

REFERENCES

N05A-7-50-0-72018-01/06
N05A-7-50-0-72019-01
N05A-7-10-0-70032-01

Pipeline alignment sheet - Buried / Unburied option - sheet
01-06
Approach drawing @ N05A
Approach drawing @ NGT

GE0xyz
LU0022H-553_A1_1905_UTM31-ED50_LAT_MB_#0.5
LU0022H-553_A2_1905_UTM31-ED50_LAT_MB_#0.5 + EXTRA POLYGON
LU0022H-553_A3_1905_UTM31-ED50_LAT_MB_#0.5 + EXTRA POLYGON
LU0022H-553_A4_1905_UTM31-ED50_LAT_MB_#0.5
LU0022H-553_A5_1905_UTM31-ED50_LAT_MB_#0.5

LEGEND

GENERAL

- 1.0 KILOMETER MARKER
- PIPELINE: N05A - NGT
- CABLE: N05A - RIFFGAT
- BOUNDARY OF SURVEY AREA
- EXISTING PIPELINE
- EXISTING CABLE
- SHIPPING LANE RIJKSWATERSTAAT
- ROCKDUMP
- NATURA2000
- OYSTERBANK

BATHYMETRY AND SEABED FEATURES

- 0.5 CONTOUR LINE AT 1m INTERVAL
- SONAR CONTACT
- DEPRESSION
- MOUND
- AS-FOUND WELLHEAD
- CPT05
- VC05
- 65mT
- CONE PENETRATION TEST
- VIBRE CORE
- MAGNETIC ANOMALY
- WRECK

GEODETIC PARAMETERS

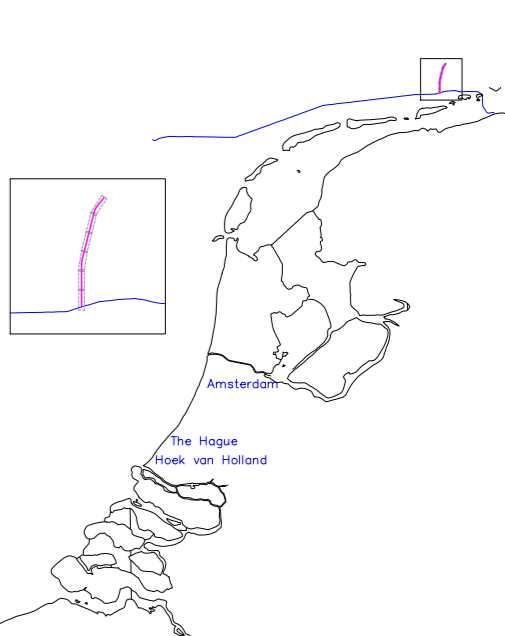
PROJECTED CRS: ED50/UTM zone 31N (EPSG: 23031)

Horizontal Datum Name: European Datum 1950 North Sea -UKCS
Projection Name: Universal Transverse Mercator

Ellipsoid:
International 1924 (Hayford 1909)
Semi major axis a = 6 378 388.000
Semi minor axis b = 6 356 911.946
Inverse Ellipticity 1/f = 297.000
Excentricity squared e = 0.006 722 670

Zone : = North 31
Central meridian : = 3° East
Latitude of origin : = Equator
False Easting : = 500 000.00 m
False Northing : = 0.00 m
Scale factor on C.M.: = 0.999 6

WGS84 to ED50 TRANSFORMATION: UK0AA (EPSG: 1311)



KEYPLAN

06	03-04-2020	ALTERNATIVE PIPELINE ROUTE	Svdv	-	PF	PF		
05	04-02-2020	CLIENT COMMENTS INCORPORATED	Svdv	-	PF	PF		
04	18-12-2019	CLIENT COMMENTS INCORPORATED	Svdv	-	PF	PF		
03	06-12-2019	FOR COMMENTS	Svdv	-	PF	PF		
02	20-11-2019	REROUTING OF PIPELINE & CABLE	Svdv	-	-	-		
Rev	Date	Description	Drawn	Eng.	Check	Appr.	Client	

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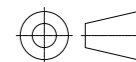
Jan Evertsenweg 12
3115 JA Schiedam
The Netherlands
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info@enersea.nl

**one
dyas**

Client
ONEDyas B.V.

Project
N05-A TO NGT PIPELINE

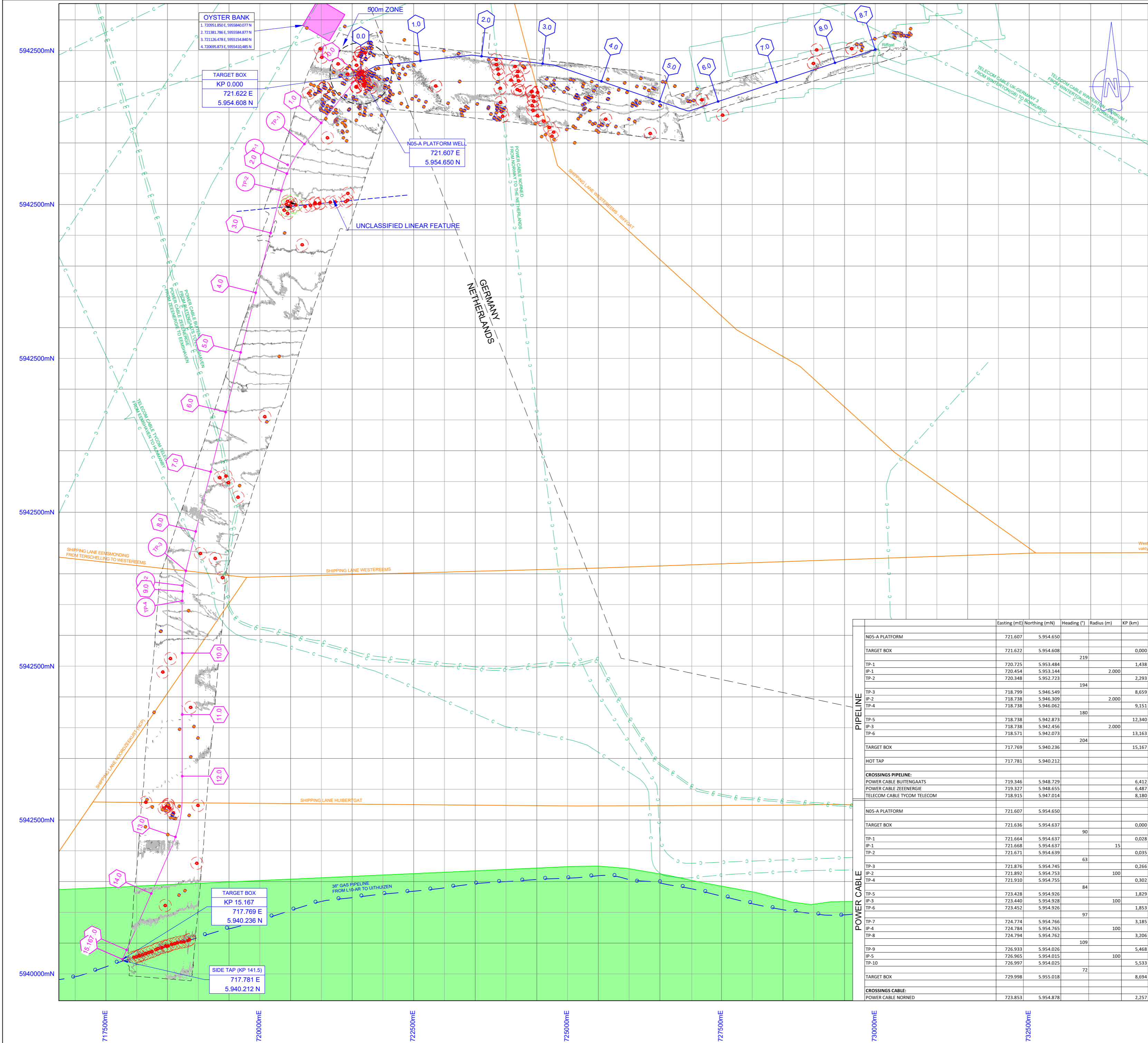
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**Pipeline Route
Overall Field Layout**



Scale:
Size: **1:30000
A1**

Project number:
19018

Document Number
N05A-7-51-0-72510-01



REFERENCES

N05A-7-50-0-72018-01/06
N05A-7-50-0-72019-01
N05A-7-10-0-70032-01

Pipeline alignment sheet - Buried / Unburied option - sheet 01-06
Approach drawing @ N05A
Approach drawing @ NGT

GEOxyz
LU0022H-553_A1_1905_UTM31-ED50_LAT_MB_#0.5
LU0022H-553_A2_1905_UTM31-ED50_LAT_MB_#0.5 + EXTRA POLYGON
LU0022H-553_A3_1905_UTM31-ED50_LAT_MB_#0.5 + EXTRA POLYGON
LU0022H-553_A4_1905_UTM31-ED50_LAT_MB_#0.5
LU0022H-553_A5_1905_UTM31-ED50_LAT_MB_#0.5

LEGEND

GENERAL

- 1.0 KILOMETER MARKER
- PIPELINE: N05A - NGT
- CABLE: N05A - RIFFGAT
- BOUNDARY OF SURVEY AREA
- EXISTING PIPELINE
- EXISTING CABLE
- SHIPPING LANE RIJKSWATERSTAAT
- ROCKDUMP
- NATURA2000
- OYSTERBANK

BATHYMETRY AND SEABED FEATURES

- 0.5 CONTOUR LINE AT 1m INTERVAL
- SONAR CONTACT
- DEPRESSION
- MOUND
- AS-FOUND WELLHEAD
- CPT05
- VC05
- 65mT
- CONE PENETRATION TEST
- VIBRE CORE
- MAGNETIC ANOMALY
- WRECK

GEODETIC PARAMETERS

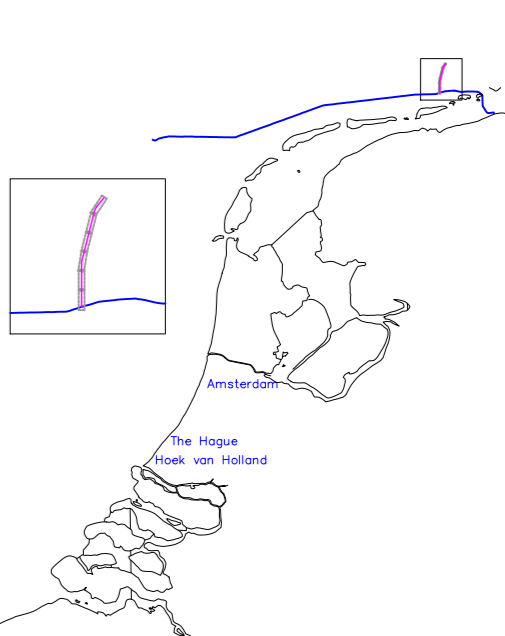
PROJECTED CRS: ED50/UTM zone 31N (EPSG: 23031)

Horizontal Datum Name: European Datum 1950 North Sea -UKCS
Projection Name: Universal Transverse Mercator

Ellipsoid: International 1924 (Hayford 1909)
Semi major axis a = 6 378 388.000
Semi minor axis b = 6 356 911.946
Inverse Ellatening 1/f = 297.000
Excentricity squared e = 0.006 722 670

Zone : North 31
Central meridian : 3° East
Latitude of origin : Equator
False Easting : 500 000.00 m
False Northing : 0.00 m
Scale factor on C.M.: 0.999 6

WGS84 to ED50 TRANSFORMATION: UKOAA (EPSG: 1311)



KEYPLAN

Rev	Date	Description	SvdV	Eng.	Check	Appr.	Client
02	10-07-2020	SIDE TAP POSITION UPDATED	SvdV	-	PF	PF	
01	20-05-2020	FOR COMMENTS	SvdV	-	PF	PF	

