pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

SOUTHWEST REGIONAL OFFICE
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0027715**
Facility Type	**Industrial**	APS ID	**686159**
Major / Minor	**Major**	Authorization ID	**781773**

NPDES PERMIT FACT SHEET ADDENDUM 2

Applicant and Facility Information

Applicant Name	**MAX Environmental Technologies, Inc.**	Facility Name	**Yukon Facility**
Applicant Address	651 Holiday Drive Suite 5	Facility Address	233 Max Lane
	Pittsburgh, PA 15220-2740		Yukon, PA 15698-1003
Applicant Contact	Carl Spadaro	Facility Contact	***same as applicant***
Applicant Phone	(412) 343-4900	Facility Phone	***same as applicant***
Client ID	121054	Site ID	245145
SIC Code	4953	Municipality	South Huntingdon Township
SIC Description	Trans. & Utilities - Refuse Systems	County	Westmoreland
Date Published in PA Bulletin	February 6, 2021	EPA Waived?	No
Comment Period End Date	March 23, 2021 (15-day ext.)	If No, Reason	Major Facility
Purpose of Application	Renewal of an NPDES permit for discharges of treated sanitary wastewater; treated landfill leachate and groundwater; and storm water.		

Internal Review and Recommendations

The revised draft NPDES permit (Draft 2) for MAX Environmental Technologies, Inc.'s (MAX) Yukon Facility was published in the *Pennsylvania Bulletin* on February 6, 2021. By email dated February 8, 2021, the Mountain Watershed Association (MWA) requested a 15-day extension of the public comment period. Pursuant to 25 Pa. Code § 92a.82(d), the Department granted a 15-day extension of the comment period lasting until March 23, 2021.

Responses to comments on Draft 2 are provided in this Fact Sheet Addendum.

US EPA Comments: By email dated February 24, 2021, the U.S. Environmental Protection Agency provided the following comments:

MAX Environmental Technologies, Inc is requesting the renewal of a major NPDES Permit No. PA0027715 to discharge treated sanitary wastewater, treated landfill leachate, groundwater and stormwater. The treated effluent is being discharged to Sewickley Creek Watershed TMDL. The TMDL addresses three primary metals associated with abandoned mine drainage (iron, manganese, aluminum) and pH. Outfall 001 dischargers treated leachate, storm water, and blanket drain water to an unnamed tributary to Sewickley Creek. This facility has a WLA for Aluminum and Iron. There is currently no effluent limit for manganese for the facility. WLA are imposed for Aluminum and Iron at Outfall 001. Semi-annual monitoring requirements for aluminum, iron, and manganese will be imposed at Outfall 009 and IMPs 109, 209, and 309.

Based on our limited review which consisted of the Sewickley Creek Watershed TMDL, we have the following comment.

The factsheet does not contain the TMDL requirements for the Sewickley Creek Watershed. Please include the WLA for Outfall 001 in the factsheet.

If there are any changes proposed to the draft permit and/or fact sheet, please coordinate with Andre Turner on my staff via telephone at 215-814-5731 or via electronic mail at turner.andre@epa.gov.

Approve	Return	Deny	Signatures	Date
X			Ryan C. Decker, P.E. / Environmental Engineer	June 29, 2021
X			Michael E. Fifth, P.E. / Environmental Engineer Manager	July 2, 2021

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DEP Response to US EPA Comments: The Fact Sheet Addendum transmitted with Draft 2 only contains supporting information for the revisions to the permit made as part of Draft 2. Supporting information for permit requirements that did not change between the first and second draft permits (including Outfall 001's TMDL requirements) are included in the Fact Sheet for the first draft permit from 2019. EPA reviewed the first draft permit and its TMDL requirements in 2019 and had no comments.

Taken together, the Fact Sheet and Fact Sheet Addendums constitute the full record of decision for the permit renewal.

By email dated March 22, 2021, MAX submitted comments on Draft 2. DEP's responses to MAX's comments are provided below after each comment.

MAX Comment 1: DEP has proposed to reinstate internal outfall 101 based on comments received from the Mountain Watershed Association because of one detection at that outfall in 2019. That detection (which we believe to be questionable) was a rare detection of one of the monitoring parameters over years of sampling. That outfall serves no purposes since its only function was associated with the "downstream" regulatory classification of our wastewater treatment plant sludge. In its revised fact sheet, DEP states that imposing limits on this outfall is unnecessary. The regulatory classification of the sludge has now been established through a COA with DEP and the associated pending delisting petition action. DEP proposed to remove this outfall in the initial draft permit renewal (as DEP did for our Bulger NPDES permit renewal – and which was finalized for that permit renewal) and we request that it be remove[d] from the final permit. It serves no legitimate purpose any longer (and we do not view sampling simply for data gathering as a legitimate purpose).

DEP Response to MAX Comment 1: DEP did not single out one detected result as the basis for keeping IMP 101 in the permit.

The original basis for effluent limits at IMP 101 no longer exists, as DEP stated in the Fact Sheet Addendum and as MAX states in its comment. However, the original basis for IMP 101's limits was replaced with a new basis for similar requirements—monitoring to evaluate treatment effectiveness. DEP explained in the Fact Sheet Addendum as follows:

> Nevertheless, the Department has decided to reinstate IMP 101 because it is reasonable to require sampling and analyses of the influent wastewater to MAX's treatment system pursuant to 25 Pa. Code § 92a.61(b). Influent data can be used with effluent data to evaluate the effectiveness of MAX's aging wastewater treatment facility.

The monitoring requirements at IMP 101 are a reasonable exercise of DEP's authority (under 25 Pa. Code § 92a.61(b)) to require permittees to collect and submit data relating to effluent quality—in this case, to collect data on raw wastewater to evaluate the effectiveness of MAX's wastewater treatment plant. DEP notes that MAX has a Water Quality Management permit (6576203) for its wastewater treatment plant, which requires, among other things, that MAX properly operate and maintain its treatment system. Data collection at IMP 101 enables DEP to evaluate the effectiveness of MAX's operation and maintenance practices. Additionally, MAX should already collect some data on influent quality and operational parameters for the treatment system (apart from the NPDES permit's requirement to do so) to ensure that the treatment system is properly operated, or as a requirement of MAX's Solid Waste Permit.

DEP will remove monitoring requirements from IMP 101 for total beryllium, total cyanide, total mercury, total thallium, and total vanadium because MAX is not subject to monitoring requirements or effluent limits for those pollutants at Outfall 001 and monitoring for those pollutants at IMP 101 would not achieve DEP's intended purpose of evaluating treatment effectiveness. However, monitoring requirements will be added to IMP 101 for BOD5, TSS, ammonia-nitrogen, and total phenolics. Those additions will allow DEP to compare influent and effluent data for the same parameters to evaluate treatment effectiveness. Additionally, since IMP 101 does not capture all influent flows, the parameters monitored at IMP 101 will be duplicated at IMP 201 for leachate from Landfill No. 6 to provide a more complete characterization of influent wastewaters to the treatment system.

