

October 18, 2016

Rick Beaumont, Sr. Project Manager
CH2M
Metrotower II, Suite 2100
4720 Kingsway
Burnaby, BC V5H 4N2

Dear Mr. Beaumont:

Re: Supplementary Geotechnical Drilling Investigation at Westridge Terminal, Burnaby, BC
PROJECT PERMIT 16-273

Reference is made to your October 17, 2016 email re: *Kinder Morgan Canada - Westridge Terminal - Suppl. Onshore Geotechnical Investigation - Permit Application*, and attachments. The Vancouver Fraser Port Authority (VFPA) understands CH2M HILL, on behalf of Kinder Morgan Canada, Inc. (the Applicant), proposes to conduct a geotechnical drilling investigation at the Westridge Marine Terminal, 7065 Bayview Drive, Burnaby, BC. The purpose of the drilling investigation is to obtain additional data for geotechnical analysis and evaluation in support of potential future projects.

The Project consists of advancing 12 boreholes to a maximum depth of approximately 15 m below ground surface using a track-mounted sonic drill rig. Seismic Cone Penetration Testing (SCPT) will also be conducted. Upon completion, boreholes will be sealed in accordance with BC Groundwater Protection Regulations. The drilling program is anticipated to take approximately two weeks to complete and is planned to be conducted in late October/early November 2016. VFPA has undertaken and completed a review of these works.

Pursuant to the Port Authorities Operations Regulations under the *Canada Marine Act*, by way of this letter, the Project is authorized to proceed **provided that all of the Conditions outlined on the attached Schedule of Environmental Conditions are adhered to**. In the event of any breach of any of the Conditions, or of any of the background information being determined by VFPA to be incorrect or misleading, then VFPA, acting at its sole discretion, may arbitrarily cancel this Project Permit. This Project Permit may also be cancelled for any other reasons set out in Section 29 of the Port Authorities Operations Regulations. **This Project Permit is valid until October 31, 2017**. Please contact the undersigned at 604-665-9121 with any questions regarding the Conditions.

Yours truly,

Original Copy Signed

VANCOUVER FRASER PORT AUTHORITY

Reference is made to the physical activities (“the **Project**”) described in the permitting letter that these conditions are attached to. VFPA has undertaken and completed a review of the Project in accordance with Section 5 of the Port Authorities Operations Regulations and, as applicable, Section 67 of the *Canadian Environmental Assessment Act, 2012*.

The Project Permit is based on the understanding that the Project will not adversely impact water quality or quantity, no vegetation removal will be conducted, and species at risk and archaeological resources are not known to be present in the Project area.

The Project Permit is conditional on a valid tenure agreement with respect to the subject premises being in place. No physical activities may commence in the absence of a valid tenure agreement.

The Project Permit in no way endorses or warrants the design, engineering, or construction of the Project and no person may rely upon the Permit for any purpose other than the fact that VFPA has permitted the Project, in accordance with the terms and conditions of the Project Permit.

If at any time the Applicant fails to comply with any of the conditions set out below, or if VFPA determines that the Applicant has provided any incomplete, incorrect or misleading information in relation to the Project, VFPA may, in its sole and absolute discretion, cancel its authorization for the Project or change the conditions to which such authorization is subject.

Pursuant to Section 29 of the Port Authorities Operations Regulations, VFPA may also cancel its authorization for the Project, or change the conditions to which such authorization is subject, if new information is made available to VFPA at any time in relation to the potential adverse environmental effects of the Project.

