

British Columbia Energy Regulator

6534 100<sup>th</sup> Ave, Fort St. John, B.C  
V1J 8C5

**APPROVAL**  
**AE-112141**

*Under the Provisions of the Environmental Management Act*

**LNG Canada Development Inc.**  
**Suite 4000 – 500 Centre Street SE**  
**Calgary, Alberta**  
**T2G 1A6**

is authorized to discharge effluent to the environment from the LNG facility commissioning activities from within the certified project area of a-5-B/103-I-02 near the town of Kitimat, B.C, subject to the conditions listed below. Contravention of any of these conditions is a violation of the *Environmental Management Act* and may result in prosecution.

**1. DEFINITIONS**

For the purpose of this Approval, the following definitions apply:

- 1.1. *Act* means the *Environmental Management Act*;
- 1.2. *Approval Holder* means LNG Canada Development Inc.;
- 1.3. *BCER* means the BC Energy Regulator;
- 1.4. *Discharge* means the total mass of a solid, liquid or gaseous material introduced into the environment;
- 1.5. *Manager* means a BCER employee authorized to exercise the powers of the BCER under Section 15 of the *Environmental Management Act*;

## 2. AUTHORIZED DISCHARGES

2.1. This subsection applies to the discharge of effluent from **COMMISSIONING DISCHARGE**. The site reference number for this discharge is E334251.

2.1.1. The maximum authorized discharge rate is 1200 m<sup>3</sup>/hr.

2.1.2. The authorized discharge period is intermittent, up to 12 hours per day, 7 days a week.

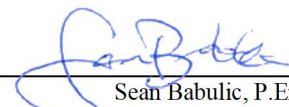
2.1.3. The effluent quality at the point of discharge shall meet the following discharge criteria:

Table 1. Commissioning Discharge Criteria

Contaminants of Concern	Minimum Concentration	Maximum Concentration
Total Suspended Solids	NA	75 mg/L
Extractable Petroleum Hydrocarbons	NA	15 mg/L
pH	6.0	8.7
Total Iron	NA	5 mg/L
Temperature	NA	23 °C
BOD <sub>5</sub>	NA	45 mg/L
Total Ammonia	NA	10 mg/L
Total Phosphorus	NA	2 mg/L
Total Coliform Bacteria	NA	40 MPN/100 mL
Total Residual Chlorine	NA	0.02 mg/L
Other Contaminants	None in concentrations that may have an adverse effect on the receiving environment	

2.1.4. The authorized works are those which are involved in the discharge of effluent from the commissioning activities including the flushing of carbon steel piping, degreasing of Acid Gas Units, commissioning, and start-up of the Effluent Treatment Plant. Components of these activities will include holding ponds, treatment equipment, and related appurtenances.

2.1.5. The location from which the discharge originates is within the immediate vicinity of the certified project boundary of a-5-B/103-I-02, as outlined within Figure 1\_Site Plan.



### 3. GENERAL REQUIREMENTS

#### 3.1 Maintenance of Works and Emergency Procedures

The Approval Holder shall inspect the authorized works regularly and maintain them in good working order. Records of inspection shall be maintained and made available to BCER upon request.

In the event of an emergency or condition beyond the control of the Approval Holder, which prevents continuing operation of the authorized works, the Approval Holder shall immediately notify the Manager and take appropriate remedial action.

Instances of approval noncompliance shall be self-disclosed upon discovery, as outlined within Chapter 3 of the BCER Compliance & Enforcement Manual; [Waste.Management@bc-er.ca](mailto:Waste.Management@bc-er.ca) shall also be informed of the self-disclosure.

#### 3.2 Bypasses

The discharge of contaminants, which have bypassed the authorized works, is prohibited unless the consent of the Manager is obtained and confirmed in writing.

#### 3.3 Process Modifications

The Approval Holder shall notify the Manager prior to implementing changes to any process that may affect the quality and/or quantity of the discharge.

#### 3.4 Post Disposal

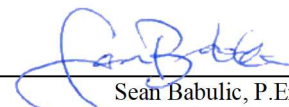
The Approval Holder shall ensure that all temporary equipment associated with the discharge is removed from the work area in a manner as to minimize environmental impact.

#### 3.5 Sampling Procedures

The Approval Holder must carry out sampling in accordance with the procedures described in the latest version of the "*B.C Field Sampling Manual*".

#### 3.6 Analytical Procedures

The Approval Holder must carry out analyses in accordance with the procedures described in the latest version of the "*British Columbia Environmental Laboratory Manual*".



