ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM
AND
WASTEWATER DISPOSAL AUTHORIZATION
GENERAL PERMIT
AKG320000 - STATEWIDE OIL AND GAS PIPELINES

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Wastewater Discharge Authorization Program
555 Cordova Street
Anchorage, AK 99501

In compliance with the provisions of the Clean Water Act (CWA), 33 U.S.C. §1251 et seq., as amended by the Water Quality Act of 1987, P.L. 100-4, this Permit is issued under provisions of Alaska Statutes (AS) 46.03; the Alaska Administrative Code (AAC) as amended; and other applicable State laws and regulations. The following discharges or disposals may be authorized by this Permit:

DISCHARGE/DISPOSAL NUMBER	DISCHARGES/DISPOSAL DISCRIPTION
001 (Discharge Only)	Drilling Fluids and Drill Cuttings
002 (Discharge Only)	Domestic Wastewater
003	Gravel Pit Dewatering
004	Excavation Dewatering
005	Hydrostatic Test Water
006 (Discharge Only)	Stormwater
007 (Discharge Only)	Mobile Spill Response
008 (Formerly Part of Hydrostatic)	Contained Water

Owners and operators of pipelines are authorized to discharge wastewater to waters of the United States and other waters of the state and are authorized to dispose of non-domestic wastewater onto lands (i.e., into groundwater) in the State of Alaska in accordance with effluent limits, monitoring requirements, and other conditions set forth herein.

A COPY OF THIS GENERAL PERMIT
MUST BE KEPT AT THE SITE WHERE DISCHARGES/DISPOSALS OCCUR.

This Permit is effective **December 1, 2024**.

This Permit and the authorization to discharge shall expire at midnight on **November 30, 2029.**

The permittee shall reapply for a permit authorization reissuance (renewals) on or before **October 31**, **2029**, 30 days before the expiration of this permit.

Signature	October 30, 2024 Date
James Rypkema Printed Name	Program Manager Title

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SCHEDULE OF SUBMISSIONS

The Schedule of Submissions summarizes some of the required submissions and activities the permittee must complete and/or submit to the Alaska Department of Environmental Conservation (DEC or the Department) during the term of this permit. The applicant is responsible for submitting the following to the Wastewater Discharge Authorization Program Permitting Section [a].

Table 1: Schedule of Application Submissions – Notice of Intent (NOI)/Notice of Disposal (NOD)

Permit Sections	Submittal	Frequency	Due Date
1.1.5	Notice of Intent or Notice of Discharge (NOI/NOD) for new applicants to obtain authorization to discharge or dispose under this Permit.	As Needed	45 or 90 days prior to discharge/disposal
1.1.4.1 and 1.1.4.2	Notice for Automatic Renewal or Transfer from AKG002000 or AKG003000	As Needed	30 days after effective date of this Permit
1.1.6	NOI/NOD to revise an existing authorization under this Permit.	As Needed	45 days prior to discharge/disposal
1.6.4	NOI/NOD for administrative extension prior to Permit expiration for an existing authorization under the Permit.	1/Permit cycle	30 days before expiration
1.5.1.2	Stormwater Pollution Prevention Plan (SWPPP) for construction	1/Initial Authorization	Submit with NOI
1.5.1.5	Plan Review Submitted for Domestic or Non-Domestic Wastewater.	As Needed	45 days prior to discharge, with submittal of NOI
1.5.1.6	Drilling Fluids Plan (DFP) for review and approval.	As Needed	As Coordinated with DEC
1.5.1.7	Best Management Practices (BMPs) for Contaminated Site Plumes	As Needed	As Coordinated with DEC WDAP and CSP
1.6.8 and 1.6.9	Expedited Notice of Termination (NOT) for an Entire Authorization	As Appropriate	At least 30 days prior to requested date of termination
1.6.7 and 1.1.6	Notice of Inactivation of Outfalls (See Revision)	As Needed	Submit 30 days prior to inactivation of Outfall.
2.11.1.1	Discharge and Disposal Annual Reports (AR)	Annually	No Later than January 31 of the following year or upon submittal of an NOT
3.3	End of Drilling Report or Extension Request	Annually	January 31 of the following year
Appendix A 3.4.1.1	Oral notification of noncompliance	As Necessary	Within 24 hours from the time the permittee becomes aware of the circumstances of noncompliance
Appendix A 3.4.1.2	Written documentation of noncompliance	As Necessary	Within five days after the permittee becomes aware of the circumstances

a) The Reporting Requirements in this Permit Supersede Inconsistent Requirements in the Standard Conditions.

1.0 PERMIT COVERAGE

1.1 Coverage and Eligibility

1.1.1 This Permit authorizes and sets conditions on pollutants from construction, operation, and maintenance activities for significant oil and gas pipelines discharged to waters of the United States (WOTUS), state water (non-WOTUS), or disposed to lands in the State, with exception to the Denali National Park and Preserve and the Indian Reservation of Metlakatla.

1.1.2 This Permit will authorize discharges to fresh WOTUS per 18 AAC 83 – Alaska Pollutant Discharge Elimination System (APDES) Program and discharges to freshwaters of the state per 18 AAC 72 – Wastewater Disposal. The term "discharge" and "Notice of Intent (NOI)" are used specifically for requirements for freshwater discharges.

1.1.3 This Permit will authorize disposal into groundwater or onto lands in the State per Alaska Statutes (AS) 46.03.100 – Waste Management and Disposal Authorization and Alaska Administrative Code (AAC) 18 AAC 72 – Wastewater Disposal. The term "dispose or disposal" and "Notice of Disposal (NOD)" are used specifically for land disposal.

1.1.4 Existing Permittees and Authorizations Renewals:

1.1.4.1 Upon the effective date of this Permit, an existing Permittee with an administratively extended authorization under AKG320000 may obtain an automatic reauthorization (renewal) within 30-days that covers all existing discharges. The Permittee must update administrative documents prior to discharging per Section 1.5. An existing Permittee may alternatively coordinate submittal of an NOI/NOD to revise the existing authorization within 30-days of the effective date. If this occurs, the applicant will receive a revised authorization within 30-days of receipt of the NOI for revising the authorization.

1.1.4.2 Facilities with an existing authorization under AKG002000 or AKG003000 that qualify for coverage under the reissued Permit (i.e., significant pipeline facility) may, at their discretion, request to transfer coverage to AKG320000. Transfer for coverage under AKG320000 may depend on project timing and DEC administrative capabilities at the time of the request.

1.1.5 New Permittees: Facilities with wastewater discharges or disposals within the Permit Area of Coverage that meet the criteria for coverage under this Permit will be granted coverage within 45-days, or 90-days or more if the authorization is for a large new pipeline construction project, of the submittal of a complete NOI/NOD that reasonably demonstrates authorization under this Permit is appropriate per Section 1.5. The timeline for issuing an authorization may be impacted by the plan review process in Section 1.5.1.5.

1.1.6 Authorization Revisions: Existing authorizations may be revised by submitting a NOI/NOD. The revised NOI/NOD must detail new discharges/disposals requested. Revisions to the authorization will be issued within 30-days of the submittal of a revised NOI/NOD and may also require inactivation of existing outfalls per Section 1.6.7. Prior to inactivating outfalls, the permittee must provide annual reporting data.

1.1.7 Applicants may request a mixing zone authorization from DEC by completing the mixing zone section of the NOI per Section 1.5.6.

1.1.8 Authorization to discharge or dispose wastewater under this Permit requires written notification from the Department that coverage has been granted, and if requested, mixing zones have been authorized, and that a specific general permit authorization number has been assigned to the facility. Revisions to authorizations also require written notification from the Department prior to discharge or disposal.

1.1.9 Stormwater Exemption: The Permittee may claim an exemption from APDES permit coverage for discharges of stormwater runoff from field activities or operations associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities unless, in accordance with 40 CFR 122.26(c)(1)(iii), if the facility:

- Has had a discharge of stormwater resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 117.21 or 40 CFR 302.6 at any time since November 16, 1987; or
- Has had a discharge of stormwater resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 110.6 at any time since November 16, 1987; or
- Contributes to a violation of a WQS.

This exemption does not apply to allowable non-stormwater discharges (See definition of allowable non-storm water discharges under Appendix C - definitions). A permittee must obtain stormwater or alternative coverage for these discharges. Also, see Permit Section 1.4.7.

1.2 Authorized Wastewater Discharges and Disposals

1.2.1 This Permit authorizes and places conditions on wastewater discharges or disposals from activities that are related to pipeline construction and operations and maintenance that are clearly described in the Permit and the NOI/NOD. The Department must determine if the information submitted by the applicant seeking coverage under this Permit is in accordance with Section 1.5.

1.2.2 This Permit authorizes the following discharges from pipeline facilities:

DISCHARGE/DISPOSAL NUMBER	DISCHARGES DESCRIPTION
001 (Discharge Only)	Drilling Fluids and Drill Cuttings
002 (Discharge Only)	Domestic Wastewater
003	Gravel Pit Dewatering
004	Excavation Dewatering
005	Hydrostatic Test Water
006 (Discharge Only)	Stormwater
007 (Discharge Only)	Mobile Spill Response
008 (Formerly Part of Hydrostatic)	Contained Water

1.3 Requiring an Individual Permit

1.3.1 The Department may require a permittee authorized to discharge under a general permit to apply for and obtain an individual permit, or any interested person may petition the Department to take this action. The Department may consider the issuance of an individual discharge permit when:

1.3.1.1 The single discharge or the cumulative number of discharges is/are a significant contributor of pollution;

1.3.1.2 The permittee is not in compliance with or could not meet the terms and conditions of this Permit;

1.3.1.3 A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source;

1.3.1.4 Effluent limit guidelines are subsequently promulgated for the point sources covered by this Permit;

1.3.1.5 A Total Maximum Daily Load and corresponding wasteload allocation have been completed for a waterbody or a segment of a waterbody;

1.3.1.6 Circumstances have changed since the time of the request to be covered so that the permittee is no longer appropriately controlled under the GP, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary.

1.3.2 The Department may require a permittee authorized to dispose under a general permit to apply for and obtain an individual permit or other wastewater authorization, or any interested person may petition the Department to take this action. The Department may consider the issuance of an individual disposal permit when:

1.3.2.1 The disposal does not meet the requirements for a general permit;

1.3.2.2 The disposal contributes to pollution or causes an adverse impact on public health or water quality;

1.3.2.3 A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollution contained in the disposal;

1.3.2.4 The public health, public and private water systems, and the environment are not adequately protected.

1.3.3 The Department will notify the applicant in writing by certified mail that an individual permit application is required. If an applicant fails to submit an individual permit application by the date required in the notification, coverage under this Permit is automatically terminated at the end of the day specified for application submittal.

1.3.4 Any permittee authorized by this Permit may request to be excluded from the coverage by applying for an individual permit. The permittee shall submit an individual permit application with reasons supporting the request to the Department at the address in APPENDIX A - STANDARD CONDITIONS, Part 1.1.1.

1.3.5 When an individual permit is issued to a permittee otherwise covered by this Permit, the applicability of this Permit to the permittee is automatically terminated on the effective date of the individual permit.

1.3.6 When an individual permit is denied to a permittee otherwise covered by this Permit, the permittee is automatically reinstated under this Permit on the date of such denial, unless the permittee cannot meet the conditions of this Permit or otherwise specified by the Department.

1.3.7 An applicant excluded from this Permit solely because it already has an individual permit may request that the individual permit be revoked and that it be covered by this Permit. Upon revocation of the individual permit, and if the permittee can comply with the terms of this Permit, then this Permit shall apply to the permittee.

1.4 Prohibitions

1.4.1 The discharge of any pollutant that is not expressly authorized in this Permit is prohibited.

1.4.2 The discharge or disposal of any waste streams, including spills and other unintentional or non-routine discharges of pollutants, that are not part of the normal operation of the facility is prohibited.

1.4.3 This Permit prohibits the discharge to any receiving water that is listed on the CWA Section 303(d) list as impaired for failure to meet a water quality standard (WQS) and the facility discharges a pollutant that causes or contributes to the impairment.

1.4.4 Discharges to marine waters are not authorized by this Permit.

1.4.5 The discharge of diesel fuel, non-aqueous drilling fluids, and mineral oil pills (mineral oil plus additives) is prohibited.

1.4.6 The discharge of maintenance waste such as removed paint and materials associated with surface preparation and coating application is prohibited.

1.4.7 Prohibition of Reportable Quantities and Contaminated Stormwater: Stormwater discharges with reportable quantities for which notification is or was required per 40 CFR 117.21, 40 CFR 302.6, or 40 CFR 110.6 or any stormwater that contributes to a violation of a water quality standard [40 CFR 122.26(c)(1)(iii)]) may not be discharged as stormwater. However, authorization may be obtained under Contained Water (Discharge 008) (stormwater discharge associated with industrial activity per 40 CFR 122.26(b)(14)) with certain stipulations as allowed per 40 CFR 122.26(a)(9)(i)(D).

1.4.8 Contaminated Secondary Containment Areas: Uncontaminated precipitation or runoff in a secondary containment area (SCA) is considered stormwater under this Permit. If a sheen has been reported, or a spill has occurred in an SCA, the contaminated water cannot be discharged as stormwater. In this instance, the permittee must notify DEC and submit a NOI for contained water coverage and monitor, limit, and report discharges as described below. A permittee may request removal of the authorization for Contained Water (Discharge 008) and reinitiate the discharge as storm water once the SCA is determined to be uncontaminated (Appendix C - Definitions). A contaminated SCA may be deemed uncontaminated after four consecutive months without a spill, observation of a sheen, or an exceedance of total aromatic hydrocarbon (TAH) and total aqueous hydrocarbon (TAqH).

1.5 NOI/NOD Requirements, Review and, Permit Coverage Determination Process

1.5.1 Applicants shall submit a complete NOI/NOD Form in EDMS. Exceptions may be allowed on a case-by-case basis. The following information must be included with the NOI/NOD, if applicable, for it to be deemed administratively complete:

1.5.1.1 Best Management Practices (BMP) Plan: First time applicants seeking a written discharge or disposal authorization per 1.1.4, or existing Permittees obtaining reauthorization per Section 1.1.4.1 or 1.1.4.2, are required to develop a BMP Plan (Section 3.4) that has been updated to reflect the Permit and has been certified prior to commencing discharges. In the NOI, the applicant must indicate the BMP Plan will have been developed/updated and is available for implementation. The date of the BMP Plan must be prior to the effective date of the authorization and authorizations issued will stipulate that discharges may not occur until BMP Plans are updated and certified. For revised authorizations per Section 1.1.6, BMP Plans must be updated and certified annually thereafter. All BMPs and Certifications must be retained onsite and made available to DEC upon request per Section 3.4.2.

1.5.1.2 Stormwater Pollution Prevention Plans (SWPPP): First time applicants seeking a written discharge or disposal authorization per 1.1.4, or existing permittees obtaining reauthorization per Section 1.1.4.1 or 1.1.4.2, are required to develop a Construction or Operational SWPPP Per Sections 3.5 and 3.6 respectively, that has been updated to reflect the Permit and has been certified prior to discharging. For Construction Stormwater, the SWPPP must be submitted with the NOI to the Department for review and comment (Section 3.5). For Operational Stormwater, a vicinity map must be submitted to the Department with the NOI that shows the extent of Operational Stormwater coverage (Section 3.6). Authorizations issued may stipulate that discharges may not occur until the SWPPP is updated and certified. For revised authorizations per Section 1.1.6, SWPPPs must be updated and certified annually thereafter per Permit Section 3.6.1. All Operational SWPPPs, Inspection Reports, and Certifications must be retained onsite and made available to DEC upon request per Section 3.6.2. For Construction SWPPP accessibility of documents, refer to Sections 3.5.10.3 and 3.5.12.4.

1.5.1.3 Quality Assurance Project Plans (QAPP): First time applicants seeking a written discharge or disposal authorization per 1.1.4, or existing permittees obtaining reauthorization per Section 1.1.4.1 or 1.1.4.2, are required to develop a QAPP per Section 3.1.1 that has been updated to reflect the Permit and has been certified prior to discharging. In the NOI, the applicant must indicate the QAPP will have been developed/updated and is available for implementation. The date of the QAPP must be prior to the effective date of the authorization and authorizations issued will stipulate that discharges may not occur until QAPPs are updated and certified. For revised authorizations per Section 1.1.6, QAPPs must be updated and certified annually thereafter. All QAPPs and Certifications must be retained onsite and made available to DEC upon request per Section per Permit Section 3.1.6.

1.5.1.4 Vicinity Maps and Site Plans: Maps and site plans are necessary to ensure proper discharge locations are adhered to. A vicinity map depicting the general location(s) of the discharge or disposal activities must be submitted with the NOI/NOD. The applicant must also provide site plans, when applicable, that provides details of the area of operations, the latitude and longitude of proposed discharge or disposal locations (i.e., where the hose will be laid) to the nearest 15 seconds, and other information as described on the NOI/NOD Form. For linear projects, discharge locations may be field-adjusted (Floating Outfalls) so long as the Floating Outfall is within the pipeline section depicted on site plans and the latitude and longitude is correctly reported in the EDMS Annual Report (AR). Discharge locations can be eliminated but cannot be added in the field. All maps and site plans shall include a north arrow and bar scale.

1.5.1.5 Plan Submittals: All land disposals require plan review per Section 2.9.2. If the applicant believes a plan review may be necessary for a discharge to water, they must contact DEC to confirm the requirement and scope of the submittal prior to submitting for review and approval. If a plan submittal per most recent version of 18 AAC 72 is determined to be required by DEC, the applicant must submit plans for Department review either before or with the applicable NOI/NOD at least 45-days prior to the anticipated discharge as Department approval may be required prior to authorizing a discharge or disposal. Note that issuance of the authorization within 45-days upon submittal of the NOI/NOD could be affected by the plan review timeline.

1.5.1.6 Drilling Fluids Plan (DFP): The applicant must provide information that describes the nature of the drilling fluid system used for horizontal directional drilling (HDD) so that the Department can classify the fluids system as an A1, A2, or A3 fluid per Appendix C – definitions and ensure appropriate limitations are applied in the authorization. Sediment Particulate Phase (SPP) toxicity characterization may be determined by estimation (Sprague and Logan, 1979) or by testing using EPA Method 1619. Applicants seeking a written discharge authorization for inadvertent releases of drilling fluids and drill cuttings during HDD projects are required to develop a DFP for Class A2 and A3 drilling fluids (Section 3.2) that must be submitted with the NOI. DEC will review the plan and may provide written comments on the DFP to ensure compliance under this Permit.