The minimum measurement frequency for all parameters at IMPs 101 and 201 (other than flow and pH), will be changed to 1/month. MAX historically sampled 2/month at IMP 101 and continuing to sample influent wastewaters 2/month—with the two monthly sampling episodes split between IMPs 101 and 201—maintains similar sampling requirements to those under MAX's current permit. This sampling frequency has not been burdensome to MAX and is not expected to be burdensome to MAX, particularly with the potential for violating permit limits on influent wastewaters removed.

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MAX Comment 2: DEP has proposed to add weekly monitoring of arsenic with limits for outfall 001. As this would be a new parameter for our NPDES permit, we request a period of monitoring and reporting to get a more complete set of data for this parameter before establishing permit limits and make the monitoring frequency consistent with similar parameters (2 times per month instead of 1 time per week). At a minimum, we request that the monitoring frequency be changed to 2 times per month to be consistent with similar parameters (including antimony, which DEP has proposed should be monitored 2 times per month).

DEP Response to MAX Comment 2: An upfront monitoring frequency reduction would not be consistent with MAX's request for more time to collect data. For example, weekly monitoring for one year would yield as much data as 2/month monitoring for two years while avoiding an unnecessary delay in the effectiveness of new WQBELs that, per 25 Pa. Code § 92a.51(a), must be achieved "as soon as practicable". Note that the permit can be amended during its term to modify monitoring frequencies when such modifications are supported by data.

Influent data at IMP 101 dating back to August 2014 indicate that arsenic concentrations in a portion of the raw wastewaters that are treated and discharged at Outfall 001 are one to two orders of magnitude less than the new arsenic WQBELs. Arsenic data reported on Form 14Rs for leachate from Landfill No. 6 also indicate that arsenic concentrations in Landfill No. 6's leachate are one to two orders of magnitude less than the new arsenic WQBELs. Pollutants that are not present in raw wastewaters should not be present in treated wastewaters. For this reason, MAX's compliance with the new arsenic WQBELs is expected upon permit issuance, notwithstanding the limited arsenic effluent data currently available.

By emailed dated March 23, 2021, the Mountain Watershed Association (MWA) provided comments on Draft 2. DEP's responses to MWA's comments are provided below following each comment.

MWA Comment I: This permit has been administratively continued since 2009. This means that the supporting permit information and data is based on the application to DEP from 2004, 15 years ago. It is unclear from the draft permit documents if the facility timely applied to renew their NPDES permit. If renewal was not timely filed this should be noted so that the public is aware. Additionally if the renewal application was not timely then this permit has expired and has been expired for over 10 years resulting in this operation discharging without a permit and in violation of federal law for that time period. DEP must make it clear in the fact sheet whether the application was timely or the permit expired, if expired then DEP must hold the operator accountable via fines or other penalties in order to level the playing field and encourage compliance with regulatory deadlines.

Federal law requires NPDES permits be renewed every five (5) years. Although administrative continuance is permitted under federal regulations a permit term must not extend indefinitely, and allowing the permit term to extend for years beyond the five-year permit term contravenes congressional intent.

DEP has failed to timely renew this permit and it has missed two renewal periods. Practically, this means that DEP has failed to adequately review the water quality and public health impacts of this operation at least twice over the last 10 years, this review is mandated by Congress, through the Clean Water Act ("CWA"). DEP has provided no justification for this delay in the draft fact sheet or permit.

This delay is despite the scale and impact of this particular facility, one of the few hazardous waste landfills in Pennsylvania. This fact alone warrants timely permit review and renewal. DEP has failed to conduct timely analysis of the pollutants discharged from this facility to determine the potential that the site may contribute to exceeding water quality standards. DEP has also failed to timely assess the public health impacts of this operation, impacts that adjacent communities and the concerned public have made DEP aware of repeatedly.

While we applaud DEP's recent decision to extend the comment period, we believe that further extension is warranted given the complex nature of this operation and its impacts to water quality and public health. DEP has waited over 10 years to renew this permit, it should not be rushed now. As detailed below, the draft permit is substantially flawed and requires further updates, analysis and protections. As such DEP must extend the comment period while the identified flaws are addressed and the permit modified.

DEP Response to MWA Comment I: The circumstances of MAX's administrative extension for the Yukon Facility's NPDES permit were described on page 1 of the 2019 Fact Sheet as follows:

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MAX Environmental Technologies, Inc. ("MAX") submitted an application dated January 29, 2009 and received by the Department on January 30, 2009 to renew NPDES Permit PA0027715 for discharges from MAX's Yukon Facility. The current permit for the Yukon Facility was issued on July 28, 2004 with an August 1, 2004 effective date. That permit expired on July 31, 2009. MAX's renewal application was timely because it was received at least 180 days prior to expiration (i.e., prior to February 1, 2009). Therefore, the permit was administratively extended beyond the expiration date.

The permit is not based on old or outdated information. As explained in DEP's Response to MWA Comment 9 in the Fact Sheet Addendum: "MAX submitted an updated application on April 20, 2018. Additional application revisions were submitted on April 17, 2019, August 14, 2019, September 25, 2019, October 27, 2020, and November 16, 2020. The permit is based on the most up-to-date information from those submissions."

DEP is proposing to take an action to renew the permit. Interested parties have had ample time to comment on DEP's proposed actions.

The Yukon Facility is not a hazardous waste landfill. The facility receives and processes hazardous wastes to remove the wastes' hazardous characteristics before disposing of the wastes at the site as residual waste. Permitted discharges originate from the disposed residual (non-hazardous) wastes.

MWA Comment II: Sewickley Creek runs up along the eastern side of the Site, running westward nearly touching the northern side of the Site, and down along the western side. Lick Run runs northeast along the southeast corner of the Site and feeds into Sewickley Creek. Hunters Run runs northwest along the southwest corner of the Site. Essentially, the Site is surrounded by Sewickley creek and its tributaries. As DEP is aware, Sewickley Creek is impaired for metals and pH.

DEP Response to MWA Comment II: Sewickley Creek and some of its tributaries near the Yukon Facility are impaired by metals and pH from acid mine drainage. The draft permit includes requirements from the Sewickley Creek Watershed TMDL to prevent MAX from contributing to the watershed's impairment.

MWA Comment III: The facility contains three closed and capped disposal lagoons, located adjacent to each other on 8.5 acres of the Site, which continue to produce leachate (Lagoons 1-3). (Fact Sheet at 1) The facility also contains a closed lined impoundment ("No.4"), and another closed partially lined impoundment ("No.5") which received both wastes transferred from No.4 at closure and additional wastes under 2002. (Fact Sheet at 1) The only impoundment remaining in operation is "No.6", which is a double lined structure with a leachate collection system. In 2016, No.6 began being operated as a residual waste landfill. It is unclear from the permit materials whether the impoundments No.4 and No.5 have been fully closed, or whether impoundment No.6 has been converted into Landfill No.6, or whether it remains open. (Fact Sheet at 2).

