as wet weight by the client."

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 12/26/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.2 C.

Samples were received with headspace for VOC analysis.

pH analysis was received outside of hold time as hold expires in the field.

COD and Oil and Grease analyses were performed at PDC Labs. Data can be found in the subcontract section of this report.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample CAPE OUT FALL #001 (160-26191-1) was analyzed for volatile organic compounds (GC-MS) in accordance with EPA Method 624. The samples were analyzed on 01/08/2018.

The following samples were analyzed outside of analytical holding time due to laboratory error. CAPE OUT FALL #001 (160-26191-1),

Job ID: 160-26191-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

(160-26191-A-1 MS) and (160-26191-A-1 MSD). Project Manager was informed day of reporting. Samples were analyzed within 2x hold.

The following volatile samples were analyzed with significant headspace in the sample container(s): CAPE OUT FALL #001 (160-26191-1), (160-26191-A-1 MS) and (160-26191-A-1 MSD). Significant headspace is defined as a bubble greater than 4 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL SUSPENDED SOLIDS

Sample CAPE OUT FALL #001 (160-26191-1) was analyzed for total suspended solids in accordance with EPA Method 160.2. The samples were analyzed on 12/29/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PH

Sample CAPE OUT FALL #001 (160-26191-1) was analyzed for pH in accordance with EPA SW-846 Method 9040C. The samples were analyzed on 12/28/2017.

The following sample in pH water analytical batch 160-344422 was analyzed out of hold due to pH water analysis having an immediate hold time that expires in the field at the time of sample collection. CAPE OUT FALL #001 (160-26191-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Phone (314) 298-8566 Fax (314) 298-8757

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: C. Porter	Lab PM: Awalt, Jayna K	Carrier Tracking No(s):	COC No: 160-5609-2835.1
Client Contact: Mark Hathcote	Phone: 501-350-1081	E-Mail: jayna.awalt@testamericainc.com		Page: Page 1 of 1
Company: Enterprise Products Operating LLC				Job #:
Address: 241 Newman Drive	Due Date Requested:			
City: North Little Rock	TAT Requested (days):			
State, Zip: AR, 72117				
Phone:	PO #: Pay by Credit Card			
Email: mhathcote@eprod.com	WO #:			
Project Name: Cape, MO - Quarterly Discharge Permit	Project #: 16002299			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	410.4_LL - COD	160.2_Calcd - Solids, Total Suspended (TSS)	9040C - pH	624_25ml - VOCs (Benzene and Naphthalene)	1664A - Oil and Grease - HEM	Total Number of containers	Special Instructions/Note:
			Preservation Code:				S	N	N	A	A		
Cape OUT Fall #001	12/23/17	0930		Water									
				Water									

Page 5 of 18

160-26191 Chain of Custody

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
C. Porter	12/23/17 1030 MOS	Enterprise Products	Andrew Smith	12-26-17 9:30	TASTL

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

1/9/2018

Login Sample Receipt Checklist

Client: Enterprise Products Operating LLC

Job Number: 160-26191-1

Login Number: 26191
List Number: 1
Creator: Clarke, Jill C

List Source: TestAmerica St. Louis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	False	pH is out of hold as it is a field analysis.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	False	All vials contained headspace for VOC.
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Enterprise Products Operating LLC
Project/Site: Enterprise Products

TestAmerica Job ID: 160-26191-1

Method	Method Description	Protocol	Laboratory
624	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL SL
160.2	Solids, Total Suspended (TSS)	MCAWW	TAL SL
9040C	pH	SW846	TAL SL
COD - Report with MDL/RL	General Sub Contract Method	NONE	SC0124
TPH and Oil & Grease - Report with MDL/R	General Sub Contract Method	NONE	SC0124

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
NONE = NONE
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

SC0124 = PDC Laboratories, Inc., 2231 W. Altorfer Drive, Peoria, IL 61615, TEL (309)692-9688
TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Enterprise Products Operating LLC
Project/Site: Enterprise Products

TestAmerica Job ID: 160-26191-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-26191-1	CAPE OUT FALL #001	Water	12/23/17 09:30	12/26/17 09:30

Client Sample Results

Client: Enterprise Products Operating LLC
Project/Site: Enterprise Products

TestAmerica Job ID: 160-26191-1

Client Sample ID: CAPE OUT FALL #001

Lab Sample ID: 160-26191-1

Date Collected: 12/23/17 09:30
Date Received: 12/26/17 09:30

Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	11	H	1.0	0.10	ug/L			01/08/18 11:09	1
Naphthalene	2.2	H	1.0	0.21	ug/L			01/08/18 11:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 130*		*01/08/18 11:09*	*1*
4-Bromofluorobenzene (Surr)	*109*		*83 - 123*		*01/08/18 11:09*	*1*
Toluene-d8 (Surr)	*108*		*83 - 121*		*01/08/18 11:09*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	69		4.0	4.0	mg/L			12/29/17 09:55	1
pH	7.1	HF	0.1	0.1	SU			12/28/17 20:39	1

QC Sample Results

Client: Enterprise Products Operating LLC
Project/Site: Enterprise Products

TestAmerica Job ID: 160-26191-1

Method: 624 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 160-345182/7
Matrix: Water
Analysis Batch: 345182

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.10	ug/L			01/08/18 10:23	1
Naphthalene	ND		1.0	0.21	ug/L			01/08/18 10:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*81 - 130*		*01/08/18 10:23*	*1*
4-Bromofluorobenzene (Surr)	*113*		*83 - 123*		*01/08/18 10:23*	*1*
Toluene-d8 (Surr)	*112*		*83 - 121*		*01/08/18 10:23*	*1*

Lab Sample ID: LCS 160-345182/4
Matrix: Water
Analysis Batch: 345182

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	10.1		ug/L		101	85 - 115
Naphthalene	10.0	11.8		ug/L		118	62 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*81 - 130*
4-Bromofluorobenzene (Surr)	*100*		*83 - 123*
Toluene-d8 (Surr)	*107*		*83 - 121*

Lab Sample ID: LCSD 160-345182/5
Matrix: Water
Analysis Batch: 345182

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	10.0	10.3		ug/L		103	85 - 115	1	20
Naphthalene	10.0	11.4		ug/L		114	62 - 140	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 130*
4-Bromofluorobenzene (Surr)	*100*		*83 - 123*
Toluene-d8 (Surr)	*105*		*83 - 121*