#### 4. MONITORING AND REPORTING REQUIREMENTS

The Manager may alter the monitoring and reporting program as needed. The need for changes to the program will be based upon the results submitted as well as any other information obtained by the BCER and the Ministry of Environment in connection with the discharges.

##### 4.1 Discharge and Compliance Monitoring

- 4.1.1 The Approval Holder shall maintain information, analytical data and flow measurements as described in this approval for inspection by BCER.
- 4.1.2 The Approval Holder shall retain a qualified professional to implement the monitoring and sampling program as detailed in section 5.2 of the Technical Assessment Report document, L001-06400-HE-7180-2210\_RB as outlined below.

Table 2. Commissioning Discharge Quality Monitoring Parameters and Sampling Frequency at the Point of Discharge into the Effluent Pipelines/ Marine Outfall

Parameter	Frequency
In situ pH, temperature, turbidity, conductivity, dissolved oxygen, total chlorine.	Daily during discharge
Flow	Continuous during discharge
Grab samples for total residual chlorine, pH, TSS, EPH, iron.	Once per batch of commissioning effluent from flushing and/or degreasing, prior to starting discharge
BOD <sub>5</sub> , total ammonia, total phosphorus, TSS, EPH.	Weekly during start-up of effluent treatment plant
Total coliform bacteria, fecal coliform bacteria	Monthly during start-up of effluent treatment plant
Toxicity Testing 96-hr LC50 Rainbow trout	Twice during commissioning and concurrent with marine water quality sampling

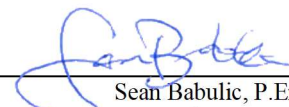
Table 3. Receiving Environment Water Quality Monitoring Parameters and Sampling Frequency

Parameter	Frequency
Grab samples for pH, TSS, Iron, BOD <sub>5</sub> , Total ammonia, total phosphorous, total and fecal coliform	5 times in 30 days (May and August) twice per year during commissioning activities

Table 4. Preliminary Marine Monitoring Program Sampling Sites During Commissioning Discharges as Outlined in Figure 5.1\_Marine Monitoring Program Sampling Sites.

Sampling Site	Location (UTM ZONE 9U)		Rational for Selection	Background Data & Reference
	Easting	Northing		
Effluent	521091.44	5982675.40	Terminus of marine outfall	N/A
IDZ-N	521091.44	5982750.40	Exposure site, at the north edge of the IDZ	N/A
IDZ-E	521166.44	5982675.40	Exposure site, at the east edge of the IDZ	N/A
IDZ-S	521091.44	5982600.40	Exposure site, at the south edge of the IDZ	N/A
IDZ-W	521016.44	5982675.40	Exposure site, at the west edge of the IDZ	N/A
WQ1	521975.92	5982365.37	Reference site, - southeast of the discharge point	Water quality at WQ1 in 2019 and 2020 (GEM 2019; GEM 2020; Triton 2021a; Triton 2021b; Triton 2022); at Ref 1 (the closest baseline sampling site) in 2018 (Triton 2018)
WQ2	520085.88	5981848.34	Reference site - southwest of discharge point	Water quality at WQ2 in 2019 and 2020 (GEM 2019; GEM 2020; Triton 2021a; Triton 2021b; Triton 2022)
Kitamaat Village	522428.27	5980863.29	Reference site, - one site to be selected from 2018-2019 dredge monitoring program, based on completion of the dataset and consultation with the Haisla Nation	N/A

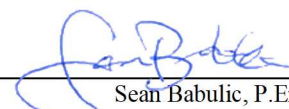
- 4.1.3 If, in the opinion of the qualified professional responsible for the monitoring program, the discharge is or is likely causing adverse effects to the environment, the discharge shall be halted immediately.



- 4.1.4 If, in the opinion of the qualified professional responsible for the monitoring program, the discharge is or is likely causing adverse effect to the environment, the Manager shall be notified immediately at (250) 419-6604.
- 4.1.5 Photographs of the authorized works and authorized discharge shall be taken prior to, during and after the discharge. These shall be submitted upon request from the BCER and included within the monthly reports.

## 4.2 Reporting

- 4.2.1 The collected data shall be recorded, analyzed, and interpreted as detailed in section 5.5 of the Technical Assessment Report document L001-06400-HE-7180-2210\_RB. Results of the monitoring and sampling program shall be summarized in a letter report and submitted to the BCER every month. Reports shall be submitted to [Waste.Management@bc-er.ca](mailto:Waste.Management@bc-er.ca).
- 4.2.2 The Approval Holder shall submit a final report summarizing all monitoring and sampling activities within 60 days of the termination of the discharge. The final report shall be submitted to the BCER at [Waste.Management@bc-er.ca](mailto:Waste.Management@bc-er.ca).