1.5.1.7 Contaminated Sites: If an excavation dewatering or contained water discharge or disposal activity is within 1,500 feet of an “active” or “cleanup complete - institutional controls” contaminated site as listed on the ADEC’s contaminated sites database, the applicant must consult with the DEC Contaminated Sites Program (CSP) and inform DEC Water during the NOI process if additional actions by CSP is required. The applicant shall provide the following information with the NOI as applicable based on coordination with the DEC Contaminated Sites Program:

i. Identify potential pollutants of concern that may be present or become present in the excavation dewatering discharge based on the excavation dewatering activity. The applicant shall review available data about the contaminated site(s) including the type and concentration of contaminants, whether the contaminant(s) are in soil and/or groundwater, and the size and location of any contaminated plumes[1];

ii. Identify a proposed treatment methodology to be incorporated into the BMP plan if contaminants can become entrained in the excavation dewatering and the contaminant discharge concentrations;

iii. The Department may additionally request a hydrogeologic report be prepared by an "environmental professional" as defined in 18 AAC 75.9903 or 18 AAC 75.333(b) or "qualified groundwater scientist" as defined in 18 AAC 60.9904. This report must specifically address the impact of the proposed dewatering activity on the location of any adjacent contaminated site(s) within the area of influence of the dewatering activity and contain at a minimum the following:

iv. A description of the aquifer conditions (e.g. confined, semi-confined, unconfined), thickness, static water level, and lateral transmissivity;

v. Using proposed or existing monitoring wells that are capable of providing information on groundwater elevations, determine whether contaminants are being smeared below the natural minimum groundwater elevation, whether the contaminant plume is being diverted, and whether contaminant migration rates are increasing; and

vi. When the dewatering activity may adversely affect a contaminated site by moving or smearing contaminants, the applicant must describe construction practices such as cofferdams, or other methods will be used to prevent adverse effects to groundwater quality.

1.5.2 The NOI/NOD must be signed by the applicant in accordance with Signatory Requirements in Appendix A, Part 1.12. A copy of the completed NOI/NOD shall be retained on site in accordance with Appendix A, Part 1.11 (Monitoring and Records).

1.5.3 The Department will review an NOI/NOD for completeness and accuracy. If an NOI/NOD is found to be technically incomplete, the Department will notify the applicant of the needed changes to the NOI/NOD submittal.

1.5.4 The Department will make a determination regarding the appropriateness of granting Permit coverage at a proposed discharge or disposal location or area of operation.

1.5.5 Initial location coordinates provided in the NOI/NOD may be modified in the field based on unforeseen conditions so long as the relocation is within the area described on the detailed site plan and would not have resulted in disapproving it as the original discharge or disposal location (e.g., proximity to spawning redds). Actual coordinates of the discharge/disposal shall be recorded in the AR, along with the reason for relocation.

[1] The permittee should refer to DEC's website (http://dec.alaska.gov/water/wastewater/stormwater/dewater-hydrostatic/) for additional information for access to DEC's Contaminated Sites database, summaries, map, and listing of contaminated sites as an aid.

1.5.6 The Department will, based on the mixing zone request submitted with the NOI, make a determination as to whether a 500-foot mixing zone is appropriate at the proposed discharge location for inadvertent Drilling Fluids and Drill Cuttings (001), Gravel Pit Dewatering (003), and Excavation Dewatering (004).

1.5.7 The Department will, based on the applicant's submittal, make a determination of whether the discharge or disposal is appropriate for authorization under this Permit or would require application for an individual APDES permit or different authorization under AS 46.03.100 per Section 1.3 or 1.4.

1.5.8 Upon completion of the NOI/NOD review, the Department will do one of the following:

1.5.8.1 Prepare and transmit a written authorization of coverage specifying:

i. The general area of coverage, a list of authorized outfalls (discharge or disposal numbers), and any other conditions necessary to comply with this Permit, and

ii. Whether a regulatory mixing zone is authorized for specific discharges.

1.5.8.2 Notify the applicant of required revisions to the NOI/NOD submittal; or

1.5.8.3 Deny coverage under this Permit and require an applicant to submit an individual permit application.

1.6 Notification Requirements

1.6.1 Notification must be made at least 45 days, or 90 days or more if the authorization is for a large new pipeline construction project, prior to discharge or disposal for new applicants and at least 30 days prior to discharge or disposal for revising existing authorizations.

1.6.2 Existing Permittees: Existing permittees with an existing authorization or Permit (e.g., AKG320002 – Alyeska Pipeline Services Company) must notify DEC via email upon the Permit effective date as to whether DEC should renew the existing authorization with or without a revision to existing coverage under the administratively extended authorization. If a revision is necessary, the applicant must submit an NOI/NOD indicating how the authorization is to be revised per Section 1.1.4.1.

1.6.3 Expedited Authorizations: In situations where immediate response is needed to inspect a pipeline or to conduct emergency repairs, an existing permittee may contact DEC to request an expedited NOI/NOD review and authorization.

1.6.4 A permittee seeking to continue coverage under the Permit must submit an NOI/NOD for administrative extension of the authorization at least 30 days prior to the expiration of this Permit, as described in Appendix A, Part 1.3.

1.6.5 The NOI/NOD shall be signed by the owner, or other signatory authority, in accordance with Appendix A, Part 1.12 (Signature Requirements), and a copy must be retained on site in accordance with Appendix A, Part 1.11 (Monitoring and Records).

1.6.6 Applicants must submit NOI/NODs in EDMS. Other forms of submittal may be considered on a case-by-case basis.

1.6.7 Inactivation of Outfalls in Existing Authorizations: Specific outfalls in existing authorizations may be inactivated by providing monitoring data and submitting an NOI/NOD for revising the authorization in EDMS at least 30 days prior to the requested inactivation date. The permittee must certify in the NOI/NOD that the requirements for terminating the outfalls have been met.

1.6.8 Expedited Termination of Authorizations: An existing authorization may be terminated by submitting a certified NOT Form in EDMS and certify that the requirements for termination have been met at least 30 days prior to the requested date of termination. To terminate an authorization, all monitoring data must be entered into the AR form in EDMS and there must not be an ongoing enforcement action or 3rd party litigation.

1.6.9 Termination/Inactivation is effective upon receiving written notification from the Department.

1.7 Permit Expiration

This Permit will expire at **midnight on November 30, 2029**.

2.0 LIMITS AND MONITORING REQUIREMENTS

2.1 Requirements for all Discharges or Disposals

2.1.1 During the effective period of this Permit, the permittee is authorized to discharge or dispose pollutants within the area of coverage set forth in Sections 1.1.1 and 1.1.2, in accordance with the limits and conditions set forth herein.

2.1.2 This Permit authorizes the discharge of only those pollutants resulting from waste streams, and operations that have been clearly identified in the NOI/NOD, this Permit, and issued a written authorization by the Department.

2.1.3 When applying effluent limits to commingled discharges, the more stringent effluent limits apply to the commingled discharge. If a commingled waste stream is not authorized per Section 2.1.2, then the commingled discharge is not authorized.

2.1.4 The permittee must collect all effluent samples from the effluent stream of each discharge or disposal after the last treatment unit prior to discharge into the receiving waters or disposal to land, except as otherwise required by discharge/disposal-specific sections of this Permit.

2.1.5 All discharges, whether alone or in combination, must not make the water unfit or unsafe; cause a film, sheen, or discoloration on the water surface or adjoining shoreline; cause leaching of toxic or deleterious substance, or cause a sludge, solid, or emulsion to be deposited beneath or upon the water surface, water column, on the bottom, or adjoining shoreline.

2.1.6 The permittee must comply with the effluent limits in this Permit at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this Permit.

2.1.7 If requested, the permittee must provide DEC with a sample of any waste stream in the manner specified by DEC as soon as practicable after the request.

2.1.8 Materials such as removed paint and materials associated with surface preparation must be contained to the maximum extent practicable using vacuum abrasive blasting, covering grated areas with plywood, surrounding the area with canvas tarps, and similar measures to capture as much material as practicable. All collected material must be disposed in an appropriate manner. Prior to conducting sandblasting or similar maintenance activities, the permittee must develop and implement a BMP Plan for minimization and containment of the waste material to prevent it from being discharged to WOTUS.

2.1.9 The permittee must report all violations of maximum daily limits (MDLs) per Appendix A, Standard Conditions, Section 3.4 – 24-Hour Reporting. Violations of all other effluent limits, such as average monthly limits (AMLs), are to be reported per Appendix A, Standard Conditions, Section 3.5 – Other Noncompliance Reporting, except that these noncompliance reports shall be submitted by the 28th of the following month via EDMS.

2.2 Effluent Limitations and Monitoring Requirements Drilling Fluids/Drill Cuttings (Discharge 001)

2.2.1 The inadvertent discharge of drilling fluids and drill cuttings is authorized from drilling activities if the following information has been submitted and evaluated.

2.2.1.1 Class A2 and A3 drilling fluids require a DFP per Section 3.2 to be submitted with the NOI.

2.2.1.2 Class A3 drilling fluids require the results of a metals analysis of stock barite to be submitted with the NOI.

2.2.2 In addition to requirements in Section 2.1, the permittee must comply with the effluent limitations and monitoring requirements in Table 2.

Table 2: Effluent Limitations and Monitoring Requirements for Drilling Fluids/Drill Cuttings (Discharge 001).

Parameter (Units)	Effluent Limits	Monitoring Requirements		
		Frequency	Location	Sample Type
Flow Volume[1] (gallons per day (gpd))	Report	Daily	Effluent	24-hour Estimate
Ambient Turbidity (Nephelometric turbidity Units (NTU)	Report	Daily	Upgradient [2]	Grab
Turbidity (NTU) No Mixing Zone	5 NTU above ambient [3, 5]	Daily	Point of Emergence	Grab
Turbidity (NTU) Mixing Zone	5 NTU above ambient [4, 5]	Daily	Downstream	Grab
Oil and Grease Visual [6]	No Discharge	Daily	Fluid System	Grab
Oil and Grease Visual	No Discharge	Daily	Receiving Water	Observation

Notes:

1. Monitor volume of drilling fluids lost during an inadvertent release daily while fluid loss occurs. Report maximum daily volume loss in the AR. Report total volume lost in the end of drilling report.
2. Upstream monitoring provides ambient turbidity measurement for compliance calculations.
3. If a mixing zone is not authorized, effluent turbidity may not exceed 5 NTU above ambient conditions at the point of emergence when the ambient turbidity is 50 NTU or less. When the ambient condition is greater than 50 NTU, turbidity shall not exceed more than a 10% increase up to a maximum increase of 15 NTU. Turbidity shall not exceed 5 NTU over natural conditions for all lake waters (See Attachment 1 - Turbidity Criteria Figure). Report the receiving water value prior to discharge to compare to the maximum value for effluent. The permittee must develop BMP and QAPP to address determining compliance with water quality criteria based on receiving water turbidity.
4. If a mixing zone is authorized, turbidity may not exceed 5 NTU above ambient conditions, 500 feet downstream of the discharge when the ambient turbidity is 50 NTU or less. When the ambient condition is greater than 50 NTU, turbidity shall not exceed more than a 10 % increase up to a maximum increase of 15 NTU. Turbidity shall not exceed 5 NTU over natural conditions for lake waters.
5. Compliance with turbidity limits may be demonstrated using a four-day average. The calculation method for applying a four-day averaging of turbidity must be provided in the QAPP per Section 3.1.3.3.
6. Static Sheen Test per EPA Method 1617.

2.2.2.1 End of Drilling (EOD) Report: In addition to submitting monitoring data in the AR, at the conclusion of the drilling, the Permittee must submit an EOD Report summarizing the field activities and any discharges of inadvertent releases (See Section 3.3). The EOD Report must include the total volume of fluids and additives that were used and the amount lost to the formation or receiving water. If an inadvertent release occurred, submit in the EOD Report a copy of the daily field log, summary of agency communications, and mitigation measures taken.

If a drilling program is delayed, provide a notice by the report due date that project has been extended and the final report will be pending upon completion of the drilling at a later time. If the drilling is not completed, the Permittee must submit a report for the period prior to terminating the Program.

2.2.2.2 Specific BMPs: The permittee must develop and implement specific BMPs that reduce or eliminate the volume of inadvertently released drilling fluids and drill cuttings. The BMPs must address methods of reducing the release in order to comply with the 500-foot mixing zone, if authorized. In addition, the BMPs must include agency notification procedures, mitigation measures, instream monitoring, or other procedures to maintain compliance with this Permit and protect the environment. If a DFP is required, the DFP may include sections that comply with the BMP and QAPP requirements.

2.3 Effluent Limitations and Monitoring Requirements Domestic Wastewater (Discharge 002)

2.3.1 In addition to the restrictions set out in Section 2.1, the permittee must comply with the effluent limitations and monitoring requirements in Table 3.

Table 3: Effluent Limits and Monitoring Requirements for Domestic Wastewater (Discharge 002)

Parameter (Units)	Effluent Limits		Monitoring Requirements		
	AML	MDL	Frequency	Location	Sample Type
Flow Rate (gpd)	Report	Report	Daily	Effluent	Measure
pH [1] (Standard Units (SU))	$6.5 \leq pH \leq 8.5$		Weekly	Effluent	Grab
Total Residual Chlorine (TRC) [2] (micrograms per liter (µg/L))	11	19	Weekly	Effluent	Grab
Five-day Biochemical Oxygen Demand (BOD_5) (milligram per liter (mg/L))	30	60	Monthly	Effluent	Grab
Total Suspended Solids (TSS) (mg/L)	30	60	Monthly	Effluent	Grab
Fecal Coliform Bacteria (FC) [3, 4, 5] (FC Count per 100 milliliters (#/100ml))	20	40	Monthly	Effluent	Grab
Escherichia coli Bacteria (E. coli) (#/100ml) [3, 6]	Report		Quarterly	Effluent	Grab

Notes:

1. The effluent limit for pH shall be no less than 6.5 or greater than 8.5. Report maximum and minimum for each month.
2. Monitoring for chlorine is not required if chlorine is not used as a disinfectant or introduced elsewhere in the treatment process. The TRC limit is measured immediately prior to discharge. The method detection limit for TRC is 100 µg/L (using approved EPA analytical methods) and will be used as the compliance level for TRC.
3. All effluent FC bacteria and E. Coli bacteria average results must be reported as the geometric mean. When calculating the geometric mean, replace all results of zero, 0, with a one. The geometric mean of "n" quantities is the "n^{th}" root of the quantities. For example, the geometric mean of FC bacteria results of 10, 20, and 30 is $(10 \times 20 \times 30)^{1/3} = 18.2$.
4. Compliance with FC bacteria MDL using multiple samples is by demonstrating the calculated 90^{th} percentile of the samples is less than or equal to 40 FC #/100ml (See Sections 2.3.1.2).
5. All bacterial limits are in the units of FC#/100 mL regardless of the method used. The permittee may use results in most probable number (mpn) or CFU as FC#/100 mL.
6. Should any single E. Coli result exceed 410 E. coli CFU/100 mL, additional sampling shall occur to demonstrate compliance with the water quality criteria that not more than 10% of samples in a 30-day period exceed 410 E. coli CFU/100 mL. This will be demonstrated by calculating the 90^{th} percentile of the samples is less than or equal to 410 E. coli CFU/100 ml during the quarterly monitoring period. Samples need not be collected over a single month to apply (See Sections 2.3.1.1 and 3.1.3.2).

2.3.1.1 E. coli water quality criteria was promulgated during the previous Permit cycle. E. coli reporting is required to collect information that may be used during the next reissuance. If additional sampling is necessary to demonstrate compliance with the E. coli criteria, the calculation method must be included in the QAPP with the calculations uploaded in EDMS for the affected AR entry.

2.3.1.2 Compliance with the MDL for FC bacteria may be determined using a calculated 90th percentile of a dataset using spreadsheet equations (e.g., "=percentile.inc[array, k]") or hand calculations methods. The calculation method must be included in the QAPP with the calculations uploaded in EDMS for the affected AR entry.

2.4 Effluent Limitations and Monitoring Requirements Gravel Pit Dewatering (Discharge 003)

In addition to the restrictions set out in Section 2.1, the permittee must comply with the effluent limitations and monitoring requirements in Table 4.

Table 4:: Effluent Limits and Monitoring Requirements for Gravel Pit Dewatering (Discharge 003)

Parameter (Units)	Effluent Limits	Monitoring Requirements		
		Frequency	Location	Sample Type
Flow Volume [1] (gpd)	Report	Daily	Effluent	Estimate or Measured
pH [2] (S.U.)	6.5 ≤ pH ≤ 8.5	Weekly	Effluent	Grab
Settleable Solids (SS) [3] (milliliter per liter (mL/L))	0.2	Weekly	Effluent	Grab
Ambient Turbidity (NTU)	Report	Weekly	Upgradient [4]	Grab
Turbidity (NTU) No Mixing Zone	5 NTU above ambient [5, 6, 7]	Weekly	Effluent	Grab
Turbidity (NTU) Mixing Zone	5 NTU above ambient [5, 6, 7]	Weekly	Downgradient	Grab
Oil and Grease Visual [8]	No Discharge	Daily	Effluent	Visual
Total Aromatic Hydrocarbons (TAH) [9] (µg/L)	Report	Once per event	Effluent	Grab
Total Aqueous Hydrocarbons (TAqH) [9] (µg/L)	Report	Once per event	Effluent	Grab

Notes:

1. Record daily flow measurements, or estimates, in daily log. Report daily maximum for the month and total monthly volumes in the AR.
2. The effluent limit for pH shall be no less than 6.5 or greater than 8.5. Report maximum and minimum for each month.
3. As measured using Imhoff Cone.
4. Receiving water monitoring must be performed prior to discharge as it provides a measurement of ambient conditions and the limits. If receiving water turbidity monitoring is not possible, the limit is not applicable (N/A). In these situations, record "NODI T" for "Environmental Conditions – Monitoring Not Possible" in the AR and provide a comment indicating the reason an observation was not made (e.g., tundra, ice, or snow discharge).
5. Turbidity monitoring is not required for gravel pit water used to construct ice roads or pads or for dust suppression.
6. The permittee must meet water quality criteria at the point of discharge or at the boundary of a 500 ft mixing zone, if authorized. Turbidity may not exceed 5 NTU above ambient conditions when the ambient turbidity is 50 NTU or less; and shall not have more than a 10% increase in turbidity when the ambient condition is greater than 50 NTU (not to exceed a maximum increase of 15 NTU); and shall not exceed 5 NTU above ambient conditions for all lake waters (See Attachment 1 - Turbidity Criteria Figure). Report the receiving water value prior to discharge and maximum value for effluent. The permittee must develop BMP and QAPP to address determining compliance with water quality criteria based on receiving water turbidity.
7. Compliance with turbidity limits may be demonstrated using a four-day average. The calculation method for applying a four-day averaging of turbidity must be provided in the QAPP per Section 3.1.3.3.
8. Observed daily in daylight while discharging. Maintain daily log and provide to DEC upon request.
9. An observation of a sheen triggers monitoring for TAH and TAqH. The permittee must notify DEC and collect one sample per event when an observation of a sheen has occurred.

2.4.1.1 Flow Volumes: Intermittent discharges from gravel pit dewatering must be estimated or measured to determine daily flow volumes and be recorded in operating logs along with daily observations for sheen. Daily logs must be kept onsite and made available upon request by DEC.

2.4.1.2 Specific BMPs: The permittee must develop and implement specific BMPs to prevent sedimentation, erosion, or thermokarsting at the point of discharge and downstream. In addition, the permittee must develop specific BMPs that may be needed to ensure compliance with the 500-foot mixing zone, if authorized. Alternatively, the applicant may request additional discharge locations and a mixing zone for Department consideration via revised NOI.