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Client
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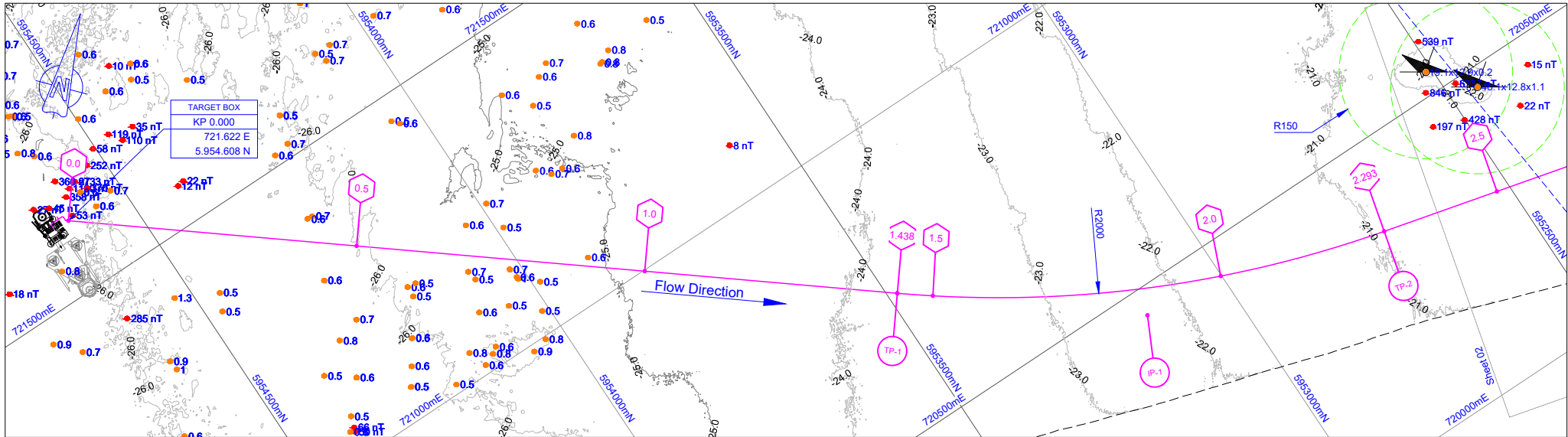
Project
N05-A TO NGT PIPELINE

Document
**Pipeline Route - Overall Field Layout
Alternative route to existing NGT side tap
at KP141.5**

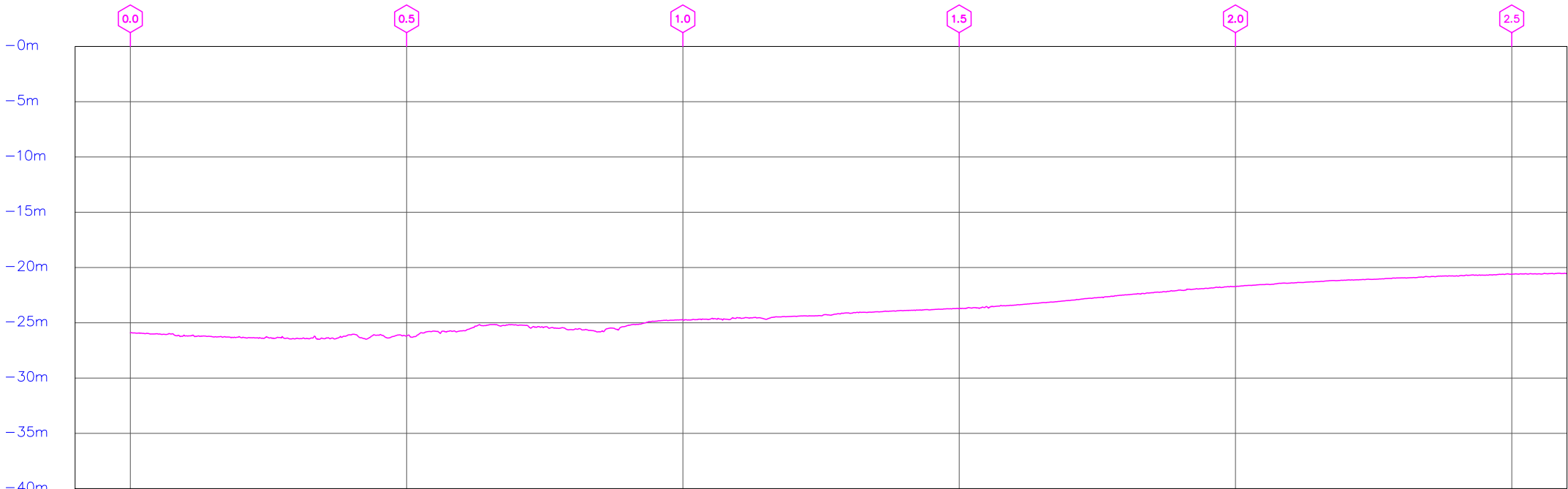
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Project number:
19018

Document Number
N05A-7-50-0-72026-01



PLAN VIEW



PROFILE

Vertical scale 1:250
Horizontal scale 1:5000

START

MATCHLINE

PIPELINE	KP 0.0	KP 0.05	KP 0.5	KP 1.0	KP 1.438	KP 1.5	KP 2.0	KP 2.293	KP 2.5
PIPE SIZE O.D./W.T./GRADE	20" NB 20.62mm L450 HFIW								
ANTI CORROSION COATING/THICKNESS(mm)	3LPE 2.8mm / 2.1mm FJC HEAT SHRINK SLEEVE								
CONCRETE WEIGHT COATING THICKNESS(mm) / DENSITY KG/M3	N/A (BURIED) / 140mm CWC, 3300 KG/m3 (UNBURIED)								
ANODE TYPE/SPACING/WEIGHT(kg)	20" HALF SHELL SACRIFICIAL ANODE / 1 EVERY TBD JOINTS / TBD								
PIPE WEIGHT IN AIR(kg/m)/SUBMERGED EMPTY(kg/m) / SUBMERGED FILLED(kg/m)	252.2 / 39.5 / 214.9 (BURIED) [HOLD] / 1201.4 / 693.3 / 869.3 (UNBURIED) [HOLD]								
ALLOWABLE FREE SPAN LENGTHS(m) (INSTALLATION / OPERATION)	TBD/TBD								
HEADING	218.6°				194.1°				
SPECIAL ITEMS	ROCK DUMP								
PRESSURE(barg) DESIGN/HYDROTEST	111.1 / 138.9								
TRENCHING	50m TRANSITION (ROCK DUMPED) 0.8m MINIMUM COVER OVER TOP OF PIPELINE (BURIED) / N/A (UNBURIED)								

GENERAL NOTES

REFERENCES

N05A-7-51-0-72510-01
N05A-7-50-0-72018-01/06
N05A-7-50-0-72019-01

Overall field layout drawing
Pipeline alignment sheet - Buried / Unburied option - sheet 01 / 06
Approach drawing @N05A

LEGEND

GENERAL

- KILOMETER MARKER
- PIPELINE: N05A - NGT
- CABLE: N05A - RIFFGAT
- BOUNDARY OF SURVEY AREA
- EXISTING PIPELINE
- EXISTING CABLE
- SHIPPING LANE RIJKSWATERSTAAT
- ROCKDUMP
- NATURA2000
- OYSTERBANK

BATHYMETRY AND SEABED FEATURES

- CONTOUR LINE AT 1m INTERVAL
- SONAR CONTACT
- DEPRESSION
- MOUND
- AS-FOUND WELLHEAD
- CP105
- VC05
- 65nT
- WRECK
- CONE PENETRATION TEST
- VIBRE CORE
- MAGNETIC ANOMALY

GEODETTIC PARAMETERS

PROJECTED CRS: ED50/UTM zone 31N (EPSG: 23031)

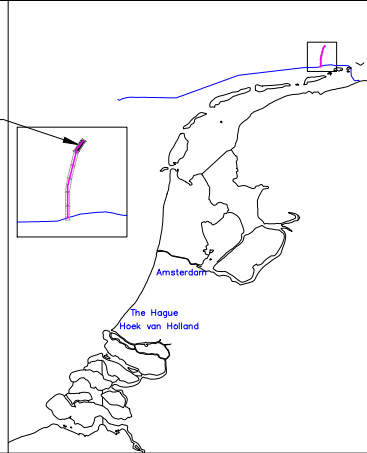
Horizontal Datum Name: European Datum 1950 North Sea -UKCS
Projection Name: Universal Transverse Mercator

Ellipsoid: International 1924 (Hayford 1909)
Semi major axis a = 6 378 388.000
Semi minor axis b = 6 356 911.946
Inverse Elattening 1/f = 297.000
Excentricity squared e = 0.006 722 670

Zone : North 31
Central meridian : 3° East
Latitude of origin : Equator
False Easting : 500 000.00 m
False Northing : 0.00 m
Scale factor on C.M.: 0.999 6

WGS84 to ED50 TRANSFORMATION: UK0AA (EPSG: 1311)

THIS DRAWING



KEYPLAN

Rev	Date	Description	Drawn	Eng.	Check	Appr.	Client
02	18-12-2019	CLIENT COMMENTS INCORPORATED	SvdV	-	PP	PP	
01	06-12-2019	FOR COMMENTS	SvdV	-	PP	PP	

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Client
ONEDyas B.V.

Project
N05-A TO NGT PIPELINE

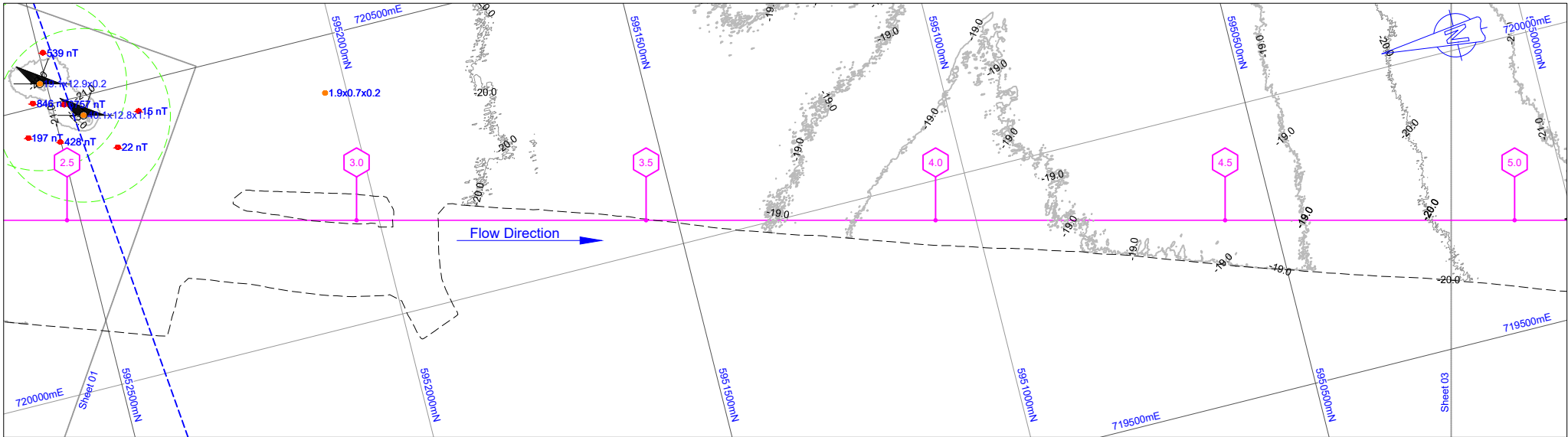
Document
**Pipeline alignment sheet
Buried / Unburied option
Sheet 01**



