

August 12, 2016

LNG Canada Development Inc.  
400 – 4<sup>th</sup> Avenue SW  
Calgary, Alberta T2P 0J4

Attention: Scot Mackillop

**RE: Permit Amendment**

**Date Amendment Issued: August 12, 2016**  
**Application Determination #: 100100060**  
**Amendment #: 1**  
**Road # 04167**  
**Location: within REM N 550 FT of DL 6051**

**PERMISSIONS**

***Oil and Gas Activities Act***

1. The BC Oil and Gas Commission (the “Commission”), under section 31(7) of the *Oil and Gas Activities Act*, hereby grants an amendment to the permit and any associated authorizations referenced above, subject to the original permit, any subsequent amendments and any additional or revised conditions as set out herein, as follows:
  - (1) Increase in area by 0.11ha from 3.58 to 3.682ha.
  - (2) The permissions and authorizations granted under this permit are limited to the area described in construction plan Job No: 64-01 North Haul Road, FILE NAME: 04-053-001\_REVA, revision 0, dated July 12, 2016 (the “construction plan”) by LNG CANADA as submitted to the Commission in the permit amendment application dated July 15, 2016 (hereinafter referenced together as the “operating area”).

**CONDITIONS**

2. Within 60 days of the completion of construction activities under this permit, the permit holder must submit to the Commission a post-construction plan as a shapefile and PDF plan accurately identifying the location of the total area actually disturbed under this permit. The shapefile and plan must be submitted via eSubmission.

**Clearing:**

3. The permit holder is authorized to fell any trees located on Crown land within 1.5 tree lengths of the operating area that are considered to be a safety hazard according to *Workers Compensation Act* regulations and must be felled in order to eliminate the hazard. Trees or portions of these trees that can be accessed from the operating area without causing damage to standing timber may be harvested.

4. Stream and wetland crossings must be constructed in accordance with the methods and any mitigations, as specified in the application.
5. Following initial construction, stream crossings are authorized for necessary road modification or maintenance activities on the operating area except for:
  - (1) construction or replacement of a bridge or major culvert on a S1, S2, S3 or S5 stream;
  - (2) installation of a closed bottom structure in a fish bearing stream; or
  - (3) excavation or grading of a stream bank or stream bed.
6. Stream crossings must be constructed, maintained and deactivated according to the following requirements, as applicable:
  - (1) Only bridges, culverts, ice bridges or snow fills may be constructed at stream crossings.
  - (2) Snow fills must consist of clean snow and may only be located on streams that are dry or frozen to the bottom during the period of construction, maintenance and use. Where periodic thaws are anticipated, culverts must be installed to allow meltwater to pass through. Snow fill and any installed culverts must be removed prior to spring snow melt.
  - (3) Ice bridges on fish bearing streams may only be constructed where sufficient water depth and stream flows prevent the bridge structure from coming in contact with the stream bottom.
  - (4) In-stream activities within a fish bearing stream must occur
    - (a) during the applicable reduced risk work windows as specified in the during the applicable reduced risk work windows as specified in the Region 6 Skeena - Reduced Risk In-stream Work Windows and Measures ;
    - (b) in accordance with alternative timing and associated mitigation recommended by a qualified professional and accepted by the Commission; or
    - (c) in accordance with an authorization or letter of advice from Fisheries and Oceans Canada that is provided to the Commission.
  - (5) Bridge or culvert abutments, footings and scour protection must be located outside the natural stream channel and must not constrict the channel width.
  - (6) Equipment used for activities under this permit must not be situated in a stream channel unless it is dry or frozen to the bottom at the time of the activity.
7. Wetland crossings must be constructed, maintained and removed in accordance with the following:
  - (1) Organic cover within and adjacent to the wetland must be retained;
  - (2) Minimize erosion or release of sediment within the wetland;
  - (3) Any padding materials must be placed on the wetland surface only and must not be used for infilling;
  - (4) Any padding materials must be removed as soon as practicable following construction, considering weather and ground conditions; and
  - (5) The wetland, including banks and bed, must be restored, to the extent practicable, to the condition that existed before the crossing was initiated.

