KINDER MORGAN CANADA OVERVIEW

• Over 50 Years of Pipeline Operation Experience
• Transports liquid petroleum products from oil producing areas to markets (e.g., conventional and oil sands crude, gasoline, diesel, etc.)
• Operates two major pipeline systems
• Headquartered in Calgary
  » Offices throughout B.C. & Alberta
  » Over 400 employees
Safely and efficiently transports petroleum products from Alberta’s oil fields through some of the most rugged and mountainous terrain in the world to the interior British Columbia and West Coast markets.

Supplies over 90% of the petroleum products used in B.C.’s Lower Mainland.

1,150 km pipeline

20 pump stations

Capacity - 260,000 barrels per day (bpd)
• 158 km looping (twinning) of existing system
  
  • Using both 30-inch and 36-inch diameter pipeline
  
  • Building two new pump stations
  
  • Approximate project cost $443M
  
  • Adding 40,000 barrels per day (bpd) incremental capacity by November 2008 for a total capacity of 300,000 bpd
  
  • Environmental reclamation & restoration through 2009
One of Kinder Morgan Canada’s project goals is to commit to consulting with stakeholders and aboriginal communities in an open, informative, and interactive manner that allows us to identify and consider stakeholder and aboriginal views during project planning and development activities.

For the Anchor Loop project, Kinder Morgan Canada conducted a comprehensive and intensive public consultation program with all interested parties (e.g., environmental non-government groups, local aboriginal communities, etc.), which began in the spring of 2004 and continues today.

The engagement program was established to provide stakeholders and aboriginal communities with an opportunity to become informed about and engaged with the Anchor Loop project, and was closely intertwined with the Environmental Assessment process.

Local aboriginal communities participated in environmental field studies, sharing of traditional land use knowledge, and will participate in economic opportunities, such as clearing of the right-of-way.

Kinder Morgan Canada continues to work with individuals, environmental organizations, and local aboriginal communities to manage ongoing issues and concerns.
Our Policy
Kinder Morgan Canada is committed to conducting its business in a safe and environmentally responsible manner. We comply with all applicable laws and regulations, company policies and industry codes of practice and require the same of our contractors.

• Mandatory Site Orientations
  » Each worker must complete a Safety Orientation Training and Environmental Orientation prior to commencing work on the project

• Other Safety & Environmental Measures
  » All workers require personal protective equipment (PPE)
  » Daily toolbox meetings and weekly safety meetings
  » Job Specific Hazard Analysis, as required
  » Regular inspections and program audits
  » Project specific Emergency Response Program will be in place
Special construction and environmental mitigation measures in recognition of crossing Jasper National Park and Mount Robson Provincial Park

Planning Completed: Jan 2004 to Jun 2007

- Comprehensive, multi-seasonal environmental resource studies.
- Extensive recording of cultural resources within the Yellowhead Pass National Historic Site.
- Complete record and understanding of the location and extent of environmental and cultural resources along the Anchor Loop corridor.
- “State of Art” Environmental Protection and Restoration Plan.
- Native seed, forbs and shrubs have been collected. Propagation of these seeds is currently being undertaken in nurseries and greenhouses.

Pre-Construction: Jun 2007 to Jul 2007

- All environmental and cultural resource sites along the Anchor Loop corridor will be staked, flagged and/or fenced to avoid impacts to these sites.
- Where environmental and cultural sites cannot be avoided, mitigative strategies outlined in the Environmental Protection Plan will be implemented to minimize impacts to these resources.
- All workers and visitors on the Anchor Loop will be required to participate in Environmental Awareness Training.
Jun 2008 to Nov 2008

- Comprehensive commitment tracking tool developed to track over 1,500 commitments made to regulators. Tracking tool will be kept onsite during construction and readily available to all key project personnel responsible for compliance.
- Four Environmental Inspectors will be onsite during construction to ensure all the environmental protection measures, permit conditions, standards and procedures are followed.
- Aboriginal monitors, third party inspectors and government inspectors will also be onsite to ensure compliance with these environmental protection measures and all conditions of approval.