DEP Response to MWA Comment III: Impoundment Nos. 4 and 5 are closed. Landfill No. 6 continues to operate. Waste disposal in Impoundment No. 4 began in mid-1975 and continued until 1984. During this period Impoundment No. 5 was constructed and brought into service and waste previously disposed in Impoundment No. 4 was excavated and relocated into Impoundment No. 5. Disposal operations continued until mid-1985 while waste operations and disposal began in Impoundment No. 6 in 1987. Impoundment No. 5 was constructed before the enactment of RCRA but was active during the time it came into law. Therefore, Impoundment No. 5 is regulated under RCRA and was required to meet Subtitle C closure requirements, including positive drainage off the cap. What is now called Landfill No. 6 was initially authorized as disposal Impoundment No. 6 and later changed to a landfill in 2016.

Questions about the status of the disposal impoundments are best directed to DEP's Waste Management Program, which regulates MAX's disposal impoundments pursuant to Solid Waste Permit 301071.

MWA Comment III.1. Limits Are Deficient For Outfalls 002 & 003: Outfalls 002 and 003 will be discharging stormwater from the Site, but appear to have no limits, and only semi-annual monitoring. It is unacceptable that stormwater flows from this Site would be without regular monitoring and/or limits for pollutants contemplated within the Site's discharges, considering the inevitable flows to Sewickley Creek and current impairments. Impoundment No.5 is directly adjacent to Outfalls 002 and 003, and is only partially lined. Due to the apparent areas of drainage, Outfalls 002, 003 and 008 should have regular monthly monitoring, as well as the same limits and monitoring requirements as those for Outfall 001.

DEP Response to MWA Comment III.1: Outfalls 002 and 003 have different designations in the final permit (IMP 109 and 209). Outfall 008 was erroneously omitted from Draft 2 and will be included in the second revised draft permit (Draft 3).

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DEP's reliance on the PAG-03 General Permit for the Yukon Facility's storm water requirements is reasonable because storm water runoff from closed and capped disposal facilities does not exhibit the same potential for contamination as groundwater from disposal units—thus why groundwater is collected and treated at the site and storm water is not. That is, storm water flowing off a vegetated cap has a low potential for contamination. Therefore, effluent requirements and monitoring frequencies for the Yukon Facility's storm water are established consistent with the nature and effect of those discharges.

As explained in the Fact Sheet Addendum, Appendix C of DEP's General Permit for Discharges of Stormwater Associated with Industrial Activities (PAG-03) imposes semi-annual monitoring requirements for pH, TSS, COD, Ammonia-Nitrogen, and Total Iron on storm water discharges from RCRA Subtitle D landfills. Landfill No. 6 is a RCRA Subtitle D landfill. Since there is an active Subtitle D landfill at the site, DEP's reference to Appendix C of the PAG-03 General Permit that identifies requirements for storm water discharges from such landfills is reasonable.

As stated in DEP's Response to MWA Comment III, Impoundment No. 5 was closed pursuant to Subtitle C closure requirements. Storm water discharges from Subtitle C landfills, when regulated by the PAG-03 General Permit, are subject to Appendix A of the PAG-03, which states, in part:

> The requirements in Appendix A apply to stormwater discharges associated with industrial activity from Hazardous Waste Treatment, Storage or Disposal facilities that are operating under interim status or a permit under subtitle C of RCRA. Other facilities may be required to comply with this appendix if notified by DEP in writing.
>
> Hazardous waste disposal facilities that have been properly closed and capped, and have no significant materials exposed to stormwater, are considered inactive and do not require permit coverage.

Impoundment No. 5 was closed pursuant to Subtitle C closure requirements. However, as MWA notes, Impoundment No. 5 is only partially lined and there are storm water discharges downgradient of that impoundment. Therefore, DEP has imposed some monitoring requirements on storm water discharges downgradient of Impoundment No. 5. MAX asserts that Impoundment No. 5's bench and blanket drains intercept potential seepage that might commingle with storm water. However, to confirm MAX's assertion and the effective interception of potential seepage on an ongoing basis, DEP will impose the semi-annual monitoring requirements from Appendix A of the PAG-03 at IMPs 109, 209, 309, and Outfall 009. This change adds arsenic, cadmium, cyanide, lead, mercury, selenium, and silver to those monitoring points in addition to the parameters already proposed at those points in Draft 2.

Data collected by DEP (see attached data from "Site 2") show that aluminum and iron—metals to which Sewickley Creek's impairment are attributed—are not present at Outfall 009 ("Site 2") in concentrations that contribute to the impairment. Therefore, numerical limits for those metals are not imposed. Other pollutants are not present at concentrations that warrant effluent limits.

MWA Comment III.2. Permit Application Lacks Critical Information: According to inspection reports in February and June of 2020, the Site contains unnamed, unreported, and presumably uncontrolled pipes and outfalls. This constitutes a fundamental failure of controls on the Site. Commenters respectfully request that the Draft Permit comprehensively detail and examine each drainage pipe and/or outfall. Of similar concern is the lack of useful and/or legible maps. The Draft Permit does not contain sitemaps. Only the Fact Sheet contains a site map with impoundments, landfills, pumping stations, etc., however this map is illegible, and the Process Flow Diagram does not indicate what areas are drained to these outfalls. (Fact Sheet at 12-13) Fortunately, a legible version of the sitemap was later included. However, the sitemap in the Fact Sheet does not contain a legend or key, nor does it delineate the specific drainage areas to each outfall, and Commenters are unaware of such a comprehensive site map and are gravely concerned that neither the public nor the Department are in possession of a comprehensive site map that would provide information regarding drainage, seepage and other critical information to determine potential leachate or flows not captured by the treatment system.

DEP Response to MWA Comment III.2: The site map emailed to Melissa Marshall of MWA on February 8, 2021 depicts the areas draining to each outfall/IMP. That site map has a legend. Upon DEP's request, an updated version of the site map was provided to DEP on June 28, 2021 to identify additional drainage areas. The map is best viewed in a PDF reader that allows for zooming to see fine details.

Outfall 008 was erroneously omitted from Draft 2. Draft 3 will include all outfall pipes not previously identified.

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Permits do not include site maps because maps are included in the supporting documentation for a permit (the Fact Sheet and the application). Springs, monitoring wells, and other relevant site features relating to groundwater and surface manifestations of groundwater are identified on maps submitted to DEP's Waste Management Program pursuant to MAX's Solid Waste Permit, which regulates groundwater that may be impacted by disposed waste.

MWA Comment III.3. The figures on pages 15-18 of the Addendum Fact Sheet appear to reflect that design flow for Outfall 001 is 0.048 MGD (33.33 GPM) with a max chloride concentration of 4045600 mg/L and max bromide concentration of 70150 mg/L. For reference, ocean water concentrations of chloride and bromide are 35000 mg/L and 66-68 mg/L respectively. It seems these hypersaline concentrations of the discharge from Outfall 001 would then meet at least one, if not two definition of hazardous waste.

The 2019 PA Hazardous Waste Regulation Compliance Guide includes that hazardous waste exhibits a characteristic specified in 40 CFR Part 261, Subpart C. EPA has identified four hazardous characteristics:

- Ignitability (40 CFR 261.21) is the ability of wastes to catch fire under certain conditions. Examples are paints, certain degreasers and solvents. Ignitable wastes have an EPA waste code D001.nCorrosivity (40 CFR 261.22) is the ability of wastes to corrode metals or wastes that have a very high or low pH. Examples are rust removers, acid or alkaline cleaning fluids and battery acid. Corrosive wastes have an EPA waste code D002.