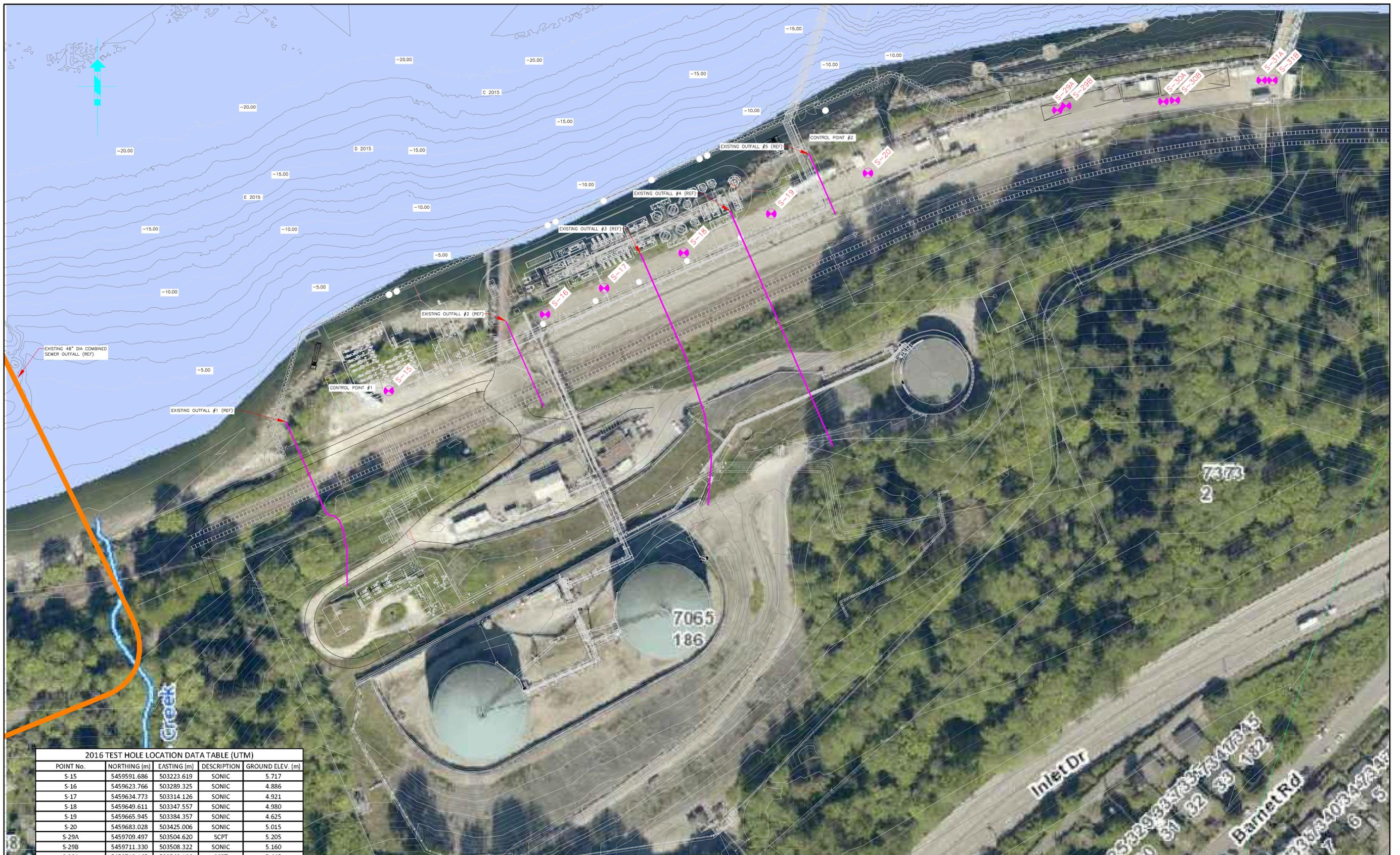
The following are the minimum conditions that must be followed by the Applicant to mitigate potential adverse environmental and other effects:

