Proposed borehole locations WFS-1

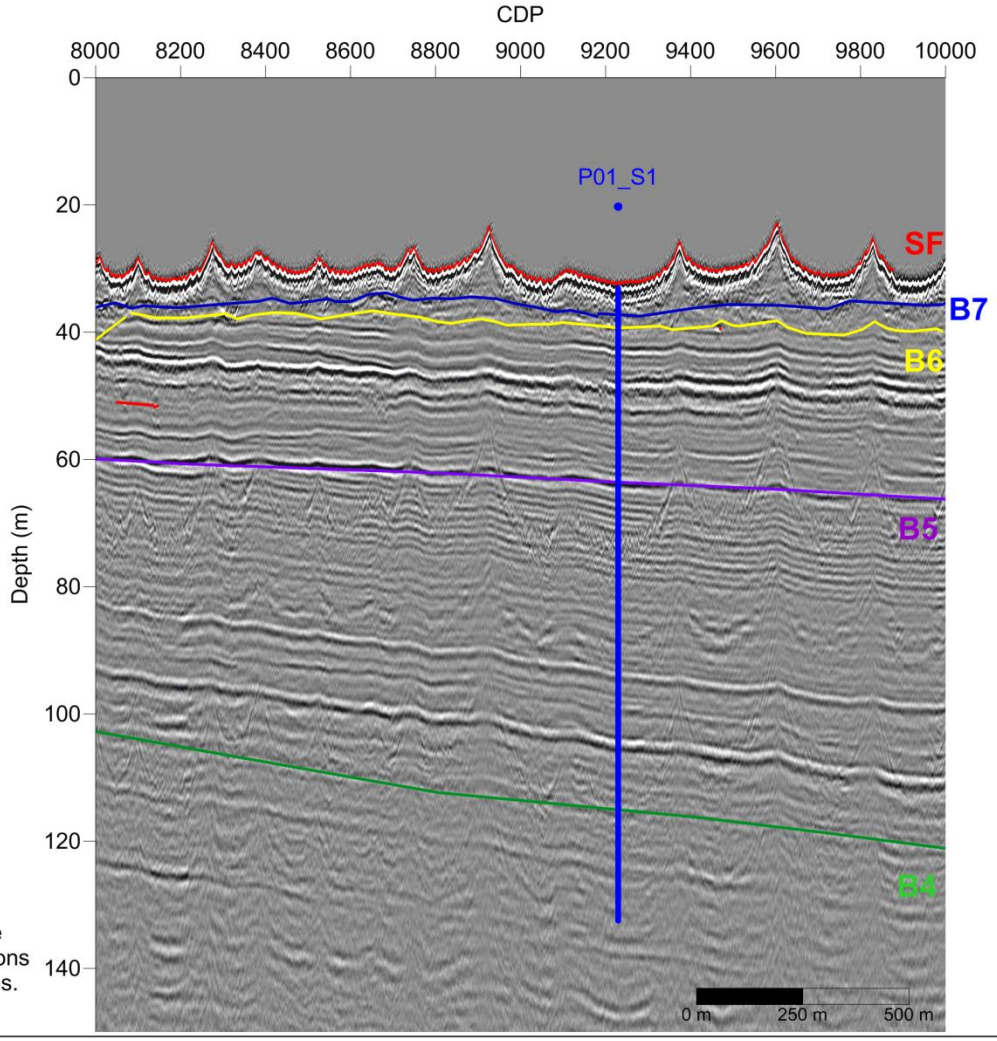
Well name	Priority	MCS Line and CDP		Water Depth	X	Y	Goal
P01_S1		16-1600	9227	32.4	504157.66	5738241.87	Assessment of geotechnical properties of the seismic units and check for lateral variations
P02_S1	5	12-1200	6814	33	502353.95	5736559.36	Check for the presence of gravel or boulder beds.
P03_S1		8-800	5519	29.3	500700.24	5735100.99	General geotechnical assessment, sediment composition.
P04_S1	1	4-400	7317	33.2	499125.67	5733714.33	Possible liquefaction, fluid escape and deformation of shallower sediments
P05_S1		8-800	9430	32.7	498293.29	5732017.84	Geotechnical properties of seismic units
P06_S1	4	40-4000	7985	30	505249.79	5735706.83	Assess and characterize presence of coarser gravel and boulder beds
P07_S1		40-4000	6199	27.3	504165.96	5734272.85	Characterize upper sediments geotechnical properties between two excavated paleo-channels
P08_S1	6	36-3600	5798	24.6	502530.34	5732886.07	Assess geotechnics of slightly different facies in the seismic unit U7
P09_S1	2	32-3200	1825	27.7	500759.23	5731208.25	Assess the geotechnical properties of the deposits close to a large paleo-channel
P10_S1		60-6000b	2167	33.5	506204.71	5733710.80	Assess the geotechnical properties where U7 sits directly on top of U5
P11_S1		60-6000b	4970	39	504498.32	5731522.49	Gravel and boulder deposits assessment
P12_S1		52-5200	7528	33	502478.36	5730225.67	Assess geotechnics of coarse materials in unit U4
P13_S1		88-8800	7887	30	506785.41	5729890.18	Assess geotechnical properties associated with lateral facies variations in basal deposits of U5
P14_S1		88-8800	6000	28.9	505574.31	5728341.93	Gravel and boulder deposits assessment
P15_S1	3	112-11200	3000	31	508017.71	5727575.49	Assessment of the infilling of paleo-channel for geotechnical properties

CONTRACTOR SUBCONTRACTOR

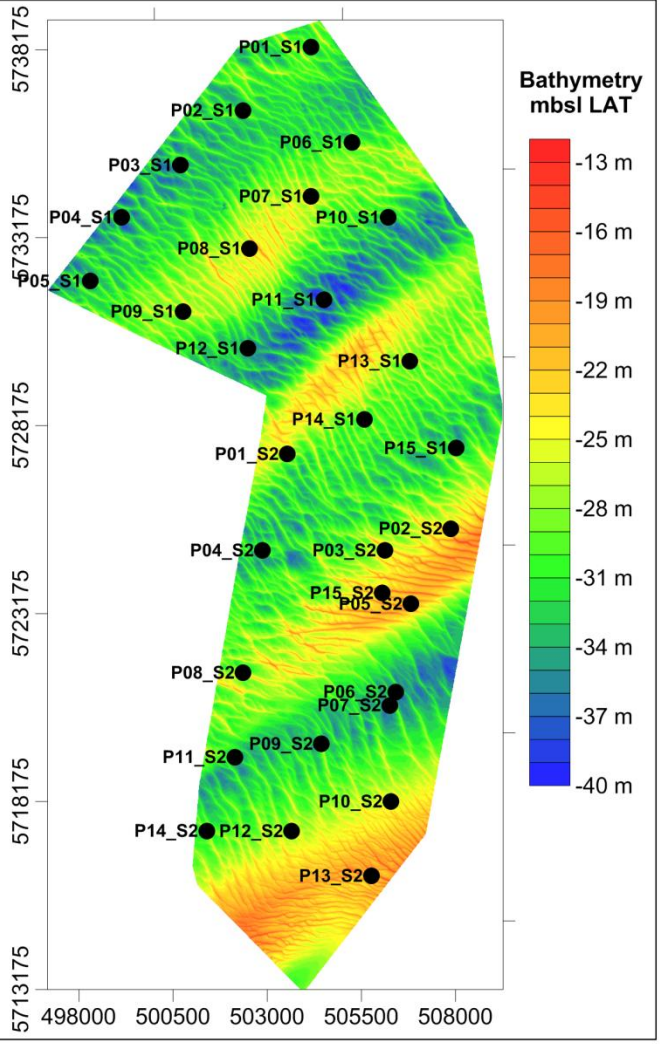
Borehole Plan P01_S1
Page 1: Overview

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES	SCALE
PROJECTED: UTM, Z31N, ETRS89 datum	Vertical
NORTHING (meters): 5738241.87	1 / 10
EASTING (meters): 504157.66	Horizontal
SEISMIC LINE: 16-1600	1 / 150
DEPTHS (m)	
WATER DEPTH: 32.4 m	
TOTAL DEPTH: 132.4 m	



Line - 16-1600
B# represents the interpreted horizons in seismic sections.



