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Watch the video  
"Flow in Long Subsea Pipelines"  
to see how this report was created!

# Zeepipe gas export pipeline

Steady-state simulation of coldest month

January 07 2016

## Summary for simulation 1, line 1

### Main geometrical data

Total length 813 km

### Most important results, with extreme values and their locations

Variable	Unit	Inlet	Outlet	Min, at pos x	Max, at pos x
Pressure p	MPa	14.9	8.28	8.28 at 813 km	15.05 at 3.7 km
Temperature T	K	288	274.8	274.8 at 813 km	288 at 0 km
Fluid mass flow	kg/s	382	382	381.952 at 40.2 km	382 at 803.7 km
Elevation angle	deg	-0.1	0	-0.1 at 0 km	0 at 787.4 km
Fluid velocity	m/s	3.36	5.91	3.16 at 47.6 km	5.91 at 813 km

### Average velocities and transfer times

	Unit	Fluid
Average velocity:	m/s	4.007
Transfer time:	h	56.4

### Fluid composition

Equation of state used: SRK Peneloux.

Type of PVT-properties: 3-phase (Gas, Oil, Water).

Water mass fraction at the source: 1E-05

Component	Mass fraction	Component	Mass fraction
H2O	1E-05	iC4	0.003
N2	0.0137	nC4	0.0025
CO2	0.0138	iC5	0.0006
C1	0.874191	nC5	0.0003
C2	0.069699	C6	0.0009
C3	0.0213		

