



MOZART
Project of
Czech - Austrian
high pressure gas
interconnection pipeline

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INVESTOR	GREAT NORTH CANADIAN HOLDINGS Inc.		PURPOSE STUDY
LOCATION	JINDŘICHŮV HRADEC		
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draft project
drawings
drawings
proposal of routes A and B

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Identification data of the project

Investor: GREAT NORTH CANADIAN HOLDINGS Inc.
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Project: Study for the NW 500 high-pressure gas pipeline
Location: Jindřichův Hradec, Třeboň and Nové Hrady regions, South Bohemia
Type of project: New project
Purpose: Gas supply

1 PURPOSE OF THE STUDY

The subject matter of the study is the proposal and selection of a route for the NW 500 high-pressure gas pipeline on the Czech territory connecting the Czech town of Lodhéřov with the Austrian town of Leopoldschlag (the state border is running close to the town).

The study also included survey of proposed routes in the field. The following part of the study contains a list of owners of affected land plots and the up-to-date information from the Land Registry.

2 TECHNICAL SOLUTION**a Assumptions for the route proposals**

Before the proposal of the pipeline routes was made, the zoning plan of the South-Bohemian region worked with a 200 m corridor for each side of the gas pipeline. The current plans of the South-Bohemian region work with a 100-200 m corridor for high-pressure gas pipelines.

b Principles of the proposed routes

The proposed routes of the NW 500 high-pressure pipeline respect the nearby housing development and existing buildings, natural reserves and water and forest areas. Wherever possible, the high-pressure gas pipeline route runs within the high-voltage or extra high-voltage protected zones.

Crossing of roads of regional importance and railways is to be done by trenchless pipelaying, in case of field and forest paths by digging a trench.

When crossing water streams a dip pipe and a weighting saddle are to be used, the pipeline will be located underneath the water stream bed.

When crossing a significant landscape element or a national nature reserve, trenchless pipelaying or microtunnelling are being considered as an alternative.

In forests, the gas pipeline is preferably located near existing forest paths and roads.

The selected route has as few unexpected sharp bends as possible and it suites the landscape. The proposal also respects accessibility of the gas pipeline during its operation, service and maintenance in all seasons of the year.

c Supporting documents for the proposal

The contract for work concluded by and between MOZART GAS PIPELINE a.s. and Hutní projekt Frýdek-Místek, a.s. served as a supporting document for the proposal of the high-pressure gas pipeline route. Further documents included a map in the 1:50000 scale of the given area and site visits of proposed routes in the field. Field reconnaissance for both routes took place on 3-7 January, 2011.

d **Safety and protection zones**

Pursuant to Act No. 458/2000 Coll., Energy Act, a safety zone for a high-pressure gas pipeline above DN 250 is 40 m, a protection zone is 4 m on each side of the plan view of the pipeline. A free 2 m zone to each side of the gas pipeline axis is to be maintained in case of forest aisles.

3 **BRIEF DESCRIPTION OF PIPELINE ROUTES**

Routes of the pipelines are obvious from attached maps with both proposed options being drawn in the map.

The study proposes two routes connecting the Lodhěřov regulating station with the Czech border near the Austrian town of Leopoldschlag – options A and B.

Route A is shown in black in the drawing and it runs more or less through forest terrain of the nature reserve of Třeboňsko and Novohradské hory. The route is approx. 98 km long.

Route B is shown in blue in the drawing and it follows roughly the shortest way from Lodhěřov towards the state border. Mostly, the route runs through meadows (pastures) and fields, partially forest growth. The route is approx. 90 km long.

For better visualisation, both proposed routes are shown in aerial maps.