Lab Sample ID: 160-26191-1 MS
Matrix: Water
Analysis Batch: 345182

Client Sample ID: CAPE OUT FALL #001
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	11	H	10.0	20.3		ug/L		95	85 - 115
Naphthalene	2.2	H	10.0	13.2		ug/L		109	49 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 130*
4-Bromofluorobenzene (Surr)	*96*		*83 - 123*
Toluene-d8 (Surr)	*100*		*83 - 121*

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-26191-1 MSD — **Client Sample ID: CAPE OUT FALL #001**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 345182

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	11	H	10.0	20.6		ug/L		98	85 - 115	1	20
Naphthalene	2.2	H	10.0	13.5		ug/L		112	49 - 150	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*81 - 130*
4-Bromofluorobenzene (Surr)	*102*		*83 - 123*
Toluene-d8 (Surr)	*102*		*83 - 121*

Method: 160.2 - Solids, Total Suspended (TSS)

Lab Sample ID: MB 160-344571/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 344571

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			12/29/17 09:55	1

Lab Sample ID: LCS 160-344571/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 344571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	500	495		mg/L		99	78 - 124

Lab Sample ID: 160-26191-1 DU — **Client Sample ID: CAPE OUT FALL #001**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 344571

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	69		68.0		mg/L		1	5

Method: 9040C - pH

Lab Sample ID: LCS 160-344422/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 344422

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	99.0 - 101.0

Lab Sample ID: 160-26191-1 DU — **Client Sample ID: CAPE OUT FALL #001**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 344422

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.1	HF	7.1		SU		0.6	5

QC Association Summary

Client: Enterprise Products Operating LLC
Project/Site: Enterprise Products

TestAmerica Job ID: 160-26191-1

GC/MS VOA

Analysis Batch: 345182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26191-1	CAPE OUT FALL #001	Total/NA	Water	624	
MB 160-345182/7	Method Blank	Total/NA	Water	624	
LCS 160-345182/4	Lab Control Sample	Total/NA	Water	624	
LCSD 160-345182/5	Lab Control Sample Dup	Total/NA	Water	624	
160-26191-1 MS	CAPE OUT FALL #001	Total/NA	Water	624	
160-26191-1 MSD	CAPE OUT FALL #001	Total/NA	Water	624	

General Chemistry

Analysis Batch: 344422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26191-1	CAPE OUT FALL #001	Total/NA	Water	9040C	
LCS 160-344422/5	Lab Control Sample	Total/NA	Water	9040C	
160-26191-1 DU	CAPE OUT FALL #001	Total/NA	Water	9040C	

Analysis Batch: 344571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26191-1	CAPE OUT FALL #001	Total/NA	Water	160.2	
MB 160-344571/1	Method Blank	Total/NA	Water	160.2	
LCS 160-344571/2	Lab Control Sample	Total/NA	Water	160.2	
160-26191-1 DU	CAPE OUT FALL #001	Total/NA	Water	160.2	

Surrogate Summary

Client: Enterprise Products Operating LLC
Project/Site: Enterprise Products

TestAmerica Job ID: 160-26191-1

Method: 624 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	**Client Sample ID**	**DCA (81-130)**	**BFB (83-123)**	**TOL (83-121)**
160-26191-1	CAPE OUT FALL #001	94	109	108
160-26191-1 MS	CAPE OUT FALL #001	95	96	100
160-26191-1 MSD	CAPE OUT FALL #001	103	102	102
LCS 160-345182/4	Lab Control Sample	104	100	107
LCSD 160-345182/5	Lab Control Sample Dup	99	100	105
MB 160-345182/7	Method Blank	106	113	112

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

PDC Laboratories, Inc.

PROFESSIONAL • DEPENDABLE • COMMITTED

January 03, 2018

Jayna Awalt
Test America - Earth City, MO
13715 Rider Trail North
Earth City, MO 63045

Dear Jayna Awalt:

Please find enclosed the **revised** analytical results for the sample(s) the laboratory received on **12/27/17 2:10 pm** and logged in under work order **7124150**. All testing is performed according to our current TNI certifications unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of PDC Laboratories, Inc.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

PDC Laboratories, Inc. appreciates the opportunity to provide you with analytical expertise. We are always trying to improve our customer service and we welcome you to contact the Vice President, John LaPayne with any feedback you have about your experience with our laboratory.

Sincerely,

Roxann Shull

Client Services Supervisor
(314) 432-0550
rshull@pdclab.com

NELAP ACCREDITED TNI LABORATORY

PDC Laboratories, Inc.
3278 North Highway 67
Florissant, MO 63033
(800) 333-3278

REVISED ANALYTICAL RESULTS

Sample: 7124150-01
Name: Cape Outfall 001
Matrix: Waste Water

Sampled: 12/23/17 09:30
Received: 12/27/17 14:10

Parameter	Result	Unit	Qualifier	MDL	RDL	Analyzed	Analyst	Method
General Chemistry - STL								
COD	59	mg/L		4.0	5.0	12/28/17 12:00	KMS	SM 5220D
Oil & Grease - total	< 4.7	mg/L		1.3	4.7	01/02/18 07:15	JS	EPA 1664
Oil & Grease - nonpolar	Oil & Grease value is less than minimim detection	mg/L		1.4	5.0	01/02/18 14:50	JS	EPA 1664

PDC Laboratories, Inc.
3278 North Highway 67
Florissant, MO 63033
(800) 333-3278

NOTES

Specific method revisions used for analysis are available upon request.

Memos

Revised report due to clients request to report the RL and MDL.