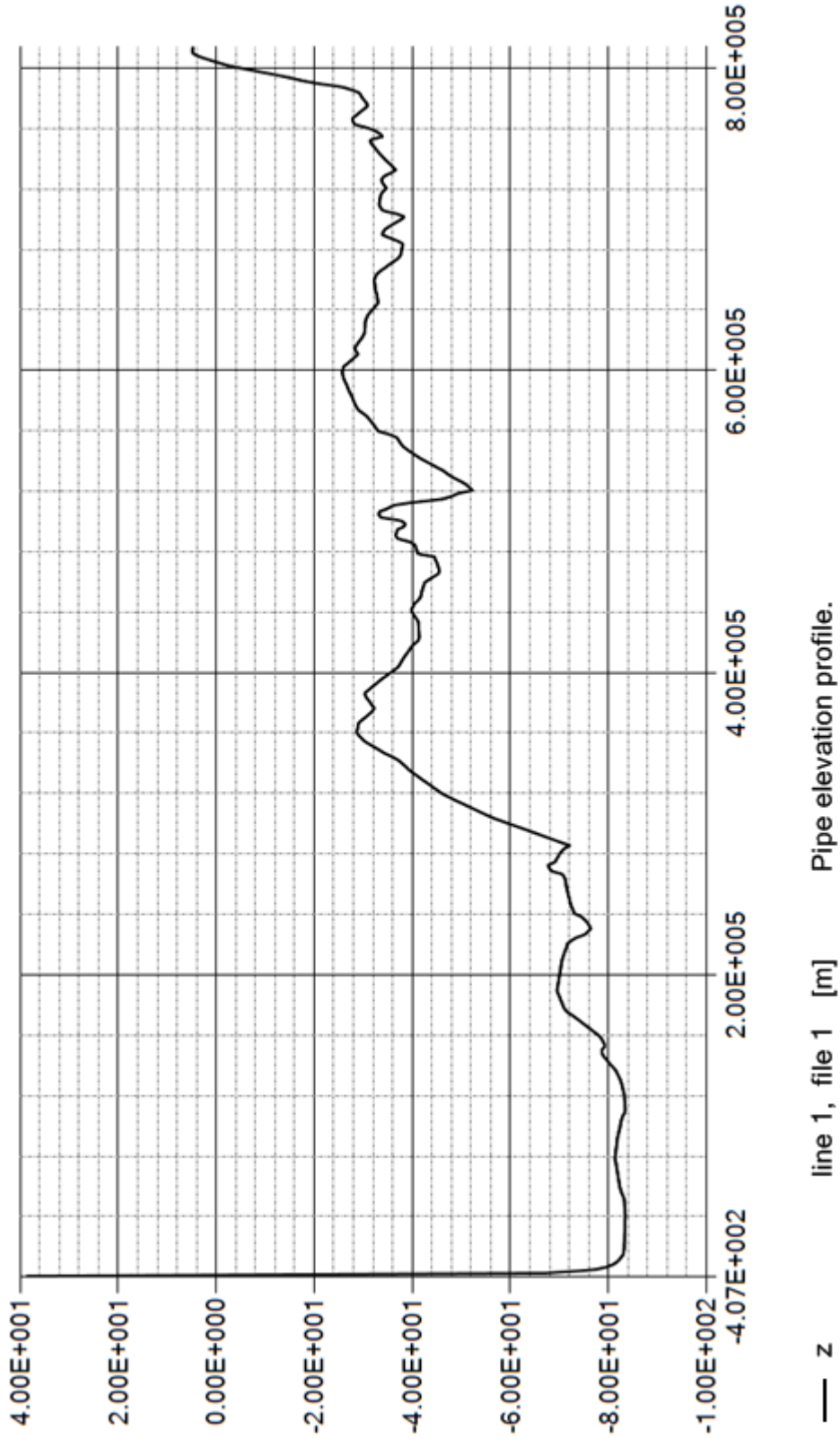
### Some fluid properties

Variable	Unit	Inlet	Outlet	Min, at pos x	Max, at pos x
Fluid density	kg/m <sup>3</sup>	154.6	88.1	88.1 at 813 km	164.8 at 47.6 km
Dynamic visc.	kg/ms	1.88E-5	1.36E-5	1.36E-5 at 813 km	1.95E-5 at 41.9 km
Prandtl Number	-	1.2	1	1 at 813 km	1.3 at 80.1 km

### Data-files used to generate this report

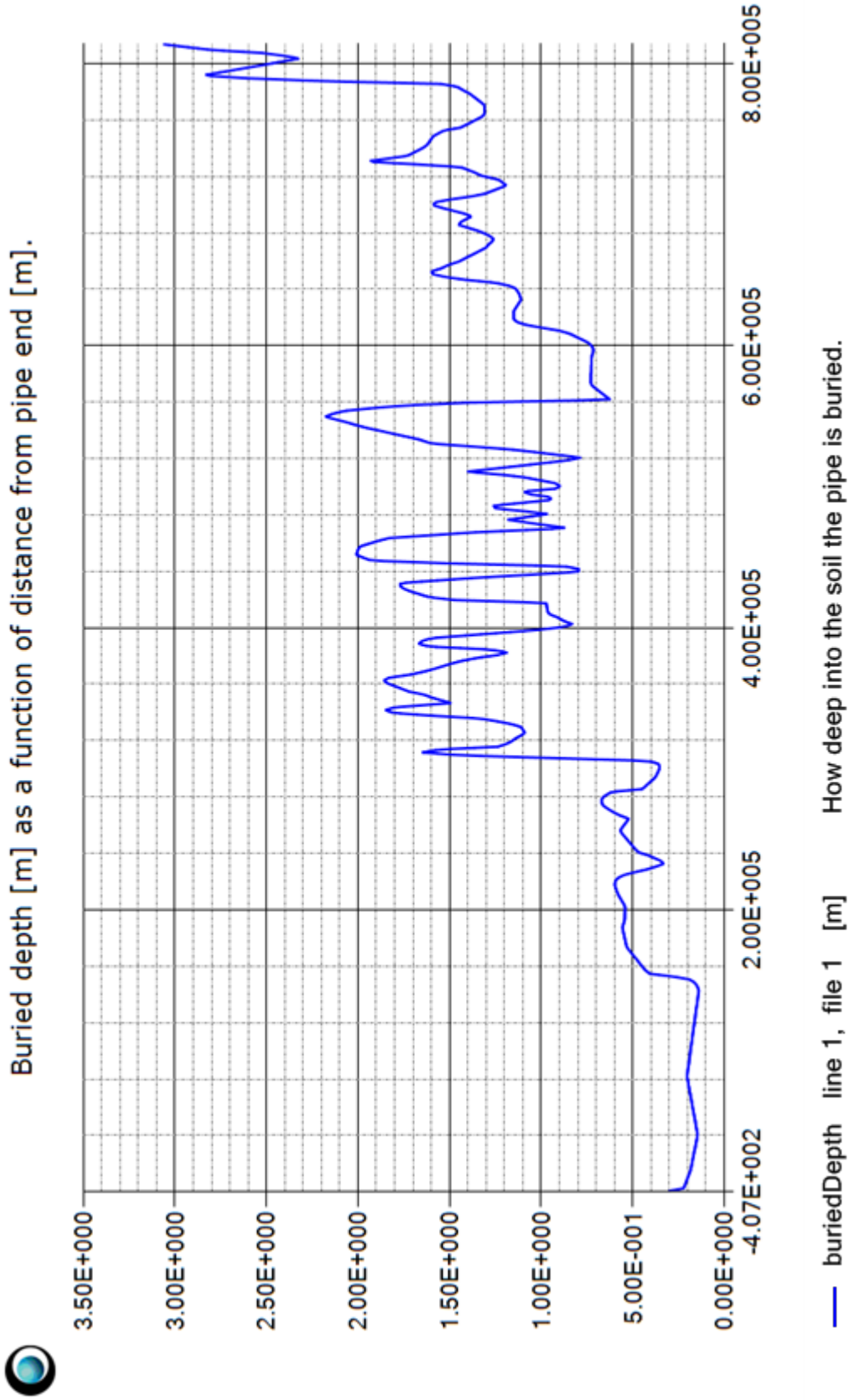
File-name	File No.	Pipe No.	File-date	File-time
Steady-state simulation of coldest month	1	1	2016.01.07	07.13.23