**Archaeology:**

8. If artifacts, features, materials or things protected under section 13(2) of the Heritage Conservation Act are identified the permit holder must, unless the permit holder holds a permit under section 12 of the Heritage Conservation Act issued by the Commission in respect of that artifact, feature, material or thing:

- a. immediately cease all work in the vicinity of the artifacts, features, materials or things;
- b. immediately notify the Commission and the Archaeology Branch of the Ministry of Forests, Lands and Natural Resource Operations
- c. refrain from resuming work in the vicinity of the artifacts, features, materials or things except in accordance with an appropriate mitigation plan that has been prepared in accordance with the Heritage Conservation Act and approved by the Archaeology Branch of the Ministry of Forests, Lands and Natural Resource Operations.

This amendment forms an integral part of your permit(s) and should be attached thereto.



Justin Anderson  
Authorized Signatory  
Commission Delegated Decision Maker

pc: WorleyParsons  
Application Determination#.: 100100060



July 4, 2016

LNG Canada Development Inc.  
400 – 4<sup>th</sup> Avenue SW  
Calgary, Alberta  
T2P 0J4

Attention: Scot MacKillop

RE: Road Permit

Road Location: From NTS: W1/2 DL 6057 R5C To NTS: DL6051 R5C  
From: UTM Zone 10 Northing 5988559 Easting 519524; To: UTM Zone 10 Northing 5987190 Easting 519100  
Date of Issuance: July 4, 2016  
Road No.: 4167  
Commission No.: 9644499

## PERMISSIONS

### *Oil and Gas Activities Act*

1. The BC Oil and Gas Commission ("the Commission"), under section 25 (1) of the *Oil and Gas Activities Act* hereby permits the holder to construct and maintain an oil and gas road, subject to the following conditions:
  - (1) The permissions and authorizations granted under this permit are limited to the area described in survey plan Job No: 64-01 North Haul Road, Revision 0, dated June 23, 2016 (the "construction plan") by Worley Parsons as submitted to the Commission in the permit application dated June 24, 2016 (hereinafter referred to as the "operating area").
  - (2) Following initial construction of the road, future permission to construct is limited to required modifications within the operating area except as otherwise restricted by this permit.

## CONDITIONS

### Notification:

2. The permit holder must submit the post-construction plan, as per section 11 of the Oil and Gas Road Regulation, as an ePASS shape file and PDF plan accurately identifying the location of the total area actually disturbed under this permit. The shapefile and plan must be submitted to via esubmission.

### Environmental

3. Upon completion of construction activities, the permit holder must restore any portions of the operating area not required for ongoing operation of the road, by ensuring re-vegetation of any exposed soil on the operating area including, where necessary, using seed or vegetative propagules of an ecologically suitable species that:
  - (1) promote the restoration of the wildlife habitat that existed on the area before the oil and gas activity was begun, and
  - (2) stabilize the soil if it is highly susceptible to erosion.

### Archaeology

4. If artifacts, materials or things protected under section 13(2) of the Heritage Conservation Act are noted during any phase of ground-disturbing activities, the Permit holder must:
  - (1) immediately cease all work in the vicinity of the artifacts, features, materials or things, and
  - (2) as soon as practicable, contact the Commission

unless the Permit holder holds a Permit under section 12 of the Heritage Conservation Act in respect of that artifact, material or thing.

### Clearing:

5. The permit holder is permitted to fell any trees located on Crown land within 1.5 tree lengths of the operating area that are considered to be a safety hazard according to Workers Compensation Act regulations and must be felled in order to eliminate the hazard. Trees or portions of these trees that can be accessed from the operating area without causing damage to standing timber may be harvested.

### Watercourse Crossings or Works:


6. Stream and wetland crossings must be constructed in accordance with the methods and any mitigations, as specified in the application.
7. Following initial construction, stream crossings are authorized for necessary road modification or maintenance activities on the operating area except for:
  - (1) construction or replacement of a bridge or major culvert on a S1, S2, S3 or S5 stream;
  - (2) installation of a closed bottom structure in a fish bearing stream; or
  - (3) excavation or grading of a stream bank or stream bed.
8. Stream crossings must be constructed, maintained and deactivated according to the following requirements, as applicable:
  - (1) Only bridges, culverts, ice bridges or snow fills may be constructed at stream crossings.
  - (2) Snow fills must consist of clean snow and may only be located on streams that are dry or frozen to the bottom during the period of construction, maintenance and use. Where periodic thaws are anticipated, culverts must be installed to allow meltwater to pass through. Snow fill and any installed culverts must be removed prior to spring snow melt.
  - (3) Ice bridges on fish bearing streams may only be constructed where sufficient water depth and stream flows prevent the bridge structure from coming in contact with the stream bottom.
  - (4) Water applied to construct an ice bridge on a water body must be sourced in accordance with the Water Sustainability Act unless
    - (a) the water body is a stream with a stream channel width of at least 5 metres and is not designated as a sensitive stream under the Fish Protection Act, or has a riparian class of W1, W3, or L1,
    - (b) the water is sourced from the same water body proximal to the location on which the ice bridge is constructed,
    - (c) the water body is not within the boundaries of a public park,
    - (d) pump intakes do not disturb beds of streams or wetlands except as necessary for the safe installation and operation of equipment, and are screened with a maximum mesh size and approach velocity in accordance with the Fisheries and Oceans Canada Freshwater Intake End-of-Pipe Fish Screen Guideline, and
      - (i) where the water body is a stream, the flow of water in the stream at the time and location of pumping exceeds 60 litres per second and the instantaneous pumping rate does not