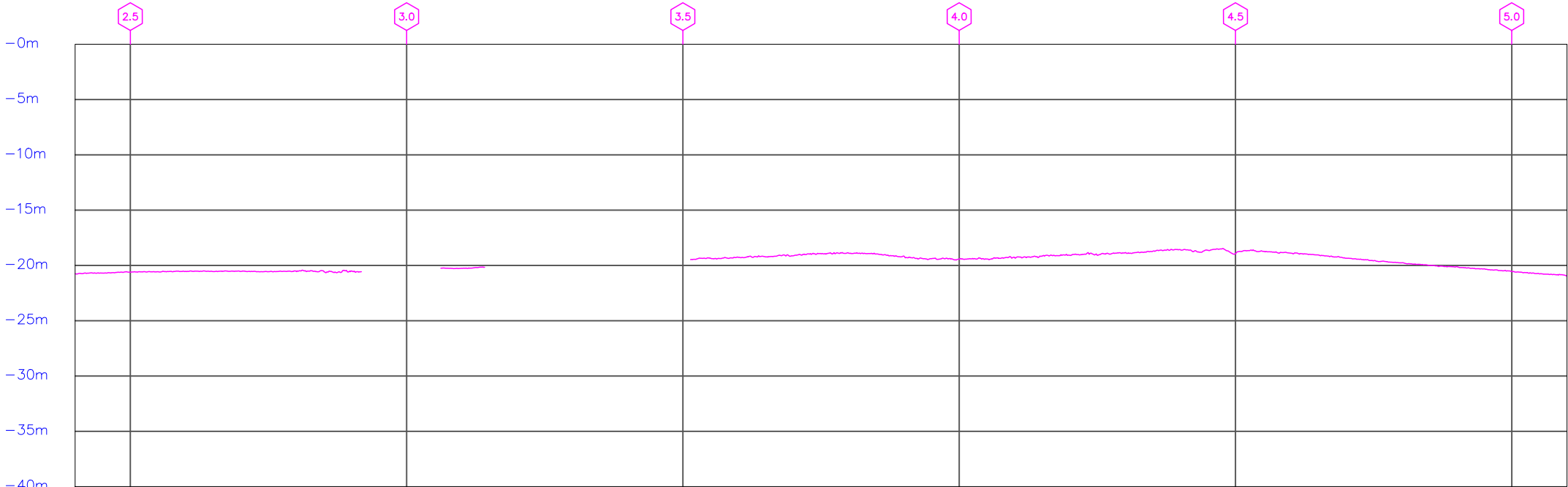
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Size: **A1**

Project number:
19018

Document Number
N05A-7-50-0-72018-01



PLAN VIEW



PROFILE

Vertical scale 1:250
Horizontal scale 1:5000

MATCHLINE								MATCHLINE	
		KP 2.5	KP 3.0	KP 3.5	KP 4.0	KP 4.5	KP 5.0		
PIPELINE									
PIPE SIZE O.D./W.T./GRADE		20" NB 20.62mm L450 HFIW							
ANTI CORROSION COATING/THICKNESS(mm)		3LPE 2.8mm / 2.1mm FJC HEAT SHRINK SLEEVE							
CONCRETE WEIGHT COATING THICKNESS(mm) / DENSITY KG/M3		N/A (BURIED) / 140mm CWC, 3300 KG/m3 (UNBURIED)							
ANODE TYPE/SPACING/WEIGHT(kg)		20" HALF SHELL SACRIFICIAL ANODE / 1 EVERY TBD JOINTS / TBD							
PIPE WEIGHT IN AIR(kg/m)/SUBMERGED EMPTY(kg/m)/ SUBMERGED FILLED(kg/m)		252.2 / 39.5 / 214.9 (BURIED) [HOLD] / 1201.4 / 693.3 / 869.3 (UNBURIED) [HOLD]							
ALLOWABLE FREE SPAN LENGTHS(m) (INSTALLATION / OPERATION)		TBD/TBD							
HEADING		194.1°							
SPECIAL ITEMS									
PRESSURE(barg) DESIGN/HYDROTEST		111.1 / 138.9							
TRENCHING		0.8m MINIMUM COVER OVER TOP OF PIPELINE (BURIED) / N/A (UNBURIED)							

GENERAL NOTES

REFERENCES

N05A-7-51-0-72510-01
N05A-7-50-0-72018-01/06

Overall field layout drawing
Pipeline alignment sheet - Buried / Unburied option - sheet 01 / 06

LEGEND

GENERAL

- KILOMETER MARKER
- PIPELINE: N05A - NGT
- CABLE: N05A - RIFFGAT
- BOUNDARY OF SURVEY AREA
- EXISTING PIPELINE
- EXISTING CABLE
- SHIPPING LANE RIJKSWATERSTAAT
- ROCKDUMP
- NATURA2000
- OYSTERBANK

BATHYMETRY AND SEABED FEATURES

- CONTOUR LINE AT 1m INTERVAL
- SONAR CONTACT
- DEPRESSION
- MOUND
- AS-FOUND WELLHEAD
- CP105
- VC05
- 65nT
- WRECK
- CONE PENETRATION TEST
- VIBRE CORE
- MAGNETIC ANOMALY

GEODETTIC PARAMETERS

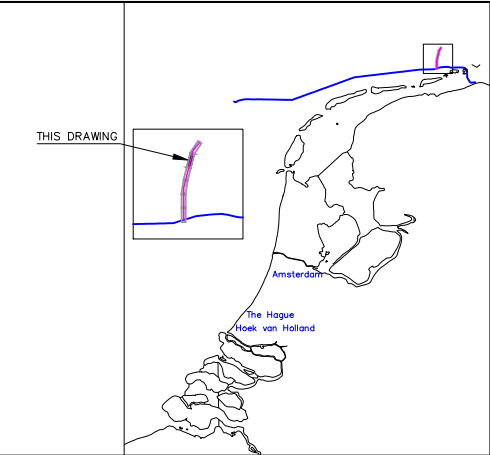
PROJECTED CRS: ED50/UTM zone 31N (EPSG: 23031)

Horizontal Datum Name: European Datum 1950 North Sea -UKCS
Projection Name: Universal Transverse Mercator

Ellipsoid:
International 1924 (Hayford 1909)
Semi major axis a = 6 378 388.000
Semi minor axis b = 6 356 911.946
Inverse Elattening 1/f = 297.000
Excentricity squared e = 0.006 722 670

Zone : = North 31
Central meridian : = 3° East
Latitude of origin : = Equator
False Easting : = 500 000.00 m
False Northing : = 0.00 m
Scale factor on C.M.: = 0.999 6

WGS84 to ED50 TRANSFORMATION: UK0AA (EPSG: 1311)



KEYPLAN

Rev	Date	Description	Drawn	Eng.	Check	Appr.	Client
02	18-12-2019	CLIENT COMMENTS INCORPORATED	SvdV	-	PF	PF	
01	06-12-2019	FOR COMMENTS	SvdV	-	PF	PF	

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Client
ONEDyas B.V.

Project
N05-A TO NGT PIPELINE

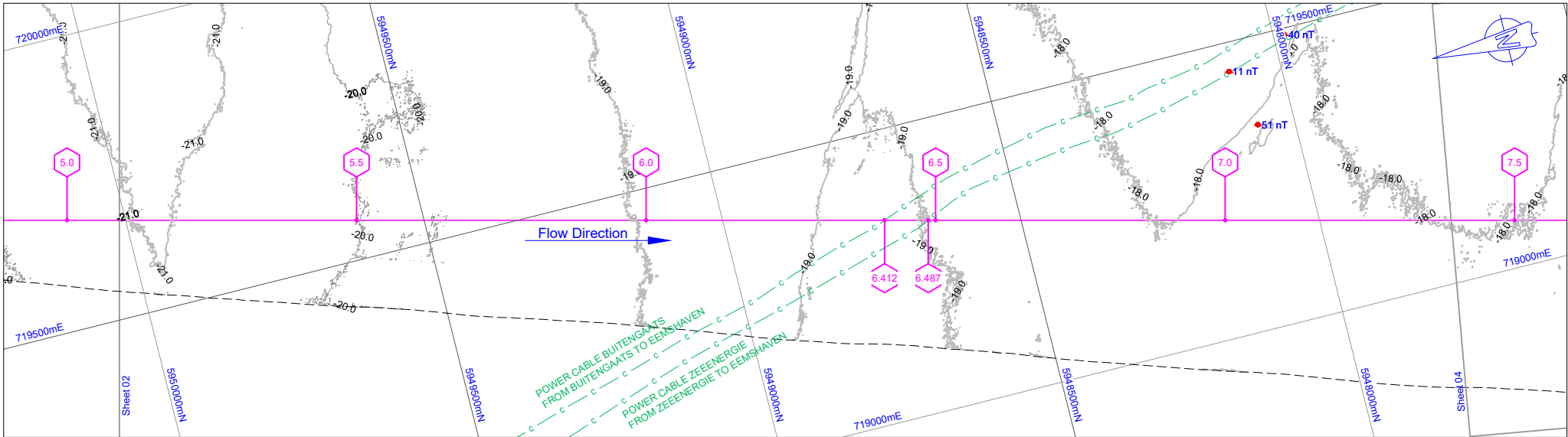
Document
**Pipeline alignment sheet
Buried / Unburied option
Sheet 02**



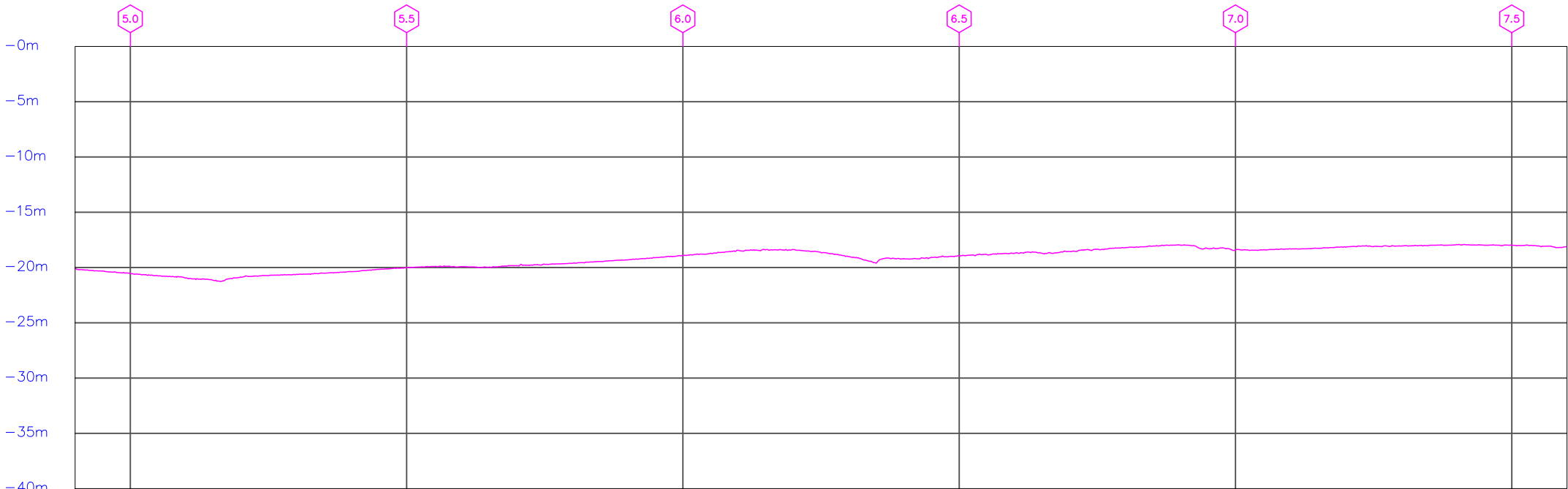
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Size: **A1**

Project number:
19018

Document Number
N05A-7-50-0-72018-02














PLAN VIEW



PROFILE

Vertical scale 1:250
Horizontal scale 1:5000

	MATCHLINE										MATCHLINE
											
PIPELINE	KP 5.0		KP 5.5		KP 6.0		KP 6.412	KP 6.487 KP 6.5		KP 7.0	KP 7.5
PIPE SIZE O.D./W.T./GRADE	20" NB 20.62mm L450 HFIW										
ANTI CORROSION COATING/THICKNESS(mm)	3LPE 2.8mm / 2.1mm FJC HEAT SHRINK SLEEVE										
CONCRETE WEIGHT COATING THICKNESS(mm) / DENSITY KG/M3	N/A (BURIED) / 140mm CWC, 3300 KG/m3 (UNBURIED)										
ANODE TYPE/SPACING/WEIGHT(kg)	20" HALF SHELL SACRIFICIAL ANODE / 1 EVERY TBD JOINTS / TBD										
PIPE WEIGHT IN AIR(kg/m)/SUBMERGED EMPTY(kg/m)/ SUBMERGED FILLED(kg/m)	252.2 / 39.5 / 214.9 (BURIED) [HOLD] / 1201.4 / 693.3 / 869.3 (UNBURIED) [HOLD]										
ALLOWABLE FREE SPAN LENGTHS(m) (INSTALLATION / OPERATION)	TBD/TBD										
HEADING	194.1°										
SPECIAL ITEMS	CROSSING     CROSSING										
PRESSURE(barg) DESIGN/HYDROTEST	111.1 / 138.9										
TRENCHING	0.8m MINIMUM COVER OVER TOP OF PIPELINE (BURIED) / N/A (UNBURIED)										