Certifications

CHI - McHenry, IL
TNI Accreditation for Drinking Water, Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100279
Illinois Department of Public Health Bacteriological Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL
TNI Accreditation for Drinking Water, Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100230
Illinois Department of Public Health Bacteriological Analysis in Drinking Water Approved Laboratory Registry No. 17553
Drinking Water Certifications: Iowa (240); Kansas (E-10338); Missouri (870)
Wastewater Certifications: Arkansas (88-0677); Iowa (240); Kansas (E-10338)
Hazardous/Solid Waste Certifications: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO
USEPA DMR-QA Program

STL - St. Louis, MO
TNI Accreditation for Wastewater, Hazardous and Solid Wastes Fields of Testing through KS Lab No. E-10389
Illinois Department of Public Health Bacteriological Analysis in Drinking Water Approved Laboratory Registry No. 171050
Drinking Water Certifications: Missouri (1050)
Missouri Department of Natural Resources

* Not a TNI accredited analyte

Roxann Shull

Certified by: Roxann Shull, Client Services Supervisor

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Phone (314) 298-8566 Fax (314) 298-8757

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Awalt, Jayna K	Carrier Tracking No(s):
Client Contact: Shipping/Receiving	Phone:	E-Mail: jayna.awalt@testamericainc.com	State of Origin: Missouri
Company: PDC Laboratories, Inc.		Accreditations Required (See note):	
Address: 2231 W. Altorfer Drive, ,	Due Date Requested: 1/8/2018		
City: Peoria	TAT Requested (days):		
State, Zip: IL, 61615			
Phone: 309-692-9688(Tel)	PO #:		
Email:	WO #:		
Project Name: Enterprise Products	Project #: 16002299		
Site:	SSOW#:		

COC No: 160-129951.1
Page: Page 1 of 1
Job #: 160-26191-1

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (COD - Report with MDL/RL)/ COD - Report with MDL/RL	SUB (TPH and Oil & Grease - Report with MDL/RL)/ TPH and Oil & Grease - Report with MDL/R	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
CAPE OUT FALL #001 (160-26191-1)	12/23/17	09:30 Central		Water			X	X	3	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:		Time:	Method of Shipment:	
Relinquished by: [signature]	Date/Time: 12-27-17/1410	Company: TAStl	Received by: Heather Gearhart	Date/Time: 12/27/17 14:10	Company: PDC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 6.2°C		

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Tel: (314)298-8566

TestAmerica Job ID: 160-22495-1
Client Project/Site: Enterprise Products

For:
Enterprise Products Operating LLC
241 Newman Drive
North Little Rock, Arkansas 72117

Attn: Mark Hathcote

Authorized for release by:
6/9/2017 1:39:00 PM

Jayna Awalt, Project Manager II
(314)298-8566
jayna.awalt@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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CASE NARRATIVE

Client: Enterprise Products Operating LLC

Project: Enterprise Products

Report Number: 160-22495-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica St. Louis attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results for Chemistry analyses are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header. All soil/sediment sample results for radiochemistry analyses are based upon sample as dried and disaggregated with the exception of tritium, carbon-14, and iodine-129 by gamma spectroscopy unless requested as wet weight by the client."

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 05/24/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.6 C.

Receipt Exceptions

Received one bottle marked for pH not listed on CoC: CAPE OUTFALL 001 (160-22495-1)

All vials for Ethanol contained headspace.

Subcontracted methods through PDC Laboratories can be found in the subcontract section of this report.

ORGANICS BY DIRECT AQUEOUS INJECTION

Sample CAPE OUTFALL 001 (160-22495-1) was analyzed for organics by direct aqueous injection in accordance with EPA SW-846 Method 8015B - DAI. The samples were analyzed on 06/05/2017.

Job ID: 160-22495-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PH

Sample CAPE OUTFALL 001 (160-22495-1) was analyzed for pH in accordance with EPA SW-846 Method 9040C. The samples were analyzed on 05/25/2017.

The following samples in pH water analytical batch 160-310423 were run out of hold due to pH water analysis having an immediate hold time that expires in the field at time of sample collection. CAPE OUTFALL 001 (160-22495-1) and (160-22495-H-1 DU).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TestAmerica St. Louis
13715 Rider Trail North

Earth City, MO 63045
phone 314.298.8566 fax

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☑ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Mark Hathcote	Site Contact: Heath Tarpley	Date:	COC No:
Enterprise Refined Products Company LLC	Tel/Fax: 501-955-3910	Lab Contact: Jayna Awalt	Carrier: FedEx	1 of 1 COCs
10653 State Highway N	Analysis Turnaround Time			Sampler:
Scotty City, Missouri 63780	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
501-955-3910 Phone	TAT if different from Below _____			Walk-in Client:
501-955-3927 FAX	☑ 2 weeks			Lab Sampling:
Project Name: NPDES Stormwater Discharge Sampling	☐ 1 week			
Site: Cape Girardeau Terminal	☐ 2 days			Job / SDG No.: 16002299
P O # Credit Card	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	BOD_5 (Method SM-5210 B-01)	Ethanol (Method 8015B)	TPH (Method 1664A)	Oil & Grease (Method 1664A)	Settleable Solids (Method SM2540 F-97)	Sample Specific Notes:
Cape Outfall 001	5-22-17	0930	G	W	9	N	N	X	X	X	X	X	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								1	1,2	1,2	1,2	1	

160-22495 Chain of Custody

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 mo

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Please contact Mark Hathcote at 501-955-3910 if there are any questions and email lab report to: mhathcote@eprod.com

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by: Chris Porter	Company: Enterprise Products	Date/Time: 5/22/17	Received by: [illegible]	Company: TA	Date/Time: 5/24/17 0710
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.3, dated 12/05/2013

Login Sample Receipt Checklist

Client: Enterprise Products Operating LLC

Job Number: 160-22495-1

Login Number: 22495
List Number: 1
Creator: Clarke, Jill C

List Source: TestAmerica St. Louis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	False	All vials for Ethanol contained headspace
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Qualifiers

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Enterprise Products Operating LLC
Project/Site: Enterprise Products

TestAmerica Job ID: 160-22495-1

Method	Method Description	Protocol	Laboratory
8015B	Nonhalogenated Organic Compounds - Direct Injection (GC)	SW846	TAL SL
9040C	pH	SW846	TAL SL
SM2540F Settleable Solids	General Sub Contract Method	NONE	SC0124
SM5210B_BOD, 5 day	General Sub Contract Method	NONE	SC0124
TPH and Oil & Grease	General Sub Contract Method	NONE	SC0124

Protocol References:

NONE = NONE

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

SC0124 = PDC Laboratories, Inc., 2231 W. Altorfer Drive, Peoria, IL 61615, TEL (309)692-9688