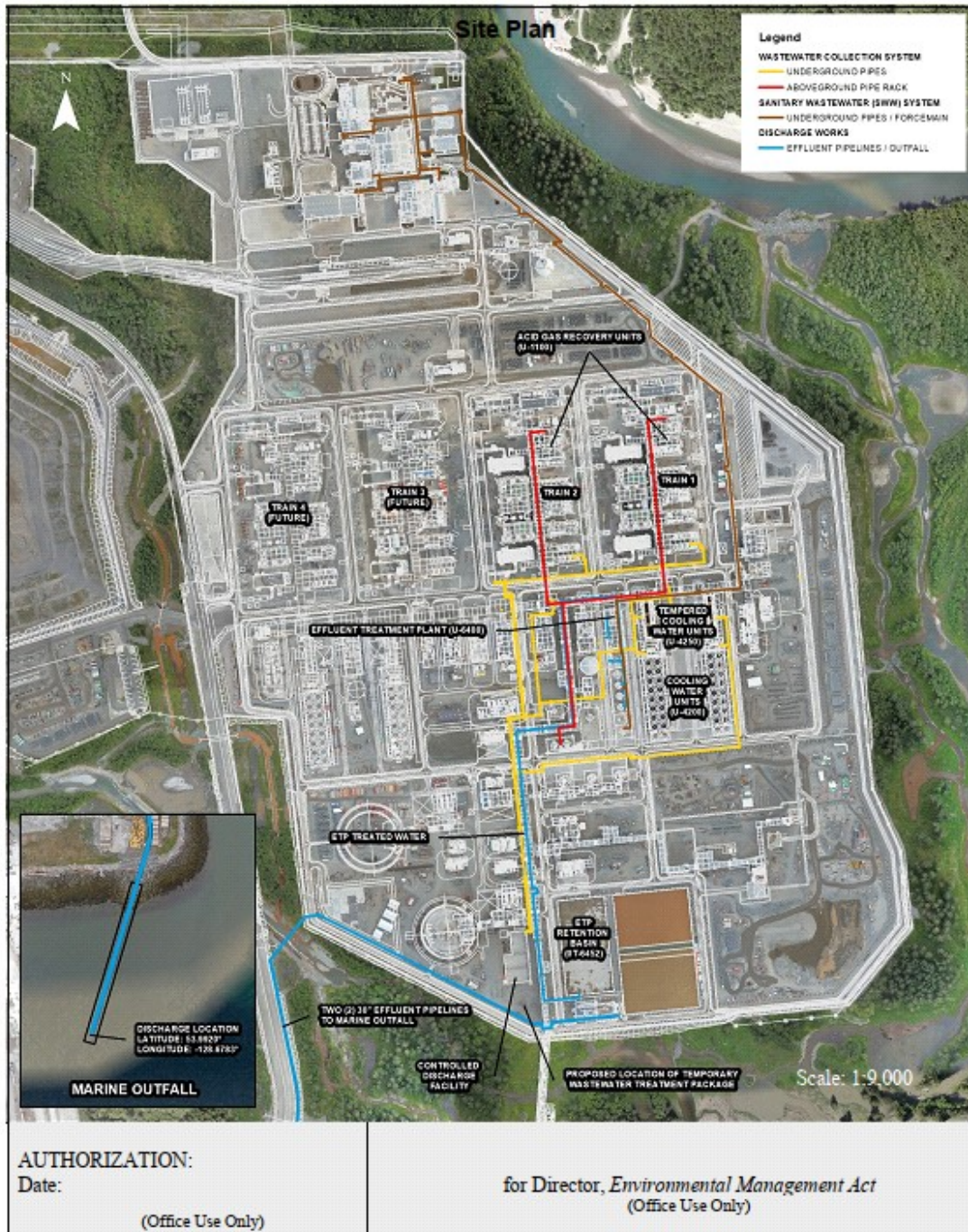


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Sean Babulic, P.Eng.  
Manager, Environmental Support