- exceed 1% of the water flowing in the water body at the time and location the pumping occurs, or
- (ii) where the water body is a lake or pond, the cumulative volume of water withdrawn does not exceed 10 cm of lake or pond depth, calculated as the product of lake or pond surface area x 10 cm;
- (5) In-stream activities within a fish bearing stream must occur:
- (a) during the applicable reduced risk work windows as specified in the during the applicable reduced risk work windows as specified in the Skeena Region Reduced Risk In-stream Work Windows and Measures;
  - (b) in accordance with alternative timing and associated mitigation recommended by a qualified professional and accepted by the Commission; or
  - (c) in accordance with an authorization or letter of advice from Fisheries and Oceans Canada that is provided to the Commission.
- (6) Bridge or culvert abutments, footings and scour protection must be located outside the natural stream channel and must not constrict the channel width.
- (7) Equipment used for activities under this permit must not be situated in a stream channel unless it is dry or frozen to the bottom at the time of the activity.
9. Wetland crossings must be constructed, maintained and removed in accordance with the following:
- (1) Organic cover within and adjacent to the wetland must be retained;
  - (2) Minimize erosion or release of sediment within the wetland;
  - (3) Any padding materials must be placed on the wetland surface only and must not be used for infilling;
  - (4) Any padding materials must be removed as soon as practicable following construction, considering weather and ground conditions; and
  - (5) The wetland, including banks and bed, must be restored, to the extent practicable, to the condition that existed before the crossing was initiated.

#### ADVISORY GUIDANCE

1. The term "unused equipment" has the same definition as in the Drilling and Production Regulation.

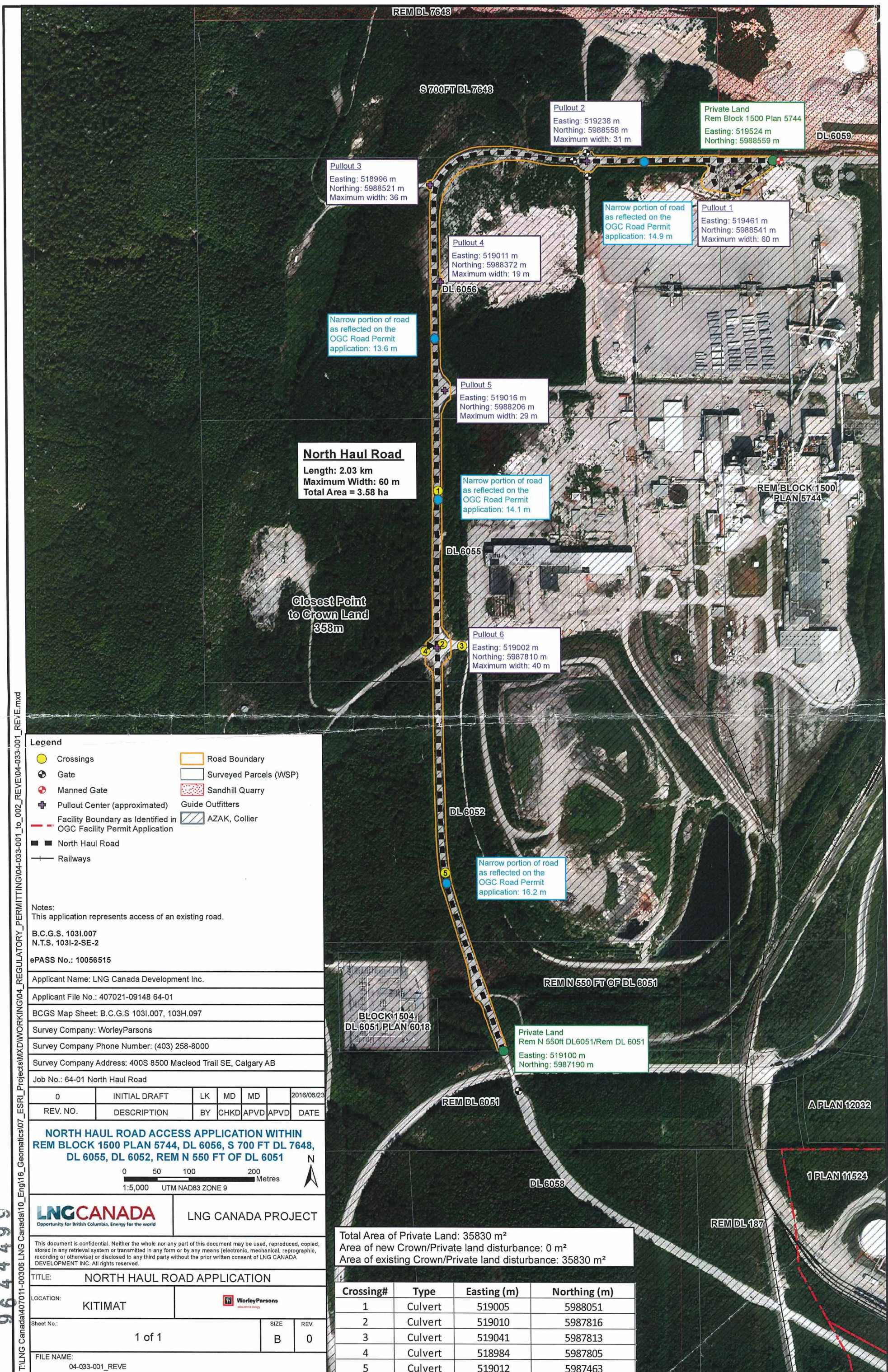
The attached plan(s) forms an integral part of this permit.