GENERAL NOTES

REFERENCES

N05A-7-51-0-72510-01
N05A-7-50-0-72018-01/06

Overall field layout drawing
Pipeline alignment sheet - Buried / Unburied option - sheet 01 / 06

LEGEND

GENERAL

- KILOMETER MARKER
- PIPELINE: N05A - NGT
- CABLE: N05A - RIFFGAT
- BOUNDARY OF SURVEY AREA
- EXISTING PIPELINE
- EXISTING CABLE
- SHIPPING LANE RIJKSWATERSTAAT
- ROCKDUMP
- NATURA2000
- OYSTERBANK

BATHYMETRY AND SEABED FEATURES

- CONTOUR LINE AT 1m INTERVAL
- SONAR CONTACT
- DEPRESSION
- MOUND
- AS-FOUND WELLHEAD
- CP105
- VC05
- 65nT
- WRECK
- CONE PENETRATION TEST
- VIBRE CORE
- MAGNETIC ANOMALY

GEODETTIC PARAMETERS

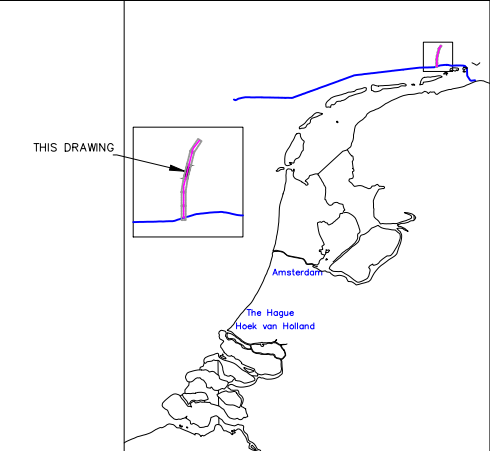
PROJECTED CRS: ED50/UTM zone 31N (EPSG: 23031)

Horizontal Datum Name: European Datum 1950 North Sea -UKCS
Projection Name: Universal Transverse Mercator

Ellipsoid: International 1924 (Hayford 1909)
Semi major axis a = 6 378 388.000
Semi minor axis b = 6 356 911.946
Inverse E flattening 1/f = 297.000
Excentricity squared e = 0.006 722 670

Zone : North 31
Central meridian : 3° East
Latitude of origin : Equator
False Easting : 500 000.00 m
False Northing : 0.00 m
Scale factor on C.M.: 0.999 6

WGS84 to ED50 TRANSFORMATION: UKOAA (EPSG: 1311)



KEYPLAN

Rev	Date	Description	Drawn	Eng.	Check	Appr.	Client
02	18-12-2019	CLIENT COMMENTS INCORPORATED	SvdV	-	PP	PP	
01	06-12-2019	FOR COMMENTS	SvdV	-	PP	PP	

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Client
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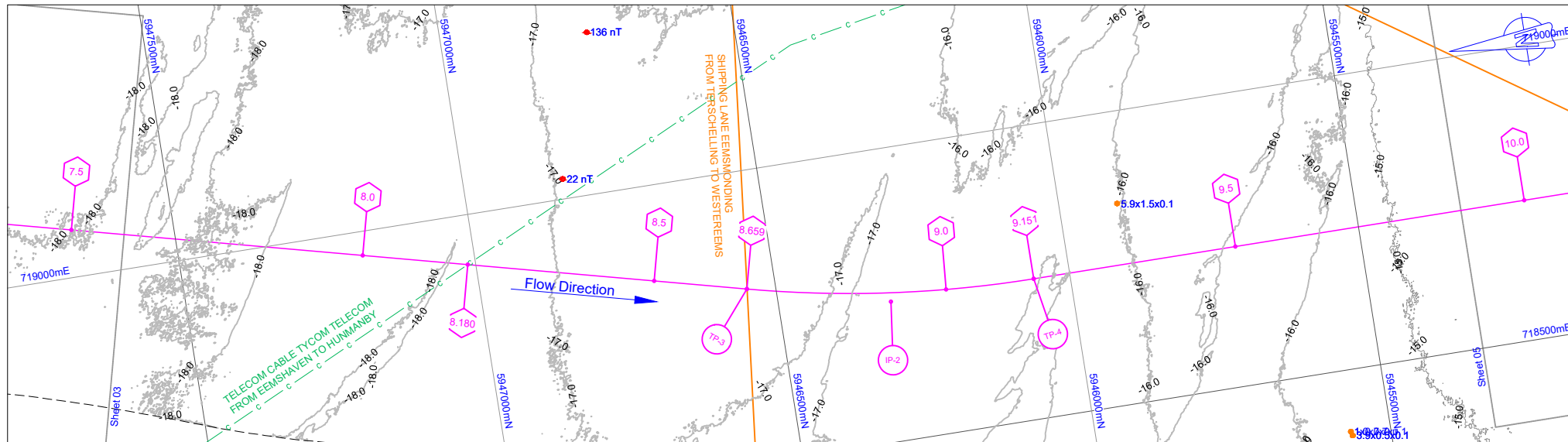
Project
N05-A TO NGT PIPELINE

Document
Pipeline alignment sheet
Buried / Unburied option
Sheet 03

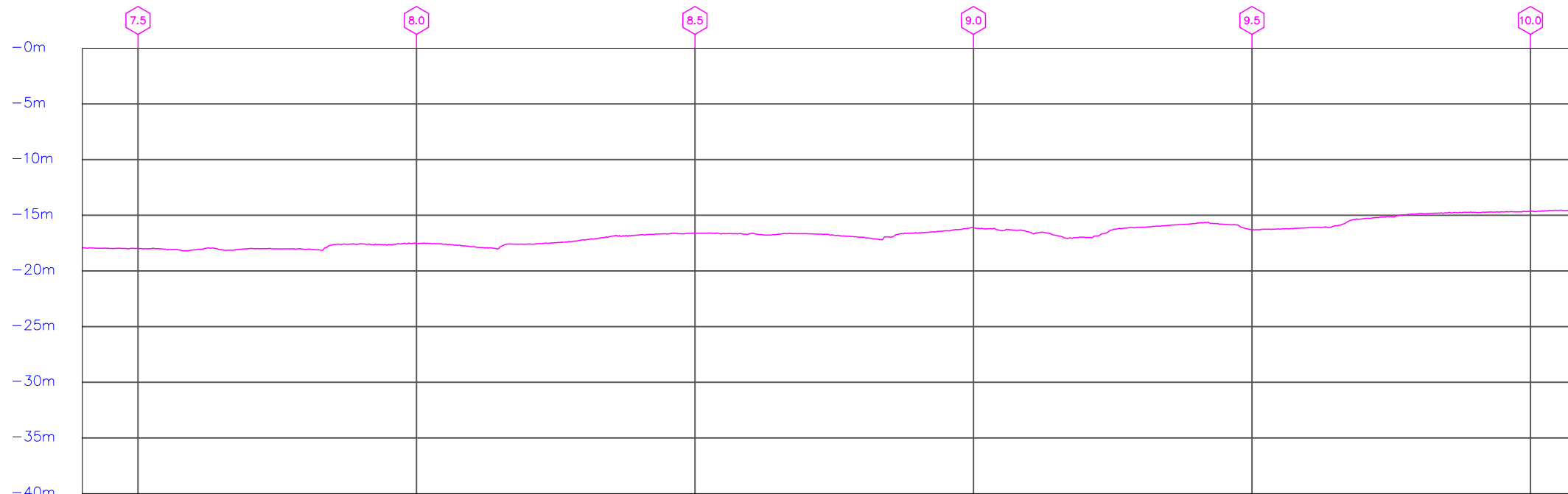
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Size: **A1**

Project number:
19018

Document Number
N05A-7-50-0-72018-03



PLAN VIEW



PROFILE

Vertical scale 1:250
Horizontal scale 1:5000



PIPELINE	KP 7.5	KP 8.0	KP 8.180	KP 8.5	KP 8.659	KP 9.0	KP 9.151	KP 9.5	KP 10.0
PIPE SIZE O.D./W.T./GRADE	20" NB 20.62mm L450 HFIW								
ANTI CORROSION COATING/THICKNESS(mm)	3LPE 2.8mm / 2.1mm FJC HEAT SHRINK SLEEVE								
CONCRETE WEIGHT COATING THICKNESS(mm) / DENSITY KG/M3	N/A (BURIED) / 140mm CWC, 3300 KG/m3 (UNBURIED)								
ANODE TYPE/SPACING/WEIGHT(kg)	20" HALF SHELL SACRIFICIAL ANODE / 1 EVERY TBD JOINTS / TBD								
PIPE WEIGHT IN AIR(kg/m)/SUBMERGED EMPTY(kg/m)/ SUBMERGED FILLED(kg/m)	252.2 / 39.5 / 214.9 (BURIED) [HOLD] / 1201.4 / 693.3 / 869.3 (UNBURIED) [HOLD]								
ALLOWABLE FREE SPAN LENGTHS(m) (INSTALLATION / OPERATION)	TBD/TBD								
HEADING	194.1°						180.0°		
SPECIAL ITEMS	CROSSING								
PRESSURE(barg) DESIGN/HYDROTEST	111.1 / 138.9								
TRENCHING	0.8m MINIMUM COVER OVER TOP OF PIPELINE (BURIED) / N/A (UNBURIED)								

GENERAL NOTES











REFERENCES

N05A-7-51-0-72510-01
N05A-7-50-0-72018-01/06

Overall field layout drawing
Pipeline alignment sheet - Buried / Unburied option - sheet 01 / 06

LEGEND

GENERAL

- | | |
|---|-------------------------------|
|  | KILOMETER MARKER |
|  | PIPELINE: N05A - NGT |
|  | CABLE: N05A - RIFFGAT |
|  | BOUNDARY OF SURVEY AREA |
|  | EXISTING PIPELINE |
|  | EXISTING CABLE |
|  | SHIPPING LANE RIJKSWATERSTAAT |
|  | ROCKDUMP |
|  | NATURA2000 |
|  | OYSTERBANK |

BATHYMETRY AND SEABED FEATURES

- 0.5 — CONTOUR LINE AT 1m INTERVAL
 LxWhl SONAR CONTACT
 LxWhl DEPRESSION
 LxWhl MOUND
 AS-FOUND WELLHEAD
 CP105 CONE PENETRATION TEST
 VC05 VIBRE CORE
 65nT MAGNETIC ANOMALY
 WRECK

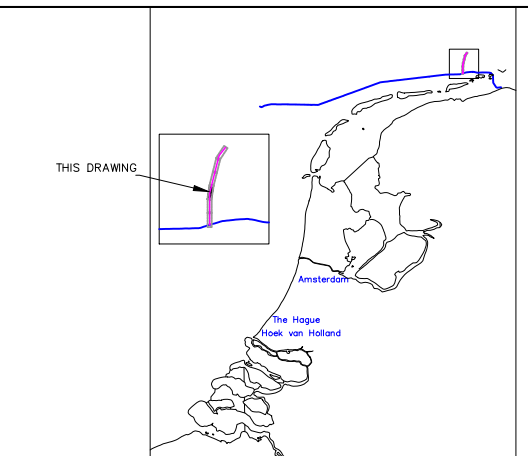
GEODETIC PARAMETERS

PROJECTED CRS: ED50/UTM zone 31N (EPSG: 23031)

Horizontal Datum Name: European Datum 1950 North Sea -UKCS
Projection Name: Universal Transverse Mercator

Ellipsoid:		Zone :	=	North 31
International 1924 (Hayford 1909)		Central meridian :	=	3° East
Semi major axis	a =	Latitude of origin :	=	Equator
Semi minor axis	b =	False Easting :	=	500 000.00 m
Inverse ELattening	1/f =	False Northing :	=	0.00 m
Excentricity squared	e =	Scale factor on C.M.:	=	0.999 6

WGS84 to ED50 TRANSFORMATION: UKOAA (EPSG: 1311)



KEYPLAN

			SvdV	-	PF	PF			
02 01	18-12-2019 06-12-2019	CLIENT COMMENTS INCORPORATED FOR COMMENTS	SvdV SvdV	- -	PF PF	PF PF			
Rev	Date	Description	Drawn	Eng.	Check	Appr.			Client

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Client
ONEDyas B.V.