2.5 Effluent Limitations and Requirements Excavation Dewatering (Discharge 004)

In addition to the restrictions set out in Section 2.1, the permittee must comply with the effluent limitations and monitoring requirements in Table 5.

Table 5: Effluent Limits and Monitoring Requirements for Excavation Dewatering (Discharge 004)

Parameter (Units)	Effluent Limits	Monitoring Requirements		
		Frequency	Location	Sample Type
Flow Volume [1] (gpd)	Report	Daily	Effluent	Estimate or Measured
pH [2] (S.U.)	6.5 ≤ pH ≤ 8.5	Weekly	Effluent	Grab
SS [3] (mL/L)	0.2	Daily	Effluent	Grab
Ambient Turbidity (NTU)	Report	Daily	Upgradient [4]	Grab
Turbidity (NTU) No Mixing Zone	5 NTU above ambient [5, 6]	Daily	Effluent	Grab
Turbidity (NTU) Mixing Zone	5 NTU above ambient [5, 6]	Daily	Downgradient	Grab
Oil and Grease Visual [7]	No Discharge	Daily	Effluent	Visual
TAH [8] (µg/L)	Report	Once per event	Effluent	Grab
TAqH [8] (µg/L)	Report	Once per event	Effluent	Grab

Notes:

1. Record daily flow measurements, or estimates, in daily log. Report daily maximum for the month and total monthly volumes in the AR. Total monthly volumes may be obtained by using a flow totalizer or estimated using pump flow rates and duration.
2. The effluent limit for pH shall be no less than 6.5 or greater than 8.5. Report maximum and minimum for each month.
3. As measured using Imhoff Cone.
4. Receiving water monitoring must be performed prior to discharge as it provides a measurement of ambient conditions and the limits. If receiving water turbidity monitoring is not possible, the limit is N/A. In these situations, record "NODI T" for "Environmental Conditions – Monitoring Not Possible" in the AR and provide a comment indicating the reason an observation was not made (e.g., tundra, ice, or snow discharge).
5. The permittee must meet water quality criteria at the point of discharge or at the boundary of a 500 ft mixing zone, if authorized. Turbidity may not exceed 5 NTU above ambient conditions when the ambient turbidity is 50 NTU or less; and shall not have more than a 10% increase in turbidity when the ambient condition is greater than 50 NTU (not to exceed a maximum increase of 15 NTU); and shall not exceed 5 NTU above ambient conditions for all lake waters (See Attachment 1 - Turbidity Criteria Figure). Report the receiving water value prior to discharge and maximum value for effluent. The permittee must develop BMP and QAPP to address determining compliance with water quality criteria based on receiving water turbidity.
6. Compliance with turbidity limits may be demonstrated using a four-day average. The calculation method for applying a four-day averaging of turbidity must be provided in the QAPP per Section 3.1.3.3.
7. Observed daily while discharging in daylight. Maintain daily log and provide to DEC upon request.
8. An observation of a sheen triggers monitoring for TAH and TAqH. Permittee must notify DEC and collect one sample per event when an observation of a sheen has occurred or when required due to coordination with Contaminated Sites Program.

2.5.1.1 **Flow Volumes:** Intermittent discharges or disposals from excavation dewatering must be estimated or measured to determine daily flow volumes and be recorded in operating logs. Daily observations in daylight for sheen must also be recorded in operating logs. Daily logs must be kept onsite and made available upon request by DEC.

2.5.1.2 **Specific BMPs:** The permittee must develop and implement, specific BMPs to prevent sedimentation, erosion, or thermokarsting at the point of discharge and downstream. In addition, the permittee must develop specific BMPs that may be needed to ensure compliance with the 500-foot mixing zone, if authorized. Alternatively, an additional discharge location and mixing zone may be requested for Department consideration.

2.6 Effluent Limitations and Requirements Hydrostatic Test Water (Discharge 005)

2.6.1 In addition to the restrictions set out in Section 2.1, the permittee must comply with the effluent limitations and monitoring requirements in Table 6.

Table 6: Effluent Limitations and Requirements for Hydrostatic Test Water (Discharge 005)

Parameter (Units)	Effluent Limits	Monitoring Requirements		
		Frequency	Location	Sample Type
Flow Volumes [1] (gpd)	Report	Daily	Effluent	Estimate or Measured
pH [2] (S.U.)	$6.5 \leq pH \leq 8.5$	Daily	Effluent	Grab
SS [3] (mL/L)	0.2	Per Discharge	Effluent	Grab
Oil and Grease Visual [4]	No Discharge	Daily	Effluent	Visual
TAH [5] (µg/L) New or Non-hydrocarbon	Report	Once per event	Effluent	Grab
TAqH [5] (µg/L) New or Non-hydrocarbon	Report	Once per event	Effluent	Grab
TAH [6] (µg/L) Existing Hydrocarbon	10	Per Discharge	Effluent	Grab or Composite
TAqH [6] (µg/L) Existing Hydrocarbon	15	Per Discharge	Effluent	Grab or Composite

Notes:

1. Record daily flow measurements, or estimates, in daily log. Report daily maximum for the month and total monthly volumes in AR.
2. The effluent limit for pH shall be no less than 6.5 or greater than 8.5. Report maximum and minimum for each month.
3. As measured using Imhoff Cone.
4. Observed daily in daylight while discharging. Maintain daily log and provide to DEC upon request.
5. Water from new oil and gas or non-oil and gas infrastructure is not anticipated to have dissolved hydrocarbons. However, an observation of a sheen triggers monitoring for TAH and TAqH. Permittee must collect one representative sample per event when an observation of a sheen has occurred and notify DEC.
6. Existing infrastructure that has known to been in contact with petroleum is anticipated to have dissolved hydrocarbons. Permittee may collect a single representative grab sample for volumes less than or equal to 500,000 gallons per day. Permittees discharging greater than 500,000 gallons must collect a composite sample of 8 grab samples collected at equal intervals during the discharge event as described in Section 3.1.3.1.

2.6.1.1 **Flow Volumes:** Discharges or disposal of hydrostatic test water must be estimated or measured to determine daily flow volumes and be recorded in operating logs. Daily observations during daylight for sheen must also be recorded in operating logs. Daily logs must be kept onsite and made available upon request by DEC.

2.6.1.2 **Specific BMPs:** The permittee must develop and implement specific BMPs to prevent sedimentation, erosion, or thermokarsting at the point of discharge and downstream. In addition, the permittee must develop BMPs to address procedures in the event of observing a sheen in the discharge.

2.7 Effluent Limitations and Monitoring Requirements Mobile Spill Response (Discharge 007)

2.7.1 Discharge of mobile spill response requires use of an approved treatment procedure or system (e.g., scrubber unit). The applicant must submit treatment processes or system information that demonstrates adequate removal of dissolved hydrocarbons to the Department. The system may be approved and adopted in the BMP Toolkit along with other BMPs that ensure the system is properly operated and maintained to sustain treatment performance.

2.7.2 In addition to the restrictions set out in Section 2.1, the permittee must comply with the effluent limitations and monitoring requirements in Table 7.

Table 7: Effluent Limitations and Monitoring Requirements for Mobile Spill Response (Discharge 007)

Parameter	Effluent Limits	Monitoring Requirements		
		Monitoring Frequency	Monitoring Location	Sample Type
Volume [1] (gpd)	Report	Daily	Effluent	Estimate
Oil and Grease Visual[2]	No Discharge	Daily	Effluent	Visual

Notes:
1. The Permittee must track discharges greater than 25 gallons and report total volumes in the AR.
2. A visual observation for sheen must be conducted daily during daylight when discharging.

2.7.2.1 **Flow Volume:** The permittee must monitor discharges for sheens and estimate and record discharge volumes and record in an operation log located at the discharge location. However, the permittee need only estimate and report on individual discharge volumes greater than 25 gallons. The permittee must provide the operating log to DEC upon request.

2.7.2.2 **Specific BMPs:** The permittee must develop and implement specific BMPs to prevent sedimentation, erosion, or thermokarsting at the point of discharge and downstream. In addition, the permittee must develop BMPs to address cessation of discharge and corrective actions, operation, and maintenance of treatment system in the event of an observed sheen.

2.8 Effluent Limitations and Requirements for Contained Water (Discharge 008)

2.8.1 In addition to the restrictions set out in Section 2.1, the permittee must comply with the effluent limitations and monitoring requirements in Table 8.

Table 8: Effluent Limitations and Requirements for Contained Water (Discharge 008)

Parameter (Units)	Effluent Limits	Monitoring Requirements		
		Frequency	Location	Sample Type
Flow Volumes [1] (gpd)	Report	Daily	Effluent	Estimate or Measured
pH [2] (S.U.)	6.5 ≤ pH ≤ 8.5	Daily	Effluent	Grab
Turbidity (NTU) [3]	Report	Daily	Upgradient	Grab
Turbidity (NTU) [4]	5 NTU above ambient	Daily	Effluent	Grab
Oil and Grease Visual [5]	No Discharge	Daily	Effluent	Visual
TAH [6] (µg/L) New or Non-hydrocarbon	Report	Once per event	Effluent	Grab
TAqH [6] (µg/L) New or Non-hydrocarbon	Report	Once per event	Effluent	Grab
TAH [7] (µg/L) Existing Hydrocarbon	10	Per Discharge	Effluent	Grab or Composite
TAqH [7] (µg/L) Existing Hydrocarbon	15	Per Discharge	Effluent	Grab or Composite

Notes:

1. Record daily flow measurements, or estimates, in daily log. Report daily maximum and total monthly volumes in the AR.
2. The effluent limit for pH be no less than 6.5 or greater than 8.5. Report maximum and minimum for each month.
3. Receiving water monitoring must be performed prior to discharge as it provides a measurement of ambient conditions and the limits. If receiving water turbidity monitoring is not possible, the limit is N/A. In these situations, record "NODI T" for "Environmental Conditions – Monitoring Not Possible" in the AR and provide a comment indicating the reason an observation was not made (e.g., tundra, ice, or snow discharge). DEC may also include SS based on plan review (section 2.8.1.3).
4. The permittee must meet water quality criteria at the point of discharge. Turbidity may not exceed 5 NTU above ambient conditions when the ambient turbidity is 50 NTU or less; and shall not have more than a 10% increase in turbidity when the ambient condition is greater than 50 NTU (not to exceed a maximum increase of 15 NTU); and shall not exceed 5 NTU above ambient conditions for all lake waters (See Attachment 1 Turbidity Criteria Figure). Report the receiving water value prior to discharge to compare to the maximum value for effluent. The permittee must develop BMP and QAPP to address determining compliance with water quality criteria based on receiving water turbidity.
5. Observed daily during daylight while discharging. Maintain daily log and provide to DEC upon request.
6. Contained Water from sources other than SCAs is not anticipated to have dissolved hydrocarbons. However, an observation of a sheen triggers monitoring for TAH and TAqH. Permittee must collect one representative sample per event when an observation of a sheen has occurred and notify DEC.
7. Contaminated SCAs or other infrastructure that are known to have been in contact with petroleum and cannot be discharged as Stormwater is anticipated to have dissolved hydrocarbons. Permittee may collect a single representative grab sample for volumes less than or equal to 500,000 gallons. Permittees discharging greater than 500,000 gallons per day must collect a composite sample of 8 grab samples collected at equal intervals during the discharge event as described per Section 3.1.3.1.

2.8.1.1 **Flow Volumes**: Discharges or disposal of contained water must be estimated or measured to determine daily flow volumes and be recorded in operating logs. Daily observations during daylight for sheen must also be recorded in operating logs. Daily logs must be kept onsite and made available upon request by DEC.

2.8.1.2 **Specific BMPs:** The permittee must develop and implement specific BMPs to prevent sedimentation, erosion, or thermokarsting at the point of discharge and downstream. In addition, the permittee must develop BMPs to address procedures in the event of observing a sheen in the discharge.

2.8.1.3 **Previously Unidentified Source Water Quality and Chemical Additions:** The use of source water with potential pollutants (e.g. settleable solids) or the addition of chemicals may require analytical testing and plan review. If necessary to authorize discharges with pollutants that have not been considered during permit development, DEC may establish other limits in an authorization under the Permit by developing a Statement of Basis potentially including characterization, mixing zone authorization, unique limits, and an antidegradation evaluation. Upon conducting a 30-day public notice and addressing comments received, DEC may issue an authorization covering discharges of Contained Water with pollutants that were not originally considered while reissuing the Permit. The applicant must inform DEC if such conditions are present based on project plans six months in advance of the project.

2.9 Land Disposal Limitations and Monitoring Requirements

2.9.1 Land disposals under the Permit may include Gravel Pit Dewatering (Discharge 003), Excavation Dewatering (Discharge 004), Hydrostatic Test Water (Discharge 005), and certain Contained Water (Discharge 008). For this Permit only, land disposal is considered a location where water is placed such that complete infiltration into the ground occurs and does not represent a surface water feature (e.g., wetland, dry stream channel, or uplands area that does not infiltrate to ground water) and that will not result in an adverse impact to the nearest surface water feature. Land disposal is primarily based on the ability of the disposal location to infiltrate to groundwater (i.e., sand or gravel) while intentionally reducing situations where a disposal area may not infiltrate fast enough for the volume of disposal such that overland flow (i.e. runoff) to an existing waterbody or wetland is possible. Please note that land disposal is not associated with underground injection for disposal, storage, or enhanced oil recovery.

2.9.2 All land disposals require a plan review. The Applicant must communicate with DEC to discuss plan review objectives and scope of the review prior to submitting the plan with the NOI for DEC review and approval per Section 1.5.1.5. In addition to the restrictions applicable to land disposal set out in Section 2.1, the permittee must comply with the effluent limitations and monitoring requirements for land disposals in Table 9.

Table 9: Disposal Limitations and Monitoring Requirements Gravel Pit Dewatering (003), Excavation Dewatering (004), Hydrostatic Testing (005), and Contained Water (008)

Parameter (Units)	Effluent Limits	Monitoring Requirements		
		Frequency	Location	Sample Type
Flow Volume [1] (gpd)	Report	Daily	Effluent	Estimate or Measured
Oil and Grease Visual[2]	No Discharge	Daily	Effluent	Visual
Settleable Solids [3,4] (mL/L)	0.2	Weekly	Effluent	Grab

Notes:
1. Flow rates and volumes may be measured or estimated and must be reported in a daily log. Report daily maximum for each month and total monthly volumes for each disposal location in AR.
2. A visual observation for sheen must be conducted daily during daylight when discharging.
3. As measured using Imhoff Cone.
4. For Excavation Dewatering on case-by-case basis as per the authorization letter.

2.9.2.1 **Flow Volume:** The permittee must measure, or estimate, disposal volumes for Gravel Pit Dewatering, Excavation Dewatering, Hydrostatic Test Water, and Contained Water and record volumes and observations for sheen in an operation log maintained at the disposal location. The permittee must submit annual reports that include daily maximums for each month and total monthly volumes for each disposal location per Section 2.11.1.9.

2.9.2.2 **Sediment and Erosion Control**: Necessary erosion and sediment controls shall be implemented at the discharge point to prevent erosion and any sedimentation beyond the disposal area.

2.9.1.3 **Daily Sheen Observation**: Land disposals shall be free of an oil sheen and disposed water shall not have a film or a discoloration. The permittee must monitor for sheen and report at least annually to DEC.

2.10 Monitoring Requirements

2.10.1 Test procedures used for sample analysis shall conform to methods cited in 18 AAC 70.020(c), as amended. The permittee may substitute alternative methods of monitoring or analysis upon receipt of prior written approval from the Department.

2.10.2 The permittee shall use equipment calibrated in accordance with manufacturer's recommendations when taking field measurements (i.e., pH and turbidity). The permittee shall use bottles and may use sampling procedures provided by a laboratory when collecting samples for laboratory analysis.

2.10.3 Samples and measurements shall be representative of the volume and nature of the monitored discharge.

2.10.4 Additional monitoring of parameters and increased monitoring frequency may be required by the Department on a case-by-case basis based on plan review or issuing a Statement of Basis.

2.10.5 If the permittee monitors any influent, effluent, or receiving water characteristic identified in this Permit more frequently than required, the results of such monitoring shall be reported to the Department in the monitoring report required under Section 2.11.1.1.

2.10.6 Daily Records: All flow monitoring results shall be recorded daily in a log and made available to DEC upon request. The permittee shall maintain records of all information resulting from any visual inspections, including documentation of visual observation(s) of floating solids, foam, garbage, and oily sheen for five years.

2.11 Reporting of Monitoring Requirements

2.11.1 Annual Monitoring Reports

2.11.1.1 Monitoring required in Section 2.2 Tables 2 through 9 shall be submitted in an AR (i.e., a compilation of monthly discharge monitoring reports (DMRs) where a discharge has occurred) within EDMS by January 31st of the following year or upon submittal of an NOT.

2.11.1.2 Submitting ARs via alternative means to EDMS may be considered temporarily on a case-by-case basis based on extenuating circumstances.

2.11.1.3 DEC will automatically provide waivers to the electronic reporting per 40 CFR 127.15(b) until such time EDMS becomes fully compliant with the eReporting Rule.

2.11.1.4 The permittee must sign and certify all reports and other submittals in accordance with signatory requirements in Section 1.12 of Appendix A – Standard Conditions.

2.11.1.5 The permittee must use a sufficiently sensitive method per 40 CFR 136. See Appendix C for sufficiently sensitive method.

2.11.1.6 The permittee must use an EPA-approved analytical test method for TRC monitoring, but in this Permit, the compliance level for TRC is 100 µg/L.

2.11.1.7 For purposes of reporting on the AR for a single sample, if a value is less than the method detection limit, the permittee must report "less than [numeric value of the method detection limit]," and if a value is less than a minimum level (ML), the permittee must report "less than [numeric value of ML]."

2.11.1.8 For purposes of calculating a monthly average, zero (0) may be assigned for a value less than the method detection limit, and [numeric value of the method detection limit] may be assigned for a value between the method detection limit and the ML. If the average value is less than the method detection limit, the permittee must report "less than [numeric value of the method detection limit]," and if the average value is less than the ML, the permittee must report "less than [numeric value of ML]." If a value is equal to or greater than the ML, the permittee must report and use the actual value. The resulting average value must be compared to the compliance level, ML, in assessing compliance.

2.11.1.9 For purposes of reporting for a single sample for TAH or TAqH where the parameter is a summation of results of individual analytes, estimated (e.g., "J" estimates) are considered nondetectable. When all individual analytes are nondetectable, or estimates, the permittee must report the categorical summation of the common method detection limits with a "less than [categorical summation of method detection limits]." If any of the analytes are detectable, the permittee must report the summation of only the detected analytes on the AR without a less than symbol. See Permit Attachment 2 for TAH/TAqH reporting guidelines.

2.11.1.10 For Stormwater (Discharge 006), the permittee must certify the Stormwater Pollution Prevention Plan (SWPPP), inspections, and revisions to the SWPPP. SWPPPs, semiannual inspection reports, and certifications must be maintained onsite and made available to DEC upon request (See Section 3.5.1).