FIGURE 1 SITE PLAN

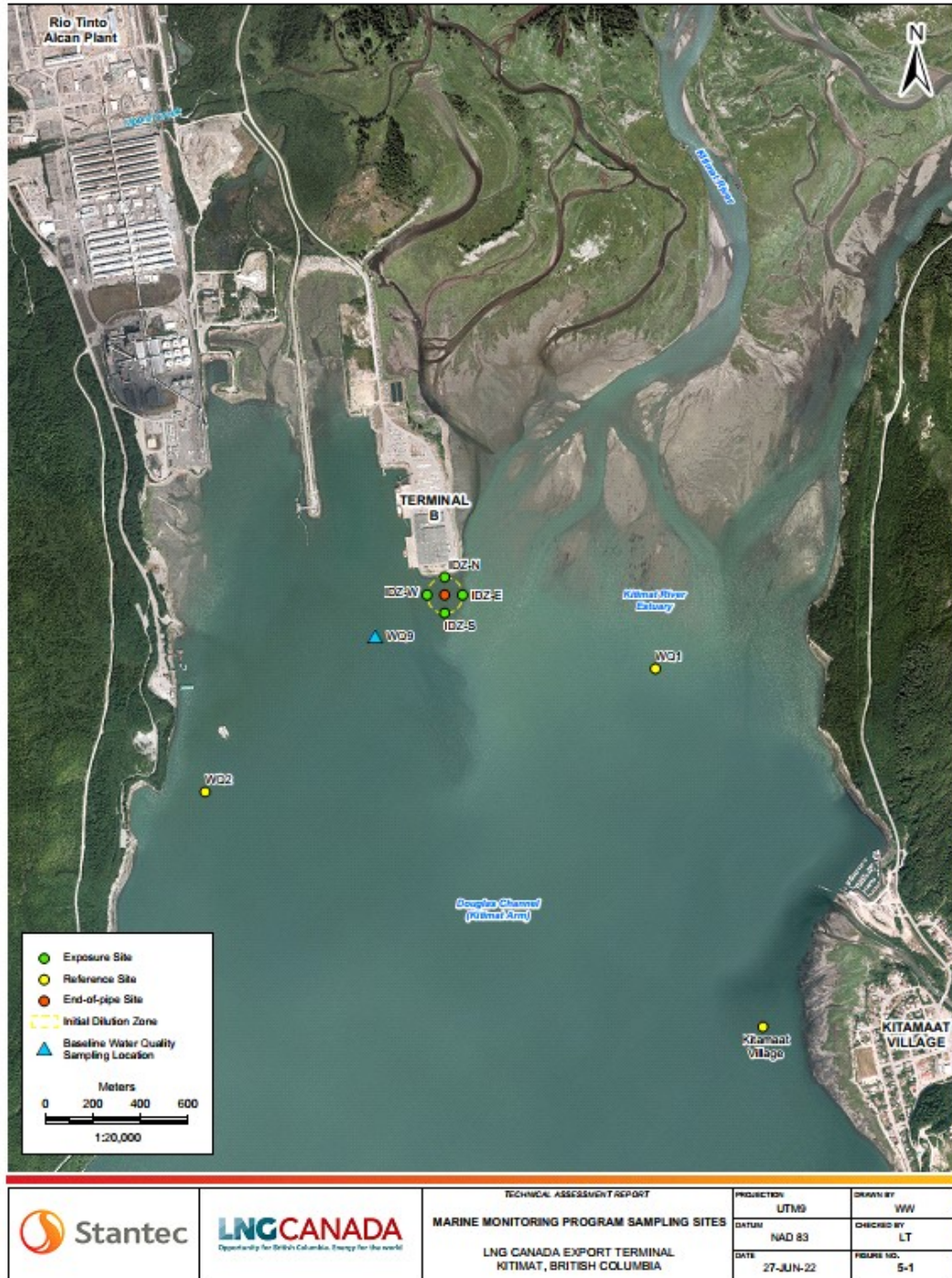


Date Issued: January 8<sup>th</sup>, 2025  
Date Authorization Expires: June 30<sup>th</sup>, 2025

*Sean Babulic*  
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FIGURE 2\_MARINE MONITORING PROGRAM SAMPLING SITES



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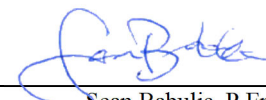
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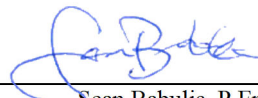
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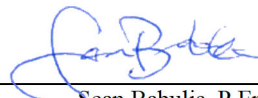
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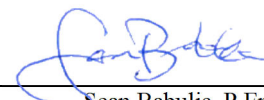


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Table 4. Preliminary Marine Monitoring Program Sampling Sites During Commissioning Discharges as Outlined in Figure 5.1\_Marine Monitoring Program Sampling Sites.