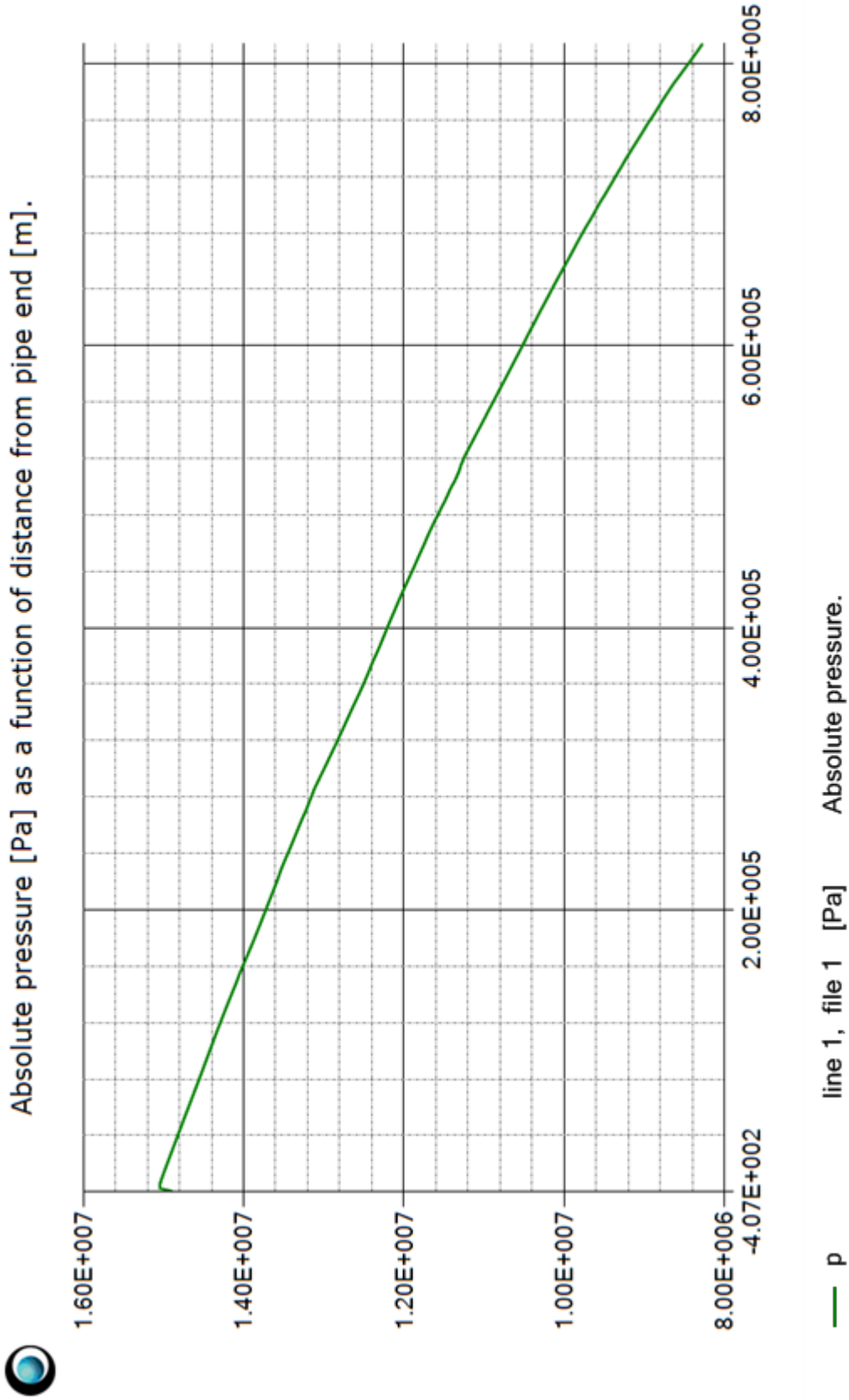
Pipe elevation profile [m] as a function of distance from pipe end [m].



line 1, file 1 [m] Pipe elevation profile.







Temperature [K] as a function of distance from pipe end [m].