2.11.1.11 For Discharges 002-005 and 007-008 the permittee must acknowledge in the annual report the understanding that certifications of BMPs and QAPPs is their responsibility and BMP and QAPP certifications must be maintained onsite and made available to DEC upon request (See Sections 3.1, 3.4, 3.5, and 3.6).

2.11.1.12 The Reporting requirements in this Permit supersede inconsistent requirements in Appendix A, Standard Conditions.

2.12 Mixing Zone and Modification of Effluent Limits

2.12.1 Per 18 AAC 70.240, as amended through June 23, 2003, a regulatory mixing zone may be authorized for turbidity and residues in the following discharges:

2.12.1.1 Drilling Fluids and Drill Cuttings (Discharge 001)

2.12.1.2 Gravel Pit Dewatering (Discharge 003)

2.12.1.3 Excavation Dewatering (Discharge 004)

2.12.2 The Department will review the NOI information and authorize a standard size 500-foot-long regulatory mixing zone beginning from the point of discharge for parameters listed in Section 2.12.2.2

2.12.2.1 The Department will authorize a regulatory mixing zone if the proposed discharges listed in the NOI are consistent with conditions in this Permit.

2.12.2.2 Within an authorized regulatory mixing zone, the Department will authorize exceedances of the water quality criteria for turbidity and residues.

2.12.3 The written authorization from the Department will specify authorized discharges and the parameters for which water quality criteria may be exceeded within an authorized regulatory mixing zone.

2.12.4 If the Department determines that a regulatory mixing zone is not appropriate to protect and maintain existing uses of the waterbody outside of an authorized mixing zone, a permittee may submit additional information to supplement the NOI or may submit an individual permit application including Form 1, Form 2C, and Form 2M.

3.0 SPECIAL CONDITIONS

3.1 Quality Assurance Project Plan

3.1.1 The permittee must develop a QAPP for all monitoring required by this Permit. A certification that the QAPP has been developed and available for implementation must be acknowledged with the NOI/NOD for first time applicants.

3.1.2 The QAPP must be designed to assist in planning for the collection and analysis of effluent and receiving water samples in support of the GP and in explaining data anomalies when they occur.

3.1.3 To support the specific requirements of the Permit, the QAPP must include:

3.1.3.1 For discharges of Hydrostatic Test Water or Contained Water greater than 500,000 gpd, the QAPP must include the method of collecting eight composite grab samples for permit compliance

3.1.3.2 Methods of calculating the 90th percentile of FC or E. coli bacteria samples to comply with the MDL for domestic wastewater discharges.

3.1.3.3 For Drilling Fluids and Drill Cuttings, Gravel Pit, and Excavation Dewatering (Discharges 001, 003 & 004), protocol for calculating four-day averages to demonstrate that no excursion occurred over a four-day duration. Hence, the averaging includes background turbidity and resulting criteria as well as the turbidity at the boundary of the mixing zone or end of pipe. When using the four-day averaging procedure, the calculations must be uploaded in EDMS with the AR.

3.1.4 Throughout all sample collection and analysis activities, the permittee must use the EPA-approved quality assurance/quality control and chain-of-custody procedures described in *Requirements for Quality Assurance Project Plans* (EPA/QA/R-5) and *Guidance for Quality Assurance Project Plans* (EPA/QA/G-5). The QAPP must be prepared in the format which is specified in these documents.

3.1.5 The permittee must amend the QAPP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAPP and maintain a log of modifications.

3.1.6 The permittee must modify the QAPP and certify that the QAPP has been reviewed and revised when necessary and at least annually. The statement must be completed on or before January 31st of each year of operation under this Permit after the initial QAPP certification. The certification must be retained onsite with the QAPP and made available to the Department upon request.

3.1.7 Copies of the QAPP must be kept on site and made available to DEC upon request.

3.2 Drilling Fluids Plan

3.2.1 Applicability

A DFP will be required for drilling using class A2 and A3 drilling fluids as verified by the Department when reviewing the NOI per Section 1.5.1.6. The primary distinction between Class A2 and Class A3 fluids is A3 uses barite as a weighting agent. The following sections apply to developing a DFP for either a Class A2 or Class A3 drilling fluid. At a minimum, the DFP must include the following information:

3.2.1.1 Specific to each Drilling Program and drilling fluid type, provide a list including commercial product names, descriptions of the products, and the maximum proposed discharge concentrations for each product and chemical additive. Concentrations must be commonly stated in appropriate terms (e.g., lb/bbl, gal/bbl, % (wt), or % v/v (% volume oil per volume drilling fluid). Each drilling fluid or additive system must be clearly labeled with respect to drilling fluid type (e.g., KCl/polymer drilling fluid, freshwater lignosulfonate drilling fluid). Components of the basic drilling fluid must be listed separately from specialty or contingency chemical additives which may be used.

3.2.1.2 A record of the operator's determination of how discharge of drilling fluids and drill cuttings is expected to comply with the 500,000 ppm SPP toxicity classification threshold (See Section 1.5.1.6). Operator's determination must be based upon, but not limited to, the following criteria:

i. Estimate or SPP test results of worst-case cumulative discharge toxicity based on additive toxicity estimations or commercially calculated discharge toxicity estimations;

ii. Description of how overall toxicity is minimized, where possible.

3.2.1.3 A clearly stated procedure for determining whether or not a chemical additive not originally planned for or included in toxicity estimations may be used and discharged, and

3.2.1.4 An outline of the drilling fluid planning process which must be consistent with other general permit requirements. Names and titles of personnel responsible for the drilling fluid planning process must be included in the drilling fluid plan.

3.2.1.5 For Type A3 Drilling Fluids, the DFP must also include tests on stock barite using EPA Method 200.7 for cadmium and EPA Method 245.5 or 7471 for mercury or other sufficiently sensitive methods in 40 CFR 136. To be considered Type A3 Drilling Fluid, results must be included in DFP indicating concentrations for Cadmium (Cd) ≤ 3 mg/kg, and for Mercury (Hg) ≤ 1mg/kg.

3.3 End of Drilling Reports

In addition to submitting monitoring data via the AR, the permittee is responsible reporting additional information to DEC at the conclusion of the Drilling Program at a given location. The report is due January 31st of the year following completion. If the Drilling Program has been extended, the permittee must still report annually to the extent that the final report is pending completion. If the Drilling Program

is terminated, the permittee must report information up to the time of termination. The Permittee shall report the following Information:

- Beginning drill date, completion date, coordinate location for entry and exit point,
- Any modifications to the drilling fluids system per the DFP,
- The total volumes of drilling fluid created and added downhole at each site location,
- Estimated total volumes of drilling fluids discharged to surface waters at each site location,
- The estimated fluid loss at each site (if any),
- Summary of agency communications that were initiated due to the release,
- Any control measures used to reduce or eliminate the release,
- Any mitigation measures taken to eliminate or reduce adverse environmental impacts,
- Any unusual observations reported to DEC, and
- Any supplemental information requested by DEC during the project to be included.

3.4 BMP Plan and Implementation of a BMP Toolkit

A permittee must develop a BMP Plan which achieves the objectives and specific requirements outlined in Sections 3.4.4. The BMP Plan for industrial activities shall be located at the permitted facility, or available electronically, and made available for Department review upon request. A qualified person must amend the BMP Plan whenever there is a change in the facility or in the operation of the facility that materially increases the generation of pollutants, their release, or potential release to the receiving waters. Changes to the BMP Plan shall be consistent with the objectives and specific BMP requirement as described in Permit Section 3.4.2. The BMP committee must review all changes to the BMP Plan. Permittees must conduct an annual review and a written certification statement must be retained with the BMP Plan as outlined in Section 3.4.2.4. The following sections describe the BMP Plan requirements and objectives (3.4.1 through 3.4.4).

3.4.1 BMP Plan General Requirements and Objectives

3.4.1.1 A BMP Plan must be prepared and certified prior to initiating any discharge under a new authorization. A revised authorization may require revisions to the BMP Plan if there is a new discharge category authorized for the first time or other circumstances necessary for permit compliance. The permittee must develop and implement a BMP Plan which achieves the objectives and the specific BMP requirements listed in Section 3.4.3. Any existing BMP plans may be modified under this section. If a BMP Plan requires revision, the BMP Plan shall be ready to implement prior to the initiation of discharge. The permittee will certify in subsequent NOIs if the BMP Plan is ready to implement when the NOI is submitted.

3.4.1.2 The permittee must maintain a copy of the current BMP Plan at the facility and make it available to DEC or an authorized representative upon request. Electronic storage of documents can be used so long as they are accessible when a DEC inspector conducts an onsite inspection.

3.4.1.3 Through implementation of the BMP Plan, the permittee must prevent or minimize the generation and potential for the release of pollutants to WOTUS. and groundwater in Alaska through normal and ancillary activities.

3.4.1.4 BMP Plans must ensure that methods of pollution prevention, control, and treatment will be applied to all wastes and other substances discharged. The number and quantity of pollutants of effluent generated, discharged, or potentially discharged by the facility must be minimized by the permittee to the extent feasible by managing each waste stream in the most appropriate manner.

i. Each facility component or system must be examined for waste minimization opportunities and potential for causing a release of significant amounts of pollutants to waters of the United States, or groundwater in Alaska, due to equipment failure, improper operation, or natural phenomena, such as rain or snowfall, etc. The examination must include all normal operations and ancillary activities including material storage areas, stormwater, in-plant transfer, material handling and process handling areas, loading or unloading operations, spillage or leaks, sludge and waste disposal, or drainage from raw material storage.

ii. Under the BMP Plan and any Standard Operating Procedures included in the BMP Plan, the permittee must ensure proper operation and maintenance of water management and wastewater treatment systems. BMP Plan elements must be developed in accordance with good engineering practices.

iii. Prior evaluation of any planned modifications to the facility to ensure that the requirements of the BMP Plan are considered as part of the modifications.

3.4.2 BMP Plan Modifications

3.4.2.1 The permittee must amend the BMP Plan whenever it is found to be ineffective in achieving the general objective of preventing and minimizing the generation and the potential for the release of pollutants to waters of the U.S. and/or the specific BMP requirements of Section 3.4.3.7.

3.4.2.2 Changes in the BMP Plan must be certified upon each revision and at least annually per Section 3.4.2.4.

3.4.2.3 The BMP Plan must be reviewed annually by the permittee and the permittee chosen BMP Committee.

3.4.2.4 The BMP Plan must be reviewed annually by the permittee and a BMP Committee to result in certification that the annual review has been completed. The certification must be dated and signed by each BMP Committee member and be retained on site for DEC inspection. The permittee must acknowledge in the annual report submitted by January 31st of the following year that revision and recertification of the BMP is their responsibility per Section 2.11.1.1.

3.4.3 BMP Plan Content

3.4.3.1 The BMP Plan should be consistent with the general guidance contained in *Guidance Manual for Developing Best Management Practices* (EPA 833-B-93-004, October 1993) or any subsequent revision. The BMP Plan must include, at a minimum, the following items:

3.4.3.2 Statement of BMP policy. The BMP Plan must include a statement of management commitment to provide the necessary financial, staff, equipment, and training resources to develop and implement the BMP Plan on a continuing basis.

3.4.3.3 Structure, functions, and procedures of the BMP Committee. The BMP Plan must establish a BMP Committee chosen by the permittee responsible for developing, revising, implementing, and maintaining the BMP Plan.

3.4.3.4 Current copy of this Permit, the signed and certified NOI submitted to DEC, and copies of authorization letters from DEC.

3.4.3.5 Description of potential pollutant sources, including, but not limited to:

- Potential to result in a limit or water quality criteria exceedance,
- Risk identification and assessment, and
- Materials compatibility.

3.4.3.6 Description, location, and sequence of activities, BMP control measures (i.e., BMP Toolkit components used), and constructed site plans, drawings, and maps.

3.4.3.7 Description of any corrective action taken at the facility, including the event that caused the need for corrective action (include notice of non-compliance if reporting was required) and dates when problems were discovered and modifications occurred.

3.4.3.8 A log of BMP Plan modifications which documents maintenance and repairs of control measures, including date(s) of regular maintenance, date(s) of discovery of areas in need of repair/maintenance, and date(s) that the control measure(s) returned to full function.

3.4.3.9 Standard Operating Procedures that include, but are not limited to:

i. Good housekeeping;
ii. Inspections;
iii. Preventative maintenance and repair;
iv. Security;
v. Employee training records and date(s) training was received;
vi. Record keeping and reporting;
vii. Use of local containment devices such as liners, dikes and drip pans where chemicals are being unpackaged and where wastes are being stored and transferred; and
viii. Application of chemical cleaning compounds and disinfectants in accordance with manufacturer instructions and suggested application rates.

3.4.4 Specific BMPs

The BMP Plan must establish specific BMPs or other measures to help achieve the compliance with this Permit for various discharges and disposals, which ensure that the following specific requirements are met.

3.4.4.1 BMPs for Mixing Zones:

In order to ensure compliance with the 500-foot mixing zone for turbidity and residue, the Permittee shall develop a BMP Plan to ensure water quality criteria for turbidity is not exceeded at the boundary of the mixing zone.

3.4.4.2 BMPs for Hydrocarbon Removal:

Permittees must observe discharges and disposals for sheen and review the DEC Contaminated Sites Program Database to determine if contamination may be encountered within 1,500 feet of an excavation that requires dewatering authorization under this Permit. The permittee must develop and implement BMP tools to help ensure compliance with Permit limits for situations where hydrocarbon contamination is encountered. The BMP tools may include treatment procedures or systems that have been submitted to the Department prior to adopting as BMP Toolkit component.

3.4.4.3 BMPs for Sedimentation, Erosion, and Thermokarst Control:

All discharges and disposals are required to have BMPs for control of sedimentation, erosion, and thermokarsting with specific BMPs for high-volume or high-velocity discharges and disposals. BMP Plans shall discuss how to install energy dissipation devices at the point of discharge/disposal as well as controlling sediment accumulation that could adversely impact vegetation. Accordingly, this Permit emphasizes that sediment and erosion control BMPs be used broadly. Specific BMPs developed for sedimentation, erosion, and thermokarst controls may be developed using appropriate components of guidance referenced in Section 3.5, including chemical assisted flocculation for sedimentation basins and/or filtration systems (See Permit Section 1.5.1.5). For discharges and disposals, BMPs for sediment control must include a trigger for sediment accumulation (i.e. when to move to another outfall location).

3.5 Construction Stormwater (006)

Permittees, or Co-permittees, authorized to discharge stormwater (including uncontaminated secondary containment water), or allowable non-stormwater, from construction or maintenance activities that disturb one acre or more, are required to identify and control pollutant sources associated with the construction of pipelines and the ancillary pipeline facilities that disturbs one acre or more. Coverage for Construction Stormwater (Discharge 006) requires that the applicant develop and implement a SWPPP, which assesses site specific conditions, sources of sediment and other pollutants, and establishes BMPs to prevent, or minimize to the extent practicable, pollutants from being discharged in stormwater. A SWPPP shall be developed and submitted to the Department with the NOI for review and comment (Section 1.5.1.2) in general accordance with the most current version of *Developing Your Stormwater Pollution Prevention Plan – A Guide for Industrial Operators* (March 2021, EPA 833-B-09-002). For Alaska-specific requirements, refer to the *Alaska Storm Water Guide.* https://www.epa.gov/sites/default/files/2021-03/documents/swppp_guide_industrial_2021_030121.pdf. The following must be incorporated within the SWPPP, which must be developed by a qualified person (See Appendix C – Definitions).

3.5.1 Certifications

The SWPPP must be signed and certified per Appendix A, Section 1.12. The permittee must revise and certify SWPPPs and inspection reports and maintain SWPPPs, Certifications, and Inspection Reports onsite and made available to DEC upon request per Section 3.5.10.3 and 3.5.12.4.

3.5.2 Site Descriptions

The SWPPP must describe specific conditions of the project including (1) the amount, frequency, duration, and seasonal occurrence of rainfall; (2) site conditions such as soils, topography, drainage patterns, and vegetation; and (3) receiving waters, including impaired waters or waters listed in the ADF&G Anadromous Waters Catalog. The SWPPP must also describe the nature of the construction activity, including, but not limited to:

3.5.2.1 The function of the project (e.g., large spread winter construction);

3.5.2.2 A general location map able to identify the location of the activity and the waters of the U. S. within one mile of the project;

3.5.2.3 Site maps that clearly delineate the area that will be disturbed and important environmental features (e.g., wetlands, spawning areas, water intakes, etc.);

3.5.2.4 Identification of all potential sources of pollutants that may reasonably affect the quality of stormwater discharges from the construction site. This includes description of related industrial activities such as pipe coating facilities or temporary concrete batch plants;

3.5.2.5 The intended significant activities, presented sequentially, that disturb soil over major portions of the site (e.g., grubbing, excavation, grading); and

3.5.2.6 Estimates of the total area of the site that is expected to be disturbed by excavation, grading, or other activities including off-site borrow/fill areas. It may be preferable to separately describe portions of the site as they are disturbed at different stages of the construction process.

3.5.3 Control Measures

Based on site-specific information and identification of sources of pollution, the SWPPP must indicate and describe the control measures to be implemented including, but not limited to:

3.5.3.1 The type of sediment and erosion control measure, location, duration (temporary or permanent), and construction sequence (specific dates are not necessary); and

3.5.3.2 When available and appropriate, the manufacturer's specifications for installation and maintenance of the appropriate control measures.

3.5.4 Natural Buffers

The permittee must maintain a minimum natural buffer of 25 feet around the edge of any waters of the U.S. and at stream crossings unless the crossing is a necessary and the construction activity is dependent on water access (e.g. open trench pipeline crossing).

3.5.5 Good Housekeeping Procedures

The SWPPP must describe procedures that prevent the discharge of pollutants from earth moving activities and ancillary activities associated with the project. These procedures are generally associated with storage and handling of materials such as construction waste, fuels and solvents, and other potential stormwater contaminants. Typical good housekeeping procedures include, but are not limited to:

3.5.5.1 Washing of Equipment and Vehicles and Wheel Wash-Down,

3.5.5.2 Fueling and Maintenance Areas,

3.5.5.3 Staging and Material Storage Areas,

3.5.5.4 Washout of Applicators/Containers used for Paint, Concrete, and Other Materials,

3.5.5.5 Fertilizer or Pesticide Use, and

3.5.5.6 Storage, Handling, and Disposal of Construction Waste.

3.5.6 Spill Prevention and Response Procedures

The permittee must notify appropriate facility personnel, emergency response agencies, and regulatory agencies when a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity has been observed (See Standard Conditions, Appendix A).

In the event that good housekeeping procedures do not prevent a release, specific spill prevention and response procedures must be included in the SWPPP for material storage and handling including, but not limited to:

3.5.6.1 Labeling containers (e.g., "Used Oil," "Spent Solvents," "Fertilizers and Pesticides," etc.)

3.5.6.2 Expeditiously stopping, containing, and cleaning up spills, leaks, and

3.5.6.3 Other contaminant releases.

3.5.7 Seasonal Shutdowns

The SWPPP must include a description of temporary and permanent stabilization practices for the site, including a schedule of when the practices will be implemented. The SWPPP must document shutdown and startup activities for projects that are not completed during the winter or summer construction season. The SWPPP must also document (1) the anticipated dates of fall freeze-up and spring thaw, (2) activities leading up to and at fall freeze-up, (3) activities leading up to and at spring thaw, and (4) activities to reestablish control measures prior to and immediately after spring thaw and fall freeze up.