- Reactivity (40 CFR 261.23) means wastes are unstable and explode or produce toxic fumes, gases and vapors when mixed with water or when subjected to heat or pressure. Examples include certain cyanides or sulfide-bearing wastes. Reactive wastes have an EPA waste code D003.

- Toxicity (40 CFR 261.24) includes wastes that are harmful or fatal when ingested or absorbed or leach toxic chemicals into the soil or groundwater when disposed on land. Examples include wastes that contain high concentrations of heavy metals, such as cadmium, lead or mercury. EPA waste codes for toxic wastes range from D004 to D043.

Hypersaline water is highly corrosive and toxic to freshwater invertebrates and vertebrates. Yet both of these constituents are not, in any way, addressed in NPDES permit controls for Outfall 001. Both chloride and bromide concentrations should be controlled under this NPDES permit, and the Department should justify its decision using a model that demonstrates impact of chloride and bromide on water quality in Sewickley Creek.

DEP Response to MWA Comment III.3: The concentrations of chloride and bromide on p.15 of the Fact Sheet Addendum were transposed in error from the laboratory analysis sheets. As shown on pp.24 and 25 of the Fact Sheet Addendum, the concentrations of chloride and bromide in DEP's Outfall 001 sample were 4,045.6 mg/L and 70.15 mg/L. The effluent is not hypersaline. Using the correct values does not alter the recommendations of DEP's water quality analysis for chloride or bromide (i.e., no limits).

MWA Comment III.4. It appears that the Department is allowing non-negligible concentrations of arsenic in discharge from Outfall 001. The Department must explain why there is no restriction on flow. Concentration controls put in place on the discharge are meaningless if not controlled in tandem in with flow, in respect to water quality of Sewickley Creek. Flow should be controlled in the final NPDES permit.

DEP Response to MWA Comment III.4: Concentration limits are not meaningless in the absence of flow limits. Water quality criteria are expressed in 25 Pa. Code Chapter 93 as concentrations and streams are fully protected when only concentration limits are imposed on a discharger. A concentration limit represents a restriction on MAX's discharge and requires that any mass of pollutant discharged to the receiving stream be accompanied by a volume of water that does not cause a violation of a water quality criterion in-stream.

The procedures for deriving WQBELs are well established in DEP's and EPA's guidance documents and the assumptions used to develop WQBELs are conservative. Based on the Yukon Facility's discharge flow rate and the assimilative capacity of Sewickley Creek, an average monthly arsenic concentration of 2.69 mg/L will not cause a violation of the arsenic water quality criteria in-stream.

MWA Comment III.5. Permit Is Incomplete Because Critical Constituents Are Absent: Based on academic research, Pennsylvania State University determined that certain chemical constituents are commonly found in water located near

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natural gas drilling. The University recommends that private water supply owners near natural gas drilling test for these constituents. However, even though Max's operation is almost entirely dedicated to treating drill cuttings from natural gas operations, many of these constituents are not included in the NPDES permit. This is unacceptable.

The NPDES permit should be updated to include a monitoring requirement for the following parameters at all outfalls:

- Alkalinity
- BTEX (Benzene, Toluene, Ethyl- benzene and Xylene)
- Gross alpha
- Hardness (Calcium and Magnesium)
- Methane/ ethane
- Nitrate-N
- Sodium
- Surfactants, Methylene Blue Active Substances (MBAS)

DEP Response to MWA Comment III.5: MAX currently samples water wells from three residences quarterly. The recent changes to the surface and groundwater monitoring plan (under the Solid Waste Permit) requests additional sampling parameters in the residential wells, all of which are upgradient to the landfill.

MAX does not drill for natural gas and drill cuttings are not directly comparable to flowback and produced water from natural gas drilling. The referenced parameters are not included in the NPDES permit because they are not pollutants of concern for the Yukon Facility's discharges. Benzene, toluene, and ethylbenzene were not detected at Outfall 001 (the outfall that receives leachate from disposal areas where drill cuttings are placed). Xylene is not expected to be present in the discharge and is not subject to any water quality criteria in 25 Pa. Code Chapter 93. Almost all organics (volatile and semi-volatile) were not detectable in the effluent and those that were detected are not subject to WQBELs because they do not exhibit a reasonable potential to cause or contribute to excursions above water quality criteria. Elevated hardness generally reduces the toxicity of metals. Alkalinity would improve acidic conditions in the watershed, which is impacted by acid mine drainage. MAX has an approved Radiation Protection Action Plan requiring MAX to monitor incoming waste for radioactive material (e.g., NORM and TENORM, which relate to gross alpha).

MWA Comment III.6. Lack of Hazardous Liquid/Slurry Treatment System: Finally, a Hazardous Liquid/Slurry Treatment System was intended to be constructed, but was never constructed. Has this option been foreclosed? What is the basis for removal of effluent limits based on the unrealized plans? Even if this treatment system will not be constructed, the Facility receives or could receive wastes that appear to warrant monitoring for similar types of pollutants as a CWT Facility. (Fact Sheet at 23-24).

Removal of monitoring for toxics:
According to the Fact Sheet Addendum (at 2), and based on four sampling days, over less than two months of sampling, DEP has agreed to remove monitoring requirements for the following Semivolatile Organic Compounds and Organochlorine Pesticides: 3,3-Dichlorobenzidine; Benzidine; 4,4-DDD; 4,4-DDE; 4,4-DDT; Dieldrin; and Toxaphene. What other justifications exist to remove these toxic pollutants from monitoring requirements and limits? Are there any further studies or evidence of removal or isolation of these leachates?

Toxics and other Pollutants exceeding criterion, with questionable WLAs:
As it stands, pages 50 through 55 of the Fact Sheet show maximum concentrations measured at Outfall 001 for dozens of toxic pollutants that were greater than the most stringent criterion listed - sometimes orders of magnitude greater. Commenters are concerned that this indicates underlying failures in one or more of the treatment systems, leachate and seepage collection, or linings that are intended to prevent seepage outside of the collection and treatment systems. Coupled with compliance history failures, there are other indices of Facility failures that create concerns for Commenters.

The above are examples of either increased concentration limits, removal of monitoring and limits altogether of specific pollutants, or authorization of releases in excess of listed maximum criterion. Further, the Fact Sheet Addendum contains several examples of relaxed or removed monitoring and limits, without appropriate sampling data. This backsliding represents violations of requirements pursuant to 25 Pa. Code § 92a.75 for reissuance of a permit and compliance requirements, 25 Pa. Code § 93.4a requiring antidegradation protections, as well as CWA anti-backsliding provisions pursuant to 33 U.S.C. § 1342(o).