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Enterprise Products Operating LLC
Project/Site: Enterprise Products

TestAmerica Job ID: 160-22495-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-22495-1	CAPE OUTFALL 001	Water	05/22/17 09:30	05/24/17 07:50

Client Sample Results

Client: Enterprise Products Operating LLC
Project/Site: Enterprise Products

TestAmerica Job ID: 160-22495-1

Client Sample ID: CAPE OUTFALL 001

Lab Sample ID: 160-22495-1

Date Collected: 05/22/17 09:30
Date Received: 05/24/17 07:50

Matrix: Water

Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		5.0	0.83	mg/L			06/05/17 17:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Isobutyl alcohol	*87*		*79 - 129*		*06/05/17 17:11*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.4	HF	0.1	0.1	SU			05/25/17 01:44	1

Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Lab Sample ID: MB 160-312003/4
Matrix: Water
Analysis Batch: 312003

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		5.0	0.83	mg/L			06/05/17 16:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Isobutyl alcohol	*88*		*79 - 129*		*06/05/17 16:09*	*1*

Lab Sample ID: LCS 160-312003/6
Matrix: Water
Analysis Batch: 312003

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethanol	20.0	17.7		mg/L		88	78 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Isobutyl alcohol	*98*		*79 - 129*

Lab Sample ID: 160-22495-1 MS
Matrix: Water
Analysis Batch: 312003

Client Sample ID: CAPE OUTFALL 001
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethanol	ND		20.0	17.7		mg/L		89	77 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Isobutyl alcohol	*99*		*79 - 129*

Lab Sample ID: 160-22495-1 MSD
Matrix: Water
Analysis Batch: 312003

Client Sample ID: CAPE OUTFALL 001
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethanol	ND		20.0	17.4		mg/L		87	77 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Isobutyl alcohol	*97*		*79 - 129*

Method: 9040C - pH

Lab Sample ID: LCS 160-310423/5
Matrix: Water
Analysis Batch: 310423

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	99.0 - 101.0

Method: 9040C - pH (Continued)

Lab Sample ID: 160-22495-1 DU
Matrix: Water
Analysis Batch: 310423

Client Sample ID: CAPE OUTFALL 001
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.4	HF		7.4		SU				0.5	5

QC Association Summary

Client: Enterprise Products Operating LLC
Project/Site: Enterprise Products

TestAmerica Job ID: 160-22495-1

GC VOA

Analysis Batch: 312003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22495-1	CAPE OUTFALL 001	Total/NA	Water	8015B	
MB 160-312003/4	Method Blank	Total/NA	Water	8015B	
LCS 160-312003/6	Lab Control Sample	Total/NA	Water	8015B	
160-22495-1 MS	CAPE OUTFALL 001	Total/NA	Water	8015B	
160-22495-1 MSD	CAPE OUTFALL 001	Total/NA	Water	8015B	

General Chemistry

Analysis Batch: 310423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22495-1	CAPE OUTFALL 001	Total/NA	Water	9040C	
LCS 160-310423/5	Lab Control Sample	Total/NA	Water	9040C	
160-22495-1 DU	CAPE OUTFALL 001	Total/NA	Water	9040C	

Surrogate Summary

Client: Enterprise Products Operating LLC
Project/Site: Enterprise Products

TestAmerica Job ID: 160-22495-1

Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**IBA2 (79-129)**							
160-22495-1	CAPE OUTFALL 001	87							
160-22495-1 MS	CAPE OUTFALL 001	99							
160-22495-1 MSD	CAPE OUTFALL 001	97							
LCS 160-312003/6	Lab Control Sample	98							
MB 160-312003/4	Method Blank	88							

Surrogate Legend

IBA = Isobutyl alcohol

PDC Laboratories, Inc.

PROFESSIONAL • DEPENDABLE • COMMITTED

May 31, 2017

Jayna Awalt
Test America - Earth City, MO
13715 Rider Trail North
Earth City, MO 63045

Dear Jayna Awalt:

Please find enclosed the analytical results for the sample(s) the laboratory received on **5/25/17 10:00 am** and logged in under work order **7054574**. All testing is performed according to our current TNI certifications unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of PDC Laboratories, Inc.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

PDC Laboratories, Inc. appreciates the opportunity to provide you with analytical expertise. We are always trying to improve our customer service and we welcome you to contact the Vice President, John LaPayne with any feedback you have about your experience with our laboratory.

Sincerely,

Roxann Shull

Roxann Shull
Client Services Supervisor
(314) 432-0550
rshull@pdclab.com

PDC Laboratories, Inc.
3278 North Highway 67
Florissant, MO 63033
(800) 333-3278

ANALYTICAL RESULTS

Sample: **7054574-01**
Name: Cape Outfall 001
Alias: 160-22495-1

Sampled: 05/23/17 09:30
Received: 05/25/17 10:00
Matrix: Waste Water
PO #: Job # 160-22495-1

Parameter	Result	Unit	Qualifier	Analyzed	Analyst	Method
General Chemistry - STL						
BOD	< 6.0	mg/L		05/25/17 06:37	SCI	SM 5210B
Oil & Grease - total	< 4.8	mg/L		05/30/17 07:27	JS	EPA 1664
Solids - settleable solids (SS)	<0.1	mL/L	H	05/25/17 15:01	SCI	SM 2540F*
Oil & Grease - nonpolar	Oil & Grease value is less than minimum detection	mg/L		05/30/17 11:23	JS	EPA 1664

PDC Laboratories, Inc.
3278 North Highway 67
Florissant, MO 63033
(800) 333-3278

NOTES

Specific method revisions used for analysis are available upon request.