CONTRACTOR SUBCONTRACTOR

Borehole Plan P01_S1
Page 2: Prognosis

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES
PROJECTED: UTM, Z31N, ETRS89 datum

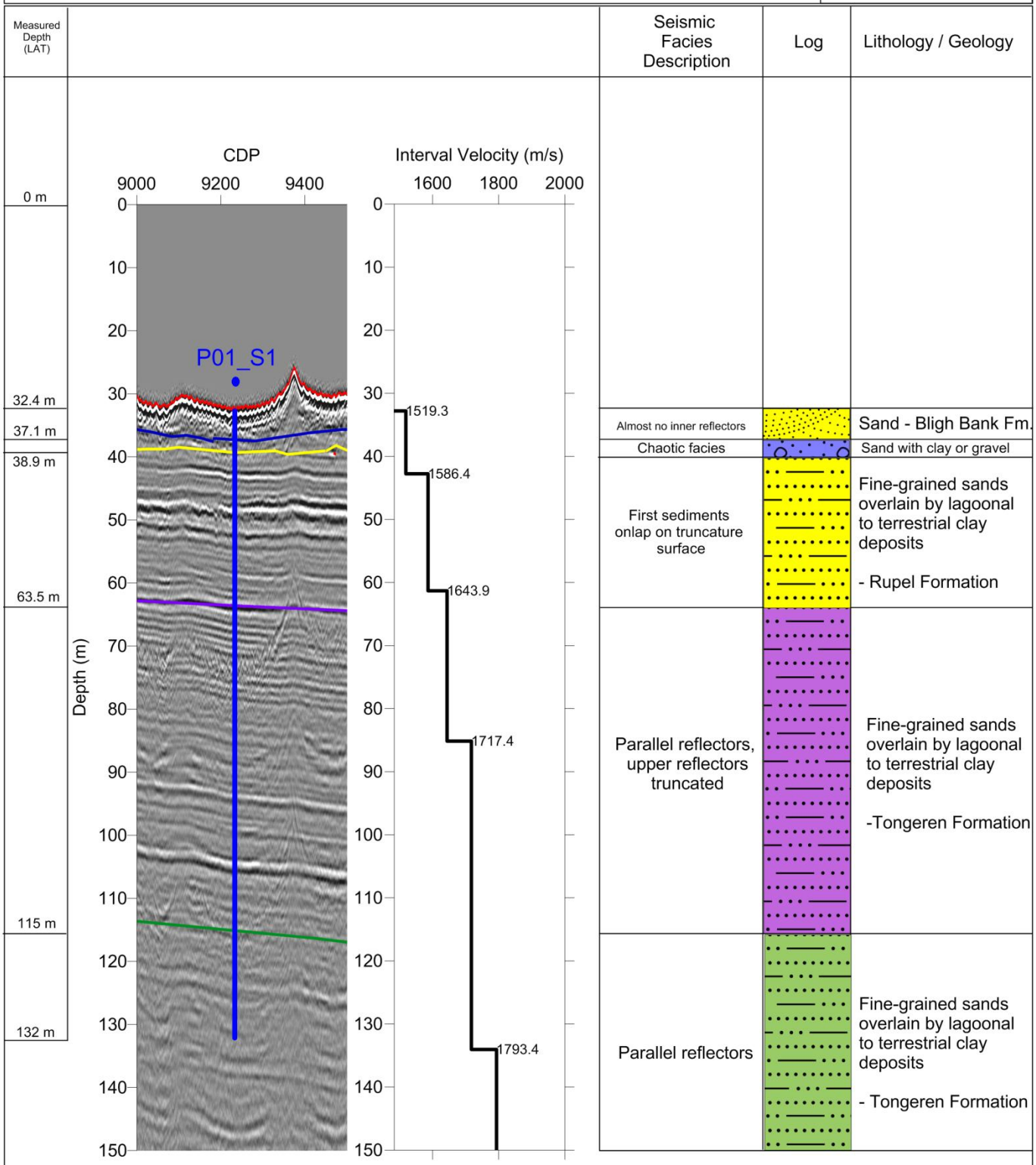
NORTHING (meters): 5738241.87

EASTING (meters): 504157.66

SEISMIC LINE: 16-1600

DEPTHS (m) **WATER DEPTH:** 32.4 m
TOTAL DEPTH: 132.4 m

SCALE **Vertical:** 1 / 300
Horizontal: 1 / 20

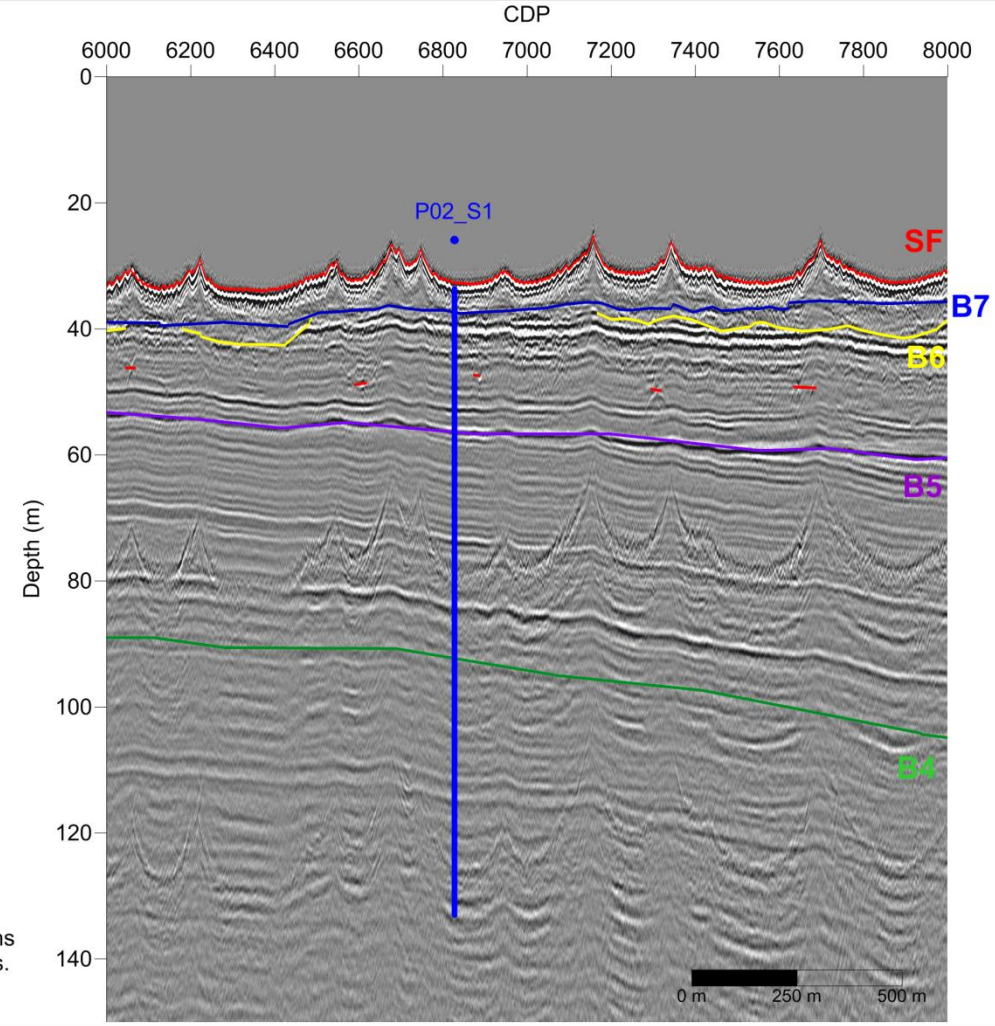


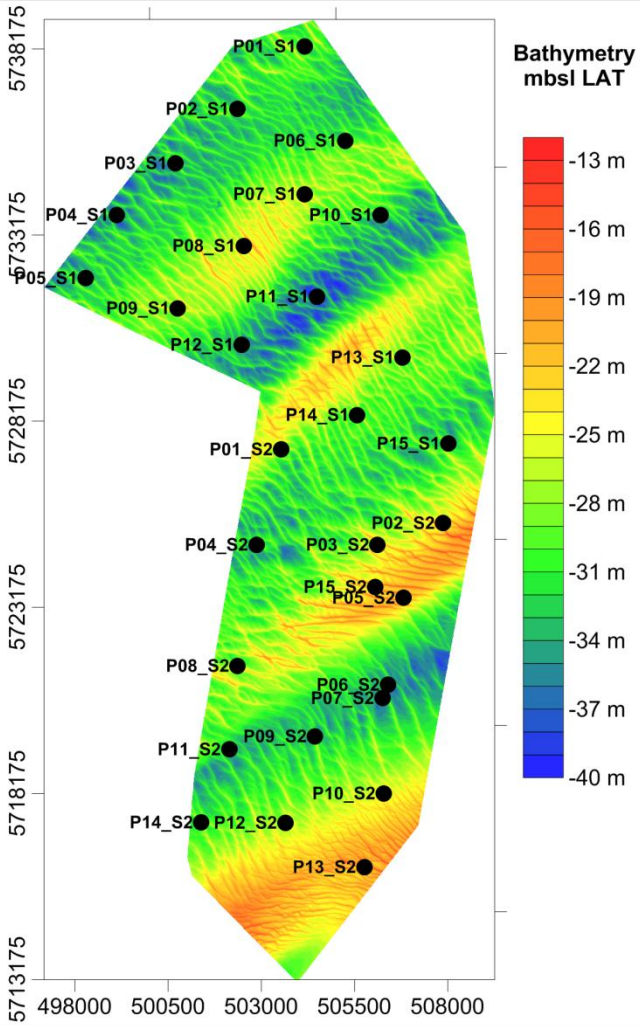
CONTRACTOR SUBCONTRACTOR

Borehole Plan P02_S1
Page 1: Overview

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES	SCALE
PROJECTED: UTM, Z31N, ETRS89 datum	Vertical
NORTHING (meters): 5736559.36	1 / 10
EASTING (meters): 502353.95	Horizontal
SEISMIC LINE: 12-1200	1 / 150
DEPTHS (m)	
WATER DEPTH: 33.0 m	
TOTAL DEPTH: 133.0	





Line - 12-1200

B# represents the interpreted horizons in seismic sections.