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Commenters respectfully request more, not less, robust sampling, including monthly sampling at Outfalls 002 and 003, and limits, for similar suites of metals and organic compounds and other toxic pollutants, and that organochlorine compounds and other toxic pollutants continue to be monitored, and limited, at Outfall 001. The Fact Sheet, at various points, indicates a history of seepage and leachate moving from impoundments. These must be addressed via regular monthly monitoring, and limits, at Outfalls 002 and 003. While the Fact Sheet makes clear the risk of seepage, no documentation is provided showing testing, modelling or other measures taken to understand the surface and groundwater plumes at or around the Site. In fact, instead of taking such precautions, the Fact Sheet Addendum, at various parts, but particularly at pages 3-7, consistently relax or remove monitoring requirements. In response to the potential discharge without a permit, the DEP and the applicant simply named the pipe Outfall 009. **Further, as with Outfalls 002 and 003, despite the apparently large drainage areas throughout the site, Outfall 009 similarly has monitoring twice per year, with no limits.** Considering the impairments to Sewickly Creek, the Draft Permit appears to violate Pennsylvania's Clean Streams laws and the CWA, by allowing discharges that further degrade Sewickly Creek.

In addition to the request for further extension of time to comment, Commenters respectfully request that any hydrogeologic studies of the Site be made part of the permit renewal documentation and process, so that the public can properly review the real risk of seepage throughout the Site and into adjacent surface and groundwaters.

Violative History:
The Facility has been issued multiple Notices of Violations for recent inspections, during 2020. These violations concern several outfalls and related failures to sample, potential discharge without a permit, and other serious violations. These were preceded by a full year of the Facility's failure to report its Discharge Monitoring Reports. These are grave violations, none of which appear to be addressed in the Draft Permit documents.

The February and June 2020 inspection reports indicate several alarming violations. These include potential discharge without a permit of an unreported discharge pipe that appears to be discharging to Sewickly creek, in between Outfalls 002 and 003. DEP appears to have cured this issue by naming the pipe Outfall 009, and including minimal monitoring, similar to Outfalls 002 and 003. This sets an unacceptable standard for permittees: create an illegal discharge and the Department will respond encompassing the illegal pollution within your permits. This incentivizes permittees, to illegally pollute waters of the Commonwealth first, and ask for forgiveness later. Max should instead, be required to construct and implement a state of the art stormwater management system that ensures 100% of runoff is captured, treated, and monitored. Because Max is the state's only Class C hazardous waste facility, it should implement equally singular systems that are specifically designed so that none of these hazardous materials are contaminating our public waterways.

DEP Response to MWA Comment III.6: Effluent limits for discharges from a Hazardous Liquid/Slurry Treatment System were removed because MAX is not proposing discharges from such a system. DEP imposes permit requirements based on an applicant's regulated activities, whether existing or planned. If regulated activities like discharging pollutants do not exist and are not planned to exist, then there is no need to regulate them in a permit. If MAX applies to authorize discharges from a Hazardous Liquid/Slurry Treatment System in the future, then the permit will be amended as necessary.

Removal of monitoring for toxics

There are no other justifications. The fact that 3,3-Dichlorobenzidine; Benzidine; 4,4-DDD; 4,4-DDE; 4,4-DDT; Dieldrin; and Toxaphene were not detected in the effluent at DEP's target quantitation limits is the justification for no WQBELs on those parameters, which was the same justification for not imposing WQBELs on all other pollutants that were not detected in the effluent using sufficiently sensitive analytical methods.

Toxics and other Pollutants exceeding criterion, with questionable WLAs

The proper comparison values for the maximum discharge concentrations on the referenced pages of the Fact Sheet are in the "Most Stringent WQBEL" column on those pages, not the "Most Stringent Criterion" column. Water quality criteria are unrelated to expected treatment system performance so no conclusions can be drawn about MAX's treatment systems, leachate and seepage collection systems, or linings based on MWA's suggested comparison.

All changes to the permit are justified in the Fact Sheet, Fact Sheet Addendum, and this Fact Sheet Addendum 2. Monitoring requirements are removed when cause exists to remove them. Anti-backsliding is not triggered when limits proposed in a draft permit (such as those for 3,3-Dichlorobenzidine, Benzidine, etc.) are removed because the limits were never in effect in a final issued NPDES permit. With respect to monitoring requirements at IMPs 109, 209, and 309

Internal Review and Recommendations

and Outfall 009, refer to DEP's Response to MWA Comment III.1 in this Fact Sheet Addendum. The monitoring requirements for MAX's storm water are established consistent with the nature and effect of those discharges. No degradation of Sewickley Creek is expected from MAX's storm water discharges.

The NPDES permit does not implement federal or state regulations relating to residual waste disposal and is not the proper mechanism to require hydrogeologic studies that may be conducted when there is the potential for groundwater contamination resulting from residual waste disposal. Additionally, the hydrogeologic characteristics of the site were already documented as part of MAX's Solid Waste Permit and continue to be documented by the groundwater and surface water monitoring program MAX implements pursuant to its Solid Waste Permit. The Solid Waste Permit's monitoring program includes numerous groundwater monitoring wells, spring monitoring points, and surface water monitoring points that allow DEP to evaluate any surface and groundwater impacts relating to MAX's residual waste disposal units and the controls used to prevent such impacts.

As explained in DEP's Response to MWA Comment III.1, storm water runoff does not exhibit the same potential for contamination as leachate, which is why permit requirements for storm water are less stringent than those for leachate. The fact that MAX accepts and processes hazardous wastes in limited areas of the site should not be generalized to imply that the entire site is contaminated by hazardous waste or that storm water runoff from the site (including runoff from remote areas within Outfall 009's drainage area) is presumptively impacted by hazardous wastes when available effluent data indicate that it is not.

The monitoring requirements at IMP 109 (Outfall 002), IMP 209 (Outfall 003), and Outfall 009 are reasonable. Commenters do not provide information to support their claim that Outfall 009 will further degrade Sewickley Creek. DEP sampled Outfall 009 in June 2020. The results of that sampling (attached) do not indicate that Outfall 009's discharges, which include runoff from IMPs 109 and 209, will degrade Sewickley Creek.

Violative History

The draft permit documents are not enforcement documents and do not directly address permit violations. Refer to DEP's inspection reports, notices of violation, and MAX's responses to DEP's enforcement correspondence for that information.

The remedies for discharging without a permit are to cease discharging or to obtain a permit for the discharge. Outfalls 008 and 009 are/will be added to the permit and will be subject to the requirements of the permit. A permitted discharge is not an illegal discharge. Punitive measures (separate from an NPDES permit action) *may* accompany a remedy and act as a disincentive to discharge without a permit, but a remedy (such as permitting an unpermitted discharge) must nevertheless be implemented.

Constructing a system to capture and treat 100% of the site's runoff is unnecessary because 1) all storm water runoff from the site does not need to be treated and 2) such a system is impractical based on runoff volumes alone. Hazardous waste management areas are already controlled to prevent the migration of hazardous substances to non-hazardous areas of the site. The Yukon Facility has a separate hazardous waste management area with solidified/stabilized (non-hazardous) waste transported to and disposed in the landfill as residual waste.

MWA Comment IV. Conclusion. For the aforementioned reasons Commenters again requests that DEP extend the public comment period to allow the concerned public an adequate opportunity to provide public comment and participation in this permit proceeding, as well as the requisite materials, including a hydrogeologic study. Commenters would like to incorporate by reference previous comments on this permit submitted by Mountain Watershed Association ("MWA") on or about December 2019. Commenters also request that DEP takes steps and/or require additional action from the Applicant to address the concerns stated above. Commenters thank DEP for the opportunity to provide comments on this permit renewal.