Project
N05-A TO NGT PIPELINE

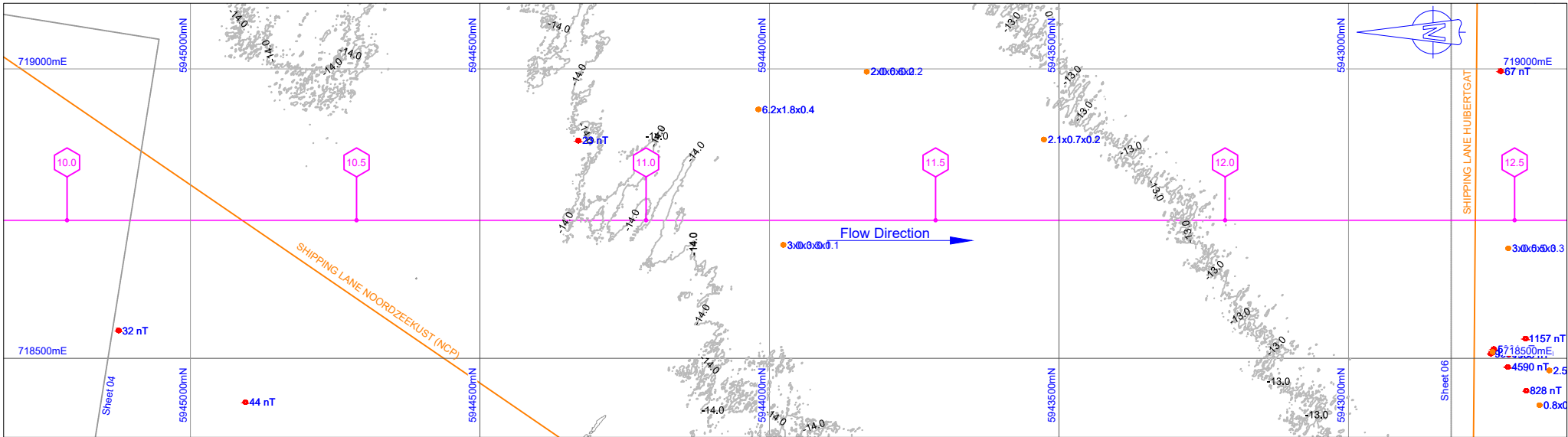
Document
Pipeline alignment sheet
Buried / Unburied option
Sheet 04



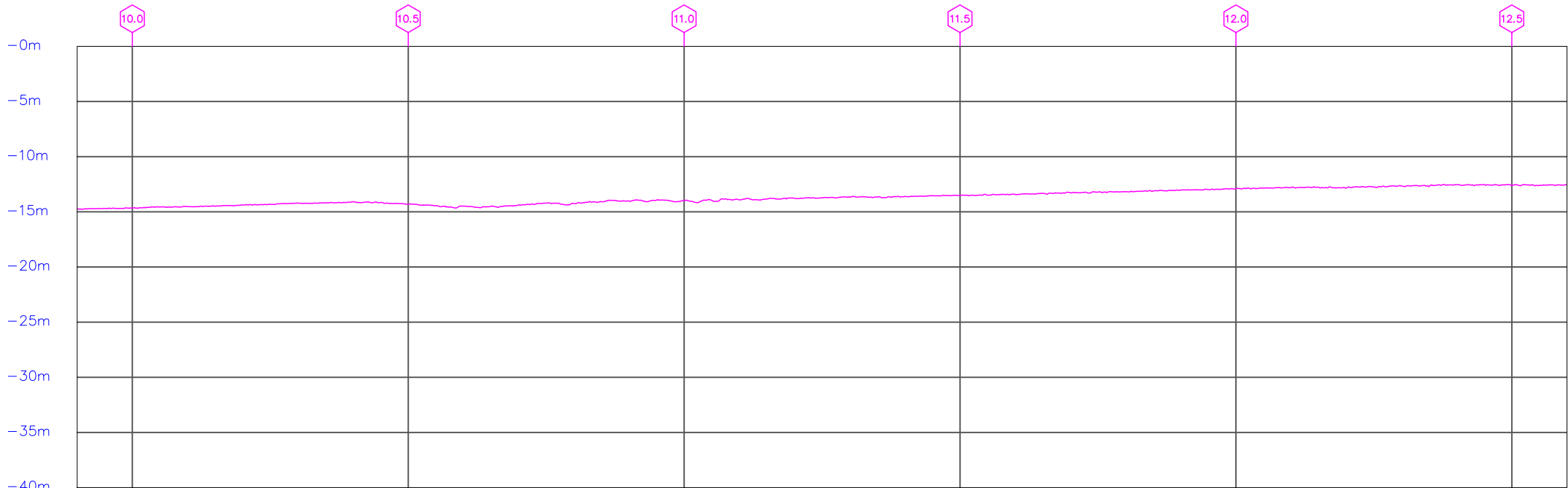
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Size: A1

Project number:
19018

Document Number
N05A-7-50-0-72018-04



PLAN VIEW



PROFILE

PIPELINE		MATCHLINE					
		KP 10.0	KP 10.5	KP 11.0	KP 11.5	KP 12.0	KP 12.5
PIPE SIZE O.D./W.T./GRADE		20" NB 20.62mm L450 HFIW					
ANTI CORROSION COATING/THICKNESS(mm)		3LPE 2.8mm / 2.1mm FJC HEAT SHRINK SLEEVE					
CONCRETE WEIGHT COATING THICKNESS(mm) / DENSITY KG/M3		N/A (BURIED) / 140mm CWC, 3300 KG/m3 (UNBURIED)					
ANODE TYPE/SPACING/WEIGHT(kg)		20" HALF SHELL SACRIFICIAL ANODE / 1 EVERY TBD JOINTS / TBD					
PIPE WEIGHT IN AIR(kg/m)/SUBMERGED EMPTY(kg/m)/ SUBMERGED FILLED(kg/m)		252.2 / 39.5 / 214.9 (BURIED) [HOLD] / 1201.4 / 693.3 / 869.3 (UNBURIED) [HOLD]					
ALLOWABLE FREE SPAN LENGTHS(m) (INSTALLATION / OPERATION)		TBD/TBD					
HEADING		180.0°					
SPECIAL ITEMS							
PRESSURE(barg) DESIGN/HYDROTEST		111.1 / 138.9					
TRENCHING		0.8m MINIMUM COVER OVER TOP OF PIPELINE (BURIED) / N/A (UNBURIED)					

GENERAL NOTES

REFERENCES

N05A-7-51-0-72510-01
N05A-7-50-0-72018-01/06

Overall field layout drawing
Pipeline alignment sheet - Buried / Unburied option - sheet 01 / 06

LEGEND

GENERAL

- KILOMETER MARKER
- PIPELINE: N05A - NGT
- CABLE: N05A - RIFFGAT
- BOUNDARY OF SURVEY AREA
- EXISTING PIPELINE
- EXISTING CABLE
- SHIPPING LANE RIJKSWATERSTAAT
- ROCKDUMP
- NATURA2000
- OYSTERBANK

BATHYMETRY AND SEABED FEATURES

- CONTOUR LINE AT 1m INTERVAL
- SONAR CONTACT
- DEPRESSION
- MOUND
- AS-FOUND WELLHEAD
- CP105
- VC05
- 65nT
- WRECK
- CONE PENETRATION TEST
- VIBRE CORE
- MAGNETIC ANOMALY

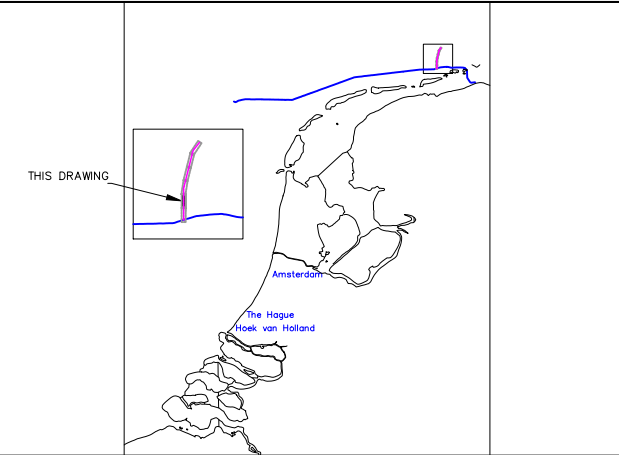
GEODETIC PARAMETERS

PROJECTED CRS: ED50/UTM zone 31N (EPSG: 23031)




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Projection Name: Universal Transverse Mercator

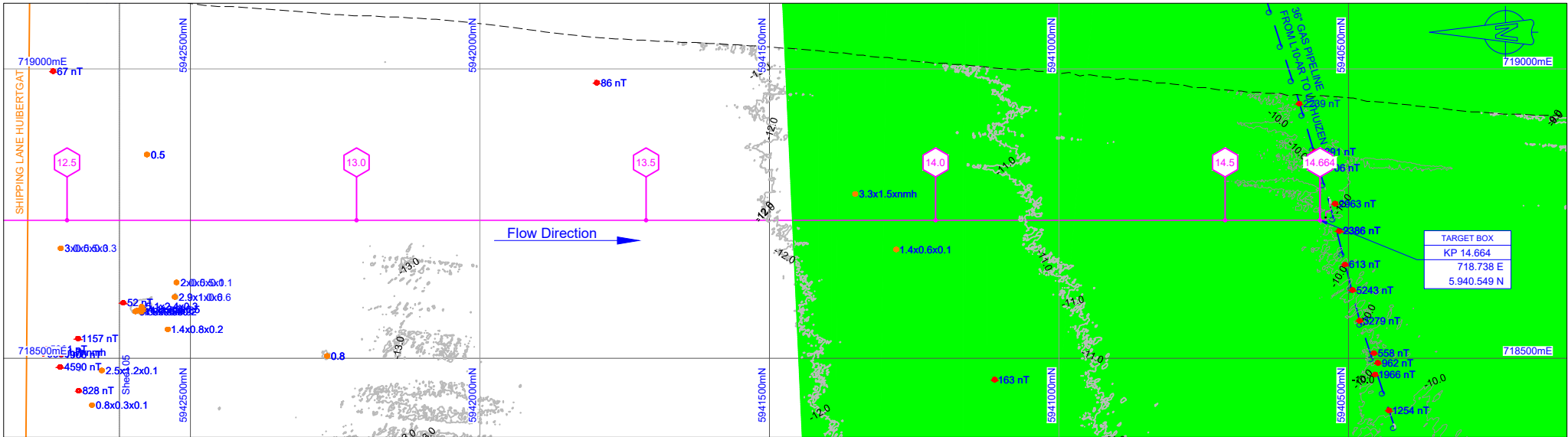
Ellipsoid: International 1924 (Hayford 1909)
Zone : North 31
Central meridian : 3° East
Latitude of origin : Equator
Semi major axis a = 6 378 388.000
Semi minor axis b = 6 356 911.946
False Easting : 500 000.00 m
Inverse ELattening 1/f = 297.000
False Northing : 0.00 m
Excentricity squared e = 0.006 722 670
Scale factor on C.M.: 0.999 6

WGS84 to ED50 TRANSFORMATION: UK0AA (EPSG: 1311)