CONTRACTOR SUBCONTRACTOR

Borehole Plan P02_S1
Page 2: Prognosis

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES
PROJECTED: UTM, Z31N, ETRS89 datum

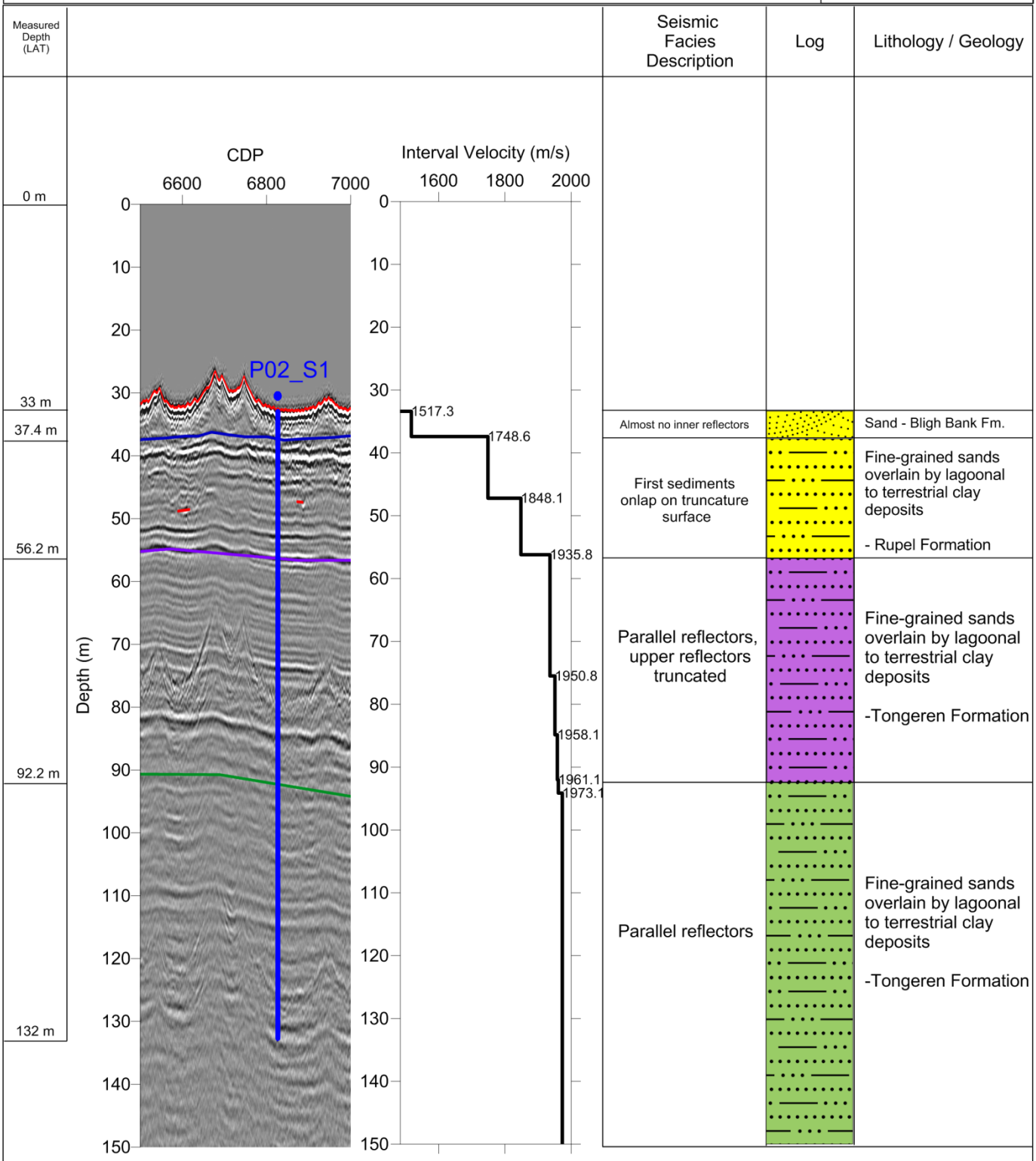
NORTHING (meters): 5736559.36

EASTING (meters): 502353.95

SEISMIC LINE: 12-1200

DEPTHS (m) **WATER DEPTH:** 33 m
TOTAL DEPTH: 133 m

SCALE **Vertical:** 1 / 300
Horizontal: 1 / 20

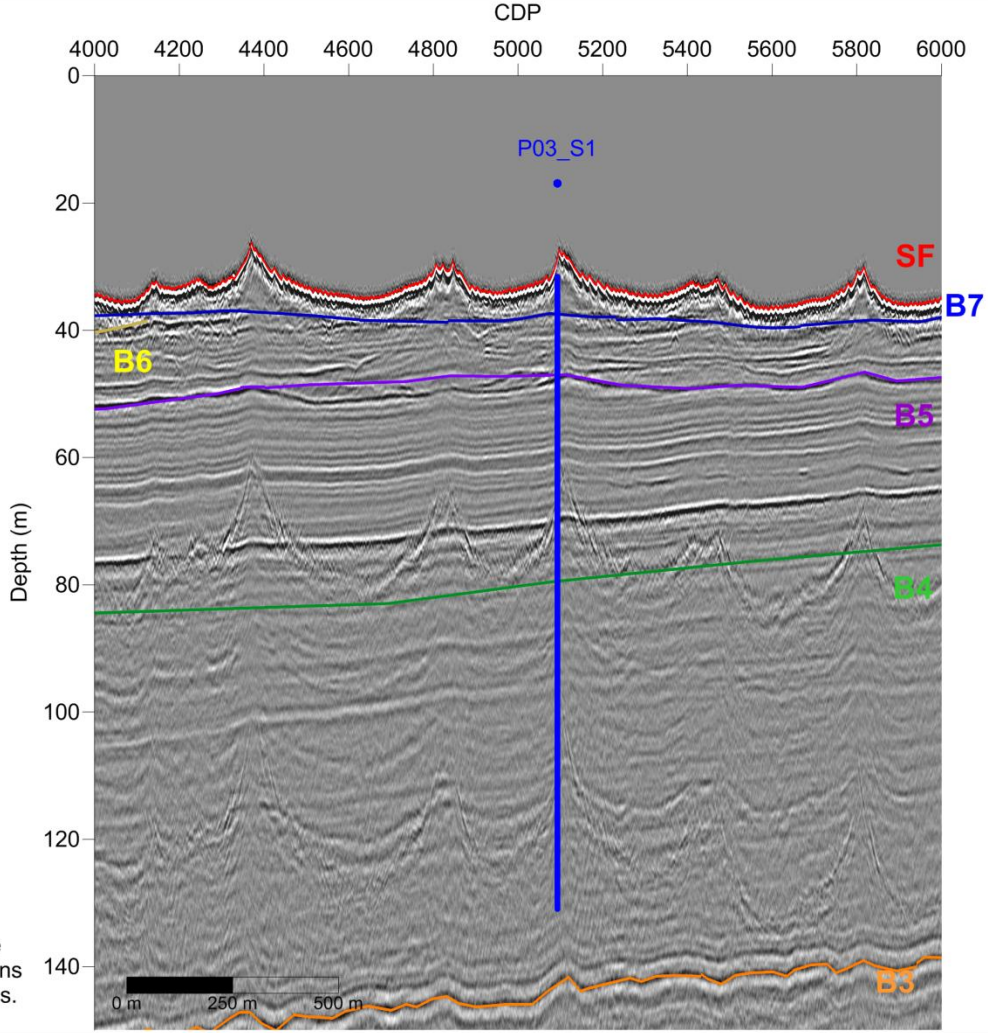


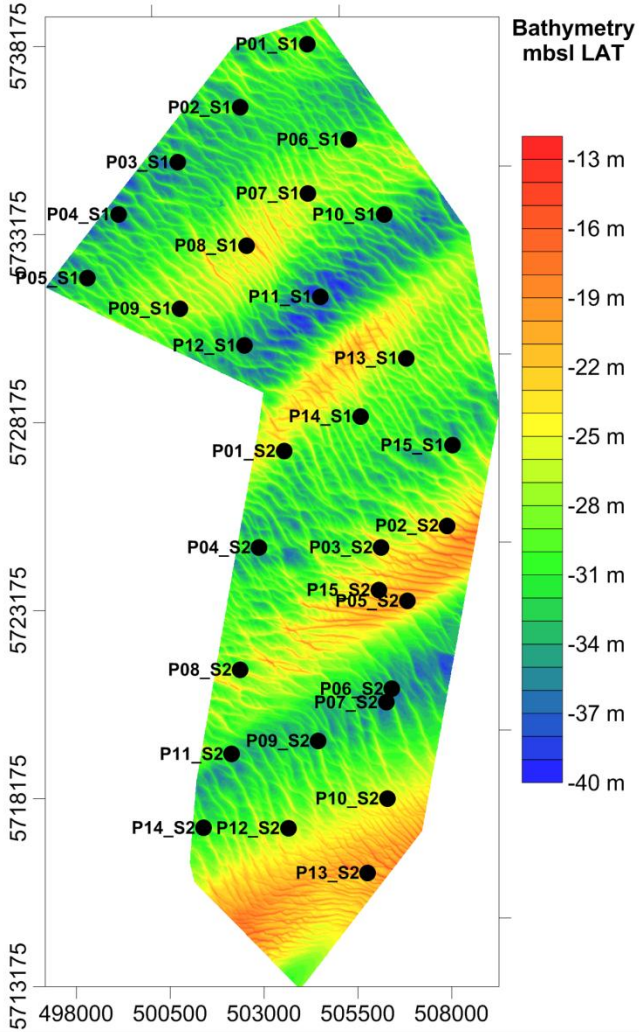
CONTRACTOR SUBCONTRACTOR

Borehole Plan P03_S1
Page 1: Overview

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES	SCALE
PROJECTED: UTM, Z31N, ETRS89 datum	Vertical
NORTHING (meters): 5735100.99	1 / 10
EASTING (meters): 500700.24	Horizontal
SEISMIC LINE: 8-800	1 / 150
DEPTHS (m)	
WATER DEPTH: 29.3 m	
TOTAL DEPTH: 129.3 m	





Line - 8-800

B# represents the interpreted horizons in seismic sections.

CONTRACTOR SUBCONTRACTOR

Borehole Plan P03_S1
Page 2: Prognosis

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES
PROJECTED: UTM, Z31N, ETRS89 datum