3.5.8 Stabilization

Stabilization of disturbed areas must be initiated as soon as practicable whenever any clearing, grading, excavating, or other earth disturbing activities have permanently ceased on any portion of the site or temporarily ceased on the site and will not resume for a period exceeding 14 days.

3.5.8.1 Temporary Stabilization: No later than 14 days after initiating temporary stabilization, the permittee must complete all activities necessary to initially revegetate the area and/or install non-vegetative measures.

3.5.8.2 Final Stabilization and Terminating Construction Stormwater Authorizations: To eliminate a site or terminate authorization for construction stormwater coverage under this Permit, the permittee must achieve final stabilization for the affected area of coverage. See Appendix C for definition of final stabilization.

3.5.9 SWPPP Modifications

The permittee must update the SWPPP within seven calendar days in response to any following triggering conditions:

3.5.9.1 Changes to construction control measures, good housekeeping measures, or other activities that render the existing SWPPP obsolete,

3.5.9.2 An inspection or investigation reveal changes are necessary to comply with this Permit, or

3.5.9.3 Changes made in response to corrective actions, or maintenance procedures.

3.5.10 SWPPP Documentation

3.5.10.1 SWPPP Posting: A notice of Permit authorization and SWPPP must be posted conspicuously near the main entrance of the site or at local public building such as the town hall or public library if posting at the entrance is infeasible. For linear projects, the notice must be posted at a publicly accessible location near the active part of the construction project (e.g., where a pipeline project crosses a public road). The SWPPP notice must include the following information:

i. A copy of the completed NOI as submitted to DEC;

ii. Current contact person and phone number for scheduling times to view the SWPPP, and

iii. The current location of the SWPPP.

3.5.10.2 Related Documents: The following related documents must be kept with the SWPPP:

i. Current copy of this Permit, the signed and certified NOI submitted to DEC, copies of DEC authorization letters;

ii. A log of SWPPP modifications;

iii. Description, location, and sequence of earthwork activities, control measures, and stabilization measures;

iv. Documentation of confirmation sampling of TAH and TAqH to demonstrate an individual SCA is no longer contaminated after observation of sheen or a spill (See Section 1.4.8).

v. Date(s) when earthwork activities occur, construction activities, begin and temporarily or permanently cease, and when stabilization are initiated on a portion of the site;

vi. Documentation of maintenance and repairs of control measures, including date(s) of regular maintenance, date(s) of discovery of areas in need of repair/maintenance, and date(s) that the control measure(s) returned to full function;

vii. Manufacture Information (i.e. Material Safety Data Sheet, manufacturer and/or supplier test results, or installation instructions);

viii. Description of any corrective action taken, including the triggering event or corrective action and dates when problems were discovered and modifications occurred;

ix. Records of employee training, including the date(s) training was received; and

x. Copies of inspection reports, non-compliance, certifications, monitoring reports, or end of construction season reports.

3.5.10.3 SWPPP Availability: A copy of the SWPPP must be kept at the facility or the construction site from the date of project initiation to the date of final stabilization. A Permittee with day-to-day operational control over the plan's implementation must keep a copy of the plan readily available whenever on site (a centrally located construction trailer or truck accessible by all on-site personnel is sufficient). If an on-site location is unavailable to store the SWPPP when no personnel are present, notice of the plan's location must be posted at the main entrance sign at the construction site. Regardless, a copy of the SWPPP must be readily available for inspection during normal business hours.

A Permittee must make a copy of the SWPPP and documentation available to DEC upon request, for review or copying, during any on-site inspection. Electronic storage of documents can be used so long as they are accessible when a DEC inspector conducts an onsite inspection. The SWPPP must identify any alternative off-site location for available access if there is a seasonal shut down for a multi-season project. The SWPPP must be returned to the site once the shutdown is over.

The Permittee must provide a copy of the SWPPP to each subcontractor on-site. If a member of the public requests a copy of the SWPPP, they must first contact DEC.

3.5.11 Corrective Actions

3.5.11.1 Triggers: The permittee must review and revise the selection, redesign, reinstall, and implement other corrective actions or control measures when the following conditions have been discovered or reported by other entities and substantiated:

i. Spills or unauthorized discharges;

ii. Control measures not designed, installed, or maintained correctly;

iii. Control measures are observed to not meet Permit requirements or water quality criteria (See 2.1.5); or

iv. Sediment or residues (See Definitions) have accumulated at locations that could lead to impacts to control measures, stormwater conveyance infrastructure (e.g., stormwater inlets and outlets), or equipment tracking on roads or paved areas.

3.5.11.2 Communication: The permittee must provide written notification to all affected subcontractors within three (3) days of taking the corrective action.

3.5.11.3 SWPPP Modifications: The permittee must revise its SWPPP within seven calendar days to reflect the new maintenance procedures and include documentation of the corrective action to return to full compliance. The permittee must maintain a log showing the dates of all SWPPP modifications, including name of the person authorizing each change and a brief summary.

3.5.11.4 Schedules: Whenever corrective actions impact other parties, the permittee must notify them within three days. For conditions that can be readily corrected (e.g., removing tracked sediment on roadways), the permittee must take corrective actions as soon as practicable within 24 hours of discovery. For revising selection, redesigning, or repairing control measures, the permittee must complete the corrective action within seven days. If the corrective action has a nexus with other similar control measures or conditions on the project, the permittee must make corrections to subsequently affective controls or conditions prior to the next storm or snowmelt event, or as soon as practicable afterwards.

3.5.11.5 Continuation of Inspections: Normally scheduled inspections must continue from the time the need for corrective actions have been identified until completed.

3.5.11.6 Corrective Action Log: The permittee must maintain a log of corrective actions that includes the date the problem was discovered or reported, the corrective action(s) taken or the basis for why one was not taken, the date the corrective action was completed, and whether the corrective action resulted in a revision to the SWPPP.

3.5.12 Inspections

3.5.12.1 Frequency: The Permittee must inspect designated areas on a schedule, frequency and timing based on the mean annual precipitation (MAP) for the location per Table 10:

Table 10: Frequency of Construction SWPPP Inspections

MAP (inches)	Period (Days)	Frequency/Timing
≤ 40	14	Once within period and 24 hours after storm or snowmelt event.
> 40	7	Once per period but twice per period if there is precipitation each of the seven days[1]
Note [1]: Pre-storm walk-throughs count as one inspection.		

3.5.12.2 Visual Monitoring Requirements: During conditions at the project in which a discharge is occurring, the permittee must:

i. Observe and document the visual quality and characteristics of the discharge (e.g., Permit Section 2.1.5); and

ii. Document whether control measures are operating effectively or are in need of maintenance."

3.5.12.3 Representative Inspections: For linear construction projects (e.g., pipeline construction) inspections may be performed and applied to other representative locations and controls. The qualified personnel may inspect controls along the construction site for 0.25 mile above and below each access point where a roadway, undisturbed right-of-way, or other similar feature intersects the construction site and allows access to the areas above and below that point. The conditions of the controls along each inspected 0.25-mile segment may be considered as representative of the condition of controls along that reach extending from the end of the 0.25-mile segment to either the end of the next 0.25-mile inspected segment or to the end of the project, whichever occurs first.

3.5.12.4 Inspection Reports: The Permittee is required to retain with the SWPPP a record of each inspection for at least three years from the date that Permit coverage expires or is terminated. The report must also identify any actions taken per the inspection requirements and identify any triggering conditions that requires corrective action.

3.6 Additional Requirements for Operational Stormwater (006)

Permit requirements for Operational SWPPPs are mostly the same as for Construction SWPPPs 3.5.1 through 3.5.9. However, an Operational Stormwater SWPPP is not requires to be submitted with the NOI. Instead, the Applicant must submit a vicinity map that shows the extent of Operational Stormwater coverage (Section 1.5.1.2). The additional, or complementary, requirements for Operational SWPPPs are as follows:

3.6.1 If a facility is authorized to discharge only operational stormwater, the Operational SWPPP satisfies the BMP Plan requirements in Section 3.4. Because the SWPPP may also satisfy BMP Plan requirements and need to modify Operational SWPPPs is likely infrequent, this Permit requires annual review of the SWPPPs to ensure minor changes or modifications to controls are adopted, which also satisfies Section 3.4.2.4. The permittee must apply BMP Section 3.4 to Operational SWPPPs as applicable and appropriate. The BMP Plan must be reviewed annually by the permittee and a BMP Committee to result in certification that the annual review has been completed. The certification must be dated and signed by each BMP Committee member and be retained on site for DEC inspection. The permittee must acknowledge in the annual report submitted by January 31st of the following year that revision and recertification of the BMP is their responsibility per Section 2.11.1.1. The review committee must review, revise, and recertify the SWPPP the annually.

3.6.2 This Permit requires semiannual stormwater inspections at each facility with one inspection conducted prior to breakup to assess whether there are any areas which may contribute pollutants to the stormwater discharge and the second inspection conducted after breakup. Semiannual inspections must be certified that the inspections were conducted at each facility and retained for three years with the SWPPP certification.

Appendix A

Standard Conditions

STANDARD CONDITIONS

APDES GENERAL PERMIT

NONDOMESTIC

TABLE OF CONTENTS

Appendix A, Standard Conditions is an integral and enforceable part of the permit. Failure to comply with a Standard Condition in this Appendix constitutes a violation of the permit and is subject to enforcement.

1.0 Standard Conditions Applicable to All Permits

1.1 Contact Information and Addresses

1.1.1 Permitting Program

Documents, reports, and plans required under the permit and Appendix A are to be sent to the following address:

State of Alaska
Department of Environmental Conservation
Division of Water
Wastewater Discharge Authorization Program
555 Cordova Street
Anchorage, Alaska 99501
Telephone (907) 269-6285
Fax (907) 269-7508
Email: DEC.Water.WQPermit@alaska.gov

1.1.2 Compliance and Enforcement Program

Documents and reports required under the permit and Appendix A relating to compliance are to be sent to the following address:

State of Alaska
Department of Environmental Conservation
Division of Water
Compliance and Enforcement Program
555 Cordova Street
Anchorage, Alaska 99501
Telephone Nationwide (877) 569-4114
Anchorage Area / International (907) 269-4114
Fax (907) 269-4604
Email: dec-wqreporting@alaska.gov

1.2 Duty to Comply

A permittee shall comply with all conditions of the permittee's APDES permit. Any permit noncompliance constitutes a violation of 33 U.S.C 1251-1387 (Clean Water Act) and state law and is grounds for enforcement action including termination, revocation and reissuance, or modification of a permit, or denial of a permit renewal application. A permittee shall comply with effluent standards or prohibitions established under 33 U.S.C. 1317(a) for toxic pollutants within the time provided in the regulations that establish those effluent standards or prohibitions even if the permit has not yet been modified to incorporate the requirement.

1.3 Duty to Reapply

If a permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee must apply for and obtain a new permit. In accordance with 18 AAC 83.105(b), a permittee with a currently effective permit shall reapply by submitting a new application at least 180 days before the existing permit expires, unless the Department has granted the permittee permission to submit an application on a later date. However, the Department will not grant permission for an application to be submitted after the expiration date of the existing permit.

1.4 Need to Halt or Reduce Activity Not a Defense

In an enforcement action, a permittee may not assert as a defense that compliance with the conditions of the permit would have made it necessary for the permittee to halt or reduce the permitted activity.

1.5 Duty to Mitigate

A permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

1.6 Proper Operation and Maintenance

1.6.1 A permittee shall at all times properly operate and maintain all facilities and systems of treatment and control and related appurtenances that the permittee installs or uses to achieve compliance with the conditions of the permit. The permittee's duty to operate and maintain properly includes using adequate laboratory controls and appropriate quality assurance procedures. However, a permittee is not required to operate back-up or auxiliary facilities or similar systems that a permittee installs unless operation of those facilities is necessary to achieve compliance with the conditions of the permit.

1.6.2 Operation and maintenance records shall be retained and made available at the site.

1.7 Permit Actions

A permit may be modified, revoked and reissued, or terminated for cause as provided in 18 AAC 83.130. If a permittee files a request to modify, revoke and reissue, or terminate a permit, or gives notice of planned changes or anticipated noncompliance, the filing or notice does not stay any permit condition.

1.8 Property Rights

A permit does not convey any property rights or exclusive privilege.

1.9 Duty to Provide Information

A permittee shall, within a reasonable time, provide to the Department any information that the Department requests to determine whether a permittee is in compliance with the permit, or whether cause exists to modify, revoke and reissue, or terminate the permit. A permittee shall also provide to the Department, upon request, copies of any records the permittee is required to keep under the permit.

1.10 Inspection and Entry

A permittee shall allow the Department, or an authorized representative, including a contractor acting as a representative of the Department, at reasonable times and on presentation of credentials establishing authority and any other documents required by law, to:

1.10.1 Enter the premises where a permittee's regulated facility or activity is located or conducted, or where permit conditions require records to be kept;

1.10.2 Have access to and copy any records that permit conditions require the permittee to keep;

1.10.3 Inspect any facilities, equipment, including monitoring and control equipment, practices, or operations regulated or required under a permit; and

1.10.4 Sample or monitor any substances or parameters at any location for the purpose of assuring permit compliance or as otherwise authorized by 33 U.S.C. 1251-1387 (Clean Water Act).

1.11 Monitoring and Records

A permittee must comply with the following monitoring and recordkeeping conditions:

1.11.1 Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.

1.11.2 The permittee shall retain records in Alaska of all monitoring information for at least three years, or longer at the Department's request at any time, from the date of the sample, measurement, report, or application. Monitoring records required to be kept include:

1.11.2.1 All calibration and maintenance records,

1.11.2.2 All original strip chart recordings or other forms of data approved by the Department for continuous monitoring instrumentation,

1.11.2.3 All reports required by a permit,

1.11.2.4 Records of all data used to complete the application for a permit,

1.11.2.5 Field logbooks or visual monitoring logbooks,

1.11.2.6 Quality assurance chain of custody forms,

1.11.2.7 Copies of discharge monitoring reports, and

1.11.2.8 A copy of this APDES permit.

1.11.3 Records of monitoring information must include:

1.11.3.1 The date, exact place, and time of any sampling or measurement;

1.11.3.2 The name(s) of any individual(s) who performed the sampling or measurement(s);

1.11.3.3 The date(s) and time any analysis was performed;

1.11.3.4 The name(s) of any individual(s) who performed any analysis;

1.11.3.5 Any analytical technique or method used; and

1.11.3.6 The results of the analysis.

1.11.4 Monitoring Procedures

Analyses of pollutants must be conducted using test procedures approved under 40 CFR Part 136, adopted by reference at 18 AAC 83.010, for pollutants with approved test procedures, and using test procedures specified in the permit for pollutants without approved methods.

1.12 Signature Requirement and Penalties

1.12.1 Any application, report, or information submitted to the Department in compliance with a permit requirement must be signed and certified in accordance with 18 AAC 83.385. Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, or other document filed or required to be maintained under a permit, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be subject to penalties under 33 U.S.C. 1319(c)(4), AS 12.55.035(c)(1)(B), (c)(2), and (c)(3) and 46.03.790(g).

1.12.2 In accordance with 18 AAC 83.385, an APDES permit application must be signed as follows:

1.12.2.1 For a corporation, by a responsible corporate officer.

1.12.2.2 For a partnership or sole proprietorship, by the general partner or the proprietor, respectively.

1.12.2.3 For a municipality, state, federal, or other public agency, by either a principal executive officer or ranking elected official.

1.12.3 Any report required by an APDES permit, and a submittal with any other information requested by the Department, must be signed by a person described in Appendix A, Part 1.12.2, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1.12.3.1 The authorization is made in writing by a person described in Appendix A, Part 1.12.2;

1.12.3.2 The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, including the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility; or an individual or position having overall responsibility for environmental matters for the company; and

1.12.3.3 The written authorization is submitted to the Department to the Permitting Program address in Appendix A, Part 1.1.1.

1.12.4 If an authorization under Appendix A, Part 1.12.3 is no longer effective because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Appendix A, Part 1.12.3 must be submitted to the Department before or together with any report, information, or application to be signed by an authorized representative.

1.12.5 Any person signing a document under Appendix A, Part 1.12.2 or Part 1.12.3 shall certify as follows:

"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."

1.13 Proprietary or Confidential Information

1.13.1 A permit applicant or permittee may assert a claim of confidentiality for proprietary or confidential business information by stamping the words "confidential business information" on each page of a submission containing proprietary or confidential business information. The Department will treat the stamped submissions as confidential if the information satisfies the test in 40 CFR §2.208, adopted by reference in 18 AAC 83.010, and is not otherwise required to be made public by state law.

1.13.2 A claim of confidentiality under Appendix A, Part 1.13.1 may not be asserted for the name and address of any permit applicant or permittee, a permit application, a permit, effluent data, sewage sludge data, and information required by APDES or NPDES application forms provided by the Department, whether submitted on the forms themselves or in any attachments used to supply information required by the forms.

1.13.3 A permittee's claim of confidentiality authorized under Appendix A, Part 1.13.1 is not waived if the Department provides the proprietary or confidential business information to the EPA or to other agencies participating in the permitting process. The Department will supply any information obtained or used in the administration of the state APDES program to the EPA upon request under 40 CFR §123.41, as revised as of July 1, 2005. When providing information submitted to the Department with a claim of confidentiality to the EPA, the Department will notify the EPA of the confidentiality claim. If the Department provides the EPA information that is not claimed to be confidential, the EPA may make the information available to the public without further notice.

1.14 Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any action or relieve a permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under state laws addressing oil and hazardous substances.

1.15 Cultural and Paleontological Resources

If cultural or paleontological resources are discovered because of this disposal activity, work that would disturb such resources is to be stopped, and the Office of History and Archaeology, a Division of Parks and Outdoor Recreation of the Alaska Department of Natural Resources (http://www.dnr.state.ak.us/parks/oha/), is to be notified immediately at (907) 269-8721.

1.16 Fee

A permittee must pay the appropriate permit fee described in 18 AAC 72.

1.17 Other Legal Obligations

This permit does not relieve the permittee from the duty to obtain any other necessary permits from the Department or from other local, state, or federal agencies and to comply with the requirements contained in any such permits. All activities conducted and all plan approvals implemented by the permittee pursuant to the terms of this permit shall comply with all applicable local, state, and federal laws and regulations.

2.0 Special Reporting Obligations

2.1 Planned Changes

2.1.1 The permittee shall give notice to the Department as soon as possible of any planned physical alteration or addition to the permitted facility if:

2.1.1.1 The alteration or addition may make the facility a "new source" under one or more of the criteria in 18 AAC 83.990(44); or

2.1.1.2 The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged if those pollutants are not subject to effluent limitations in the permit or to notification requirements under 18 AAC 83.610.

2.1.2 If the proposed changes are subject to plan review, then the plans must be submitted at least 30 days before implementation of changes (see 18 AAC 15.020 and 18 AAC 72 for plan review requirements). Written approval is not required for an emergency repair or routine maintenance.