e **Route A**

Route A starts by the E.O.N gas regulating station in Lodhěřov. The route runs southwest. Approximately in one kilometre the route is intersected by road 32. Then the route goes through fields along forests and in about three kilometres it is intersected by an extra-high voltage line. Then it crosses local road 23, approximately 3.5 km southeast of Kardašova Řečice, and immediately after it is intersected by the Czech Railways corridor. Approximately 2 km southwest the route crosses a road between Ratiboř and Mnich, and then runs under a high-voltage line and at AL 9 enters the Třeboňsko Protected Landscape Area. Here, the route bends south along the Holná pond and runs mainly through forest growth along forest paths and roads. In about 4 km southwards, the route takes a sharp turn southwest towards Novosedly nad Nežárkou where it crosses the Nežárka stream and the EHV line. Then the route turns south and follows the HV line and road 148 east of Novosedly nad Nežárkou. At AL19 the route takes a sharp bend southwest where it leaves the high-voltage line and crosses road 148. From AL20 on, it turns again southeast and along forest growth crosses road 34, E551 to reach AL21 where it enters the high-voltage zone and follows it up to AL24 where it meets route B. The two routes then run to AL28 and between AL24 and AL28 they cross a local road along the Starý Vdovec pond, run through forest growth, cross road 24, E49 and again forest growth to reach AL28. Here, route A bends southeast along the border of the Soví les Natural Park and along the boar park towards AL29. Then the route goes southeast through forest growth along a forest path to reach AL30. It bypasses Suchdol nad Lužnicí in the east where it crosses EHV and HV lines. At AL33 it changes direction southwest and keeps running through forest growth. Between AL35 and AL36 the route leaves the Třeboňsko Protected Landscape Area. At AL36 the route goes northwest towards AL37 where it turns southwest and crosses the Czech Railways road, the Stropnice stream and along a forest path reaches AL39 located north of Nové Hradý. Then it continues west towards AL41, intersects a HV line, road 156 and runs along the Žárský pond southeast. Southwest of Horní Stropnice, the route crosses road 154 and copies the local unmarked road between Horní Stropnice and Černé údolí. Here the route follows a protection zone of a HV line and alongside it reaches AL63. The route goes west towards AL64 and continues south across road 158. Starting at AL66 it turns southwest. From then on the gas pipeline runs through forest aisles and at AL71 it follows a protection zone of a HV line towards AL74. There is an old local cemetery with a few graves and an abandoned building (probably of the former frontier guard). The route then goes west and reaches the state border with Austria and joins route B.

The pipeline route runs for the most part through a forested terrain, partly through grassy areas. The route of the pipeline crosses a railway line and local streams.

The beginning of the route is tentatively set at the coordinates of 49°12'51 N, 14°57'16" E.

The end of the pipeline is tentatively set at the coordinates of 48°37'04" N, 14°30'14" E.

f Route B

Route B starts at the E.O.N gas regulating station at Lodhěřov.

The gas pipeline runs in the southeast direction across a field close to road 128. After about two kilometres (at BL5) the route turns southwest where it continues towards Ratiboř, bypassing it in the east. The route continues south across field plots and near Vydří (BL14) it enters the EHV protection zone, running parallel to it up to the village of Příbraz (BL17), where the route diverts west. The pipeline route continues towards Stříbřec (BL19). Beyond the village (beyond BL20) near the Stříbřecký bridge and the Memorial of Emmy Destinn the pipeline enters the forest, crossing the Nová řeka river and continuing west towards Třeboň – Stará Hlína. Near the HV line at the Starý vdovec pond the pipeline connects to route A (BL24) and continues southeast towards BL28. The pipeline route crosses local road 1035 and beyond deflection point BL26 it enters the forest growth. On the right side, between deflection points BL27 and BL28, the route follows the outskirts of the Stará řeka National Nature Reserve.

The pipeline route keeps running through the Třeboňsko Protected Landscape Area west of the National Nature Reserve. The route leads along forest roads towards Branná, bypassing it in the west and continuing towards Hrachoviště, Kojákovice and Kramolín in the direction of Trhové Sviny.

Beyond Jílovice (at BL 37) the pipeline passes along a forest road, under the Czech Railways electrified railway line near the Jílovice railway station and enters the National Nature Reserve.

Then, the pipeline bypasses the town of Trhové Sviny in the east and continues south along Kamenná, Benešov nad Černou, Malonty and Tichá towards the state border with Austria.

The pipeline route largely runs across a pasture for cattle (fenced areas) and fields, partly along the forest roads in the vicinity of national nature reserves. The route of the pipeline crosses an electrified railway line and local streams.

The beginning of the route is tentatively set at the coordinates of 49°12'51 N, 14°57'16" E.

The end of the pipeline is tentatively set at the coordinates of 48°37'04" N, 14°30'14" E.

4 DATA ON REQUIRED DOCUMENTATION AND SURVEYS

Before commencement of works and as part of preparation of further stages of project documentation, it will be necessary to obtain the following surveys and measurements for the purposes of the individual professions.

- Processing of EIA notifications and documentation under Act No. 100/2001 Coll., on Environmental Impact Assessment, according to Annex 4 – large EIA (pipelines of lengths greater than 20 km).
- Geodetic (altimetric and planimetric) survey of the pipeline route and the surrounding areas, survey of the green areas affected by the pipeline route
- Calculation of damages caused to production functions of the forest by the temporary seizure of forest lands and limitation of their use for the fulfilment of forest functions
- Engineering and geological survey – in selected areas, as determined by the author of the construction part of the project

- Pedological survey – in selected areas, as determined by the author of the construction part of the project, identification of soil quality
- Corrosion survey including a proposal of anticorrosion measures for the entire length of the pipeline route
- Atmogeochemical survey – if required by the authorities concerned
- Hydrogeological survey – in selected areas, as determined by the author of the construction part of the project
- Growing stock inventory
- Engineering survey

And others that may arise from the requirements of the authorities and organizations concerned.