DEP Response to MWA Comment III.5: As stated in DEP's Response to MWA Comment I, interested parties have had ample time to comment on DEP's proposed actions. Draft permit comment periods on both draft permits were extended upon request by the maximum time allowed under 25 Pa. Code § 92a.82(d). DEP also met with MWA's representatives and local community members on January 9, 2020 to discuss the draft permit and DEP responded to comments from MWA following that meeting. Draft 2 was emailed to MWA's representatives on January 25, 2021, almost two weeks before the start of the comment period for that draft permit on February 6, 2021, thus giving MWA a total 57 days to review and comment on Draft 2.

Internal Review and Recommendations
DEP responded to MWA's previous comments from December 2019 in the Fact Sheet Addendum accompanying Draft 2. Please refer to that Fact Sheet Addendum for responses to comments that MWA incorporates by reference.
Due to the changes made to the permit in response to comments on Draft 2, the revised draft permit (Draft 3) will be published for a 30-day comment period.

Development of Effluent Limitations

Outfall No. 008 **Design Flow (MGD)** Variable
Wastewater Description: Storm water from the paved plant driveway and lab area stormwater

008.A. Technology-Based Effluent Limitations (TBELs)

Consistent with 25 Pa. Code § 92a.61(h) and DEP's policy for permitting storm water discharges associated with industrial activities, minimum standards described in the PAG-03 will be applied to the facility's storm water discharges. Based on the facility's SIC Code of 4953 and due to the presence of a RCRA Subtitle D landfill, the facility is classified under Appendix C – Landfills and Land Application Sites of the PAG-03 General Permit. However, per DEP's Response to MWA Comment III.1, the requirements of PAG-03 Appendix A will be imposed at Outfall 008.

PAG-03 Appendix A – Minimum Monitoring Requirements

Discharge Parameter	Units	Sample Type	Appendix C Measurement Frequency
Total Suspended Solids	mg/L	1 Grab	1/6 months
Chemical Oxygen Demand	mg/L	1 Grab	1/6 months
Ammonia-Nitrogen	mg/L	1 Grab	1/6 months
Arsenic, Total	mg/L	1/Grab	1/6 months
Cadmium, Total	mg/L	1 Grab	1/6 months
Cyanide, Total	mg/L	1/Grab	1/6 months
Lead, Total	mg/L	1 Grab	1/6 months
Mercury, Total	mg/L	1/Grab	1/6 months
Selenium, Total	mg/L	1 Grab	1/6 months
Silver, Total	mg/L	1/Grab	1/6 months
pH	s.u.	1 Grab	1/6 months

In addition to PAG-03 Appendix A requirements, semi-annual monitoring requirements for aluminum, iron, and manganese will be imposed at Outfall 008 pursuant to 25 Pa. Code § 92a.61(h) and 25 Pa. Code § 96.4(i) and the Sewickley Creek Watershed TMDL. MAX was not able to collect storm water samples at Outfall 008.

008.B. Water Quality-Based Effluent Limitations (WQBELs)

Effluent Limits and Monitoring Requirements for Outfall 008

Parameter	Mass (pounds/day)		Concentration (mg/L)			Basis
	Average Monthly	Daily Maximum	Average Monthly	Daily Maximum	Instant Maximum	
Flow (MGD)	—	Report	—	—	—	25 Pa. Code § 92a.61(h)
Total Suspended Solids	—	—	—	Report	—	25 Pa. Code § 92a.61(h); PAG-03, Appendix A
Chemical Oxygen Demand	—	—	—	Report	—	25 Pa. Code § 92a.61(h); PAG-03, Appendix A
Ammonia-Nitrogen	—	—	—	Report	—	25 Pa. Code § 92a.61(h)
Aluminum, Total	—	—	—	Report	—	25 Pa. Code § 92a.61(h); 96.4(i)
Arsenic, Total	—	—	—	Report	—	25 Pa. Code § 92a.61(h); PAG-03, Appendix A
Cadmium, Total	—	—	—	Report	—	25 Pa. Code § 92a.61(h); PAG-03, Appendix A
Cyanide, Total	—	—	—	Report	—	25 Pa. Code § 92a.61(h); PAG-03, Appendix A
Iron, Total	—	—	—	Report	—	25 Pa. Code § 92a.61(h);
Lead, Total	—	—	—	Report	—	25 Pa. Code § 92a.61(h); PAG-03, Appendix A

Effluent Limits and Monitoring Requirements for Outfall 008 (continued)

Parameter	Mass (pounds/day)		Concentration (mg/L)			Basis
	Average Monthly	Daily Maximum	Average Monthly	Daily Maximum	Instant Maximum	
Manganese, Total	—	—	—	Report	—	25 Pa. Code § 92a.61(h); 96.4(i)
Mercury, Total	—	—	—	Report	—	25 Pa. Code § 92a.61(h); PAG-03, Appendix A
Selenium, Total	—	—	—	Report	—	25 Pa. Code § 92a.61(h); PAG-03, Appendix A
Silver, Total	—	—	—	Report	—	25 Pa. Code § 92a.61(h); PAG-03, Appendix A
pH (s.u.)	—	—	—	Report	—	25 Pa. Code § 92a.61(h); PAG-03, Appendix A

The sampling frequency and type for all parameters will be 1/6 months grab samples as established in Appendix A of the PAG-03 General Permit—including parameters not based on Appendix A of the PAG-03. Flow should be estimated at the time of sampling.

Outfall 009 ("Site 2") Analytical Data

Date of Issue: 07/23/2020 10:55:35

DEP Bureau of Laboratories - Harrisburg
P.O. Box 1467
2575 Interstate Drive
Harrisburg, PA 17105-1467

Contact Phone Number: (717) 346-7200

NELAP - accredited by

NJ DEP - Laboratory Number: PA059
PA DEP LAP - DEP Lab ID: 22-00223

Analytical Report For
Water Supply Management

Sample ID: 0654 012 **Date Collected:** 06/30/2020 12:00:00 PM **Lab Sample ID:** I2020008962 **Status:** IN PROCESS

Name of Sample Collector: James K Stewart
Date Received: 07/01/2020

County: NOT INDICATED **State:**
Municipality: NOT INDICATED

Location: NOT INDICATED
Reason: Routine Sampling
Project: NOT INDICATED
Standard Anlysis: 058
Matrix: Water

Stream Condition:

Test Codes / CAS # - Description	Reported Results	Date And Time Analyzed	Approved by	Test Method
01105A ALUMINUM, TOTAL (WATER & WASTE) BY ICP	427.00 ug/L	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
00610A AMMONIA TOTAL AS NITROGEN	0.03 mg/L	07/10/2020 12:27 AM	CRADEK	EPA 350.1
01097H ANTIMONY, TOTAL (WATER &WASTE) BY ICPMS	6.660 ug/L	07/07/2020 01:01 PM	SCHOY	EPA 200.8
01002H ARSENIC, TOTAL (WATER & WASTE) BY ICPMS	3.060 ug/L	07/07/2020 01:01 PM	SCHOY	EPA 200.8
01007A BARIUM, TOTAL (WATER & WASTE) BY ICP	48.00 ug/L	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
00310 BIOCHEMICAL OXYGEN DEMAND 5 DAY	2.40 mg/L	07/01/2020 10:42 AM	JRONEMUS	SM 5210B
01022K BORON, TOTAL (WATER & WASTE) BY ICP	<200. ug/L (U)	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
71870 BROMIDE BY ION CHROMATOGRAPHY	<0.2 mg/L (U)	07/01/2020 03:13 PM	TVOROBEYCH	EPA 300.0

