



**HELLENIC GAS
TRANSMISSION
SYSTEM OPERATOR**

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**TECHNICAL JOB
SPECIFICATION**

499/5

REVISION 0

DATE 05/04/2011

HIGH PRESSURE (HP) TRANSMISSION SYSTEMS

REINSTATEMENT

Job Spec. No 499/5
 Revision 0
 Date 05-04-2011
 Page 2/7

QUALITY ASSURANCE PAGE

CHANGES LOG

REVISIONS LOG

0	05-04-2011	FIRST ISSUE	PQ DPT.	V.G.
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Job Spec. No 499/5
Revision 0
Date 05-04-2011
Page 3/7

CONTENTS

REFERENCE DOCUMENTS

- 1.0 SCOPE**
- 2.0 EXTENT AND REQUIREMENTS**
- 3.0 REINSTATEMENT FOR HORIZONTAL DIRECTIONAL DRILLING**



HELLENIC GAS TRANSMISSION SYSTEM OPERATOR

Job Spec. No 499/5
Revision 0
Date 05-04-2011
Page 4/7

REFERENCE DOCUMENTS

Job Spec. No. 199/7
[Tie-Ins]

Job Spec. No. 199/8
[Crossings]

Job Spec. No. 499/1
[Site Requirements]

Job Spec. No. 499/18
[Application of Erosion Protection Measures]

Job Spec. No 499/5
Revision 0
Date 05-04-2011
Page 5/7

1.0 SCOPE

This specification covers the minimum requirements for cleanup and surface reinstatement of the working width and the surface of other areas used for the construction of natural gas pipelines.

2.0 EXTENT AND REQUIREMENTS

All site surfaces, including the working width, construction sites, storage sites, access roads, etc., shall be reinstated by the Contractor in their original condition.

Topsoil, which has been stripped from the site and stored elsewhere, shall be spread over on its former location, so as to form a layer of the same thickness as before. Any stones larger than 0.15m shall be removed by the Contractor or left providing that permit has been obtained by landowner and the Owner Representative.

All debris materials such as electrode stumps, packaging, timber, temporary bridges, pipe stumps, cleared bush, etc, shall be removed at the Contractor's own cost.

The Contractor is liable for any expense arising from subsequent damage due to existence of large stones or other materials, left on or below the surface, which he has failed to remove.

The surface reinstatement work shall be carried out after the completion of backfilling works of pipe trench and the reinstatement of the drains.

Excess excavated material from row preparation and trench, shall be removed from site and disposed to areas, indicated by authorities, or will be spread over the row in case that the relevant permit shall be given by landowner or the relevant authorities. The relevant protocol shall be signed by the said landowner or competent authority.

It is important to the Owner that the working width and all sites are reinstated to their original condition as soon as possible. In agricultural areas the surface reinstatement operations may not last more than 18 calendar days after the pipe lowering, (see fig.1), unless written approval is obtained from the Client representative. The Owner Representative shall be entitled to stop the work, if surface reinstatement is not carried out within the 18 day period. Any compensation shall not be paid by the Owner for such interruption.

Agricultural areas shall be harrowed, before being handed back to the landowners. All areas, which have been subjected to heavy equipment, shall be grubbed to a depth of approx. 0.4 m before replacement of topsoil, according to the requirements of the Owner Representative.

In areas where shallow drains exist, grubbing shall be done to a depth, which shall not damage the drains, and according to the landowner's requirements and the approval by the Owner Representative.

The Contractor is responsible for the resowing of the public owned areas and along the roads, but not for the resowing of farmland.

If required, temporary fences, watering installations, etc, shall be left in place until the grass sown by the Contractor or the landowner is re-established and the pasture is usable again.

Job Spec. No 499/5
Revision 0
Date 05-04-2011
Page 6/7

The Contractor shall not be responsible for the reinstatement of plantations, hedges and windbreak belts.

Permanent fences and walls (including stone walls) shall be reconstructed by the Contractor, to their previous condition, using new materials as required. Ditches shall be returned to their original course and cross-section over the entire length affected by the construction. Any areas, ditches, watercourses, etc. affected by dewatering and water disposal shall be cleaned and reinstated. In wooded areas, all useless stumps, branches, etc. shall be removed, and the ground shall be leveled.

All roads, bridges, etc. affected by the Contractor's work or his equipment shall be repaired. Permanent road signs damaged by the Contractor shall be reinstated and all temporary signs shall be removed by the Contractor.

In areas with rocky and stony surfaces, the reinstatement of the working width shall be carried out in such a way that the earth cover shall obtain its previous form.

On completion of the reinstatement the Contractor shall submit to the Owner Representative a written statement by the respective landowners (including owners of roads, railways, watercourses, etc.) certifying that the re- instatement has been carried out satisfactorily.

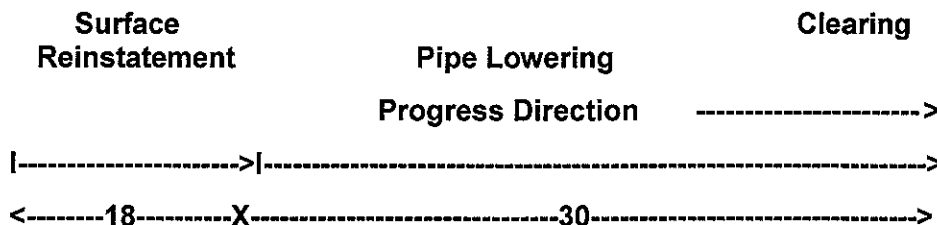


Figure 1
Maximum available time (in calendar days) between certain construction activities, in agricultural areas only

For time limits on tie-ins and road and railway crossings, reference is made to **Job Specifications No. 199/7 and 199/8** respectively.

For time limits on clearing, reference is made to **Job Specification No. 499/1, section 6.**

For slope surface erosion protection reference is made to **Job Spec. No. 499/18.**

If for any reason attributable to the Contractor the required reinstatement works, as these are described above, are not fully executed, the relevant costs for each specific activity not executed will be reduced from contractual price.

3.0 REINSTATEMENT FOR HORIZONTAL DIRECTIONAL DRILLING

It is Contractor's obligation to reinstate all locations where he takes surveying measurements during the drilling.

Upon the completion of pullback and the subsequent tests (hydrostatic test, sizing pig, isolation test) both pipe and rig sites will be reinstated. Included in this work is the removal of bentonite drilling fluid from the entry and exit pits and the filling in of these excavations.

Job Spec. No 499/5
Revision 0
Date 05-04-2011
Page 7/7

The Drilling Contractor is responsible for the disposal of surplus drilling mud upon the completion of the pipeline pullback. The bentonite drilling mud will be dumped into the trench made in the specially designated ROW, delivered by the Owner in the vicinity of the pipeline. The thickness of the mud varies from 100 mm higher the level of padding up to 300 mm as per the attached sketch in accordance with all ecological regulations and pipeline route and work performance area agreements.

Contractor is responsible for the application of all environment protection requirements which will be demanded by the relevant Authorities for the protected areas.