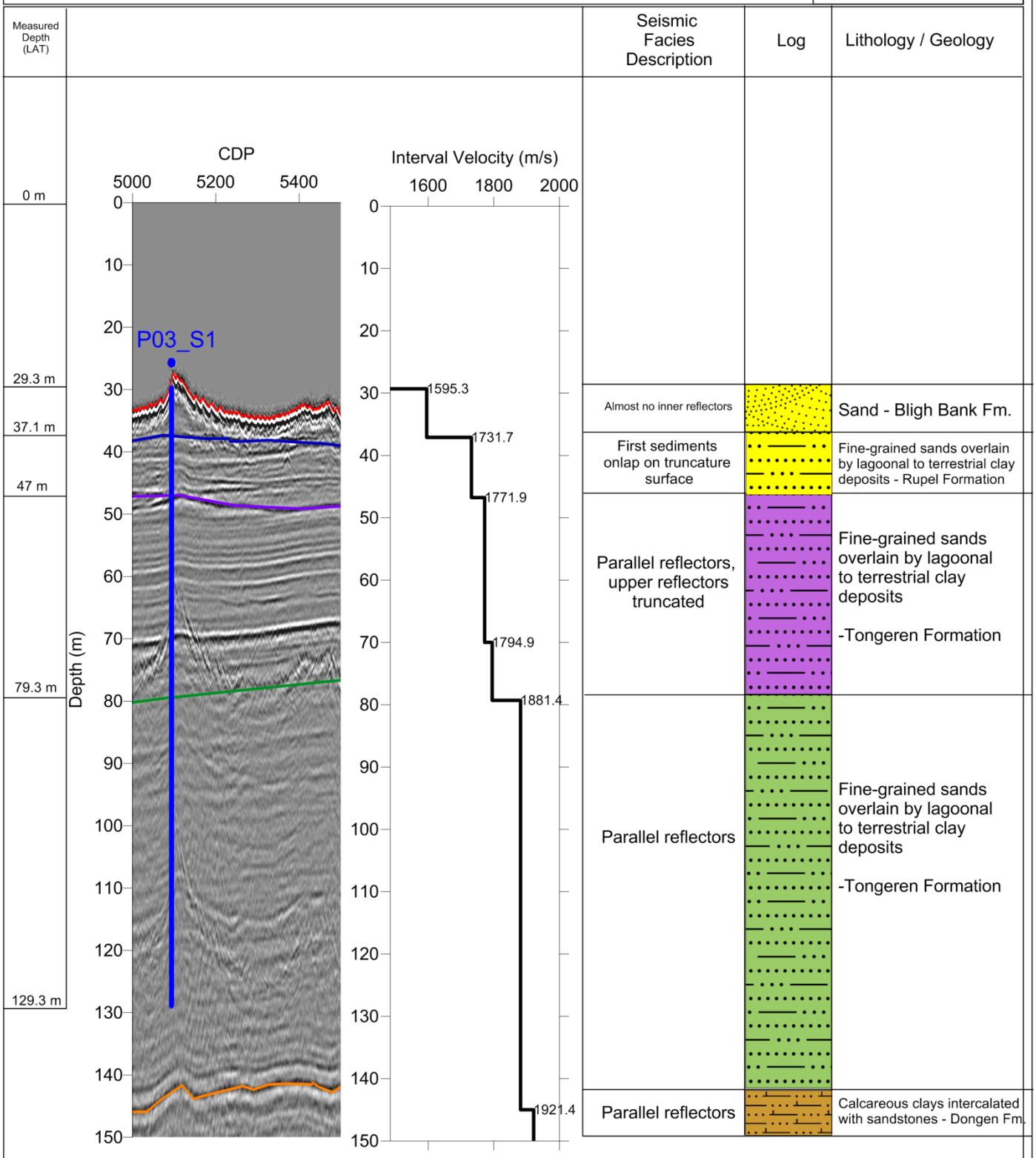
NORTHING (meters): 5735100.99

EASTING (meters): 500700.24

SEISMIC LINE: 8-800

DEPTHS (m) **WATER DEPTH:** 29.3 m
TOTAL DEPTH: 129.3 m

SCALE **Vertical:** 1 / 300
Horizontal: 1 / 20



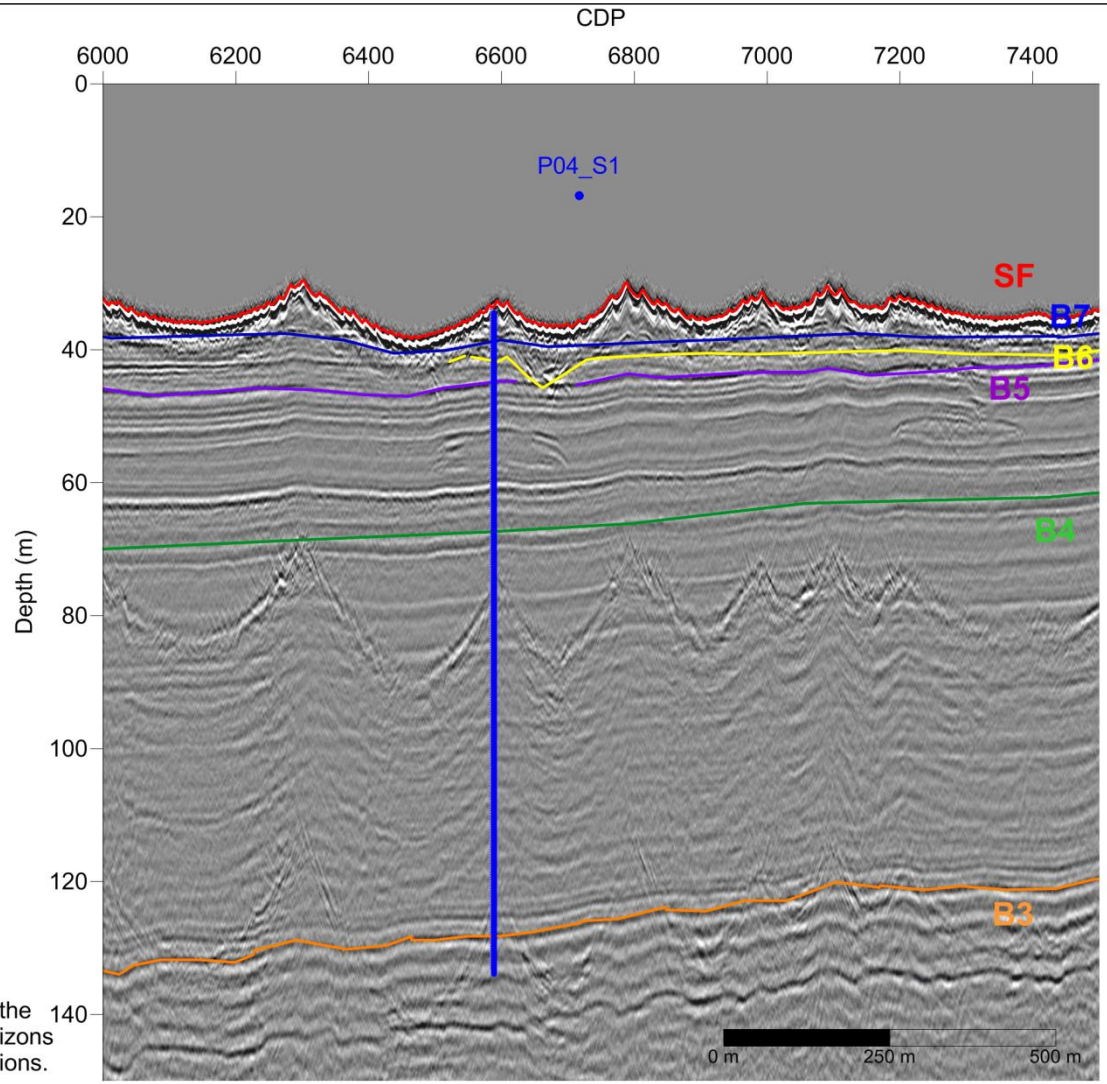
CONTRACTOR

SUBCONTRACTOR

Borehole Plan P04_S1
Page 1: Overview

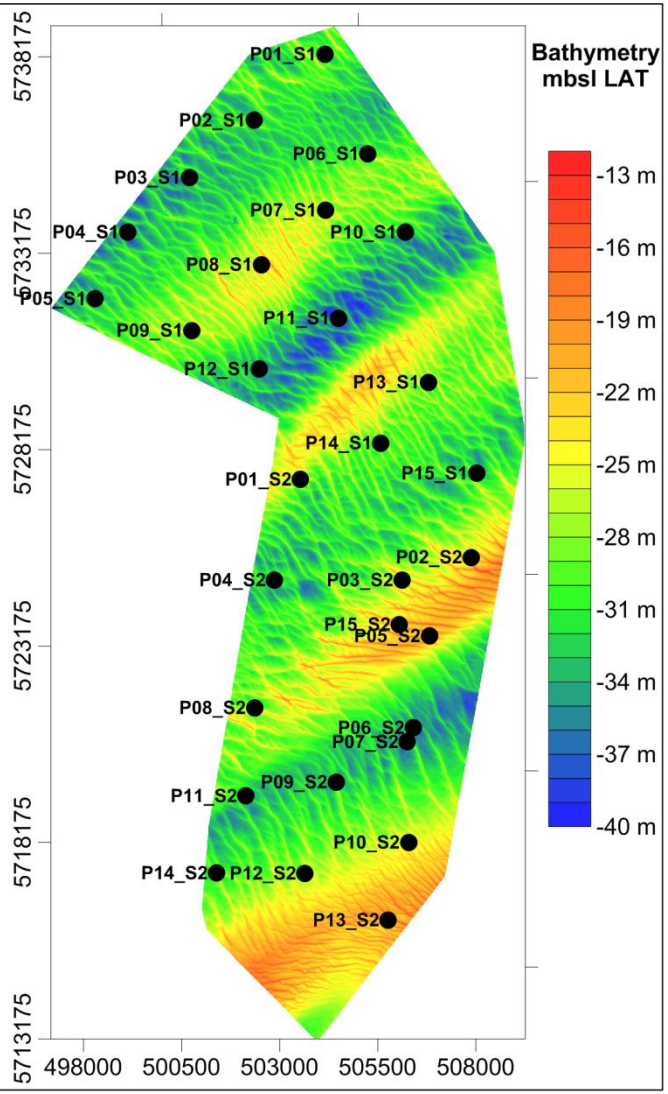
PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES	SCALE
PROJECTED: UTM, Z31N, ETRS89 datum	Vertical
NORTHING (meters): 5733714.33	1 / 10
EASTING (meters): 499125.67	Horizontal
SEISMIC LINE: 4-400	1 / 100
DEPTHS (m)	
WATER DEPTH: 33.2 m	
TOTAL DEPTH: 133.2 m	



Line - 4-400

B# represents the interpreted horizons in seismic sections.



CONTRACTOR SUBCONTRACTOR

Borehole Plan P04_S1
Page 2: Prognosis

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES
PROJECTED: UTM, Z31N, ETRS89 datum