Memos

Received samples outside of hold time for BOD and Settleable Solids

Certifications

CHI - McHenry, IL
TNI Accreditation for Drinking Water, Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100279
Illinois Department of Public Health Bacteriological Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL
TNI Accreditation for Drinking Water, Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100230
Illinois Department of Public Health Bacteriological Analysis in Drinking Water Approved Laboratory Registry No. 17553
Drinking Water Certifications: Iowa (240); Kansas (E-10338); Missouri (870)
Wastewater Certifications: Arkansas (88-0677); Iowa (240); Kansas (E-10338)
Hazardous/Solid Waste Certifications: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO
USEPA DMR-QA Program

STL - St. Louis, MO
TNI Accreditation for Wastewater, Hazardous and Solid Wastes Fields of Testing through KS Lab No. E-10389
Illinois Department of Public Health Bacteriological Analysis in Drinking Water Approved Laboratory Registry No. 171050
Drinking Water Certifications: Missouri (1050)
Missouri Department of Natural Resources

* Not a TNI accredited analyte

Qualifiers

H Test performed after the expiration of the appropriate regulatory/advisory maximum allowable hold time.

Roxann Shull

Certified by: Roxann Shull, Client Services Supervisor

PDC - 70545574

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Phone (314) 298-8566 Fax (314) 298-8757

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Awalt, Jayna K	Carrier Tracking No(s):	COC No: 160-112298.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jayna.awalt@testamericainc.com	State of Origin: Missouri	Page: Page 1 of 1
Company: PDC Laboratories, Inc.		Accreditations Required (See note):		Job #: 160-22495-1
Address: 2231 W. Altorfer Drive.	Due Date Requested: 6/6/2017			
City: Peoria	TAT Requested (days):			
State, Zip: IL, 61615				
Phone: 309-692-9688(Tel)	PO #:			
Email:	WO #:			
Project Name: Enterprise Products	Project #: 16002299			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (SM5210B_BOD, 5 day)/ SM5210B_BOD, 5 day	SUB (TPH and Oil & Grease)/ TPH and Oil & Grease	SUB (SM2540F Settleable Solids)/ SM2540F Settleable Solids	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
CAPE OUTFALL 001 (160-22495-1)	5/22/17	09:30 Central		Water			X	X	X	4	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: B	Date/Time: 5/24/17 1700	Company TA	Received by: Emily Rovere	Date/Time: 5-25-17 / 1000	Company PDC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Tel: (314)298-8566

TestAmerica Job ID: 160-21624-1
Client Project/Site: Enterprise Products

For:
Enterprise Products Operating LLC
241 Newman Drive
North Little Rock, Arkansas 72117

Attn: Mark Hathcote

Authorized for release by:
4/19/2017 1:37:34 PM

Jayna Awalt, Project Manager II
(314)298-8566
jayna.awalt@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 160-21624-1

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

Client: Enterprise Products Operating LLC

Project: Enterprise Products

Report Number: 160-21624-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica St. Louis attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results for Chemistry analyses are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header. All soil/sediment sample results for radiochemistry analyses are based upon sample as dried and disaggregated with the exception of tritium, carbon-14, and iodine-129 by gamma spectroscopy unless requested as wet weight by the client."

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 3/28/2017 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.8° C and 5.1° C.

BOD, Oil and Grease and Settleable Solids was performed by PDC Laboratories. Data is included in Subcontract section of this report.

Receipt Exceptions

Cooler 2 was received on 3/29/17. Cooler was due to be delivered 3/28/17. Bottles and analyses were added to this job. Cooler was within temperature limits. CAPE OUTFALL 001 (160-21624-1)

ORGANICS BY DIRECT AQUEOUS INJECTION

Sample CAPE OUTFALL 001 (160-21624-1) was analyzed for organics by direct aqueous injection in accordance with EPA SW-846 Method 8015B - DAI. The samples were analyzed on 04/18/2017.

Job ID: 160-21624-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL SUSPENDED SOLIDS
Sample CAPE OUTFALL 001 (160-21624-1) was analyzed for total suspended solids in accordance with EPA Method 160.2. The samples were analyzed on 04/03/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL KJELDAHL NITROGEN
Sample CAPE OUTFALL 001 (160-21624-1) was analyzed for total kjeldahl nitrogen in accordance with EPA Method 351.2. The samples were prepared and analyzed on 04/06/2017.

The following matrix spike (MS) recoveries for TKN preparation batch 160-301922 and analytical batch 160-301988 were outside control limits: (160-21572-G-1-F MS). Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITROGEN, NITRATE-NITRITE
Sample CAPE OUTFALL 001 (160-21624-1) was analyzed for Nitrogen, Nitrate-Nitrite in accordance with Method 353.1 Preserved. The samples were analyzed on 04/04/2017.

Nitrate Nitrite as N was detected in method blank MB 160-301663/13 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

The following matrix spike (MS) recovery for NO3-NO2 analytical batch 160-301663 was outside control limits: (160-21406-E-1 MS). Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL PHOSPHORUS
Sample CAPE OUTFALL 001 (160-21624-1) was analyzed for total phosphorus in accordance with EPA Method 365.2. The samples were prepared on 04/04/2017 and analyzed on 04/05/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CHEMICAL OXYGEN DEMAND
Sample CAPE OUTFALL 001 (160-21624-1) was analyzed for chemical oxygen demand in accordance with EPA Method 410.4. The samples were prepared and analyzed on 04/06/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
phone 314.298.8566 fax

160-21624 Chain of Custody

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☑ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Mark Hathcote	Site Contact: Heath Tarpley	Date: 3/27/17	COC No:
Enterprise Refined Products Company LLC	Tel/Fax: 501-955-3910	Lab Contact: Jayna Awalt	Carrier: FedEx	1 of 1 COCs
10653 State Highway N	Analysis Turnaround Time			Sampler:
Scotty City, Missouri 63780	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
501-955-3910 Phone	TAT if different from Below _____			Walk-in Client:
501-955-3927 FAX	☑ 2 weeks			Lab Sampling:
Project Name: NPDES Stormwater Discharge Sampling	☐ 1 week			
Site: Cape Girardeau Terminal	☐ 2 days			Job / SDG No.: 16002299
P O # Credit Card	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	BOD_5 (Method SM-5210 B-01)	Ethanol (Method 8015B)	TPH (Method 1664A)	Oil & Grease (Method 1664A)	Settleable Solids (Method SM2540 F-97)	Sample Specific Notes:
Cape Outfall 001	3/27/17	1200	G	W	9	N	N	X	X	X	X	X	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								1	1,2	1,2	1,2	1	

Fedex did not want sign for package

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Please contact Mark Hathcote at 501-955-3910 if there are any questions and email lab report to: mhathcote@eprod.com