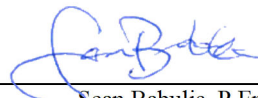
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- 4.1.3 If, in the opinion of the qualified professional responsible for the monitoring program, the discharge is or is likely causing adverse effects to the environment, the discharge shall be halted immediately.
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## 4.2 Reporting

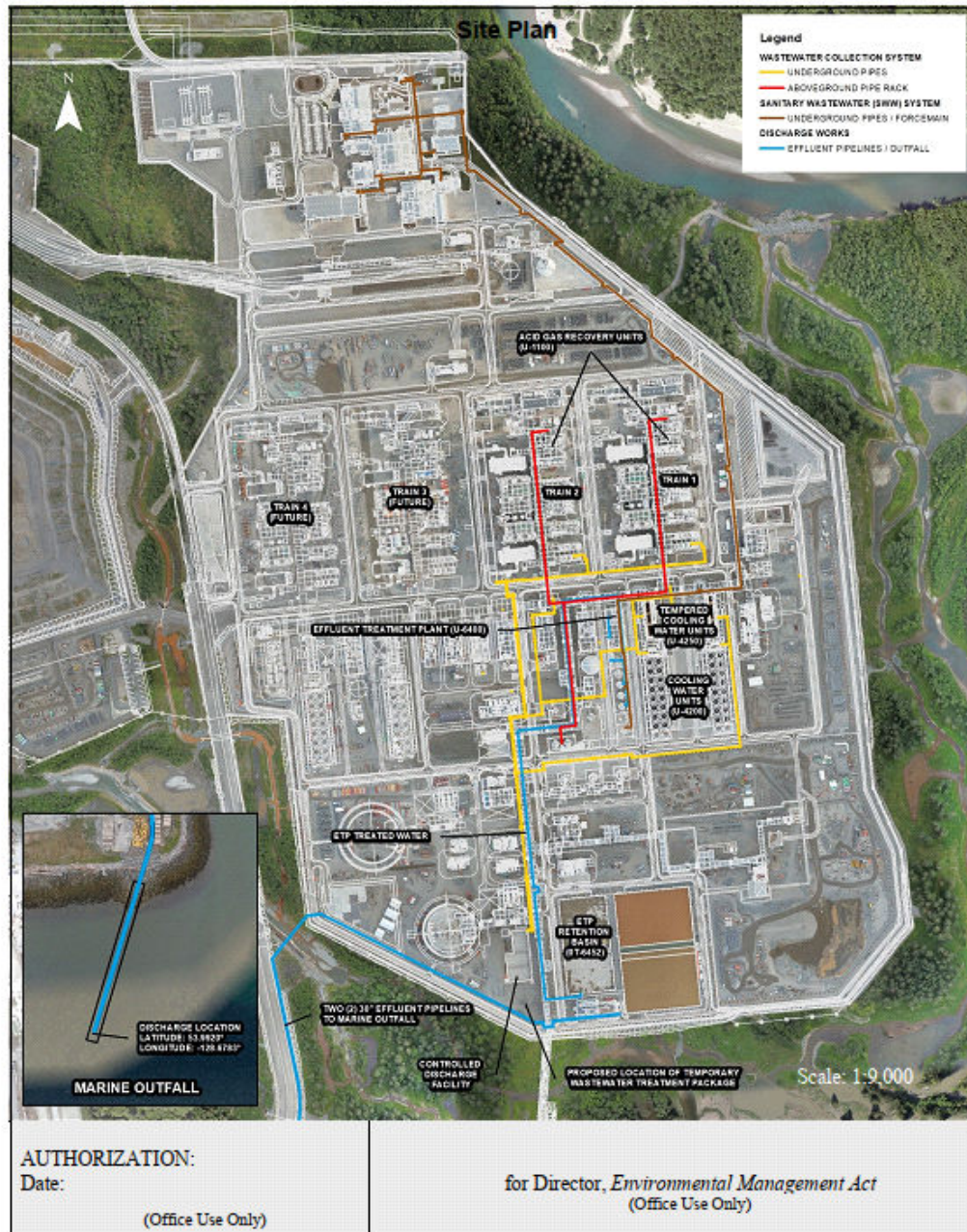
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Manager, Environmental Support

FIGURE 1\_SITE PLAN



Date Issued: May 14<sup>th</sup>, 2024  
 Date Authorization Expires: January 15<sup>th</sup>, 2025