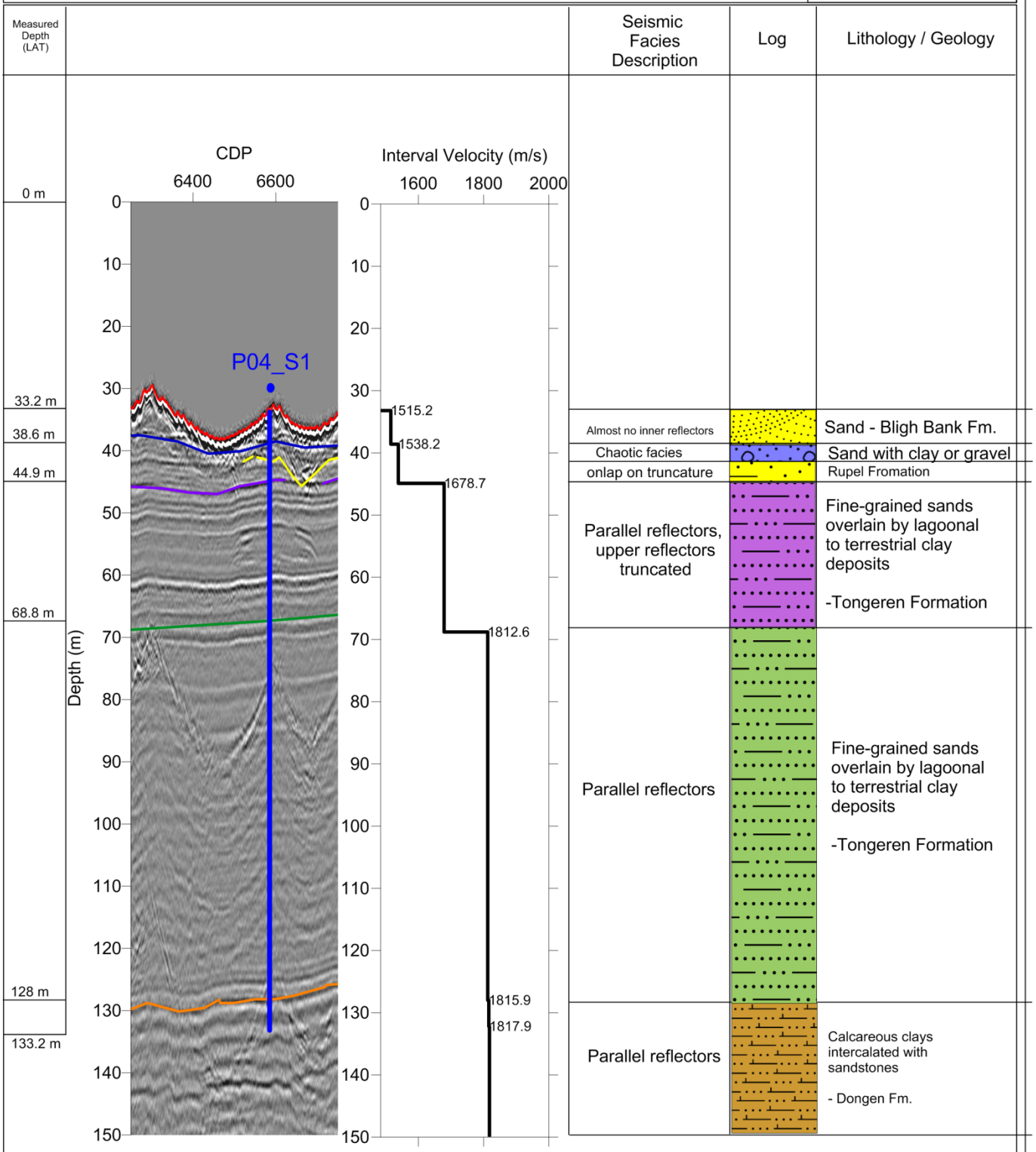
NORTHING (meters): 5733714.33

EASTING (meters): 499125.67

SEISMIC LINE: 4-400

DEPTHS (m) **WATER DEPTH:** 33.2 m
TOTAL DEPTH: 133.2 m

SCALE **Vertical:** 1 / 300
Horizontal: 1 / 20

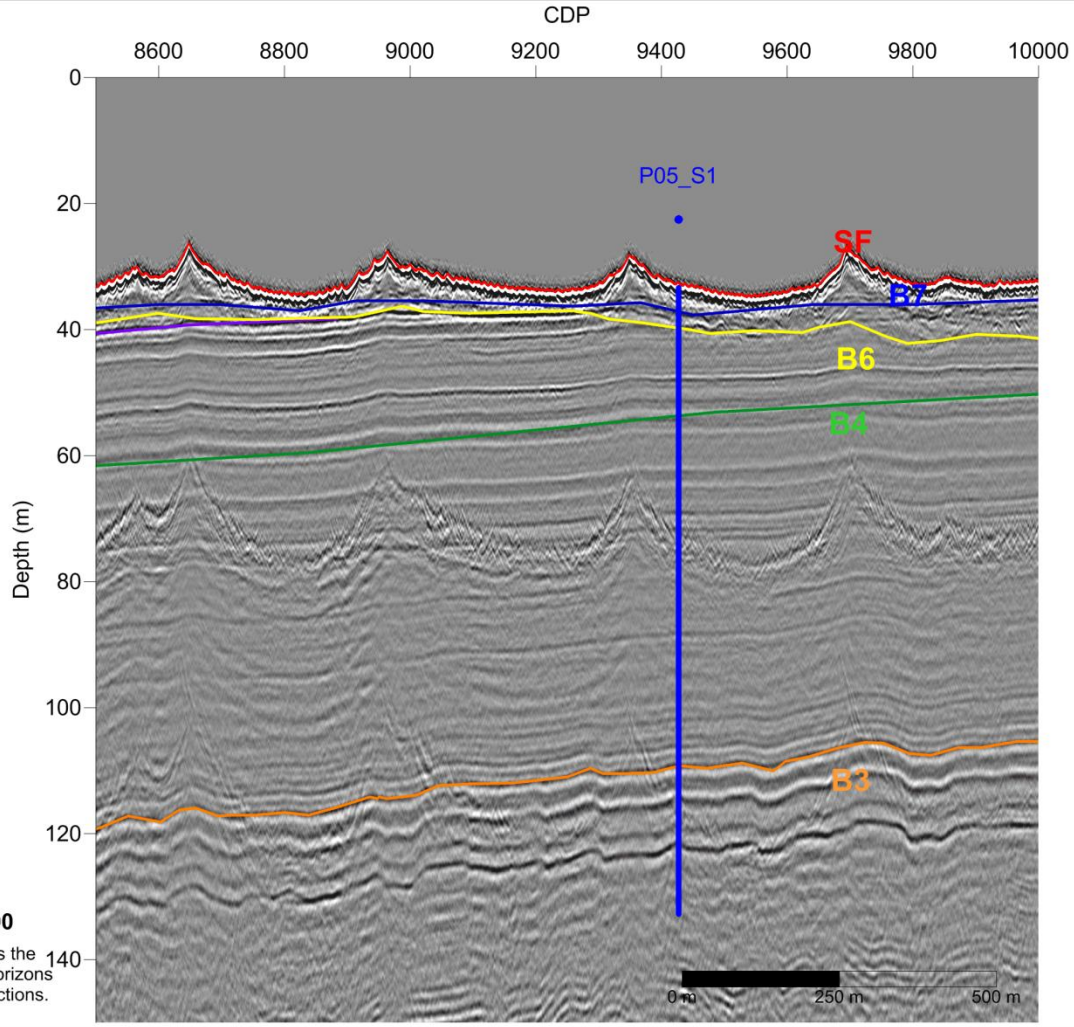


CONTRACTOR SUBCONTRACTOR

Borehole Plan P05_S1
Page 1: Overview

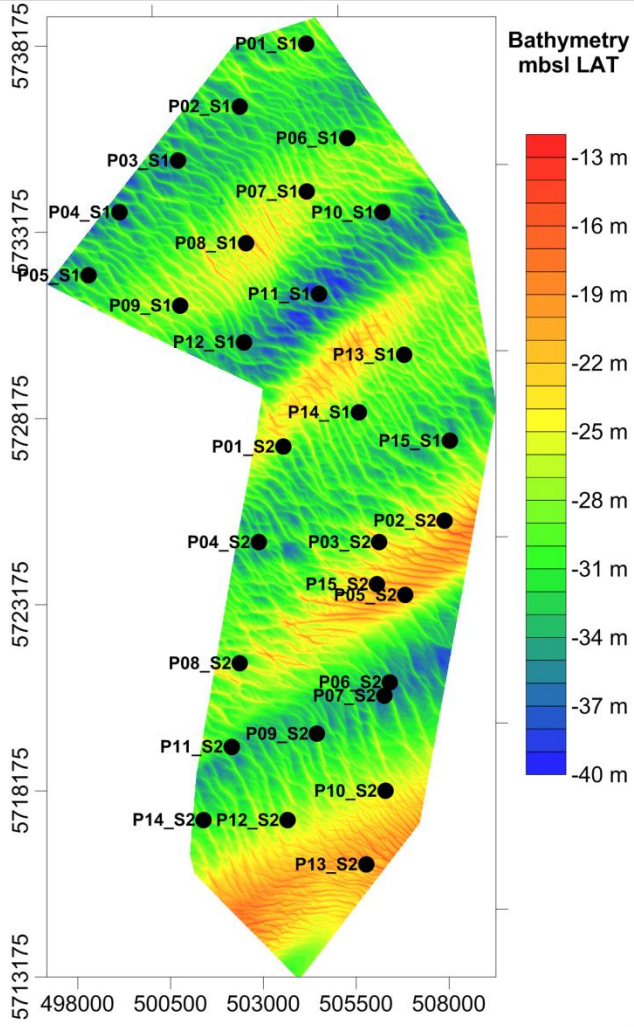
PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES	SCALE
PROJECTED: UTM, Z31N, ETRS89 datum	Vertical
NORTHING (meters): 5732017.84	1 / 10
EASTING (meters): 498293.29	Horizontal
SEISMIC LINE: 8-800	1 / 100
DEPTHS (m)	
WATER DEPTH: 32.65 m	
TOTAL DEPTH: 132.65 m	



Line - 8-800

B# represents the interpreted horizons in seismic sections.



CONTRACTOR SUBCONTRACTOR

Borehole Plan P05_S1
Page 2: Prognosis

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES
PROJECTED: UTM, Z31N, ETRS89 datum