1. All physical activities must be land-based. Any activities occurring below the high water mark shall be undertaken in the dry (i.e., above the water surface) at low tide.
2. The Applicant shall undertake and deliver the Project to total completion in a professional, timely and diligent manner in accordance with the applicable standards and specifications described in the application document(s) referenced in the permitting letter. The Applicant shall not carry out any other physical activities unless expressly authorized by VFPA.
3. The Applicant shall at all times and in all respects comply with and abide by all applicable federal, provincial and municipal laws, statutes, by-laws, regulations, orders and policies from time to time in force and effect including, without limiting the generality of the foregoing, all rules and directions established by VFPA from time to time (collectively, “**Applicable Law**”). Any reference below to a specific law, statute, by-law, regulation, order or policy is for clarity only and in no way limits the generality of the foregoing.
4. Should the Project involve lane-closure measures or civil work directly over a roadway or rail track/crossing, the Applicant shall contact the VFPA Operations Centre at 604-665-9086 at least 24 hours in advance of such activities.
5. The Applicant shall not, directly or indirectly: (a) deposit or permit the deposit of a deleterious substance of any type in water frequented by fish in a manner contrary to Section 36(3) of the *Fisheries Act*; or (b) adversely affect fish or fish habitat in a manner contrary to Section 35(1) of the *Fisheries Act*.
6. The Applicant shall carry out all works in a manner that prevents the release of sediment, sediment-laden waters, and turbid waters to the aquatic environment. Sediment and erosion control measures should meet or surpass the standards outlined in the Fisheries and Oceans Canada (“**DFO**”) “Land Development Guidelines for the Protection of Aquatic Habitat”.

7. The Applicant shall not dewater excavations unless a dewatering plan has been reviewed and accepted by VFPA Environmental Programs.
8. The Applicant shall dispose of any soils excavated from the site that are not suitable for backfill at appropriate off-site facilities in accordance with Applicable Law.
9. The Applicant shall conduct all work associated with the Project involving the use of concrete, cement, mortars and other Portland cement or lime-containing construction materials so as to ensure that sediments, debris, concrete (cured or uncured), and concrete fines are not deposited into the aquatic environment, either directly or indirectly. Water that has contacted uncured or partly cured concrete or Portland cement or lime-containing construction materials, such as the water that may be used for exposed aggregate wash-off, wet curing, equipment and truck washing, etc. shall not be permitted to enter the aquatic environment. The Applicant shall provide containment facilities at the site for the wash-down water from concrete delivery trucks, concrete pumping equipment, and other tools and equipment, as required.
10. Noise, dust, and air emissions associated with the Project shall be kept to a minimum.
11. The Applicant shall ensure that debris and waste material resulting from the Project, including excess drill cuttings, purge water, and any other waste waters resulting from the Project, are contained, collected, and disposed of at suitable upland locations using standards, practices, methods and procedures to a good commercial standard, conforming to Applicable Law and using that degree of skill and care, diligence, prudence and foresight which would be reasonably and ordinarily expected from a qualified, skilled and experienced person engaged in a similar type of undertaking under the same or similar circumstances. The Applicant shall have due regard for the applicable prohibitions and restrictions for burning a wide range of materials in British Columbia, such as creosote-treated wood.
12. Should contaminated materials be encountered, the Applicant shall ensure that all contaminated materials, including contaminated drill cuttings and equipment wash water, are removed, contained, and disposed of at appropriate off-site facilities using standards, practices, methods and procedures to a good commercial standard, conforming to Applicable Law and using that degree of skill and care, diligence, prudence and foresight which would be reasonably and ordinarily expected from a qualified, skilled and experienced person engaged in a similar type of undertaking under the same or similar circumstances. Suspect materials should be treated as contaminated or stockpiled until their environmental quality has been determined.
13. In the event that evidence of what is suspected to be an archaeological resource is encountered, the Applicant shall:
 - a) immediately stop any activities that might disturb the archaeological resource or the site in which it is contained (“Site”);
 - b) not move or otherwise disturb the artifacts or other remains present at the Site;
 - c) stake or flag off the Site to prevent additional disturbances; and,
 - d) immediately notify VFPA Environmental Programs at environmentalprograms@portvancouver.com.
14. The Applicant shall be solely responsible for reviewing DFO’s Projects Near Water website (<http://www.pac.dfo-mpo.gc.ca/habitat/know-savoir-eng.htm>) to assess whether the Project requires DFO’s involvement. Responsibility for submitting any necessary information through DFO’s Project Review Process rests solely with the Applicant.
15. Materials brought onto the property to be used for backfilling, site preparation, or other uses shall be from sources demonstrated to be clean and free of environmental contamination.

