



Exploration & Production

GENERAL SPECIFICATION

SURVEYS

GS EP GEO 203

Geophysical survey for offshore pipeline inspection

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03	10/2008	Added references to GS EP GEO 301 and GS EP GEO 302
02	10/2005	Addition of "EP" root to GS identification
01	11/2003	Change of Group name and logo
00	02/2001	First issue
Rev.	Date	Notes

Contents

1. Scope	4
2. Reference documents.....	4
3. Pipeline network description	6
3.1 Platforms coordinates	6
3.2 Pipeline corridors	6
3.3 Coverage	6
3.4 Natural Seabed (NSB)	6
3.5 Line crossings	6
3.6 Specific features	6
3.7 Chainage	7
3.8 Water depth	7
4. Survey procedures.....	7
4.1 Basic inspection procedure.....	7
4.2 Specific inspection procedure.....	8
4.3 Subsidence survey	8
4.4 Share-out of survey equipment.....	8
5. Survey equipment	9
5.1 Vessel specifications	9
5.2 Positioning and navigation system	9
5.3 Bathymetry.....	11
5.4 Side scan sonar	11
5.5 Sub-bottom profiler	12
5.6 Survey equipment requirement.....	12
6. Report.....	12
6.1 Preliminary report	12
6.2 Draft of final report.....	13
6.3 Final report.....	13
7. Documents delivery	18
7.1 Final report.....	18



7.2	Field data.....	18
7.3	Data disposal	18

1. Scope

The aim of the General Specification for an annual geophysical inspection is:

- To check the thickness of clay/sand/gravel cover (in both horizontal and vertical planes) on all pipelines
- To check the integrity of the pipelines, to locate any unusual situation (exposure, free span) and to follow the evolution in time of the already known specific features.

This annual inspection shall be carried out from a dedicated survey vessel by means of Echo Sounder (ES), Side Scan Sonar (SSS), and Sub-Bottom Profiler (SBP).

The work program defined in this General specification is tentative and some complementary investigations may be required in the course of the survey. They shall be defined in the Particular Specification.

Note that particular care shall be given:

- To the various calibrations and offsets determination
- To the presentation in the final report of the results of the quality control.

Recording parameters and vessel's speed shall be adjusted in order to obtain the best possible data quality, especially for the detection of the pipelines, which have been recently buried.

2. Reference documents

The reference documents listed below form an integral part of this General Specification. Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published at the EFFECTIVE DATE of the CONTRACT.

In addition, applicable codes and Standards which are to be used in conjunction with this specification will be listed in the Particular Specification.

The order of precedence of the applicable documents shall be:

- The Particular Specification
- The present General Specification
- The Codes and Standards in reference.

Where this specification states no overriding requirements, the referenced Codes and Standards shall apply in full. Standards equivalent to those referenced herein shall not be substituted without written approval from the COMPANY.

Standards

Reference	Title
IAGC	Marine Geophysical Operations Safety Manual 7 th edition, 1991
BS 8010, Part 3	Pipelines Subsea: Design, Construction and Installation
DNV	Rules for Submarine Pipeline Systems, December 1996

Reference	Title
E&P Forum	Service Vessel Marine Safety Guidelines, Report N° 6.38/213 - December 1994
	Health, Safety, and Environmental Schedules for Marine Geophysical Operations, July 1995
	Guidelines on the use of Small Boats in Marine Geophysical Operations, July 1995
ISO 13623	Petroleum and Natural Gas Industries – Pipeline Transportation Systems
Nederlands Normalisatie Instituut	Requirements for steel pipeline transportation systems
UKOOA guidelines	Guidelines for the Conduct of site Surveys for Mobile Drilling Rigs - 1995
	Guidelines on the use of differential global systems in offshore surveying, 1994

Professional Documents

Reference	Title
Not applicable	

Regulations

Reference	Title
Not applicable	

Codes

Reference	Title
Not applicable	

Other documents

Reference	Title
Not applicable	

Total General Specifications

Reference	Title
GS EP GEO 201	Offshore geophysical surveys
GS EP GEO 202	Geophysical Survey for the Installation and/or the Inspection of Offshore Structures and Pipelines
GS EP POS 001	Offshore surface positioning works
GS EP POS 002	Subsea positioning works

3. Pipeline network description

The pipe line network description is supplied in the Particular Specification.

3.1 Platforms coordinates

Platform co-ordinates are given in the Particular Specification.

3.2 Pipeline corridors

Pipeline corridors are defined in the Particular Specification.

3.3 Coverage

All pipelines of the network are protected. The majority of the pipelines are buried, of which some with artificial back filling. Some pipelines laid at an early stage were only protected by sand.

The thickness of the sand coverage over the pipelines is ranging from a few centimetres up to 2 metres in some places.

3.4 Natural Seabed (NSB)

Natural seabed is defined as the seabed level, which has not been disturbed by pipeline laying, dumping, and trenching operations or other.

Natural seabed level at pipe location is the average of the seabed level taken at least 80 m either side of the pipeline.

Natural seabed shall be taken as the relative vertical reference level for the mapping of the pipeline position when required.

3.5 Line crossings

They include subsea lines from other gas/oil fields and telephone cables.

3.6 Specific features

Some of the specific features detailed in the Particular Specification shall be checked during the annual inspection.