Restoration: Apr 2008 to Nov 2009

- Restoration of the right-of-way will commence immediately following construction.
- Topsoil will be replaced and disturbed areas will be revegetated with native grasses, forbs and trees that have been propagated and or sought from suppliers throughout North America to ensure the highest quality seed, with little to no potential for weed contamination.
- Watercourses and unique landscapes will be restored using a combination of bio-engineering techniques specifically designed for site-specific areas.
Kinder Morgan Canada has agreed to implement a number of special measures in recognition of crossing Jasper National Park and Mount Robson Provincial Park, such as:

- Construction of a larger than needed pipeline to anticipate any future volumes.
- Five-year post construction monitoring plans.
- Restore previously disturbed areas (e.g., gravel pits) with the addition of soil amendments, native grasses and shrubs and trees to set these areas on a trajectory towards a natural range of variability.
- Support Collaborative Agreements on Non-Native Plant Control in the Parks.
- Replace several road culverts that are potential barriers to fish and/or other aquatic animals with single span bridges at waterbodies.
- Repair riparian vegetation, by installing step pool structures, cribwalls, and boulder clusters to improve fish habitat.
- Assist in developing an interpretation program for the Yellowhead Pass National Historic Site.
Jasper National Park

Closures:
- Celestine Road from July 2007 to April 2008
- Wynd Road from August 2007 to December 2007
- Decoigne Bridge (existing) will be repaired and closed for approximately a week in July 2007. A temporary 100-ton bridge will be installed overtop of the existing bridge.

Traffic Control:
- Specific traffic control will be deployed when working within close proximity of public roadways and railway crossings.
- Intermittent traffic control from August 2007 to April 2008

Mount Robson Provincial Park

Closures:
- Emperor Bridge over the Fraser River from mid-September 2007 to end of October 2007. A new bridge is being installed.

Traffic Control:
- Specific traffic control will be deployed when working within close proximity of public roadways and railway crossings.
- Intermittent traffic control from September 2007 to December 2007 and again from June 2008 to November 2008
February to August 2007

- Review pipeline footprint

March to June 2007

- Flagging right-of-way, temporary work spaces and environmentally sensitive sites

June to August 2007

- Preparing main yard site
- Building pipe stockpile sites
- Arrival of contractors equipment and supplies
- Transport pipe to project area where it is stockpiled
  - Jasper: June 2007 to July 2007
  - Robson: March 2008 to April 2008
- Installation of 100-ton bridge over existing Decoigne Bridge
- Repairs to surface of Snaring River Bridge
- Upgrade of Emperor Bridge on Hargreaves road
- Installation of CN vehicle crossings and approaches
- Installation of project signage
- Orientation of contractor and inspection personnel
Step 1: Clearing the Right-of-Way & Access Road Building/Upgrading

Activity Type:
- Vegetation, such as trees or brush, is removed from the pipeline right-of-way
- Building or upgrading access roads, installing bridges

Length of activity*:
- 16 weeks

Approximate start time*:
- Robson: Sept 2007 to Dec 2007

Type of equipment:
- Various sized bull dozers
- Grapple skidders
- Salvage forwarders
- Rock trucks
- Excavators
- Faller bunchers
- Brush hogs
- Chippers/grinders

* Specific start and completion dates may change due to unforeseen circumstances.
Step 2: Preparing the Right-of-Way & Rock Ditch

Activity Type:

- Right-of-way (ROW) is graded to create a safe and level working area. All duff and/or topsoil is removed and stored separately to ensure that it will be available for restoration of the ROW.

Length of activity*:
- Five to six months

Approximate start time*:
- Robson: Jun 2008 to Sept 2008

Type of equipment:

- Various sized bull dozers
- Rock drills
- Rock trucks
- Graders
- Excavators

*Specific start and completion dates may change due to unforeseen circumstances.
Step 3: Stringing, Bending, Welding, Coating Pipeline

Activity Type:

- Lengths of pipe are transported by truck from the stockpile sites to the right-of-way.
- The pipe will be surveyed, engineered, and then bent to follow the contours of the land.
- The pipe is then welded together into sections and a protective coating is applied to the welds, both the welds and the pipeline coating will be inspected prior to being lowered into the trench.