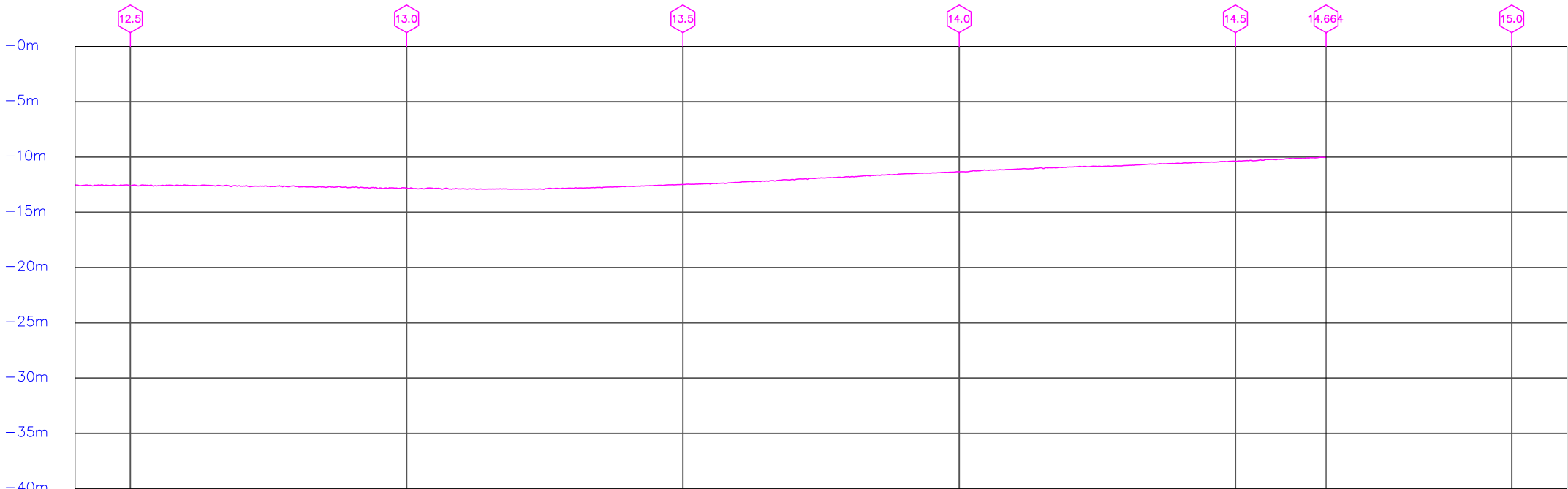


KEYPLAN

02	18-12-2019	CLIENT COMMENTS INCORPORATED	SvdV	-	PF	PF			
01	06-12-2019	FOR COMMENTS	SvdV	-	PF	PF			
Rev	Date	Description	Drawn	Eng.	Check	Appr.		Client	
 enersea			Client ONEDyas B.V.						
Jan Evertsenweg 12 3115 JA Schiedam The Netherlands +31(0) 103132100 info@enersea.nl			Project N05-A TO NGT PIPELINE						
			Document Pipeline alignment sheet Buried / Unburied option Sheet 05						
						Scale: Size: 1:5000 A1			
Project number: 19018		Document Number N05A-7-50-0-72018-05							



PLAN VIEW



PROFILE

Vertical scale 1:250
Horizontal scale 1:5000

MATCHLINE		END POINT	
PIPELINE			
PIPE SIZE O.D./W.T./GRADE	20" NB 20.62mm L450 HFIW		
ANTI CORROSION COATING/THICKNESS(mm)	3LPE 2.8mm / 2.1mm FJC HEAT SHRINK SLEEVE		
CONCRETE WEIGHT COATING THICKNESS(mm) / DENSITY KG/M3	N/A (BURIED) / 140mm CWC, 3300 KG/M3 (UNBURIED)		
ANODE TYPE/SPACING/WEIGHT(kg)	20" HALF SHELL SACRIFICIAL ANODE / 1 EVERY TBD JOINTS / TBD		
PIPE WEIGHT IN AIR(kg/m)/SUBMERGED EMPTY(kg/m)/ SUBMERGED FILLED(kg/m)	252.2 / 39.5 / 214.9 (BURIED) [HOLD] / 1201.4 / 693.3 / 869.3 (UNBURIED) [HOLD]		
ALLOWABLE FREE SPAN LENGTHS(m) (INSTALLATION / OPERATION)	TBD/TBD		
HEADING	180.0°		
SPECIAL ITEMS		ROCK DUMP	
PRESSURE(barg) DESIGN/HYDROTEST	111.1 / 138.9		
TRENCHING	0.8m MINIMUM COVER OVER TOP OF PIPELINE (BURIED) / N/A (UNBURIED)	50m TRANSITION (ROCK DUMPED)	

GENERAL NOTES

REFERENCES

N05A-7-51-0-72510-01
N05A-7-50-0-72018-01/06
N05A-7-10-0-70032-01

Overall field layout drawing
Pipeline alignment sheet - Buried / Unburied option - sheet 01 / 06
Approach drawing @NGT

LEGEND

GENERAL

- KILOMETER MARKER
- PIPELINE: N05A - NGT
- CABLE: N05A - RIFFGAT
- BOUNDARY OF SURVEY AREA
- EXISTING PIPELINE
- EXISTING CABLE
- SHIPPING LANE RIJKSWATERSTAAT
- ROCKDUMP
- NATURA2000
- OYSTERBANK

BATHYMETRY AND SEABED FEATURES

- CONTOUR LINE AT 1m INTERVAL
- SONAR CONTACT
- DEPRESSION
- MOUND
- AS-FOUND WELLHEAD
- CONE PENETRATION TEST
- VIBRE CORE
- MAGNETIC ANOMALY
- WRECK

GEODETTIC PARAMETERS

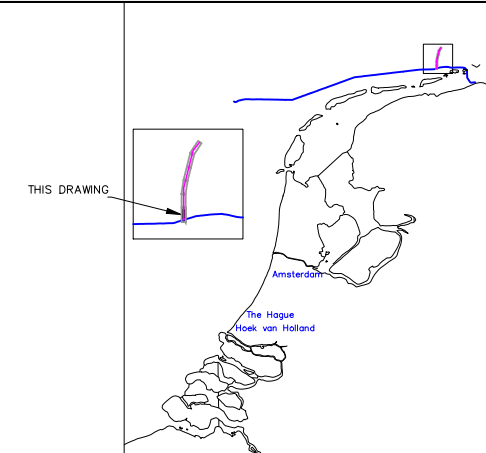
PROJECTED CRS: ED50/UTM zone 31N (EPSG: 23031)

Horizontal Datum Name: European Datum 1950 North Sea -UKCS
Projection Name: Universal Transverse Mercator

Ellipsoid: International 1924 (Hayford 1909)
Semi major axis a = 6 378 388.000
Semi minor axis b = 6 356 911.946
Inverse Elattening 1/f = 297.000
Excentricity squared e = 0.006 722 670

Zone : North 31
Central meridian : 3° East
Latitude of origin : Equator
False Easting : 500 000.00 m
False Northing : 0.00 m
Scale factor on C.M.: 0.999 6

WGS84 to ED50 TRANSFORMATION: UKOAA (EPSG: 1311)



KEYPLAN

Rev	Date	Description	Drawn	Eng.	Check	Appr.	Client
02	18-12-2019	CLIENT COMMENTS INCORPORATED	SvdV	-	PP	PP	
01	06-12-2019	FOR COMMENTS	SvdV	-	PP	PP	

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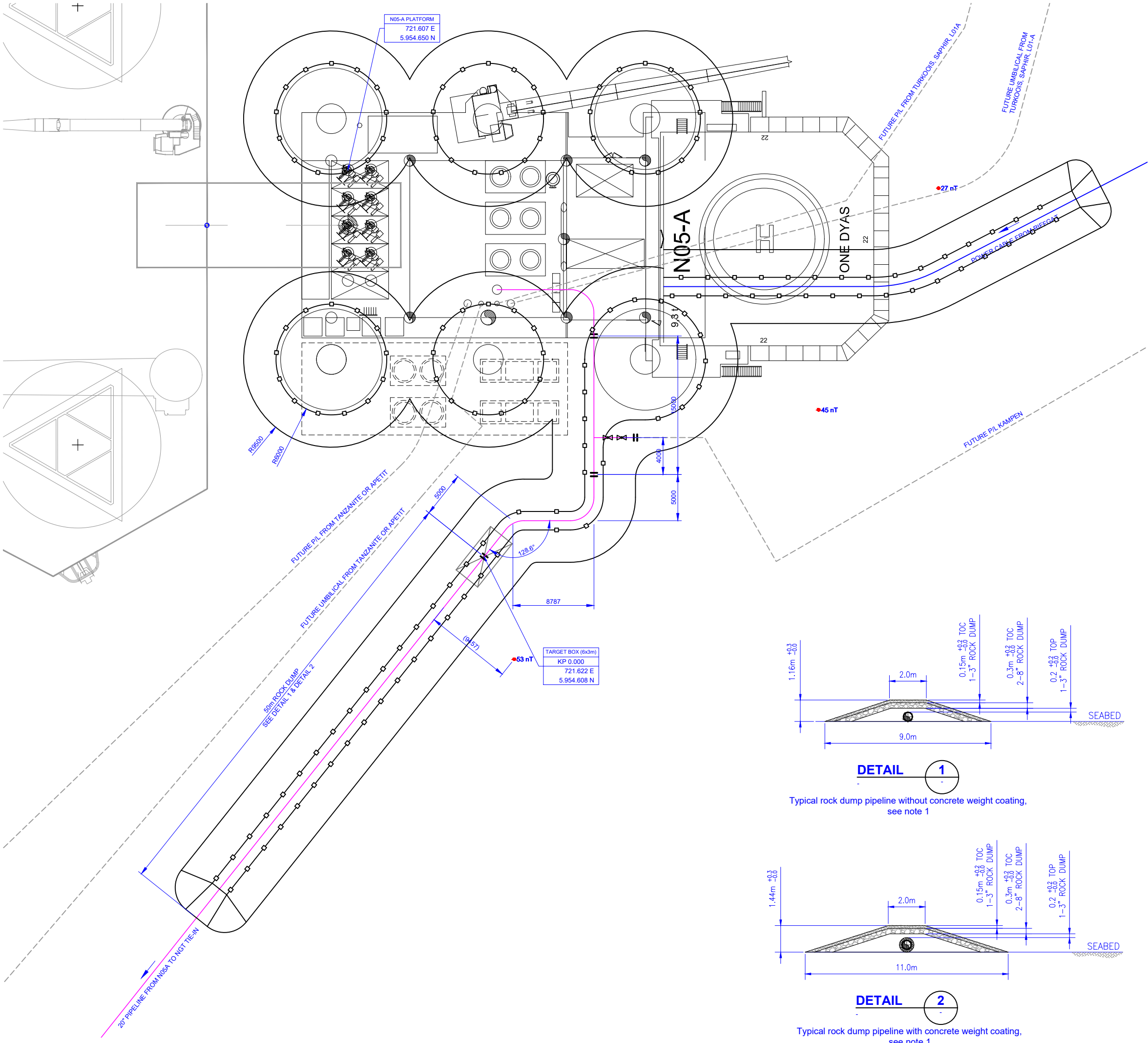
Client
ONEDyas B.V.

Project
N05-A TO NGT PIPELINE

Document
Pipeline alignment sheet
Buried / Unburied option
Sheet 06

Scale: **1:5000**
Size: **A1**

Project number: 19018	Document Number N05A-7-50-0-72018-06
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GENERAL NOTES

1 COMPOSITION AND STABILITY TO BE DETERMINED BY CONTRACTOR. MINIMUM REQUIRED DOWNWARD FORCE BASED ON ROCK BERM HEIGHT 0.8 m T.O.P. AND 2650 kg/m³ ROCK DENSITY.