2.1.3 Written notice must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

2.2 Anticipated Noncompliance

2.2.1 A permittee shall give seven days' notice to the Department before commencing any planned change in the permitted facility or activity that may result in noncompliance with permit requirements.

2.2.2 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

2.3 Transfers

2.3.1 A permittee may not transfer a permit for a facility or activity to any person except after notice to the Department in accordance with 18 AAC 83.150. The Department may modify or revoke and reissue the permit to change the name of the permittee and incorporate such other requirements under 33 U.S.C. 1251-1387 (Clean Water Act) or state law.

2.3.2 Written notice must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

2.4 Compliance Schedules

2.4.1 A permittee must submit progress or compliance reports on interim and final requirements in any compliance schedule of a permit no later than 14 days following the scheduled date of each requirement.

2.4.2 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

2.5 Corrective Information

2.5.1 If a permittee becomes aware that it failed to submit a relevant fact in a permit application or submitted incorrect information in a permit application or in any report to the Department, the permittee shall promptly submit the relevant fact or the correct information.

2.5.2 Information must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

2.6 Bypass of Treatment Facilities

2.6.1 Prohibition of Bypass

Bypass is prohibited. The Department may take enforcement action against a permittee for any bypass, unless:

2.6.1.1 The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

2.6.1.2 There were no feasible alternatives to the bypass, including use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. However, this condition is not satisfied if the permittee, in the exercise of reasonable engineering judgment, should have installed adequate back-up equipment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

2.6.1.3 The permittee provides notice to the Department of a bypass event in the manner, as appropriate, under Appendix A, Part 2.6.2.

2.6.2 Notice of bypass

2.6.2.1 For an anticipated bypass, the permittee submits notice at least 10 days before the date of the bypass. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the conditions of Appendix A, Parts 2.6.1.1 and 2.6.1.2.

2.6.2.2 For an unanticipated bypass, the permittee submits 24-hour notice, as required in 18 AAC 83.410(f) and Appendix A, Part 3.4, Twenty-four Hour Reporting.

2.6.2.3 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

2.6.3 Notwithstanding Appendix A, Part 2.6.1, a permittee may allow a bypass that:

2.6.3.1 Does not cause an effluent limitation to be exceeded, and

2.6.3.2 Is for essential maintenance to assure efficient operation.

2.7 Upset Conditions

2.7.1 In any enforcement action for noncompliance with technology-based permit effluent limitations, a permittee may claim upset as an affirmative defense. A permittee seeking to establish the occurrence of an upset has the burden of proof to show that the requirements of Appendix A, Part 2.7.2 are met.

2.7.2 To establish the affirmative defense of upset, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that:

2.7.2.1 An upset occurred and the permittee can identify the cause or causes of the upset;

2.7.2.2 The permitted facility was at the time being properly operated;

2.7.2.3 The permittee submitted 24-hour notice of the upset, as required in 18 AAC 83.410(f) and Appendix A, Part 3.4, Twenty-four Hour Reporting; and

2.7.2.4 The permittee complied with any mitigation measures required under 18 AAC 83.405(e) and Appendix A, Part 1.5, Duty to Mitigate.

2.7.3 Any determination made in administrative review of a claim that noncompliance was caused by upset, before an action for noncompliance is commenced, is not final administrative action subject to judicial review.

2.8 Existing Manufacturing, Commercial, Mining, and Silvicultural Discharges

2.8.1 In addition to the reporting requirements under 18 AAC 83.410, an existing manufacturing, commercial, mining, and silvicultural discharger shall notify the department as soon as that discharger knows or has reason to believe that any activity has occurred or will occur that would result in:

2.8.1.1 The discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

2.8.1.1.1 One hundred micrograms per liter (100 µg/L);

2.8.1.1.2 Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile, 500 micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol, and one milligram per liter (1 mg/L) for antimony;

2.8.1.1.3 Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 10 AAC 83.310(c)-(g); or

2.8.1.1.4 The level established by the department in accordance with 18 AAC 83.445.

2.8.1.2 Any discharge, on a non-routine or infrequent basis, of a toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

2.8.1.2.1 Five hundred micrograms per liter (500 µg/L);

2.8.1.2.2 One milligram per liter (1 mg/L) for antimony;

2.8.1.2.3 Ten times the maximum concentration value reported for that pollutant in the permit application in accordance with 18 AAC 83.310(c)-(g); or

2.8.1.2.4 The level established by the department in accordance with 18 AAC 83.445.

3.0 Monitoring, Recording, and Reporting Requirements

3.1 Representative Sampling

A permittee must collect effluent samples from the effluent stream after the last treatment unit before discharge into the receiving waters, or as otherwise required in the permit. Samples and measurements must be representative of the volume and nature of the monitored activity or discharge.

3.2 Reporting of Monitoring Results

At intervals specified in the permit, monitoring results must be reported on the APDES discharge monitoring report (DMR) form, as revised as of March 1999, adopted by reference.

3.2.1 Monitoring results shall be summarized each month on the DMR or an approved equivalent report. The permittee must record the lab result on the DMR by the 15th day of the month following when the samples were taken.

3.2.2 The permittee shall provide copies of the DMR and summarize all other monitoring results on the annual report form or approved equivalent. The permittee shall submit its annual report at the interval specified in the permit. The permittee must sign and certify all DMRs and all other reports in accordance with the requirements of Appendix A, Part 1.12, Signatory Requirements and Penalties. All signed and certified, legible, original DMRs and all other documents and reports must be submitted to the Department at the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

3.2.3 If, during the period when this permit is effective, the Department makes available electronic reporting, the permittee may, as an alternative to the requirements of Appendix A, Part 3.2.2, submit monthly DMRs electronically by the 15th day of the following month in accordance with guidance provided by the Department. The permittee must certify all DMRs and other reports, in accordance with the requirements of Appendix A, Part 1.12, Signatory Requirements and Penalties. The permittee must retain the legible originals of these documents and make them available to the Department upon request.

3.3 Additional Monitoring by Permittee

If the permittee monitors any pollutant more frequently than the permit requires using test procedures approved in 40 CFR Part 136, adopted by reference in 18 AAC 83.010, or as specified in this permit, the results of that additional monitoring must be included in the calculation and reporting of the data submitted in the DMR. All limitations that require averaging of measurements must be calculated using an arithmetic means unless the Department specifies another method in the permit. Upon request by the Department, the permittee must submit the results of any other sampling and monitoring regardless of the test method used.

3.4 Twenty-four Hour Reporting

A permittee shall report any noncompliance event that may endanger health or the environment as follows:

3.4.1 A report must be made:

3.4.1.1 Orally within 24 hours after the permittee becomes aware of the circumstances, and

3.4.1.2 In writing within five days after the permittee becomes aware of the circumstances.

3.4.2 A report must include the following information:

3.4.2.1 A description of the noncompliance and its causes, including the estimated volume or weight and specific details of the noncompliance;

3.4.2.2 The period of noncompliance, including exact dates and times;

3.4.2.3 If the noncompliance has not been corrected, a statement regarding the anticipated time the noncompliance is expected to continue; and

3.4.2.4 Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

3.4.3 An event that must be reported within 24 hours includes:

3.4.3.1 An unanticipated bypass that exceeds any effluent limitation in the permit (see Appendix A, Part 2.6, Bypass of Treatment Facilities).

3.4.3.2 An upset that exceeds any effluent limitation in the permit (see Appendix A, Part 2.7, Upset Conditions).

3.4.3.3 A violation of a maximum daily discharge limitation for any of the pollutants listed in the permit as requiring 24-hour reporting.

3.4.4 The Department may waive the written report on a case-by-case basis for reports under Appendix A, Part 3.4 if the oral report has been received within 24 hours of the permittee becoming aware of the noncompliance event.

3.4.5 The permittee may satisfy the written reporting submission requirements of Appendix A, Part 3.4 by submitting the written report via e-mail, if the following conditions are met:

3.4.5.1 The Noncompliance Notification Form or equivalent form is used to report the noncompliance.

3.4.5.2 The written report includes all the information required under Appendix A, Part 3.4.2;

3.4.5.3 The written report is properly certified and signed in accordance with Appendix A, Parts 1.12.3 and 1.12.5.;

3.4.5.4 The written report is scanned as a PDF (portable document format) document and transmitted to the Department as an attachment to the e-mail; and

3.4.5.5 The permittee retains in the facility file the original signed and certified written report and a printed copy of the conveying email.

3.4.6 The e-mail and PDF written report will satisfy the written report submission requirements of this permit provided the e-mail is received by the Department within five days after the time the permittee becomes aware of the noncompliance event and the e-mail and written report satisfy the criteria of Part 3.4.5. The e-mail address to report noncompliance is: dec-wqreporting@alaska.gov

3.5 Other Noncompliance Reporting

A permittee shall report all instances of noncompliance not required to be reported under Appendix A, Parts 2.4 (Compliance Schedules), 3.3 (Additional Monitoring by Permittee), and 3.4 (Twenty-four Hour Reporting) at the time the permittee submits monitoring reports under Appendix A, Part 3.2 (Reporting of Monitoring Results). A report of noncompliance under this part must contain the information listed in Appendix A, Part 3.4.2 and be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

4.0 Penalties for Violations of Permit Conditions

Alaska laws allow the State to pursue both civil and criminal actions concurrently. The following is a summary of Alaska law. Permittees should read the applicable statutes for further substantive and procedural details.

4.1 Civil Action

Under AS 46.03.760(e), a person who violates or causes or permits to be violated a regulation, a lawful order of the Department, or a permit, approval, or acceptance, or term or condition of a permit, approval or acceptance issued under the program authorized by AS 46.03.020 (12) is liable, in a civil action, to the state for a sum to be assessed by the court of not less than $500 nor more than $100,000 for the initial violation, nor more than $10,000 for each day after that on which the violation continues, and that shall reflect, when applicable:

4.1.1 Reasonable compensation in the nature of liquated damages for any adverse environmental effects caused by the violation, that shall be determined by the court according to the toxicity, degradability, and dispersal characteristics of the substance discharged, the sensitivity of the receiving environment, and the degree to which the discharge degrades existing environmental quality;

4.1.2 Reasonable costs incurred by the state in detection, investigation, and attempted correction of the violation;

4.1.3 The economic savings realized by the person in not complying with the requirements for which a violation is charged; and

4.1.4 The need for an enhanced civil penalty to deter future noncompliance.

4.2 Injunctive Relief

4.2.1 Under AS 46.03.820, the Department can order an activity presenting an imminent or present danger to public health or that would be likely to result in irreversible damage to the environment be discontinued. Upon receipt of such an order, the activity must be immediately discontinued.

4.2.2 Under AS 46.03.765, the Department can bring an action in Alaska Superior Court seeking to enjoin ongoing or threatened violations for Department-issued permits and Department statutes and regulations.

4.3 Criminal Action

Under AS 46.03.790(h), a person is guilty of a Class A misdemeanor if the person negligently:

4.3.1 Violates a regulation adopted by the Department under AS 46.03.020(12);

4.3.2 Violates a permit issued under the program authorized by AS 46.03.020(12);

4.3.3 Fails to provide information or provides false information required by a regulation adopted under AS 46.03.020(12);

4.3.4 Makes a false statement, representation, or certification in an application, notice, record, report, permit, or other document filed, maintained, or used for purposes of compliance with a permit issued under or a regulation adopted under AS 46.03.020(12); or

4.3.5 Renders inaccurate a monitoring device or method required to be maintained by a permit issued or under a regulation adopted under AS 46.03.020(12).

4.4 Other Fines

Upon conviction of a violation of a regulation adopted under AS 46.03.020(12), a defendant who is not an organization may be sentenced to pay a fine of not more than $10,000 for each separate violation (AS 46.03.790(g)). A defendant that is an organization may be sentenced to pay a fine not exceeding the greater of: (1) $200,00; (2) three times the pecuniary gain realized by the defendant as a result of the offense; or (3) three times the pecuniary damage or loss caused by the defendant to another, or the property of another, as a result of the offense (AS 12.55.035(c)(B), (c)(2), and (c)(3).

APPENDIX B **- ACRONYMS**

Appendix B

Acronyms

The following acronyms are common terms that may be found in an Alaska Pollutant Discharge Elimination System (APDES) permit.

18 AAC 15	Alaska Administrative Code. Title 18 Environmental Conservation, Chapter 15: Administrative Procedures
18 AAC 60	Alaska Administrative Code. Title 18 Environmental Conservation, Chapter 60: Solid Waste Management
18 AAC 70	Alaska Administrative Code. Title 18 Environmental Conservation, Chapter 70: Water Quality Standards
18 AAC 72	Alaska Administrative Code. Title 18 Environmental Conservation, Chapter 72: Wastewater Disposal
18 AAC 83	Alaska Administrative Code. Title 18 Environmental Conservation, Chapter 83: Alaska Pollutant Discharge Elimination System

All chapters of Alaska Administrative Code, Title 18 are available at the Alaska Administrative Code database http://www.legis.state.ak.us/cgi-bin/folioisa.dll/aac

40 CFR	Code of Federal Regulations Title 40: Protection of Environment
AAC	Alaska Administrative Code
ADF&G	Alaska Department of Fish & Game
AML	Average Monthly Limit
APDES	Alaska Pollutant Discharge Elimination System
AR	Annual Report
AS	Alaska Statutes
AS 46.03	Alaska Statutes Title 46, Chapter 03: Environmental Conservation. Available at http://www.legis.state.ak.us/default.htm
BMP	Best Management Practice
BOD_5	Biochemical Oxygen Demand, 5-day
BPJ	Best Professional Judgment
BPT	Best Practicable Control Technology (currently available)

CFR	Code of Federal Regulations
CFU	Colony Forming Units
CSP	Contaminated Sites Program
CWA	Clean Water Act
DEC	Alaska Department of Environmental Conservation
DFP	Drilling Fluids Plan
DMR	Discharge Monitoring Report
DRT	Drift River Terminal
E. coli	Escherichia coli
EDMS	Environmental Data Management System
EFH	Essential Fish Habitat
ELG	Effluent Limit Guidelines
EPA	U.S. Environmental Protection Agency
ETC	Effluent Toxicity Characterization
EMP	Environmental Monitoring Program
ESA	Endangered Species Act
FC	Fecal Coliform Bacteria
GP	General Permit
GPD or gpd	Gallons per day
GPM or gpm	Gallons per minute
HDD	Horizontal Directional Drilling
hr	Hour
MAP	Mean Annual Precipitation
MDL	Maximum Daily Limit

mg/L	Milligrams per Liter
ML	Minimum Level
ml	Milliliter
NOD	Notice of Disposal
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometric Turbidity Unit
pH	Potential of Hydrogen
ppm	Parts Per Million
QAPP	Quality Assurance Project Plans
SCA	Secondary Containment Area
SPP	Suspended Particulate Phase
SU	Standard Units
SWPPP	Storm Water Pollution Prevention Plan
TAH	Total Aromatic Hydrocarbons
TAqH	Total Aqueous Hydrocarbons
TRC	Total Residual Chlorine
TSS	Total Suspended Solids
µg/L	Micrograms per Liter
U.S.	United States
U.S.C.	United States Code
WDAP	Wastewater Discharge Authorization Program
WOTUS	Waters of the United States

WQS	Water Quality Standards

APPENDIX C **- DEFINITIONS**

Appendix C

Definitions

The following are common definitions of terms associated with APDES permits. Not all the terms listed may appear in a permit. Consult the footnote references for a complete list of terms and definitions.

Alaska Pollutant Discharge Elimination System (APDES)[a]	Means the state's program, approved by EPA under 33 U.S.C. 1342(b), for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits and imposing and enforcing pretreatment requirements under 33 U.S.C. 1317, 1328, 1342, and 1345
Allowable Non-Stormwater Discharges	Fire fighting flows, fire water storage vessel and fire hydrant flushing discharges, including periodic fire suppression test discharges, and fire training discharges; Waters used to wash vehicles where detergents are not used; Water used for dust control; Potable water sources including uncontaminated waterline flushes and drinking fountain water; Landscape watering and irrigation drainage used on occasion for re-vegetation projects; Routine external building, pipeline, and power line wash down that does not use detergent or other compounds; Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; Uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids; Uncontaminated, non-turbid discharges springs or groundwater; Uncontaminated foundation or footing drains; and Electrical insulator steaming; Other uncontaminated discharges meeting water quality criteria that the Department approves on a case-by-case basis.
Annual	Means once per calendar year
Annual Report (AR)	For this Permit, AR is the Department approved equivalent of a compilation of monthly discharge monitoring reports where a discharge occurred submitted on an annual basis.
Average	Means an arithmetic mean obtained by adding quantities and dividing the sum by the number of quantities
Average Monthly Limit[a]	Means the highest allowable average of "daily discharges" over a calendar month calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured for that month
Ballast water	Means harbor or seawater added or removed to maintain the proper ballast floater level and ship draft and to conduct jack-up rig related sea bed support capability tests (e.g. jack-up rig preload water).
Best Management Practices (BMPs)[a]	Means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage areas.

Biochemical Oxygen Demand (BOD)[c]	Means the amount, in milligrams per liter, of oxygen used in the biochemical oxidation of organic matter in five days at 20º C
Biocide	Means any chemical agent used for controlling the growth of or destroying nuisance organisms (e.g., bacteria, algae, and fungi).
Bypass[a]	Means the intentional diversion of waste streams from any portion of a treatment facility
Categorical Sum	The term categorical sum refers to the summation of method detection limits that are unique within a suite of, analytes, i.e. no duplications of methodologies.
Clean Water Act (CWA)[a]	Means the federal law codified at 33 U.S.C. 1251-1387, also referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972
Color[b]	Means the condition that results in the visual sensations of hue and intensity as measured after turbidity is removed
Commissioner[a]	Means the commissioner of the Alaska Department of Environmental Conservation or the commissioner's designee
Composite Samples	Composite samples must consist of at least eight equal volume grab samples. 24 hour composite sample means a combination of at least eight discrete samples of equal volume collected at equal time intervals over a 24-hour period at the same location. A "flow proportional composite" sample means a combination of at least eight discrete samples collected at equal time intervals over a 24-hour period with each sample volume proportioned according to the flow volume. The sample aliquots must be collected and stored in accordance with procedures prescribed in the most recent edition of *Standard Methods for the Examination of Water and Wastewater*.
Contact Recreation[b]	Means activities in which there is direct and intimate contact with water. Contact recreation includes swimming, diving, and water skiing. Contact recreation does not include wading.
Contained Water	Stored water potentially contaminated with hydrocarbons and metals, including but not limited to vaults, utilidors, basements, water tanks, water lines, sedimentation basins, contaminated SCAs, and various discharges previously included under hydrostatic test water.
Contaminated Secondary Containment Areas (SCA)	Means a secondary containment area where a sheen, discoloration, or odor has been observed in or on the water, or a spill has occurred in the SCA..