Length of activity*:

- Occurs over a six to eight month period

Approximate start time*:

- Jasper: Sept 2007 to Apr 2008
- Robson: Jul 2008 to Nov 2008

Type of equipment:

- Pipe trucks
- Booms
- Welding equipment
- Coating equipment

*Specific start and completion dates may change due to unforeseen circumstances.
Step 4: Trenching, Lowering, and Backfill

Activity Type:
- A trench will be excavated to a minimum 0.85m depth of cover.
- The pipe will be lowered into the trench using side boom tractors.
- The trench will be selectively backfilled to ensure protection of the pipe.

Length of activity*:
- Occurs over a six to eight month period

Approximate start time*:
- Jasper: Sept 2007 to Apr 2008
- Robson: Jul 2008 to Nov 2008

Type of equipment:
- Side booms
- Padding equipment
- Excavators
- Bull dozers
- Grader

*Specific start and completion dates may change due to unforeseen circumstances.
Step 5: Commissioning (Testing)

Activity Type:
- New piping and equipment is inspected, tested and verified for compliance to ensure readiness for introduction of hydrocarbon product (e.g., oil) and operation
- Testing will be conducted in accordance with applicable CSA codes, and the procedure is registered with the National Energy Board (NEB).
- Pipe sections will be tested to 1.25 times the maximum operating pressure using water.
- Pipeline segment undergoing the pressure test is patrolled continuously to ensure the safety of the public and the property.
- After successful completion of the pressure test, facility piping and equipment are filled with hydrocarbon product from the mainline system.
- At the completion of this phase, the facilities and the pipeline loop will be fully operational and handed over to operations.

Length of activity*:
- Eight weeks

Approximate start time*:
- Jasper: Dec 2007 to Apr 2008
- Robson: Aug 2008 to Nov 2008

Type of equipment:
- Test equipment
- Pumps
- Booms

In-Service dates:
- Jasper Spread: Apr 2008
- Facilities: Apr 2008
- Anchor Loop: Nov 2008

*Specific start and completion dates may change due to unforeseen circumstances.
**Step 6: Final Clean-Up & Restoration of the Land**

**Activity Type:**
- Final clean-up and reclamation procedures will be initiated following construction.
- Remove temporary bridges, compact ditch line, restore graded areas of the right-of-way to naturally stable contours.
- All disturbed areas will have topsoil returned, will be seeded with an appropriate seed mix, and will have special reclamation measures applied as required.

**Length of activity***:
- Occurs over a ten month period

**Approximate start time***:
- Jasper: Sept 2007 to Nov 2009
- Robson: Jul 2008 to Nov 2009

**Type of equipment**: 
- Grader
- Excavators
- Rock trucks

*Specific start and completion dates may change due to unforeseen circumstances.*
Site Clearing and Grubbing: Jun 2007
» Vegetation, such as trees or brush, is removed for pump stations and powerlines.

Site Earthworks & Roadways: Jul to Aug 2007
» Site is graded to create a safe and level working area. All topsoil is removed and stored separately to ensure that it will be available for restoration of the site and powerline right-of-way
» Building or upgrading access roads

» Drive foundation piles, pour concrete foundations, install building modules, construct pumphouses, install equipment and connect electrical & piping.

Type of equipment:
• Backhoes
• Bobcats
• Cranes
• Zoom booms
• Graders
• Dump trucks
• Concrete trucks
• Pile drivers
• Hydrovac trucks
• Delivery tractor/trailers
• Tree clearing
• Power pole installation equipment
• Transmission line specialized equipment

*Specific start and completion dates may change due to unforeseen circumstances.
Pump stations are required to move liquids through the Trans Mountain Pipeline System.

- A typical pump station is situated on approximately two hectares of land
- Pumps are located inside the pump house building
- The site typically contains: an electrical equipment building, an operator's building and an electrical substation
- New stations are equipped with two 5,000 horsepower electrically powered motors
- Proposed site will also contain a lined hydro carbon catchment with detection and controlled release