16. Prior to commencing any physical activities, the Applicant shall establish a spill prevention, containment and clean-up plan for hydrocarbon products (including fuel, oil and hydraulic fluid) and any other deleterious substances using standards, practices, methods and procedures to a good commercial standard, conforming to Applicable Law and using that degree of skill and care, diligence, prudence and foresight which would be reasonably and ordinarily expected from a qualified, skilled and experienced person engaged in a similar type of undertaking under the same or similar circumstances. The Applicant shall ensure that appropriate spill containment and clean-up supplies are available on site at all times and that all personnel working on the Project are familiar with the spill prevention, containment and clean-up plan.
17. Equipment shall be in good mechanical condition and shall be maintained free of fluid leaks, invasive species, and noxious weeds.
18. The Applicant shall not conduct refuelling or maintenance activities within 30 metres of any watercourse, or in an area where there is potential for run-off to reach surface water bodies. Fuel and other hydrocarbon inventories shall not be stored in such areas, temporarily or otherwise.
19. The Applicant shall cooperate fully with VFPA in respect of any review by VFPA of the Applicant's compliance with these conditions including, without limitation, providing any information or documentation required by VFPA.
20. The Applicant shall make a copy of this document available to all employees, agents, contractors, licensees and invitees prior to commencing any physical activities. The Applicant shall be solely responsible for ensuring that all such employees, agents, contractors, licensees and invitees comply with these conditions.
21. The Applicant shall make available upon request by any regulatory authority (such as a Fishery Officer) a copy of this document.

The above conditions are based solely upon VFPA's review of the Project and in no way limit the authority of, or constitute any form of permit, authorization or approval by, any other governmental authority having jurisdiction. The Applicant is solely responsible for obtaining any and all required permits, authorizations and approvals from any other governmental authority having jurisdiction.



2016 TEST HOLE LOCATION DATA TABLE (UTM)				
POINT No.	NORTHING (m)	EASTING (m)	DESCRIPTION	GROUND ELEV. (m)
S-15	5459591.686	503223.619	SONIC	5.717
S-16	5459623.766	503289.325	SONIC	4.886
S-17	5459634.773	503314.126	SONIC	4.921
S-18	5459649.611	503347.557	SONIC	4.980
S-19	5459665.945	503384.357	SONIC	4.625
S-20	5459683.028	503425.006	SONIC	5.015
S-29A	5459709.497	503504.620	SCPT	5.205
S-29B	5459711.330	503508.322	SONIC	5.160
S-30A	5459713.165	503549.196	SCPT	5.445
S-30B	5459713.625	503554.026	SONIC	5.495
S-31A	5459722.015	503590.540	SCPT	4.943
S-31B	5459722.048	503595.017	SONIC	4.918

EXISTING OUTFALL DATA TABLE (UTM)				
OUTFALL No.	NORTHING (m) APPROX.	EASTING (m) APPROX.	INV. ELEV. (m) APPROX.	
#1	5459578.598	503180.531	4.328	
#2	5459620.942	503272.835	3.981	
#3	5459648.981	503329.552	2.060	
#4	5459667.096	503367.161	3.430	
#5	5459690.904	503400.396	UNKNOWN	
48" DIA	5459616.220	503056.637	-15.000	

PLAN

LEGEND:



CAUTION:
OUTFALL LOCATIONS AND ELEVATIONS
ARE APPROXIMATE, FIELD VERIFY PRIOR
TO DRILLING.

CH2MHILL.
Oct 17 2016
ISSUED
FOR
PERMIT

CH2MHILL.
PROJECT # 660356

TRANS MOUNTAIN

DRAWN BY YZ	GEOTECHNICAL INVESTIGATION TEST HOLE LOCATIONS	SHEET SIZE A1
CHECKED BY RGS		SCALE 1:750
APPROVED BY		DATE 2016/10/14
PROJECT CODING SKT-GA		DRAWING NUMBER WT00 - SKT502
SHT NO 1		REV A

NO.	REFERENCE DRAWING TITLE	REFERENCE DRAWING NO.	NO	DATE	REVISION	DRN	CHK	APPR
			A	2016/10/17	ISSUED FOR PERMIT	YZ	RGS	