REFERENCES

N05A-7-51-0-72510-01
N05A-7-50-0-72018-01/06

Overall field layout drawing
Pipeline alignment sheet - Buried / Unburied option - sheet 01-06

LEGEND

GENERAL

- KILOMETER MARKER
- PIPELINE: N05A - NGT
- CABLE: N05A - RIFGAT
- BOUNDARY OF SURVEY AREA
- EXISTING PIPELINE
- EXISTING CABLE
- SHIPPING LANE RIJKSWATERSTAAT
- ROCKDUMP
- NATURA2000
- OYSTERBANK

ROCKDUMP VOLUME			
	LAYER 1 (1"-3")	LAYER 2 (2"-8")	LAYER 3 (1"-3")
BURIED	225 m3	175 m3	100 m3
UNBURIED	400 m3	225 m3	150 m3
LEGS	650 m3	425 m3	250 m3

GEODETIC PARAMETERS

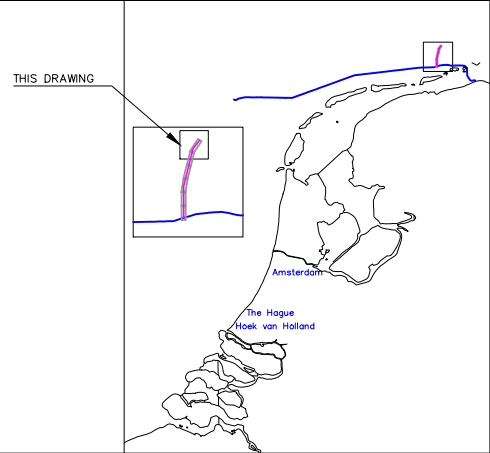
PROJECTED CRS: ED50/UTM zone 31N (EPSG: 23031)

Horizontal Datum Name: European Datum 1950 North Sea -UKCS
Projection Name: Universal Transverse Mercator

Ellipsoid: International 1924 (Hayford 1909)
Semi major axis a = 6 378 388.000
Semi minor axis b = 6 356 911.946
Inverse Elattening 1/f = 297.000
Excentricity squared e = 0.006 722 670

Zone : = North 31
Central meridian : = 3° East
Latitude of origin : = Equator
False Easting : = 500 000.00 m
False Northing : = 0.00 m
Scale factor on C.M.: = 0.999 6

WGS84 to ED50 TRANSFORMATION: UKOAA (EPSG: 1311)



KEYPLAN

Rev	Date	Description	Drawn	Eng.	Check	Appr.	Client
02	18-12-2019	CLIENT COMMENTS INCORPORATED	SvdV	-	PF	PF	
01	06-12-2019	FOR COMMENTS	SvdV	-	PF	PF	

enersea
Jan Evertsenweg 12
3115 JA Schiedam
The Netherlands
+31(0) 103132100
info@enersea.nl

Client
ONEDyas B.V.

Project
N05-A TO NGT PIPELINE

Document
**Approach drawing
at N05-A**

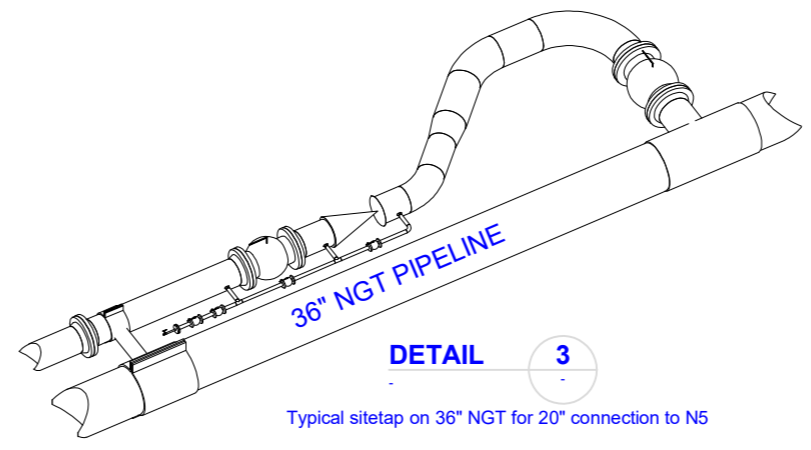
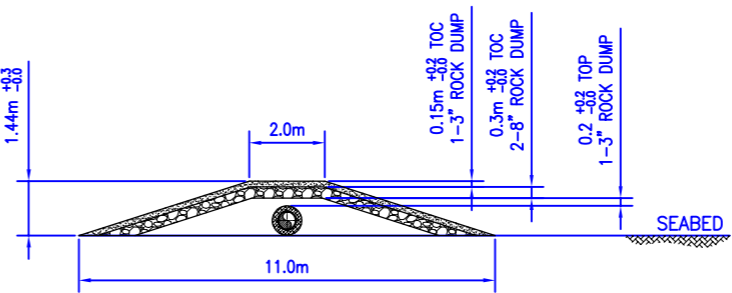
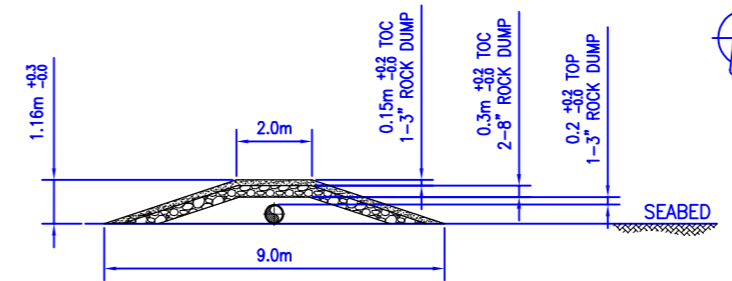
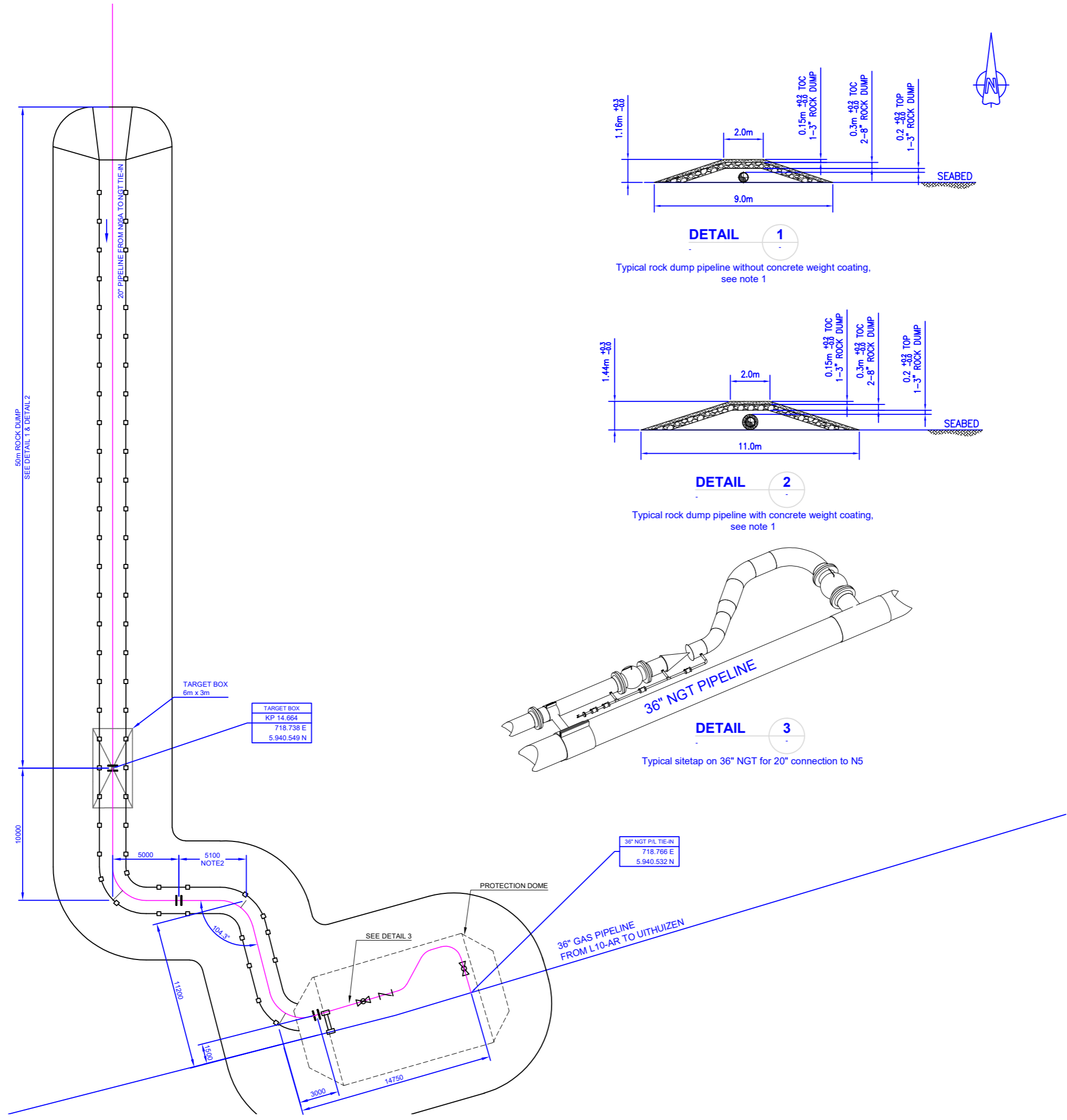
onedyas



Scale: **1:200**
Size: **A1**

Project number:
19018

Document Number
N05A-7-50-0-72019-01



GENERAL NOTES

- COMPOSITION AND STABILITY TO BE DETERMINED BY CONTRACTOR. MINIMUM REQUIRED DOWNWARD FORCE BASED ON ROCK BERM HEIGHT 0.8 m T.O.P. AND 2650 kg/m³ ROCK DENSITY.
- SPOOL LENGTH TO BE CONFIRMED BY STRESS ANALYSIS

REFERENCES

N05A-7-51-0-72510-01
N05A-7-50-0-72018-01/06

Overall field layout drawing
Pipeline alignment sheet - Buried / Unburied option - sheet 01-06

LEGEND

GENERAL

- KILOMETER MARKER
- PIPELINE: N05A - NGT
- CABLE: N05A - RIFFGAT
- BOUNDARY OF SURVEY AREA
- EXISTING PIPELINE
- EXISTING CABLE
- SHIPPING LANE RIJKSWATERSTAAT
- ROCKDUMP
- NATURA2000
- OYSTERBANK

ROCKDUMP VOLUME			
	LAYER 1 (1"-3")	LAYER 2 (2"-8")	LAYER 3 (1"-3")
BURIED	225 m3	200 m3	125 m3
UNBURIED	400 m3	250 m3	150 m3

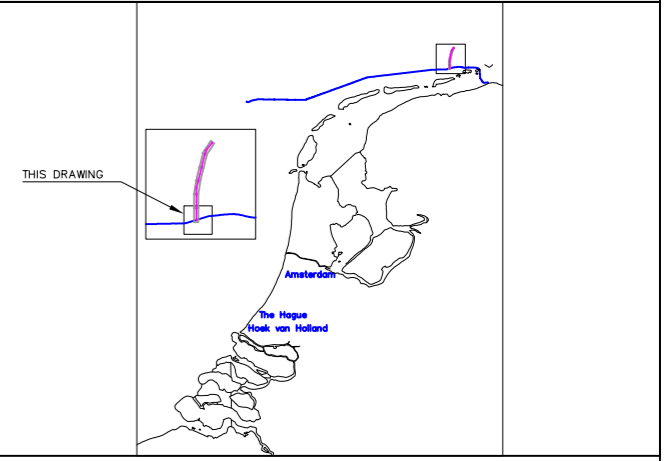
GEODETTIC PARAMETERS

PROJECTED CRS: ED50/UTM zone 31N (EPSG: 23031)

Horizontal Datum Name: European Datum 1950 North Sea -UKCS
Projection Name: Universal Transverse Mercator

Ellipsoid: International 1924 (Hayford 1909)
Zone : = North 31
Central meridian : = 3° East
Semi major axis a = 6 378 388.000
Latitude of origin : = Equator
Semi minor axis b = 6 356 911.946
False Easting : = 500 000.00 m
Inverse ELatening 1/f = 297.000
False Northing : = 0.00 m
Excentricity squared e = 0.006 722 670
Scale factor on C.M.: = 0.999 6

WGS84 to ED50 TRANSFORMATION: UKOAA (EPSG: 1311)



KEYPLAN

Rev	Date	Description	Drawn	Eng.	Check	Appr.	Client
03	18-03-2020	CLIENT COMMENTS INCORPORATED	RB	-	PF	PF	
02	18-12-2019	CLIENT COMMENTS INCORPORATED	SvdV	-	PF	PF	
01	06-12-2019	FOR COMMENTS	SvdV	-	PF	PF	

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3115 JA Schiedam
The Netherlands
+31(0) 103132100
info@enersea.nl

Client
ONEDyas B.V.