  
\_\_\_\_\_  
Tarilee Rauscher  
Authorized Signatory  
Commission Delegated Decision Maker

pc. Worley Parsons Calgary Attn: Michael Drake  
**Commission No.:** 9644499  
OGC First Nations: HRFN  
KM LNG Operating LTD Inc. No. BC0920139







- Legend**
- Crossings
  - ⊕ Gate
  - ⊕ Manned Gate
  - ⊕ Pullout Center (approximated)
  - Facility Boundary as Identified in OGC Facility Permit Application
  - North Haul Road
  - Railways
  - Road Boundary
  - Surveyed Parcels (WSP)
  - Sandhill Quarry
  - Guide Outfitters
  - AZAK, Collier

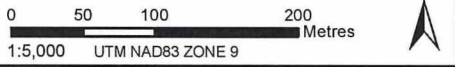
Notes:  
This application represents access of an existing road.

B.C.G.S. 1031.007  
N.T.S. 1031-2-SE-2  
ePASS No.: 10056515

Applicant Name: LNG Canada Development Inc.  
Applicant File No.: 407021-09148 64-01  
BCGS Map Sheet: B.C.G.S 1031.007, 103H.097  
Survey Company: WorleyParsons  
Survey Company Phone Number: (403) 258-8000  
Survey Company Address: 400S 8500 Macleod Trail SE, Calgary AB  
Job No.: 64-01 North Haul Road

0	INITIAL DRAFT	LK	MD	MD	2016/06/23	
REV. NO.	DESCRIPTION	BY	CHKD	APVD	APVD	DATE

**NORTH HAUL ROAD ACCESS APPLICATION WITHIN  
REM BLOCK 1500 PLAN 5744, DL 6056, S 700 FT DL 7648,  
DL 6055, DL 6052, REM N 550 FT OF DL 6051**



**LNG CANADA**  
Opportunity for British Columbia. Energy for the world

**LNG CANADA PROJECT**

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TITLE: NORTH HAUL ROAD APPLICATION

LOCATION: KITIMAT

Sheet No.: 1 of 1

FILE NAME: 04-033-001\_REVE

Total Area of Private Land: 35830 m<sup>2</sup>  
Area of new Crown/Private land disturbance: 0 m<sup>2</sup>  
Area of existing Crown/Private land disturbance: 35830 m<sup>2</sup>

Crossing#	Type	Easting (m)	Northing (m)
1	Culvert	519005	5988051
2	Culvert	519010	5987816
3	Culvert	519041	5987813
4	Culvert	518984	5987805
5	Culvert	519012	5987463

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9644499