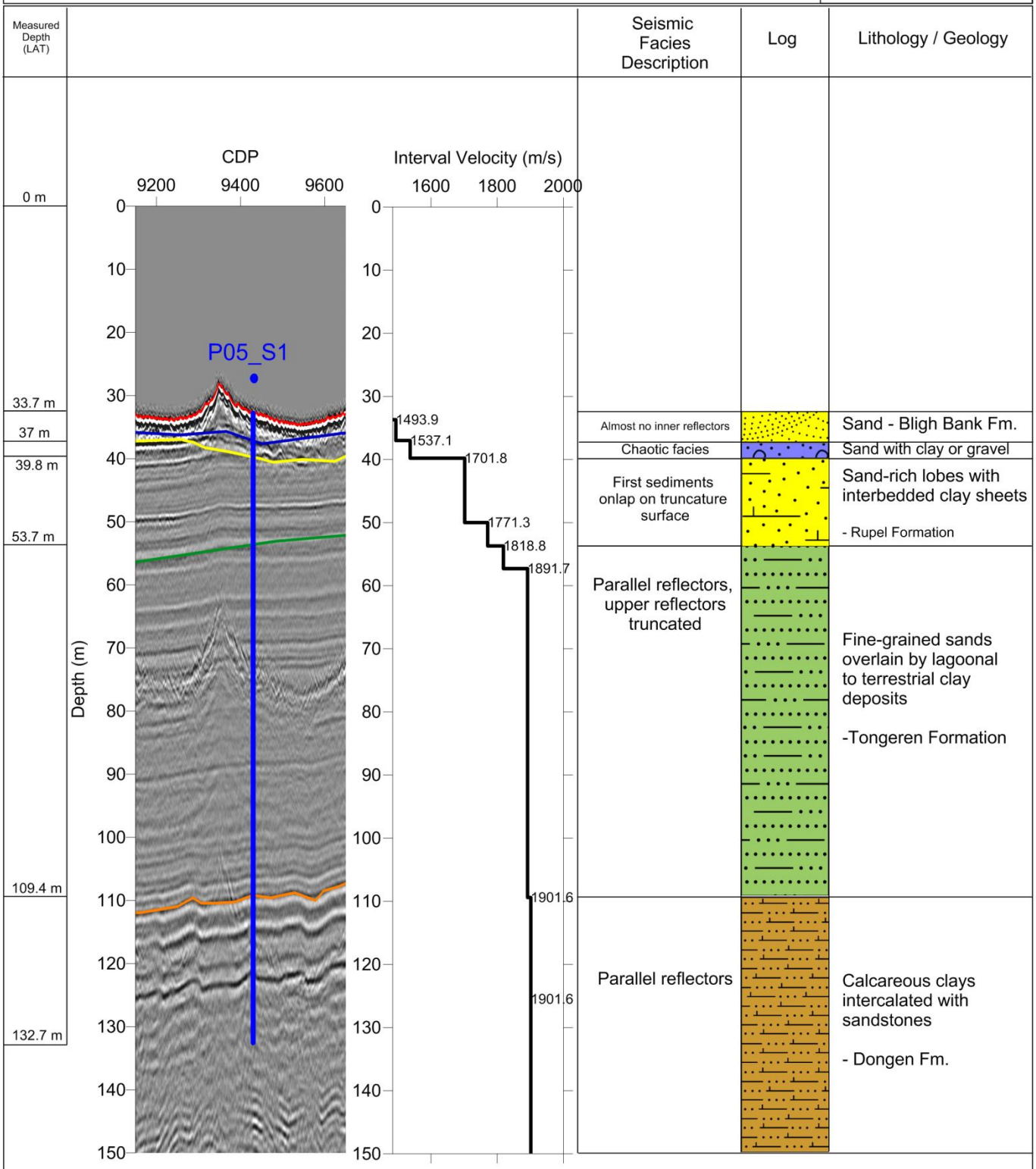
NORTHING (meters): 5732017.84

EASTING (meters): 498293.27

SEISMIC LINE: 8-800

DEPTHS (m) **WATER DEPTH:** 32.7 m
TOTAL DEPTH: 132.7 m

SCALE **Vertical:** 1 / 300
Horizontal: 1 / 20

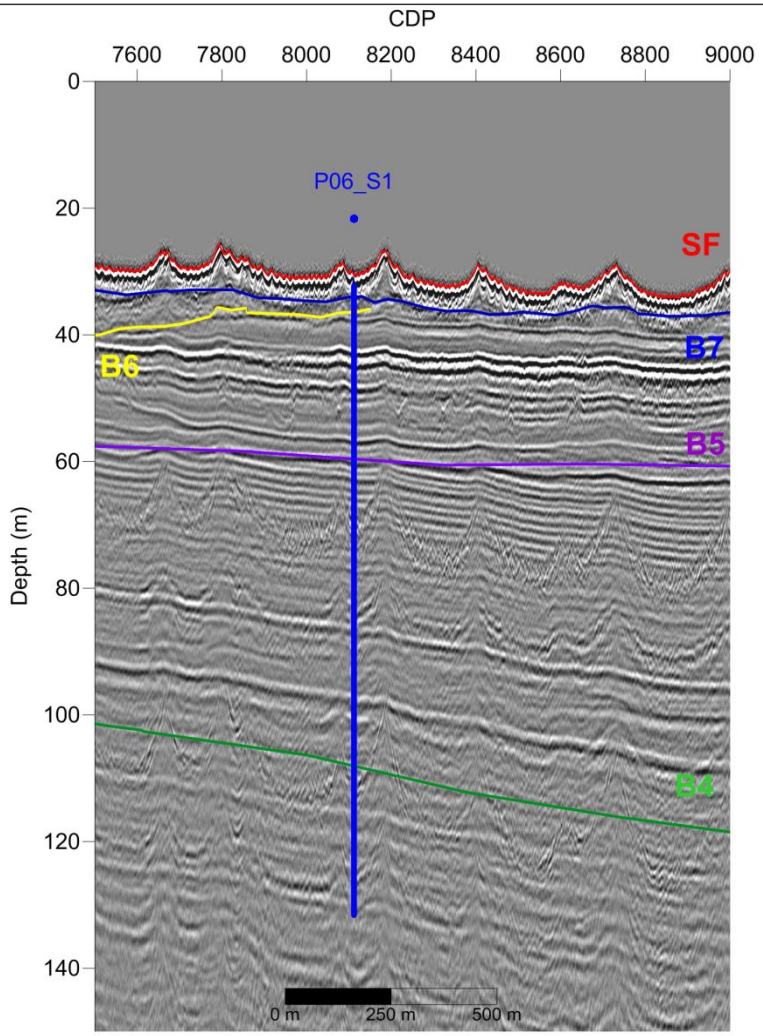


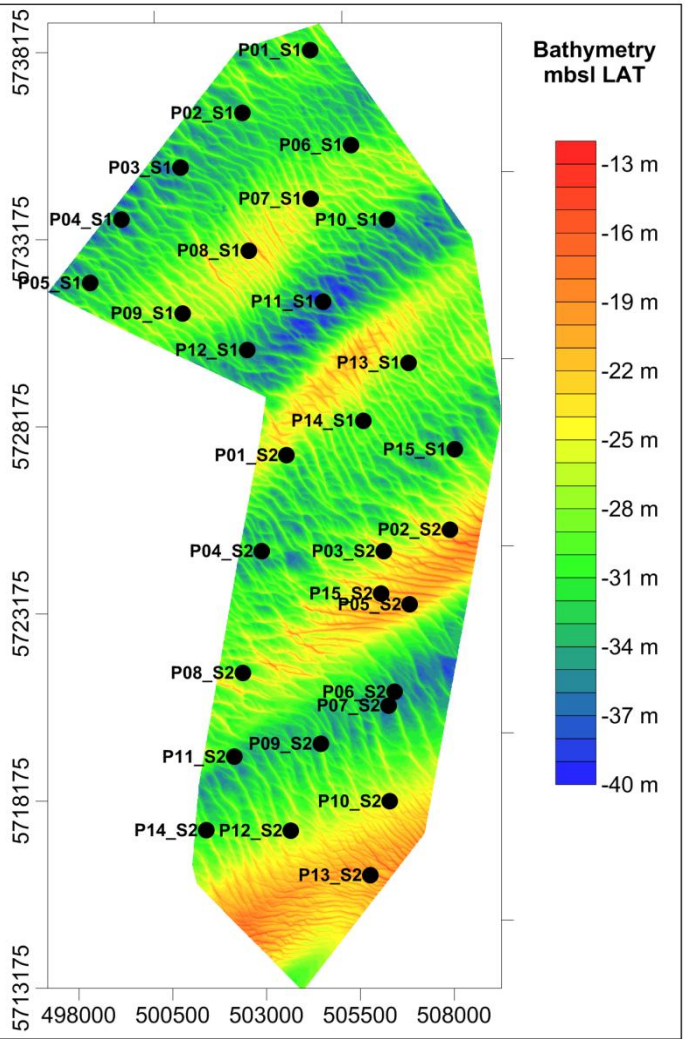
CONTRACTOR SUBCONTRACTOR

Borehole Plan P06_S1
Page 1: Overview

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES	SCALE
PROJECTED: UTM, Z31N, ETRS89 datum	Vertical
NORTHING (meters): 5735706.83	1 / 10
EASTING (meters): 505249.78	Horizontal
SEISMIC LINE: 40-4000	1 / 150
DEPTHS (m)	
WATER DEPTH: 30.0 m	
TOTAL DEPTH: 130.0 m	