Contaminated Stormwater	For this Permit, Contaminated Stormwater means precipitation or runoff that comes into contact with a potential pollutant source and DEC has determined that the discharge may contribute to a violation of a water quality standard or may be a significant contributor of pollutants to waters of the United States. Alternatively, DEC may determine that the precipitation or runoff despite being in contact with a potential pollutant source consistently meets water quality standards and can be discharged as uncontaminated stormwater.
Criterion[b]	Means a set concentration or limit of a water quality parameter that, when not exceeded, will protect an organism, a population of organisms, a community of organisms, or a prescribed water use with a reasonable degree of safety. A criterion might be a narrative statement instead of a numerical concentration or limit.
Daily Discharge[a]	Means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants measured in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with a limitation expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.
Department[a]	Means the Alaska Department of Environmental Conservation
Design Flow[a]	Means the wastewater flow rate that the plant was designed to handle. Typically the maximum monthly flow rate for the treatment system.
Director[a]	Means the commissioner or the commissioner's designee assigned to administer the APDES program or a portion of it, unless the context identifies an EPA director
Discharge[a]	When used without qualification, discharge means the discharge of a pollutant
Discharge of a Pollutant[a]	Means any addition of any pollutant or combination of pollutants to waters of the United States from any point source or to waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft that is being used as a means of transportation. Discharge includes any addition of pollutants into waters of the United States from surface runoff that is collected or channeled by humans; discharges through pipes, sewers, or other conveyances owned by a state, municipality, or other person that do not lead to a treatment works; discharges through pipes, sewers, or other conveyances leading into privately owned treatment works; and does not include an addition of pollutants by any indirect discharger.
Disposal	Means the deposit, injection, dumping, spilling, leaking, or placing of waste into or on any land so that such waste, or any constituent thereof, may enter the land or ground waters.

Domestic Wastewater[c] Means waterborne human wastes or graywater derived from dwellings, commercial buildings, institutions, or similar structures. "Domestic wastewater" includes the contents of individual removable containers used to collect and temporarily store human wastes.

Drilling Fluids Means circulating fluid (mud) used in the rotary drilling of boreholes to clean and condition the hole and to counterbalance formation pressure.

Drilling Fluids, Category A Type A drilling fluids are fluid systems that are used for drilling applications that are similar to drilling fluids used in oil and gas exploration and development drilling (Category B)but have limitations on chemical additives and Sediment Particulate Phase (SPP) toxicity. The following table describes the classification system used for permitting Category A drilling fluids:

	Category Name 96hr LC50 SPP Value (ppm)	A1 >750,000	A2 >500,000	A3 >500,000
Characteristics	Number of Ingredients[1]	≤2	>2	>2
	Barite Allowed	○	○	●
	Base Fluid (Fresh Water (FW) / Sea Water (SW)/ Synthetic (S)	FW	FW	FW
Application Requirements	Estimate (E) / Analyze (A) SPP 96hr LC50	E[2]	E[2]	A
	Drilling Fluid Plan (DFP)	○	●	●
	Total Recoverable Metals Analysis [3]	○	○	●
	Chemical Inventory Report	○	●	●

NOTES:

1. Base Fluids listed above are not included as an ingredient.
2. If estimate does not meet SPP requirement, a follow-up SPP Analysis may be used to verify actual SPP.
3. Applicants using Barite must batch test stock for total recoverable metals using cadmium and mercury as surrogate parameters. Analysis should be conducted using EPA Method 200.7 for cadmium and EPA Method 245.5 or 7471 for mercury. To be considered Type A3 Drilling Fluid, results must be included in DFP indicating concentrations for Cadmium (Cd) ≤ 3 mg/kg, and for Mercury (Hg) ≤ 1mg/kg.

Key

○ No

● Yes

Effluent[b] Means the segment of a wastewater stream that follows the final step in a treatment process and precedes discharge of the wastewater stream to the receiving environment

Effluent Toxicity Characterization	For the purposes of this permit means a test designed to identify effluent discharge samples with positive toxicity results from effluent discharge without positive toxicity results using various test ogranisms.
Estimated	Means a way to estimate the discharge volume. Approvable estimations include, but are not limited to, the number of persons per day at the facility, volume of potable water produced per day, lift station run time, etc.
Excavation Dewatering	The practice of dewatering excavation areas through the use of pumps placed within the excavation or well pumps in adjacent dewatering wells which lower the water table to provide a relatively dry working area.
Excluded area	Means an area not authorized as a receiving water under a permit
Fecal Coliform Bacteria (FC)[b]	Bacteria that can ferment lactose at 44.5° + 0.2°C to produce gas in a multiple tube procedure. Fecal coliform bacteria also means all bacteria that produce blue colonies in a membrane filtration procedure within 24 ± 2 hours of incubation at 44.5° + 0.2°C in an M-FC broth.
Fish[b]	Means any of the group of cold-blooded vertebrates that live in water and have permanent gills for breathing and fins for locomotion
Final Stabilization	For the purposes of this permit, Final Stabilization means that all soil disturbing activities at the site have been completed and either of the two following criteria shall be met: a) a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or b) equivalent non vegetative permanent stabilization measures have been employed including but not limited to riprap, gabions, porous backfill per ADOT&PF Specification 703-2.10, railroad ballast or subballast, ditch lining per ADOT&PF Specification 610-2.01, or geotextiles, or fill material with low erodibility as determined by an engineer familiar with the site and documented in the SWPPP).
Free Oil	Any oil contained in a waste stream that when discharged will cause a film or sheen upon or a discoloration of the surface of the receiving water.
Geometric Mean	The geometric mean is the N^{th} root of the product of N. All sample results of zero will use a value of 1 for calculation of the geometric mean. Example geometric mean calculation: $\sqrt[4]{12x23x34x990} = 55$.

Grab Sample	Means a single instantaneous sample collected at a particular place and time that represents the composition of wastewater only at that time and place
Graywater[b]	Means wastewater from a laundry, kitchen, sink, shower, bath, or other domestic source that does not contain excrement, urine, or combined stormwater
Horizontal Direction Drilling	Drilling for the purpose of installing an underground pipeline or conduit using a rotary drill bit that can affect the direction of the drilling path near horizontal. Horizontal Directional Drilling (HDD) is predominantly referred to in the Permit based on being the most common drilling to be covered but is intended to capture other drilling activities. For the purpose of this Permit, HDD coverage is also available for vertical drilling using drilling fluids, except brines, for conducting geotechnical investigations and installing pipeline infrastructure including, but not limited to, vertical support members and cathodic protection anodes.
Hydrostatic Test Water	Means water used for pressure testing to verifies leaks are not present in pipelines and tanks..
Influent	Means untreated wastewater before it enters the first treatment process of a wastewater treatment works
Maximum Daily Limit[a]	Means the highest allowable “daily discharge”
Mean[b]	Means the average of values obtained over a specified period and, for fecal coliform analysis, is computed as a geometric mean
Measured	Means the actual volume of wastewater discharged using appropriate mechanical or electronic equipment to provide a totalized reading. Measure does not provide a recorded measurement of instantaneous rates.
Method Detection Limit	Means the minimum concentration of a substance (analyte) that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.
Milligrams per Liter (mg/L)[b]	Means the concentration at which one thousandth of a gram (10^{-3} g) is found in a volume of one liter. It is approximately equal to the unit “parts per million (ppm),” formerly of common use.
Mixing Zone[b]	Means a volume of water adjacent to a discharge in which wastes discharged mix with the receiving water

Mobile Spill Response Discharge	Means discharges associated with treated snowmelt, rain, or other water that has come into contact with hydrocarbons such as motor oil, diesel, gasoline, transmission, hydraulic oil from small leaks that are collected from motorized vehicles and equipment. Other sources include, but may not be limited to, drip pan water and shop melt water. Only water impacted by petroleum hydrocarbons is considered under mobile spill response discharge and a treatment system must be used that is capable of removing free-phase and dissolved-phase hydrocarbons from the wastewater.
Month	Means the time period from the 1st of a calendar month to the last day in the month
Monthly Average	Means the average of daily discharges over a monitoring month calculated as the sum of all daily discharges measured during a monitoring month divided by the number of daily discharges measured during that month
North Slope Borough	Means the NSB encompasses the entire northern coast and most of the northeastern coast of Alaska along the Arctic Ocean and contains approximately 89,000 sq. miles of land and 5,900 sq. miles of water. The southern boundary runs in an east - west direction at 68° North latitude, about 105 miles north of the Arctic Circle, which is at latitude 66° 30' North. The NSB extends east to the border with Canada, west to the Chukchi Sea, and north to the Beaufort Sea.
New Facility	Means a facility that has not operated in the area specified in the Notice of intent (NOI) prior to the submission of the NOI.
Offshore	Means offshore of the inner boundary of the territorial seas.
Open waters	Means ponds, lakes, streams, rivers, and marine waters not covered by ice.
Permittee	Means a company, organization, association, entity, or person who is issued a wastewater permit and is responsible for ensuring compliance, monitoring, and reporting as required by the permit
pH[g]	Means a measure of the hydrogen ion concentration of water or wastewater; expressed as the negative log of the hydrogen ion concentration in mg/L. A pH of 7 is neutral. A pH less than 7 is acidic, and a pH greater than 7 is basic.
Primary Treatment [c]	Means wastewater treatment that: (a) will subsequently discharge wastewater to land or waters that are not waters of the United States and substantially removes all floating and settleable solids; or uses fine screens with 0.04-inch or smaller openings; or (b) will subsequently discharge wastewater to waters of the United States and uses screening, sedimentation, and skimming adequate to remove at least 30 percent of the biochemical oxygen demanding material and of the suspended solids in the treatment works influent; and disinfection, where appropriate.

Principal Executive Officer[a]	Means the chief executive officer of the agency or a senior executive officer having responsibility for the overall operations of a principal geographic unit of division of the agency
Pollutant[a]	Means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under 42 U.S.C. 2011), heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, or agricultural waste discharged into water
Qualified Person	Qualified personnel are those who possess the knowledge and skills to assess conditions and activities that could impact storm water quality at a facility or BMPs necessary to achieve permit compliance and who can also evaluate the effectiveness of control measures.
Receiving Waterbody	Means lakes, bays, sounds, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, straits, passages, canals, the Pacific Ocean, Gulf of Alaska, Bering Sea, and Arctic Ocean, in the territorial limits of the state, and all other bodies of surface water, natural or artificial, public or private, inland or coastal, fresh or salt, which are wholly or partially in or bordering the state or under the jurisdiction of the state. (See "Waters of the U.S." at 18 AAC 83.990(77))
Recommencing Facilities	Those facilities that may have let permit coverage lapse but still meet the coverage requirements of the GP.
Report	Report results of analysis.
Residual Chlorine	Means chlorine remaining in water or wastewater at the end of a specified contact period as combined or free chlorine.
Responsible Corporate Officer[a]	Means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function or any other person who performs similar policy or DECision making functions for the corporation The Responsible Corporate Officer can also be the manager of one or more manufacturing, production, or operating facilities if the requirements of 18 AAC 83.385(a)(1)(B)(i)-(iii) are met.
Secondary Containment Area	Diked or bermed areas around oil storage tanks, tank farms, fuel transfer stations, and tanker truck loading racks which provide an emergency storage area and help to prevent accidental spills from reaching the environment, state waters, or Waters of the U.S. These areas are typically constructed of steel, synthetic liners with or without gravel on top to protect the synthetic liner and fall under authority of 40 CFR - 112 Oil Pollution Prevention or 18 AAC 75 – Oil and Other Hazardous Substances Pollution Control, Article 1.

Secondary Recreation[b]	Means activities in which incidental water use can occur. Secondary recreation includes boating, camping, hunting, hiking, wading, and recreational fishing. Secondary contact recreation does not include fish consumption.
Semiannual	Occurring twice a year
Sensitive Vegetation	For the purpose of this Permit, sensitive vegetation means low lying plants, such as tundra, that if covered with accumulated sediment may be adversely impacted.
Settleable Solids	means solid material of organic or mineral origin that is transported by and deposited from water, as measured by the volumetric Imhoff cone method and at the method detection limits specified in method 2540(F), in any edition of Standard Methods for the Examination of Water and Wastewater, adopted by reference in 18 AAC 70.020(c)(1).
Severe Property Damage[a]	Means 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.
Sheen[b]	Means an iridescent appearance on the water surface
Shellfish[b]	Means a species of crustacean, mollusk, or other aquatic invertebrate with a shell or shell-like exoskeleton in any stage of its life cycle
Significant Pipelines	A significant pipeline means a main pipeline or a pipeline that has considerably long segments between branches or serves to deliver oil or gas to a community or service. Any pipeline that is being constructed using horizontal directional drilling beneath a waterbody would also be considered significant. In contrast, an insignificant pipeline would be associated with short segments or downstream distribution networks.
Static Sheen Test	A test intended to indicate the presence of free oil when drilling fluid and drilled cuttings, are discharged to surface waters where surface water observations along may be insufficient to determine the presence of free oil.
Stormwater Discharge	Stormwater discharges consist of runoff water resulting from precipitation, snow, and snowmelt events that has not come into contact with contaminates and certain allowable non-stormwater sources that are discharged with stormwater from oil and gas related industrial areas or activities.
Sufficiently Sensitive Method	Per 40 CFR 122.21(a)(3), a method approved under 40 CFR 136 is sufficiently sensitive when: (A) The method minimum level (ML) is at or below the level of the applicable water quality criterion for the measured parameter, or

	(B) The method ML is above the applicable water quality criterion, but the amount of the pollutant or pollutant parameter in the discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge, or (C) The method has the lowest ML of the analytical methods approved under 40 CFR 136 for the measured pollutant or pollutant parameter.
Temporary Stabilization	For the purposes of this permit, Temporary Stabilization means protecting soils from erosion and sediment loss by rainfall, snow melt, runoff, or wind, with a temporary vegetative and/or non-vegetative protection cover. Temporary stabilization may include a combination of surface roughening (track walking), temporary seeding, geotextiles, mulches, surface tackifers, rolled erosion control products, gravel or paving, and other techniques to reduce or eliminate erosion until either final stabilization can be achieved or until further construction activities take place to re-disturb this area.
Thermokarst	Thermokarsting is the creation of uneven surfaces containing mounds, sinkholes, tunnels, caverns, steep-walled ravines caused by the melting of ground ice in permafrost soils.
Total Suspended Solids (TSS)[g]	Means a measure of the filterable solids present in a sample, as determined by the method specified in 40 CFR § 136
Twice per year	Means two time periods during the calendar year: October through April and May through September
Uncontaminated Secondary Containment Areas	Means a secondary containment area (SCA) where a spill has not occurred in the SCA and a sheen, odor, or discoloration has not been observed in or on the water. After a source of hydrocarbon contamination has been removed/mitigated, a contaminated SCA may be deemed uncontaminated after four consecutive months of monitoring to demonstrate no exceedance of TAH and TAqH criteria.
Upset[a]	Means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based 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.
Wastewater Treatment	Means any process to which wastewater is subjected in order to remove or alter its objectionable constituents and make it suitable for subsequent use or acceptable for discharge to the environment

Waters of the United States or Waters of the U.S.	Has the meaning given in 18 AAC 83.990(77)
Water Recreation[b]	See contact recreation or secondary recreation
Water Supply[b]	Means any of the waters of the United States that are designated in 18 AAC 70 to be protected for fresh water or marine water uses. Water supply includes waters used for drinking, culinary, food processing, agricultural, aquacultural, seafood processing, and industrial purposes. Water supply does not necessarily mean that water in a waterbody that is protected as a supply for the uses listed in this paragraph is safe to drink in its natural state.
Week	Means the time period of Sunday through Saturday

TABLE NOTES:

a) See 18 AAC 83

b) See 18 AAC 70.990

c) See 18 AAC 72.990

d) See 40 CFR § 136

e) See EPA Technical Support Document

f) See Standard Methods for the Examination of Water and Wastewater 18th Edition

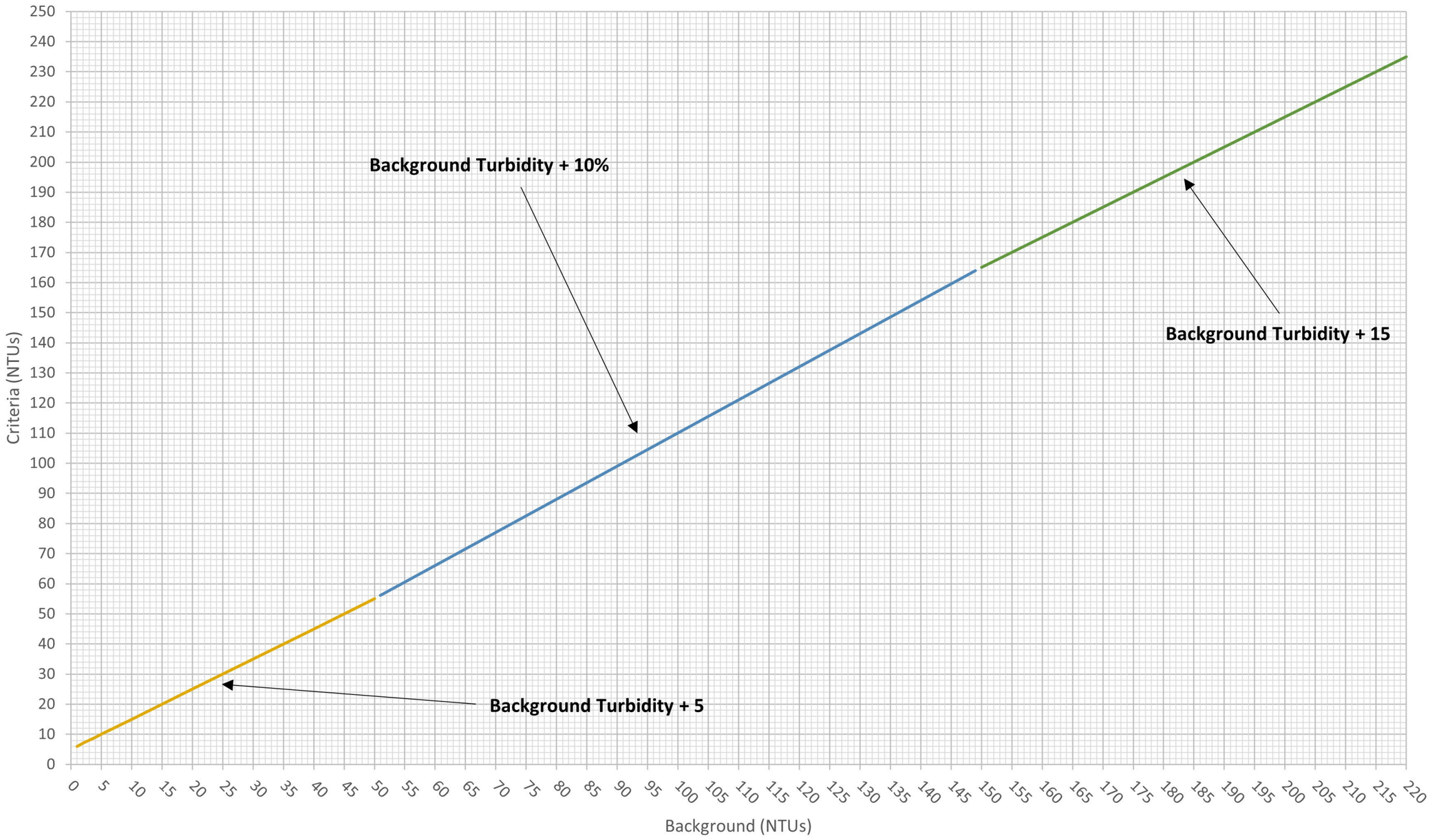
g) See EPA Permit Writers Manual

ATTACHMENT 1 - **TURBIDITY CRITERIA FIGURE**

Attachment 1

Turbidity Criteria Figure

Turbidity Criteria



ATTACHMENT 2 **- TAH/TAqH CATEGORICAL SUMMATION PROCEDURE**

Attachment 2

TAH/TAqH CATEGORICAL SUMMATION PROCEDURE

2/28/24 Version

Standard DMR Reporting Procedures for Total Aromatic Hydrocarbons and Total Aqueous Hydrocarbons

Purpose:

There is presently a lack of clear and implementable procedures on how to report analytical results for Total Aromatic Hydrocarbons (TAH) and Total Aqueous Hydrocarbons (TAqH) on Discharge Monitoring Reports (DMRs) required to be submitted for permits issued by the Alaska Pollutant Discharge Elimination System (APDES). Without a procedure specific to the APDES DMRs, permittees may misapply procedures from other Programs (i.e., Contaminated Sites Program) that are not aligned with APDES requirements. The Environmental Protection Agency (EPA) Region 10 (R10) issued a memo dated April 25, 2005 (2005 EPA R10 Policy) which provided guidance on how to report analytical results that are less than the minimum level (ML) to provide guidance for reporting a single parameter. While the 2005 EPA R10 Policy addressed reporting parameters analyzed using a single test method (e.g., copper, ammonia etc.), it does not address reporting analytical data pertaining to a parameter comprised of a composition of multiple analytes that are analyzed using different methods or the same method but with different sensitivities among the analytes. For example, TAH and TAqH are the summation of several analytes with up to two different methodologies to generate a single value for that parameter. The proposed procedure will provide a simple, repeatable procedure for reporting Maximum Daily Limit (MDL) and Average Monthly Limit (AML) values on DMRs for TAH and TAqH that include results that are below the ML. The procedure must also support enforcement of limit violations, data evaluation during permit development including effluent characterization and reasonable potential analyses (RPA), Water Quality Based Effluent Limit (WQBEL) derivations, and whether sufficiently sensitive methods were used.