Custody Seals Intact: ☒ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Mueller	Enterprise Products	3/27/17 1200		Fedex	
Relinquished by: Fedex	Company:	Date/Time:	Received by: [signature]	Company: TASL	Date/Time: 3-28-17 0920
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.3, dated 12/05/2013

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Phone (314) 298-8566 Fax (314) 298-8757

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Mueller	Lab PM: Awalt, Jayna K	Carrier Tracking No(s):	COC No: 160-5141-2581.1
Client Contact: Mark Hathcote	Phone: 501-955-3910	E-Mail: jayna.awalt@testamericainc.com		Page: Page 1 of 1
Company: Enterprise Products Operating LLC				Job #:
Address: 241 Newman Drive	Due Date Requested:			
City: North Little Rock	TAT Requested (days):			
State, Zip: AR, 72117				
Phone: 501-955-3910	PO #: Pay by Credit Card			
Email: mhathcote@eprod.com	WO #:			
Project Name: Enterprise Products	Project #: 16002299			
Site: Cape Terminal	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	351.2, 353.1, 365.2, 410.4	160.2_Calcd - Solids, Total Suspended (TSS)	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	S	N	X	
				Water						
Fedex did not want to sign for										

160-21624 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: Mueller	Date/Time: 3/27/17 1200	Company: Enterprise Products	Received by: Gil Clark 3-29-17	Date/Time: 3-29-17 08	Company: Fedex
Relinquished by: Fed Ex	Date/Time:	Company	Received by: Gil Clark	Date/Time: 3-29-17 0900	Company: TA SR
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Enterprise Products Operating LLC

Job Number: 160-21624-1

Login Number: 21624
List Number: 1
Creator: Taylor, Kristene N

List Source: TestAmerica St. Louis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Enterprise Products Operating LLC
Project/Site: Enterprise Products

TestAmerica Job ID: 160-21624-1

Method	Method Description	Protocol	Laboratory
8015B	Nonhalogenated Organic Compounds - Direct Injection (GC)	SW846	TAL SL
160.2	Solids, Total Suspended (TSS)	MCAWW	TAL SL
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL SL
353.1 Preserved	Nitrogen, Nitrate-Nitrite	MCAWW	TAL SL
365.2	Phosphorus, Total	EPA	TAL SL
410.4	COD	MCAWW	TAL SL
SM2540F Settleable Solids	General Sub Contract Method	NONE	SC0124
SM5210B_BOD, 5 day	General Sub Contract Method	NONE	SC0124
TPH and Oil & Grease	General Sub Contract Method	NONE	SC0124

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

NONE = NONE

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

SC0124 = PDC Laboratories, Inc., 2231 W. Altorfer Drive, Peoria, IL 61615, TEL (309)692-9688

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Enterprise Products Operating LLC
Project/Site: Enterprise Products

TestAmerica Job ID: 160-21624-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-21624-1	CAPE OUTFALL 001	Water	03/27/17 12:00	03/28/17 09:20

Client Sample Results

Client: Enterprise Products Operating LLC
Project/Site: Enterprise Products

TestAmerica Job ID: 160-21624-1

Client Sample ID: CAPE OUTFALL 001

Lab Sample ID: 160-21624-1

Date Collected: 03/27/17 12:00
Date Received: 03/28/17 09:20

Matrix: Water

Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		5.0	0.83	mg/L			04/18/17 15:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Isobutyl alcohol	*91*		*79 - 129*		*04/18/17 15:49*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	56		4.0	4.0	mg/L			04/03/17 10:00	1
Nitrogen, Kjeldahl	2.0		0.50	0.22	mg/L		04/06/17 14:20	04/06/17 20:00	1
Nitrate Nitrite as N	23	J B	50	11	ug/L			04/04/17 21:34	1
Phosphorus as PO4	160		50	6.0	ug/L		04/04/17 09:08	04/05/17 09:36	1
Chemical Oxygen Demand	42		5.0	1.1	mg/L		04/06/17 08:35	04/06/17 14:11	1

Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Lab Sample ID: MB 160-304082/16
Matrix: Water
Analysis Batch: 304082

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		5.0	0.83	mg/L			04/18/17 14:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Isobutyl alcohol	*91*		*79 - 129*		*04/18/17 14:46*	*1*

Lab Sample ID: LCS 160-304082/18
Matrix: Water
Analysis Batch: 304082

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethanol	20.0	18.8		mg/L		94	78 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Isobutyl alcohol	*105*		*79 - 129*

Lab Sample ID: 160-21624-1 MS
Matrix: Water
Analysis Batch: 304082

Client Sample ID: CAPE OUTFALL 001
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethanol	ND		20.0	17.7		mg/L		89	77 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Isobutyl alcohol	*101*		*79 - 129*

Lab Sample ID: 160-21624-1 MSD
Matrix: Water
Analysis Batch: 304082

Client Sample ID: CAPE OUTFALL 001
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethanol	ND		20.0	16.0		mg/L		80	77 - 130	10	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Isobutyl alcohol	*88*		*79 - 129*

Method: 160.2 - Solids, Total Suspended (TSS)

Lab Sample ID: MB 160-301135/1
Matrix: Water
Analysis Batch: 301135

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			04/03/17 10:00	1

Method: 160.2 - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCS 160-301135/2
Matrix: Water
Analysis Batch: 301135

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	500	496		mg/L		99	78 - 124

Lab Sample ID: 160-21624-1 DU
Matrix: Water
Analysis Batch: 301135

Client Sample ID: CAPE OUTFALL 001
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	56		56.0		mg/L		0	5

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 160-301922/7-A
Matrix: Water
Analysis Batch: 301988

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 301922

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	ND		0.50	0.22	mg/L		04/06/17 14:20	04/06/17 19:03	1

Lab Sample ID: LCS 160-301922/8-A
Matrix: Water
Analysis Batch: 301988

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 301922

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	2.50	2.35		mg/L		94	90 - 110

Lab Sample ID: 160-21572-G-1-F MS
Matrix: Water
Analysis Batch: 301988

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 301922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	ND	F1	2.50	1.95	F1	mg/L		78	90 - 110