Analytical Report For
Water Supply Management

Sample ID: 0654 012 **Date Collected:** 06/30/2020 12:00:00 PM **Lab Sample ID:** I2020008962 **Status:** IN PROCESS

Test Codes / CAS # - Description	Reported Results	Date And Time Analyzed	Approved by	Test Method
01027A CADMIUM, TOTAL (WATER & WASTE) BY ICP	<10.0 ug/L (U)	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
00916A CALCIUM, TOTAL (WATER & WASTE) BY ICP	41.435 mg/L	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
01034A CHROMIUM, TOTAL (WATER & WASTE) BY ICP	<50.0 ug/L (U)	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
01037A COBALT, TOTAL (WATER & WASTE) BY ICP	<50.0 ug/L (U)	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
01042A COPPER, TOTAL (WASTER & WASTE) BY ICP	<10.0 ug/L (U)	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
01032A Hexavalent Chromium-Ion Chromatograph	<1.0 ug/L (U)	07/06/2020 04:28 PM	SAGREER	EPA 218.6
01045A IRON, TOTAL (WATER & WASTE) BY ICP	381.00 ug/L	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
01051H LEAD, TOTAL (WATER & WASTE) BY ICPMS	9.400 ug/L	07/07/2020 01:01 PM	SCHOY	EPA 200.8
01132A LITHIUM, TOTAL (WATER & WASTE) BY ICP	<25.0 ug/L (U)	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
00927A MAGNESIUM, TOTAL (WATER & WASTE) BY ICP	36.84 mg/L	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
01055A MANGANESE, TOTAL (WATER & WASTE) BY ICP	21.00 ug/L	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
01062A MOLYBDENUM, TOTAL (WATER & WASTE) BY ICP	<70.0 ug/L (U)	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
01067A NICKEL, TOTAL (WATER & WASTE) BY ICP	<50.0 ug/L (U)	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
82550 OSMOTIC PRESSURE, MOS/KG	6	07/01/2020 11:37 AM	KMCMULLEN	BOL 3003
00403 pH, Lab (Electrometric)	8.8 pH units	07/01/2020 01:59 PM	MTUZINSKI	SM 4500-H+ B
00937A POTASSIUM, TOTAL (WATER & WASTE) BY ICP	2.84 mg/L	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
00956A SILICA, TOTAL (WATER & WASTE) BY ICP*	15.12 mg/L	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
01077A SILVER, TOTAL (WATER & WASTE) BY ICP	<10.0 ug/L (U)	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
00929A SODIUM, TOTAL (WATER & WASTE) BY ICP	18.57 mg/L	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
01082A STRONTIUM, TOTAL (WATER & WASTE) BY ICP	817.00 ug/L	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
00403T Temperature at which pH is measured	20.44 C	07/01/2020 01:59 PM	MTUZINSKI	SM 4500-H+ B
01102A TIN, TOTAL (WATER & WASTE) BY ICP	<200. ug/L (U)	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
01152A TITANIUM, TOTAL (WATER & WASTE) BY ICP	<10.0 ug/L (U)	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
00940A Total Chloride-Colorimetric	20.4 mg/L	07/01/2020 03:45 PM	JANBARRY	SM 4500-CL- E
70300U TOTAL DISSOLVED SOLIDS @ 180C BY USGS-I-1750	344 mg/L	07/01/2020 12:09 PM	MARMANIOUS	USGS I-1750
32730D Total Phenols	<5.0 ug/L (U)	07/09/2020 03:11 PM	SAGREER	EPA 420.4
00945A Total Sulfate-Colorimetric	101.4 mg/L	07/02/2020 11:43 AM	LHREHA	EPA 375.2
00530 TOTAL SUSPENDED SOLIDS	<5 mg/L (U)	07/06/2020 09:09 PM	MARMANIOUS	USGS I-3765
22706E3 Uranium 238	<2.00 ug/L (U)	07/07/2020 01:01 PM	SCHOY	EPA 200.8
01087A VANADIUM, TOTAL (WATER & WASTE) BY ICP	<30.0 ug/L (U)	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7
00719W Weak Acid Dissociable Cyanide	<.003 mg/L (U)	07/06/2020 12:57 PM	JRONEMUS	EPA KELADA-01
01092A ZINC, TOTAL (WATER & WASTE) BY ICP	<30.0 ug/L (U)	07/13/2020 11:10 AM	ATAPSOBA	EPA 200.7

Analytical Report For
Water Supply Management

Sample ID: 0654 012 **Date Collected:** 06/30/2020 12:00:00 PM **Lab Sample ID:** I2020008962 **Status:** IN PROCESS

The results of the analyses provided in this laboratory report relate only to the sample(s) identified therein. Unless otherwise noted, the results presented on this laboratory report meet all requirements of the 2016 TNI standard. Sample was in acceptable condition when received by the Laboratory. Any exceptions are noted in the report.
* denotes tests that the laboratory is not accredited for

U - Indicates analysis was performed for the test but it was not detected. The sample quantitation limit is reported.

J - Indicates an estimated value, reported between Reporting Limit (RL) and Minimum Detection Limit (MDL).

June Black, Technical Director, Bureau of Laboratories

Date of Issue: 07/23/2020 10:55:26

DEP Bureau of Laboratories - Harrisburg
P.O. Box 1467
2575 Interstate Drive
Harrisburg, PA 17105-1467

Contact Phone Number: (717) 346-7200

NELAP - accredited by

NJ DEP - Laboratory Number: PA059
PA DEP LAP - DEP Lab ID: 22-00223

Analytical Report For
Water Supply Management

Sample ID: 0654 012 **Date Collected:** 06/30/2020 12:00:00 PM **Lab Sample ID:** O2020002703 **Status:** Completed

Name of Sample Collector: James K Stewart
Date Received: 07/01/2020

County: NOT INDICATED **State:**
Municipality: NOT INDICATED

Location: NOT INDICATED
Reason: Routine Sampling
Project: NOT INDICATED
Suite: SV-WW
Matrix: Water

Stream Condition:

Sample Lab Comment: This sample does not contain any Tentatively Identified Compounds.This sample does not contain benzoic acid, with an estimated reporting limit of 9.5 ug/L. The BOL is not accredited for the analysis of benzoic acid.