Objectives: For the procedure to be the most effective, it will:

a. Be consistent with the 2005 EPA R10 Policy;
b. Be simple to understand and implementable across a wide variety of permits, permittees, and stakeholders;
c. Be enforceable and definitively identify when a violation of an MDL or AML has occurred;
d. Be accepted as a Department policy among analytical chemists, permittees, and other stakeholders;
e. Support permit development by ensuring effluent characterization, RPA, and WQBEL derivation and other interrelated procedures are streamlined and not compromised; and
f. Translate to standardized language for use in permits covering multiple industrial sectors.

List of TAH and TAqH Analytes:

The following provides a listing of the analytes included in TAH and TAqH, respectively:

TAH	TAqH
Benzene	TAH Plus
Toulene	Acenaphthene
Ethylbenzene	Acenaphthylene
Total Xylenes	Anthracene
	Benzo(a)Anthracene
	Benzo[a]pyrene
	Benzo[b]Fluoranthene
	Benzo[g,h,i]perylene
	Benzo[k]fluoranthene
	Chrysene
	Dibenzo[a,h]anthracene
	Fluoranthene
	Fluorene
	Indeno[1,2,3-c,d]pyrene
	Naphthene
	Phenanathrene
	Pyrene

Background:

The method detection limit (DL) is defined as the minimum concentration of an analyte that can be measured with 99 percent (%) confidence that the analyte concentration is distinguishable from the method blank results as determined by the procedure. However, the DL does not establish a level of confidence for how much of a substance is present in a sample. The minimum level (ML) is the concentration at which the entire analytical system must give a recognizable signal and an acceptable calibration point. For TAH and TAqH, laboratories have discretion on setting MLs but it is typically established as approximately 3.2 times the DL based upon the limited data reviewed. Hence, the ML, the minimum amount of an analyte that can be reliably quantified, is established by the laboratory using a multiplier applied to the DL. When the amount of the analyte is somewhere between the DL and the ML, analytical laboratories may report an estimate, typically referred to as a "j-flagged" estimate. Because these values are considered estimates, the Wastewater Discharge Authorization Program (WDAP), like many state permitting programs, consider these estimates to be indeterminate and could be disputed if used for developing limits or assessing violation of a limit. Therefore, WDAP treats "j-flagged" estimates the same as undetected results. WDAP believes this is prudent to ensure reported values are enforceable and defensible.

Another use of data reported below the ML is to assess whether sufficiently sensitive methods have been used to derive results. The definition of sufficiently sensitive varies depending on what the analytical results are being compared to, permit limits or water quality criteria, and the concentration in the effluent.

Per 40 CFR 122.21(e)(3), a method approved under 40 CFR 136 is sufficiently sensitive when:

(A) The ML is at or below the level of the applicable water quality criterion for the measured parameter, or

(B) The ML is above the applicable water quality criterion, but the amount of the pollutant or pollutant parameter in the discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge (e.g., not applicable to effluent or receiving water monitored for characterization), or

(C) The method has the lowest ML of the analytical methods approved under 40 CFR 136 for the measured pollutant or pollutant parameter (e.g., the receiving water concentration or the criteria for a given pollutant or pollutant parameter is at or near the method with the lowest ML).

The determination of sufficiently sensitive becomes complicated with TAH and TAqH due to the summation of multiple analytes and how to determine an appropriate ML to compare to the criterion. Because the TAH and TAqH criteria are based on a summation of multiple analytes, it stands to reason that the applicable ML should also reflect a similar principle. WDAP conducted an alternative analysis to evaluate various methods for reporting TAH or TAqH for single data results, averaging with several results, and how to make a reasonable assessment of whether sufficiently sensitive methods were used.

Alternative Analyses:

While more defensible methods such as fitting a distribution to the data or other statistically robust methods exist, WDAP did not consider these to be appropriate in this case based on the rigor of mathematics required. WDAP's objective for this alternative analysis is to be simple to use; the additional level of defensibility that would be gained from a more robust statistical approach did not justify imposition of mathematics that would be inconsistent with the level of training of the stakeholders. Instead, WDAP concluded that the best method would be one based on some form of substitution that meets the objectives for the procedure.

WDAP eliminated "j-flagged" values based on the objective of defensibility and enforcement of limit violations or developing effluent characterizations and RPA results that are not biased high. Because of this decision, the TAH/TAqH procedure utilized by WDAP differs slightly from the 2005 EPA R10 Memo by not using "j-flagged" values when reporting. Eliminating "j-flagged" data in reporting results in only two possible reporting scenarios: an outcome where there is at least one detected analyte above the ML or one where there is nothing detected above the ML and the reported less than value is related to some form of a composite of the individual DLs. To evaluate what form of compositing DLs should be used, WDAP considered three alternatives: straight summation of each individual DL, averaging the DLs, or summing representative DLs so repetitive DLs are included only once (termed "Categorical Summation"). To evaluate these alternatives, WDAP applied each composite method to a set of analytical data to compare their outcomes. The analytical data set is presented below in **Table 1**.

Table 1. Analytical Data Set Used to Evaluate Alternative Methods for Compositing DLs

Parameter (µg/L)	Qualified Results	ML	DL
Benzene	0.200 U*	0.400	**0.120**
Ethylbenzene	0.350 J**	1.00	**0.310**
o-Xylene	0.400 J	1.00	0.310
P & M -Xylene	1.00 U	2.00	**0.620**
Toluene	0.430 J	1.00	0.310
acenaphthene	0.0250 U	0.0500	**0.0150**
acenapthylene	0.0250 U	0.0500	0.0150
anthracene	0.0250 U	0.0500	0.0150
benzo(a)anthracene	0.0250 U	0.0500	0.0150
benzo(a)pyrene	0.0250 U	0.0500	0.0150
benzo(b)fluoranthene	0.0250 U	0.0500	0.0150
benzo(g,h,i)perylene	0.0250 U	0.0500	0.0150
benzo(k)fluoranthene	0.0250 U	0.0500	0.0150
chrysene	0.0250 U	0.0500	0.0150
dibenzo(a,h)anthracene	0.0250 U	0.0500	0.0150
fluoranthene	0.0250 U	0.0500	0.0150
fluorene	0.0250 U	0.0500	0.0150
indeno(1,2,3-c,d)pyrene	0.0250 U	0.0500	0.0150
naphthalene	0.0500 U	0.100	**0.0310**
phenanthrene	0.0250 U	0.0500	0.0150
pyrene	0.0212 J	0.0500	0.0150

* - U = neither identified or quantified (Nondetectable).

** -J = estimated. For this procedure, J-estimates are considered nondetectable.

Comparing the total sum of the DLs and the average of the total sum of the DLs with the "Categorical Sum" of the DLs shows the following:

Table 2. Alternative Methods for Compositing DLs

Straight Sum	Categorical Sum	Average
Sum of all individual DLs	Sum of unique DLs = (0.120+0.310+ 0.620+0.0150+0.0310)	The average of the individual DLs
< 1.926	< 1.096	< 0.092

As seen in the comparisons above, the straight summation of all individual DLs is higher than the Categorical Sum while the average is lower. In a comparison using several data sets, the Categorical Sum consistently generates values that are between the straight summation and the average of the DLs. WDAP believes the Categorical Summation values address the individual sensitivities of the analytes and will result in fewer false positive limit violations while not under estimating effluent characteristics. While the procedure appears reasonable, WDAP acknowledges that using Categorical Summation for reporting nondetectable values of TAH and TAqH is a method of substitution that appears to provide the most reasonable outcome when compared to the objectives established for the procedure. Hence, the procedure is based more on WDAP policy than on mathematical or chemical principles.

Procedure:

The following procedures are presented based on the Categorical Sum comparative alternative analysis:

Single Value Reporting

- If values of individual analytes making up a parent compound (e.g., TAH or TAqH) are reported as "detected and quantified" by the testing laboratory the value, or sum of all detected values, is reported on the DMR as the concentration of the parent compound. If analytes within a suite of analytes making up a parent compound are all nondetectable or "j estimates", the "categorical sum" is recorded as the MDL on the DMR as a "less than" categorical sum [< "Categorical Sum"]. If there are multiple sample results that are below detection, report the highest [< "Categorical Sum"] as the MDL.

Average Value Reporting

- For the purpose of averaging multiple single sample results for TAH or TAqH that include results below detection, zero may be used instead of the [< "Categorical Sum"] in the average. If all single samples are below detection, an average cannot be calculated and the permittee reports on the DMR "No Data Indicator (NODI) Code B", which indicates the results are below detection. If one of the single sample results is detectable, report the average without a less than symbol ["Average of Categorical Sum and Detected Results"].

Sufficiently Sensitive Methods (Optional)

- For evaluating whether sufficiently sensitive methods were used for nondetectable results, the permit writer may apply the default multiplier of 3.2 to the categorical summation to estimate an ML for comparison to the water quality criteria for TAH and TAqH. If the estimated ML exceeds the criteria, the permit writer may request the analytical results to evaluate whether the results are valid prior to communicating concerns with the permittee.

Examples:

1. **Single Sample Detectable Concentration of TAH.**

Consider the following laboratory report for TAH and calculate the value to be reported as an MDL on the DMR. The MDL is equal to the water quality criteria of 10 µg/L.

Table 3. Example 1 TAH Results

Parameter (µg/L)	Qualified Results	ML	DL
Benzene	0.200 U	0.400	0.120
Ethylbenzene	1.94	1.00	0.310
o-Xylene	3.16	1.00	0.310
P & M -Xylene	8.23	2.00	0.620
Toluene	0.500 U	1.00	0.310

MDL_{TAH} = 1.94 + 3.16 + 8.23 = 13.33 µg/L. Therefore, the TAH MDL of 10 µg/L was exceeded.

2. **Single Sample Detectable Concentration of TAqH.**

For the same sample for TAH shown in Example 1, the following polycyclic aromatic hydrocarbon (PAH) results were obtained. Calculate the single sample value to be reported for the MDL for TAqH. The MDL is the water quality criterion for TAqH, 15 µ/L.

Table 4. Example 2 TAqH Results

Parameter (µg/L)	Qualified Results	ML	DL
acenaphthene	0.0250 U	0.0500	0.0150
acenapthylene	0.0250 U	0.0500	0.0150
anthracene	0.0250 U	0.0500	0.0150
benzo(a)anthracene	0.0250 U	0.0500	0.0150
benzo(a)pyrene	0.0250 U	0.0500	0.0150
benzo(b)fluoranthene	0.0250 U	0.0500	0.0150
benzo(g,h,i)perylene	0.0250 U	0.0500	0.0150
benzo(k)fluoranthene	0.0250 U	0.0500	0.0150
chrysene	0.0250 U	0.0500	0.0150
dibenzo(a,h)anthracene	0.0250 U	0.0500	0.0150
fluoranthene	0.0250 U	0.0500	0.0150
fluorene	**0.321**	0.0500	0.0150
indeno(1,2,3-c,d)pyrene	0.0250 U	0.0500	0.0150
naphthalene	**0.247**	0.100	0.0310
phenanthrene	**0.168**	0.0500	0.0150
pyrene	0.0250 U	0.0500	0.0150

The value for TAqH includes the concentration of TAH calculated in Example 1 plus any detected concentrations for the PAHs.

MDL_{TAqH} = 13.33 + 0.321 + 0.247 + 0.168 = 14.066 µg/L. Therefore, the results are compliant with the TAqH MDL.

3. Single Sample Nondetectable TAqH

For an example of a nondetectable result for TAH and TAqH, refer to the sample results shown below.

Table 5. Example 3 Nondetectable TAH and TAqH Results

Parameter (µg/L)	Qualified Results	ML	DL
Benzene	0.200 U	0.400	**0.120**
Ethylbenzene	0.500 U	1.00	**0.310**
O-Xylene	0.500 U	1.00	0.310
P & M -Xylene	1.00 U	2.00	**0.620**
Toluene	0.500 U	1.00	0.310
acenaphthene	0.0288 U	0.0575	**0.0172**
acenapthylene	0.0288 U	0.0575	0.0172
anthracene	0.0288 U	0.0575	0.0172
benzo(a)anthracene	0.0288 U	0.0575	0.0172
benzo(a)pyrene	0.0115 U	0.0230	0.0172
benzo(b)fluoranthene	0.0288 U	0.0575	0.0172

benzo(g,h,i)perylene	0.0288 U	0.0575	0.0172
benzo(k)fluoranthene	0.0288 U	0.0575	0.0172
chrysene	0.0288 U	0.0575	0.0172
dibenzo(a,h)anthracene	0.0115 U	0.0230	0.0172
fluoranthene	0.0288 U	0.0575	0.0172
fluorene	0.0288 U	0.0575	0.0172
indeno(1,2,3-c,d)pyrene	0.0288 U	0.0575	0.0172
naphthalene	0.0575 U	0.115	**0.0356**
phenanthrene	0.0288 U	0.0575	0.0172
pyrene	0.0288 U	0.0575	0.0172

All values are below detection so the Categorical Sum is applicable.

The value for TAH includes the summation of the unique BTEX DLs. TAH Categorical Sum = 0.120 + 0.310 + 0.620 = 1.05.

The value for TAqH includes the summation of all the unique DLs. TAqH Categorical Sum = 0.120 + 0.310 + 0.620 + 0.0172 + 0.0356 = 1.103.

Therefore, the reported MDL_{TAH} = < 1.05 µg/L and the MDL_{TAqH} = < 1.10 µg/L.

4. Average of Multiple Samples of TAqH with Only Nondetectable Results

For this example, assume the result from Example 3 TAqH (< 1.10 g/L) is being averaged with the result from the "Alternative Analysis" **Table 2** - Categorical Sum(< 1.096 µg/L). Because both results are nondetectable, each is assigned a value of zero resulting in zero for an average. In this situation, the appropriate value to report as the AML on the DMR is no value. The permittee must enter a NODI Code indicating the results were below the detection limit (NODI "B"). Note that the NODI B is not applicable for reporting the MDL as the MDL would be reported as "< 1.10 µg/L for Sample 3." Furthermore, the combination of the MDL being reported as < 1.10 µg/L with the NODI B for the AML indicates that all the samples collected were below detection.

5. Average of Multiple Samples of TAqH with Detectable and Nondetectable Results

Using the single sample results provided in Examples 2 and 3, calculate the value to be reported as an AML on the DMR. Assume the AML for TAqH is ½ the criterion, 7.5 µg/L.

Example 2 Reported MDL 14.066 µg/L

Example 3 Reported MDL < 1.10 µg/L.

Examples 2 and 3 AML_{TAqH} = (14.066 + 0)/2 = 7.03 µg/L. Therefore, the AML limit is not exceeded.

Discussion: Note that in this particular example, assigning zero to a sample that has only j-estimates and nondetectable analytes in calculating the average results in no violation. However, consider what would have happened if the value of 1.10 µg/L was used instead because the sample results include j-estimates; the average would be 7.58 µg/L and suggests a violation has occurred. However, because the categorical summation value was used in calculating the average and this value cannot be quantified based on principles of analytical, the violation could be contested. Hence, assigning a value of zero in the average helps ensure such a violation can be

defended by WDAP and demonstrates the rationale for not giving consideration to estimated values in the Procedure.

References:

- United States Environmental Protection Agency, Guidance on Water Quality Based Effluent Limits Set Below Analytical Detection/Quantitation Limits, R10 Memo, April 25, 2005.
- United States Geological Survey, Helsel, D.R., Hirsch, R.M., Statistical Methods in Water Resources, Chapter 13, September 2002.
- Office of Air Quality Planning and Standards, Stef Johnson, More Ado About Next to Nothing, June 12, 2016.
- 40 CFR 136 - Guidelines Establishing Test Procedures for the Analysis of Pollutants, August 28, 2017.

Definitions and Terminology Crosswalk:

The following provides definitions and what terms are considered equivalent for this procedure.

- Categorical Sum (CS) – refers to the summation of method DLs that are unique within a suite of analytes and represent similar sensitivities of the analytes with respect to the method, (i.e., no duplication of method DLs).
- Method Detection Limit (DL) –refers to the minimum concentration of a substance (analyte) that can be measured and reported with 99 percent confidence that the analyte concentration is distinguishable from the method blank results as determined by the procedure.
- Limit of Quantitation (LOQ) – refers to the smallest amount of an analyte that can be reliably quantitated.
- Practical Quantitation Limit (PQL) – refers to the minimum concentration of an analyte that can be measured with a high degree of confidence that the analyte is present at or above that concentration.
- Minimum Level (ML) – refers to the concentration at which the entire analytical system must give a recognizable signal and an acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes and processing steps have been followed. The ML is identified as the compliance level below which values are considered to be in compliance unless monitoring information indicates a violation. The ML is calculated by multiplying the laboratory generated DL by a factor of approximately three (usually 3.20 but may vary per laboratory).

Note – For all practical purposes, the LOQ is considered to be equivalent to the PQL. Recent reviews of literature cite that the PQL is being phased out of use. Consequently, the PQL is not discussed above.