Lab Sample ID: 160-21572-G-1-E DU
Matrix: Water
Analysis Batch: 301988

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 301922

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrogen, Kjeldahl	ND	F1	ND		mg/L		NC	20

Method: 353.1 Preserved - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 160-301663/13
Matrix: Water
Analysis Batch: 301663

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	13.7	J	50	11	ug/L			04/04/17 20:59	1

Method: 353.1 Preserved - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: LCS 160-301663/14
Matrix: Water
Analysis Batch: 301663

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	500	492		ug/L		98	90 - 110

Lab Sample ID: 160-21406-E-1 MS
Matrix: Water
Analysis Batch: 301663

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	740	B F1	500	1020	F1	ug/L		57	90 - 110

Lab Sample ID: 160-21406-E-1 DU
Matrix: Water
Analysis Batch: 301663

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate Nitrite as N	740	B F1	749		ug/L		1	20

Method: 365.2 - Phosphorus, Total

Lab Sample ID: MB 160-301425/9-A
Matrix: Water
Analysis Batch: 301592

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 301425

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus as PO4	ND		50	6.0	ug/L		04/04/17 09:07	04/05/17 09:36	1

Lab Sample ID: LCS 160-301425/10-A
Matrix: Water
Analysis Batch: 301592

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 301425

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus as PO4	200	203		ug/L		101	90 - 110

Lab Sample ID: MRL 160-301425/8-A
Matrix: Water
Analysis Batch: 301592

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 301425

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus as PO4	50.1	44.9	J	ug/L		90	80 - 120

Lab Sample ID: 160-21572-G-1-C MS
Matrix: Water
Analysis Batch: 301592

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 301425

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus as PO4	17	J	200	213		ug/L		98	77 - 128

Method: 365.2 - Phosphorus, Total (Continued)

Lab Sample ID: 160-21572-G-1-B DU
Matrix: Water
Analysis Batch: 301592

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 301425

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Phosphorus as PO4	17	J		17.3	J	ug/L				0	20

Method: 410.4 - COD

Lab Sample ID: MB 160-301774/3-A
Matrix: Water
Analysis Batch: 301920

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 301774

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		5.0	1.1	mg/L		04/06/17 08:35	04/06/17 14:11	1

Lab Sample ID: LCS 160-301774/4-A
Matrix: Water
Analysis Batch: 301920

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 301774

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand			50.0	49.0		mg/L		98	90 - 110		

Lab Sample ID: 160-21624-1 MS
Matrix: Water
Analysis Batch: 301920

Client Sample ID: CAPE OUTFALL 001
Prep Type: Total/NA
Prep Batch: 301774

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand	42		50.0	96.0		mg/L		108	90 - 110		

Lab Sample ID: 160-21624-1 DU
Matrix: Water
Analysis Batch: 301920

Client Sample ID: CAPE OUTFALL 001
Prep Type: Total/NA
Prep Batch: 301774

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chemical Oxygen Demand	42			40.0		mg/L				5	20

QC Association Summary

Client: Enterprise Products Operating LLC
Project/Site: Enterprise Products

TestAmerica Job ID: 160-21624-1

GC VOA

Analysis Batch: 304082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-21624-1	CAPE OUTFALL 001	Total/NA	Water	8015B	
MB 160-304082/16	Method Blank	Total/NA	Water	8015B	
LCS 160-304082/18	Lab Control Sample	Total/NA	Water	8015B	
160-21624-1 MS	CAPE OUTFALL 001	Total/NA	Water	8015B	
160-21624-1 MSD	CAPE OUTFALL 001	Total/NA	Water	8015B	

General Chemistry

Analysis Batch: 301135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-21624-1	CAPE OUTFALL 001	Total/NA	Water	160.2	
MB 160-301135/1	Method Blank	Total/NA	Water	160.2	
LCS 160-301135/2	Lab Control Sample	Total/NA	Water	160.2	
160-21624-1 DU	CAPE OUTFALL 001	Total/NA	Water	160.2	

Prep Batch: 301425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-21624-1	CAPE OUTFALL 001	Total/NA	Water	365.2/365.3/365	
MB 160-301425/9-A	Method Blank	Total/NA	Water	365.2/365.3/365	
LCS 160-301425/10-A	Lab Control Sample	Total/NA	Water	365.2/365.3/365	
MRL 160-301425/8-A	Lab Control Sample	Total/NA	Water	365.2/365.3/365	
160-21572-G-1-C MS	Matrix Spike	Total/NA	Water	365.2/365.3/365	
160-21572-G-1-B DU	Duplicate	Total/NA	Water	365.2/365.3/365	

Analysis Batch: 301592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-21624-1	CAPE OUTFALL 001	Total/NA	Water	365.2	301425
MB 160-301425/9-A	Method Blank	Total/NA	Water	365.2	301425
LCS 160-301425/10-A	Lab Control Sample	Total/NA	Water	365.2	301425
MRL 160-301425/8-A	Lab Control Sample	Total/NA	Water	365.2	301425
160-21572-G-1-C MS	Matrix Spike	Total/NA	Water	365.2	301425
160-21572-G-1-B DU	Duplicate	Total/NA	Water	365.2	301425

Analysis Batch: 301663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-21624-1	CAPE OUTFALL 001	Total/NA	Water	353.1 Preserved	
MB 160-301663/13	Method Blank	Total/NA	Water	353.1 Preserved	
LCS 160-301663/14	Lab Control Sample	Total/NA	Water	353.1 Preserved	
160-21406-E-1 MS	Matrix Spike	Total/NA	Water	353.1 Preserved	
160-21406-E-1 DU	Duplicate	Total/NA	Water	353.1 Preserved	

Prep Batch: 301774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-21624-1	CAPE OUTFALL 001	Total/NA	Water	410.4	
MB 160-301774/3-A	Method Blank	Total/NA	Water	410.4	
LCS 160-301774/4-A	Lab Control Sample	Total/NA	Water	410.4	
160-21624-1 MS	CAPE OUTFALL 001	Total/NA	Water	410.4	
160-21624-1 DU	CAPE OUTFALL 001	Total/NA	Water	410.4	

QC Association Summary

Client: Enterprise Products Operating LLC
Project/Site: Enterprise Products

TestAmerica Job ID: 160-21624-1

General Chemistry (Continued)