Test Codes / CAS # - Description	Reported Results	Date And Time Analyzed	Approved by	Test Method
95943 1,2,4,5-Tetrachlorobenzene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
120821 1,2,4-Trichlorobenzene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
99650 1,3-Dinitrobenzene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
130154 1,4-Naphthoquinone	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
Continuing calibration recoveries low. Results and/or reporting limits may be biased low.				
90131 1-Chloronaphthalene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1

Analytical Report For
Water Supply Management

Sample ID: 0654 012 **Date Collected:** 06/30/2020 12:00:00 PM **Lab Sample ID:** O2020002703 **Status:** Completed

Test Codes / CAS # - Description	Reported Results	Date And Time Analyzed	Approved by	Test Method
90120 1-Methylnaphthalene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
108-60-1 2,2'-oxybis(1-Chloropropane)	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
58902 2,3,4,6-Tetrachlorophenol	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
95954 2,4,5-Trichlorophenol	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
88062 2,4,6-Trichlorophenol	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
120832 2,4-Dichlorophenol	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
105679 2,4-Dimethylphenol	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
51285 2,4-Dinitrophenol	11.9 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
121142 2,4-Dinitrotoluene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
87650 2,6-Dichlorophenol	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
606202 2,6-Dinitrotoluene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
53963 2-Acetylaminofluorene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
91587 2-Chloronaphthalene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
95578 2-Chlorophenol	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
91576 2-Methylnaphthalene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
95487 2-Methylphenol	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
88744 2-Nitroaniline	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
88755 2-Nitrophenol	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
109068 2-Picoline (2-Methylpyridine)	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
1319773 3&4-Methylphenol	4.8 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
91941 3,3'-Dichlorobenzidine	1.2 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
99092 3-Nitroaniline	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
534521 4,6-Dinitro-2-methylphenol	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
92671 4-Aminobiphenyl	5.7 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
Low-level LFB recovery low. Results and/or reporting limit may be biased low.				
101553 4-Bromophenyl-phenyl ether	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
59507 4-Chloro-3-methylphenol	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
106478 4-Chloroaniline	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
7005723 4-Chlorophenyl-phenyl ether	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
100016 4-Nitroaniline	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
100027 4-Nitrophenol	11.9 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
99558 5-Nitro-o-toluidine	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
83329 Acenaphthene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
208968 Acenaphthylene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
98862 Acetophenone	4.8 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
62533 Aniline	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1

Analytical Report For
Water Supply Management

Sample ID: 0654 012 **Date Collected:** 06/30/2020 12:00:00 PM **Lab Sample ID:** O2020002703 **Status:** Completed

Test Codes / CAS # - Description	Reported Results	Date And Time Analyzed	Approved by	Test Method
120127 Anthracene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
140578 Aramite	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
98555 a-Terpineol	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
56553 Benz(a)anthracene	1.2 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
50328 Benzo(a)pyrene	1.2 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
205992 Benzo(b)fluoranthene	1.2 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
** Comment ** Includes benzo(j)fluoranthene				
191242 Benzo(g,h,i)perylene	1.2 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
207089 Benzo(k)fluoranthene	1.2 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
100516 Benzyl alcohol	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
111911 bis(2-Chloroethoxy)methane	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
111444 bis(2-Chloroethyl)ether	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
117817 bis(2-Ethylhexyl)phthalate	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
85687 Butylbenzylphthalate	1.2 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
510156 Chlorobenzilate	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
218019 Chrysene	1.2 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
2303164 Diallate (Cis & Trans)	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
53703 Dibenzo(a,h)anthracene	1.2 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
132649 Dibenzofuran	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
84662 Diethylphthalate	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
60515 Dimethoate	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
60117 Dimethylaminoazobenzene	1.2 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
131113 Dimethylphthalate	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
84742 Di-n-butylphthalate	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
117840 Di-n-octylphthalate	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
122394 Diphenylamine&n-Nitrosodipheny	4.8 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
298044 Disulfoton	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
62500 Ethyl methanesulfonate	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
56382 Ethyl Parathion	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
EXTRACTED DATE	07062020 Day	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
206440 Fluoranthene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
86737 Fluorene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
118741 Hexachlorobenzene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
87683 Hexachlorobutadiene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
77474 Hexachlorocyclopentadiene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1

Analytical Report For
Water Supply Management

Sample ID: 0654 012 **Date Collected:** 06/30/2020 12:00:00 PM **Lab Sample ID:** O2020002703 **Status:** Completed

Test Codes / CAS # - Description	Reported Results	Date And Time Analyzed	Approved by	Test Method
67721 Hexachloroethane	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
1888717 Hexachloropropene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
Low-level LFB recovery low. Results and/or reporting limit may be biased low.				
193395 Indeno-1,2,3-cd-pyrene	1.2 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
465736 Isodrin	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
78591 Isophorone	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
120581 Isosafrole	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
66273 Methyl Methanesulfonate	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
298000 Methyl Parathion	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
91203 Naphthalene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
98953 Nitrobenzene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
924163 N-Nitrosodibutylamine	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
55185 N-Nitrosodiethylamine	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
62759 N-Nitrosodimethylamine	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
621647 N-Nitrosodipropylamine	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
10595956 N-Nitrosomethylethylamine	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
59892 N-Nitrosomorpholine	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
100754 N-nitrosopiperidine	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
930552 N-Nitrosopyrrolidine	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
126681 O,O,O-Triethylphosphorothioate	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
95534 o-Toluidine	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
76017 Pentachlorethane	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
608935 Pentachlorobenzene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
82688 Pentachloronitrobenzene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
87865 Pentachlorophenol	4.8 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
85018 Phenanthrene	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
108952 Phenol	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
298022 Phorate	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
23950585 Pronamide	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
129000 Pyrene	1.2 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
110861 Pyridine	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
94597 Safrole	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
3689245 Sulfotep	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1
297972 Thionazine	2.4 ug/L (U)	07/14/2020 02:00 AM	CARWALTER	EPA 625.1

Analytical Report For
Water Supply Management

Sample ID: 0654 012 **Date Collected:** 06/30/2020 12:00:00 PM **Lab Sample ID:** O2020002703 **Status:** Completed

The results of the analyses provided in this laboratory report relate only to the sample(s) identified therein. Unless otherwise noted, the results presented on this laboratory report meet all requirements of the 2016 TNI standard. Sample was in acceptable condition when received by the Laboratory. Any exceptions are noted in the report.
* denotes tests that the laboratory is not accredited for

U - Indicates analysis was performed for the test but it was not detected. The sample quantitation limit is reported.

J - Indicates an estimated value, reported between Reporting Limit (RL) and Minimum Detection Limit (MDL).

June Black, Technical Director, Bureau of Laboratories

ORGANICS LABORATORY QUALIFIERS

U - Indicates analysis was performed for the test but it was not detected. The sample quantitation limit is reported.

J - Indicates an estimated value, reported between Reporting Limit (RL) and Minimum Detection Limit (MDL).

N - Indicates presumptive evidence of a compound.

B - This flag is used when the analyte is found in the associated blank as well as in the sample.

E - This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.

P - This flag is used with a target analyte when there is greater than a 40% difference between the results obtained from the primary and confirmation columns for dual column analysis methods (e.g. pesticides, triazines, PCBs, etc)

Q - This flag identifies the average of multiple results from multiple analyses, or the average of the averages of dual column analysis methods.

X - Non-target analytes co-elute with compound. Identification unable to be confirmed.