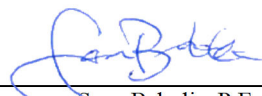
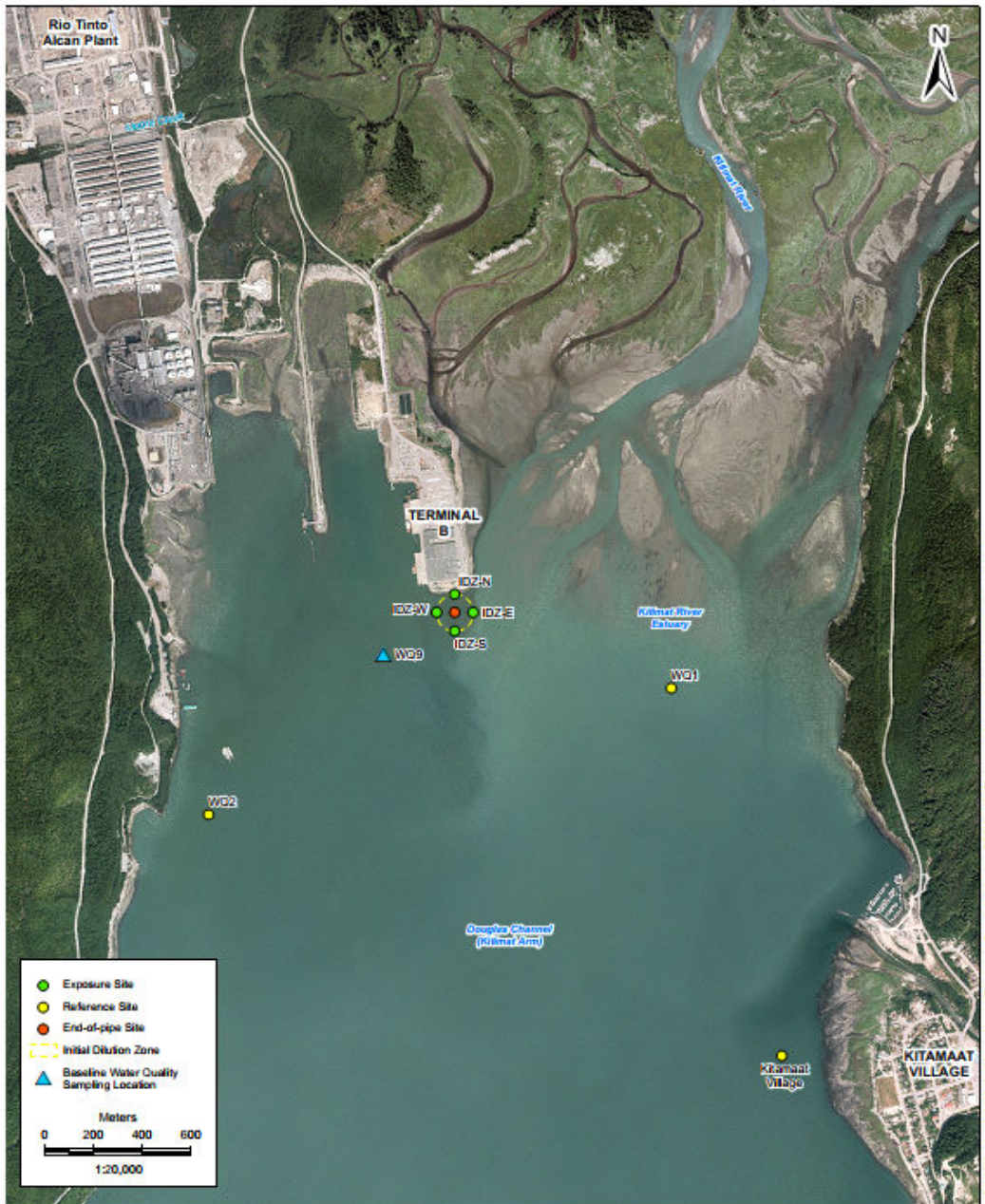
  
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FIGURE 5-1\_MARINE MONITORING PROGRAM SAMPLING SITES



		TECHNICAL ASSESSMENT REPORT <b>MARINE MONITORING PROGRAM SAMPLING SITES</b>	PRODUCTION UTM9	DRAWN BY WW
		LNG CANADA EXPORT TERMINAL KITIMAT, BRITISH COLUMBIA	DATUM NAD 83	CHECKED BY LT
			DATE 27-JUN-22	FIGURE NO. 5-1

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