Analysis Batch: 301920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-21624-1	CAPE OUTFALL 001	Total/NA	Water	410.4	301774
MB 160-301774/3-A	Method Blank	Total/NA	Water	410.4	301774
LCS 160-301774/4-A	Lab Control Sample	Total/NA	Water	410.4	301774
160-21624-1 MS	CAPE OUTFALL 001	Total/NA	Water	410.4	301774
160-21624-1 DU	CAPE OUTFALL 001	Total/NA	Water	410.4	301774

Prep Batch: 301922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-21624-1	CAPE OUTFALL 001	Total/NA	Water	351.2	
MB 160-301922/7-A	Method Blank	Total/NA	Water	351.2	
LCS 160-301922/8-A	Lab Control Sample	Total/NA	Water	351.2	
160-21572-G-1-F MS	Matrix Spike	Total/NA	Water	351.2	
160-21572-G-1-E DU	Duplicate	Total/NA	Water	351.2	

Analysis Batch: 301988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-21624-1	CAPE OUTFALL 001	Total/NA	Water	351.2	301922
MB 160-301922/7-A	Method Blank	Total/NA	Water	351.2	301922
LCS 160-301922/8-A	Lab Control Sample	Total/NA	Water	351.2	301922
160-21572-G-1-F MS	Matrix Spike	Total/NA	Water	351.2	301922
160-21572-G-1-E DU	Duplicate	Total/NA	Water	351.2	301922

Surrogate Summary

Client: Enterprise Products Operating LLC
Project/Site: Enterprise Products

TestAmerica Job ID: 160-21624-1

Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	**Client Sample ID**	**IBA2 (79-129)**
160-21624-1	CAPE OUTFALL 001	91
160-21624-1 MS	CAPE OUTFALL 001	101
160-21624-1 MSD	CAPE OUTFALL 001	88
LCS 160-304082/18	Lab Control Sample	105
MB 160-304082/16	Method Blank	91

Surrogate Legend

IBA = Isobutyl alcohol

PDC Laboratories, Inc.

PROFESSIONAL • DEPENDABLE • COMMITTED

April 04, 2017

Jayna Awalt
Test America - Earth City, MO
13715 Rider Trail North
Earth City, MO 63045

Dear Jayna Awalt:

Please find enclosed the analytical results for the sample(s) the laboratory received on **3/28/17 3:00 pm** and logged in under work order **7033576**. All testing is performed according to our current TNI certifications unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of PDC Laboratories, Inc.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

PDC Laboratories, Inc. appreciates the opportunity to provide you with analytical expertise. We are always trying to improve our customer service and we welcome you to contact the Vice President, John LaPayne with any feedback you have about your experience with our laboratory.

Sincerely,

Roxann Shull

Roxann Shull
Client Services Supervisor
(314) 432-0550
rshull@pdclab.com

PDC Laboratories, Inc.
3278 North Highway 67
Florissant, MO 63033
(800) 333-3278

ANALYTICAL RESULTS

Sample: 7033576-01
Name: Cape Outfall 001 (160-21624-1)
Matrix: Waste Water

Sampled: 03/27/17 12:00
Received: 03/28/17 15:00

Parameter	Result	Unit	Qualifier	Analyzed	Analyst	Method
General Chemistry - STL						
BOD	< 6.0	mg/L		03/29/17 07:52	MEG	SM 5210B
Oil & Grease - total	< 5.6	mg/L		03/31/17 07:13	JS	EPA 1664
Solids - settleable solids (SS)	<0.1	mL/L		03/29/17 10:17	MEG	SM 2540F*
Oil & Grease - nonpolar	Oil & Grease value is less than minimum detection	mg/L		04/04/17 09:20	JS	EPA 1664

PDC Laboratories, Inc.
3278 North Highway 67
Florissant, MO 63033
(800) 333-3278

NOTES

Specific method revisions used for analysis are available upon request.

Certifications

PIA - Peoria, IL
- TNI Accreditation for Drinking Water, Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100230
- Illinois Department of Public Health Bacteriological Analysis in Drinking Water Approved Laboratory Registry No. 17553
- Missouri Department of Natural Resources Certificate of Approval for Microbiological Laboratory Service No. 870
- Drinking Water Certifications: Iowa (240); Kansas (E-10338); Missouri (870)
- Wastewater Certifications: Arkansas (88-0677); Iowa (240); Kansas (E-10338)
- Hazardous/Solid Waste Certifications: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO
- USEPA DMR-QA Program

STL - St. Louis, MO
- TNI Accreditation for Wastewater, Hazardous and Solid Wastes Fields of Testing through KS Lab No. E-10389
- Illinois Department of Public Health Bacteriological Analysis in Drinking Water Approved Laboratory Registry No. 171050
- Drinking Water Certifications: Missouri (1050)
- Missouri Department of Natural Resources

* Not a TNI accredited analyte

Roxann Shull

Certified by: Roxann Shull, Client Services Supervisor

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Phone (314) 298-8566 Fax (314) 298-8757

#40355+e

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Awalt, Jayna K	Carrier Tracking No(s):	COC No: 160-107379.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jayna.awalt@testamericainc.com	State of Origin: Missouri	Page: Page 1 of 1
Company: PDC Laboratories, Inc.		Accreditations Required (See note):		Job #: 160-21624-1
Address: 2231 W. Altorfer Drive, ,	Due Date Requested: 4/7/2017			
City: Peoria	TAT Requested (days):			
State, Zip: IL, 61615				
Phone: 309-692-9688(Tel)	PO #:			
Email:	WO #:			
Project Name: Enterprise Products	Project #: 16002299			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	SUB (SM5210B_BOD, 5 day)/ SM5210B_BOD, 5 day	SUB (TPH and Oil & Grease)/ TPH and Oil & Grease	SUB (SM2540F Settleable Solids)/ SM2540F Settleable Solids	Special Instructions/Note:
CAPE OUTFALL 001 (160-21624-1)	3/27/17	12:00 Central		Water	X	X	X	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*			***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*		
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank: 2		Special Instructions/QC Requirements:		
Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 3/28/17 1415	Company	Received by:	Date/Time: 3-28-17 15:00	Company PDC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		