Project
N05-A TO NGT PIPELINE

Document
**Approach drawing
AT NGT**

Scale:
Size: **1:150
A1**

Project number:
19018

Document Number
N05A-7-10-0-70032-01

ROCKDUMP VOLUME			
	LAYER 1 (1'-3")	LAYER 2 (2'-8")	LAYER 3 (1'-3")
BURIED	825 m3	475 m3	275 m3

GENERAL NOTES

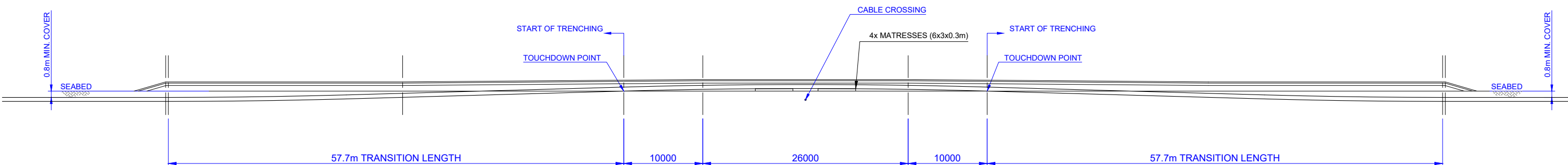
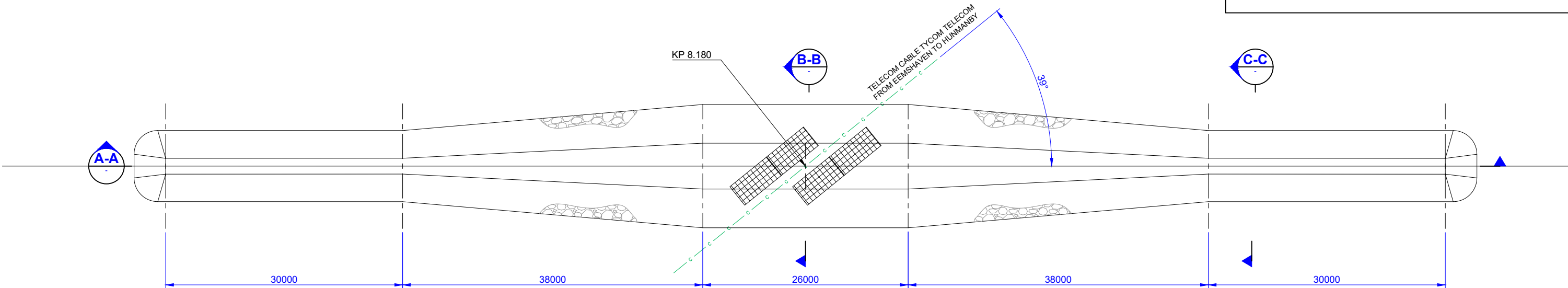
- COMPOSITION AND STABILITY TO BE DETERMINED BY CONTRACTOR. MINIMUM REQUIRED DOWNWARD FORCE BASED ON ROCK BERM HEIGHT 0,8 m T.O.P. AND 2650 kg/m³ ROCK DENSITY.

REFERENCES

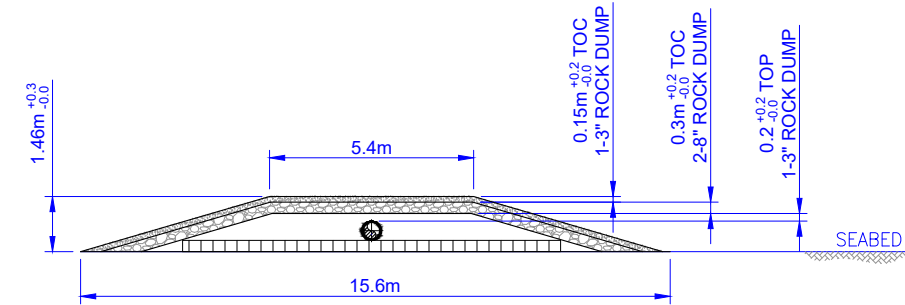
N05A-7-51-0-72510-01 Overall field layout drawing

LEGEND

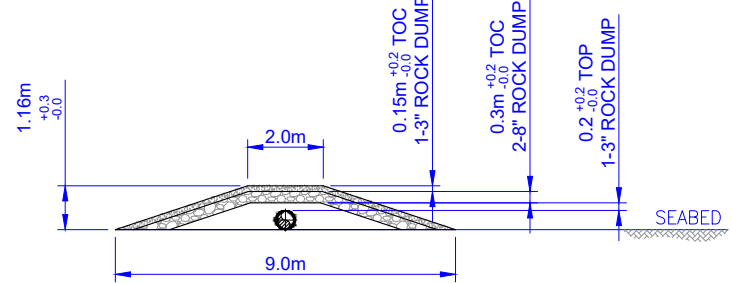
- EXISTING CABLE
- ROCK DUMP
- CONCRETE MATTRESSES



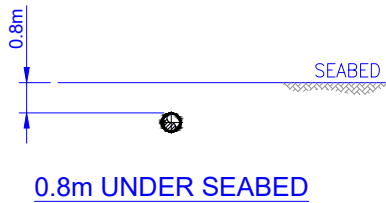
SECTION A-A
SCALE 1:250



SECTION B-B
SCALE 1:100



SECTION C-C
SCALE 1:100



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01	06-12-2019	FOR COMMENTS	SvdV	-	PF	PF	
Rev	Date	Description	Drawn	Eng.	Check	Appr.	Client
 Jan Evertsenweg 12 3115 JA Schiedam The Netherlands +31(0) 103132100 info@enersea.nl			Client ONEDyas B.V.				
			Project N05-A TO NGT PIPELINE				
			Document Crossing design Buried pipeline Sheet 01				
Project number: 19018			Document Number N05A-7-50-0-72022-01				
			Scale: Size: 1:250 A1				

ROCKDUMP VOLUME			
	LAYER 1 (1'-3")	LAYER 2 (2'-8")	LAYER 3 (1'-3")
BURIED	1475 m3	800 m3	450 m3

GENERAL NOTES

- COMPOSITION AND STABILITY TO BE DETERMINED BY CONTRACTOR. MINIMUM REQUIRED DOWNWARD FORCE BASED ON ROCK BERM HEIGHT 0,8 m T.O.P. AND 2650 kg/m³ ROCK DENSITY.

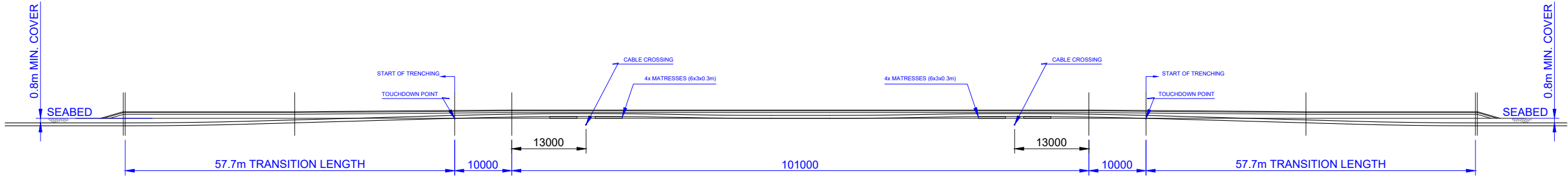
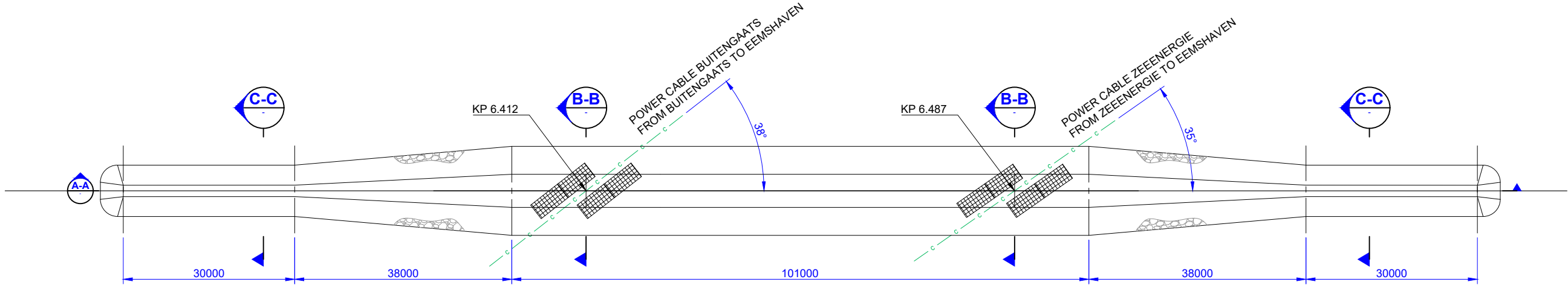
REFERENCES

N05A-7-51-0-72510-01

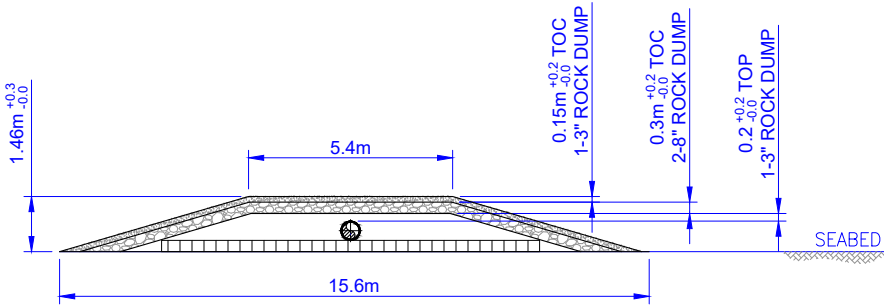
Overall field layout drawing

LEGEND

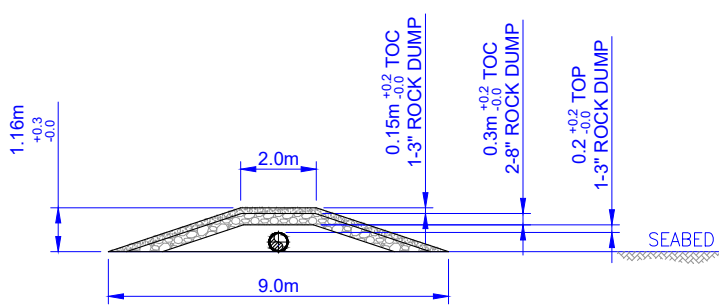
	EXISTING CABLE
	ROCK DUMP
	CONCRETE MATTRESSES



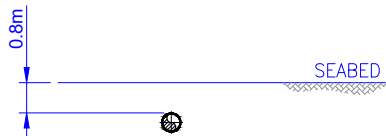
SECTION A-A
SCALE 1:400



SECTION B-B
SCALE 1:100



SECTION C-C
SCALE 1:100



0.8m UNDER SEABED

02	18-12-2019	CLIENT COMMENTS INCORPORATED	SvdV	-	PF	PF		
01	06-12-2019	FOR COMMENTS	SvdV	-	PF	PF		
Rev	Date	Description	Drawn	Eng.	Check	Appr.	Client	
 Jan Evertsenweg 12 3115 JA Schiedam The Netherlands +31(0) 103132100 info@enersea.nl			Client ONE Dyas BV					
			Project N05a development					
			Document Crossing design Buried pipeline Sheet 02					
Project number: 19018			Document Number N05A-7-50-0-72022-02					
						Scale: Size: 1:400 A1		