Line - 40-4000

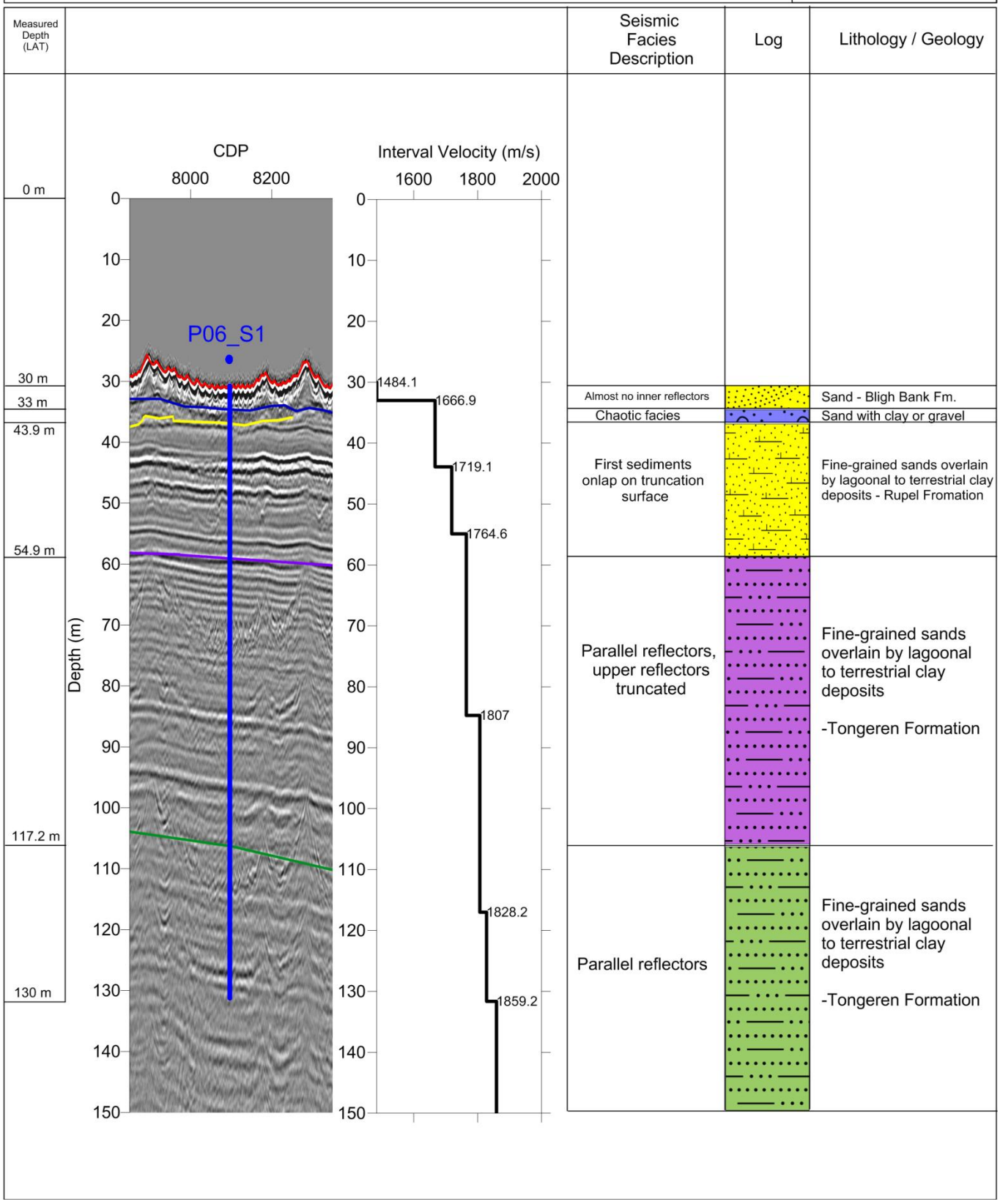
B# represents the interpreted horizons in seismic sections.

CONTRACTOR SUBCONTRACTOR

Borehole Plan P06_S1
Page 2: Prognosis

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES
PROJECTED: UTM, Z31N, ETRS89 datum
NORTHING (meters): 5735706.83
EASTING (meters): 505249.79
SEISMIC LINE: 40-4000
DEPTHS (m) **WATER DEPTH:** 30 m
TOTAL DEPTH: 130 m
SCALE **Vertical:** 1 / 300
Horizontal: 1 / 20

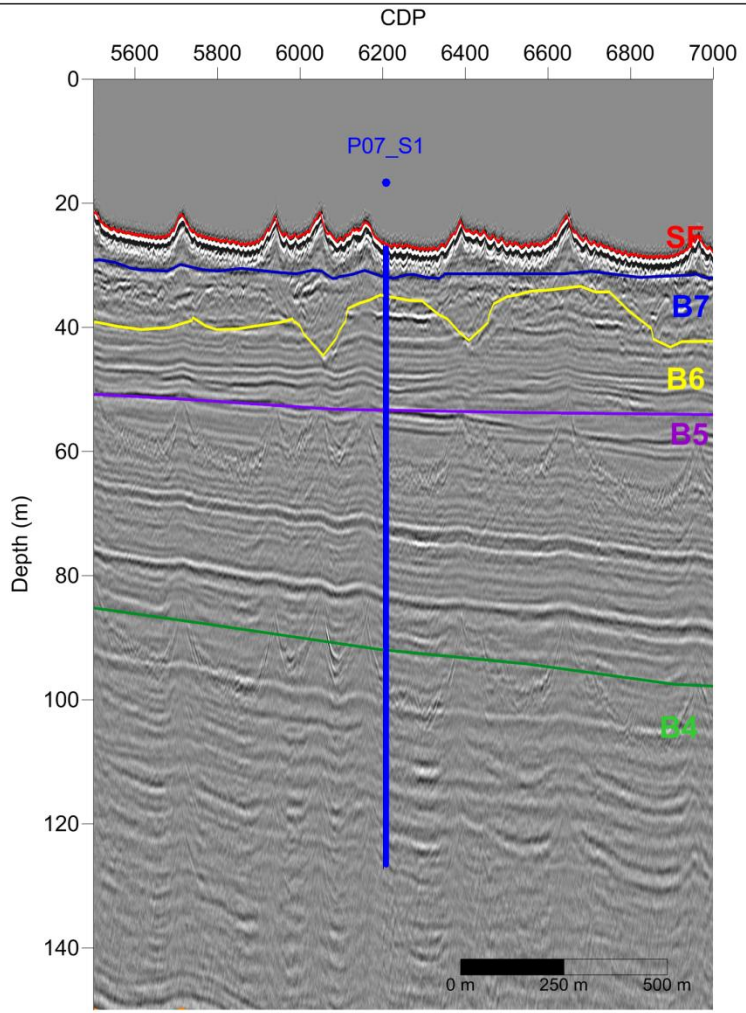


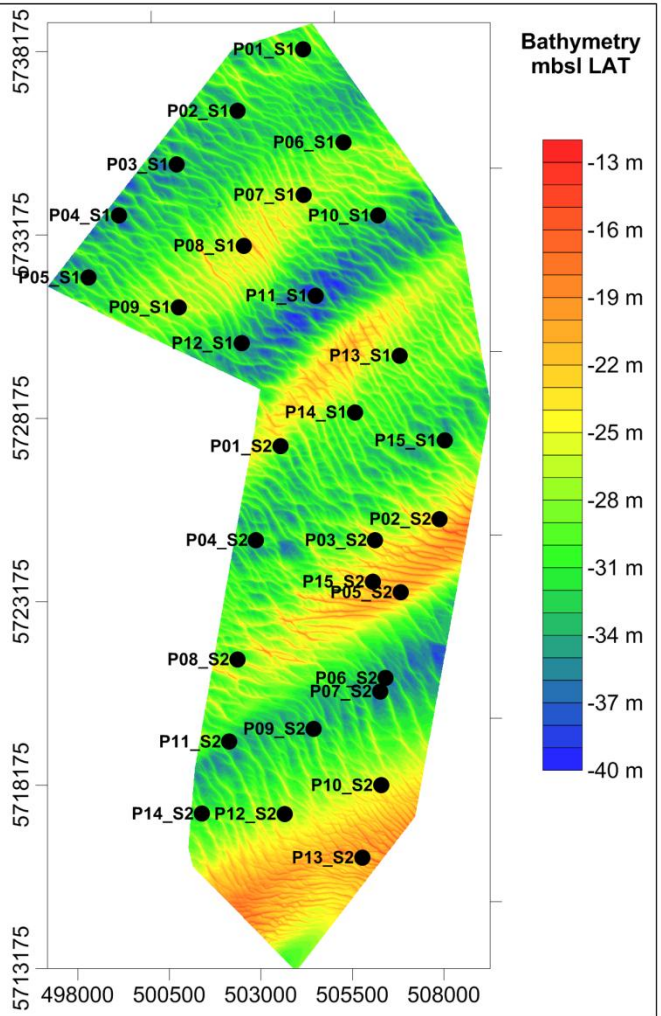
CONTRACTOR SUBCONTRACTOR

Borehole Plan P07_S1
Page 1: Overview

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES	SCALE
PROJECTED: UTM, Z31N, ETRS89 datum	Vertical
NORTHING (meters): 5734272.85	1 / 10
EASTING (meters): 504165.96	Horizontal
SEISMIC LINE: 40-4000	1 / 150
DEPTHS (m)	
WATER DEPTH: 27.3 m	
TOTAL DEPTH: 127.3 m	





Line - 40-4000

B# represents the interpreted horizons in seismic sections.

CONTRACTOR SUBCONTRACTOR

Borehole Plan P07_S1
Page 2: Prognosis

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES
PROJECTED: UTM, Z31N, ETRS89 datum

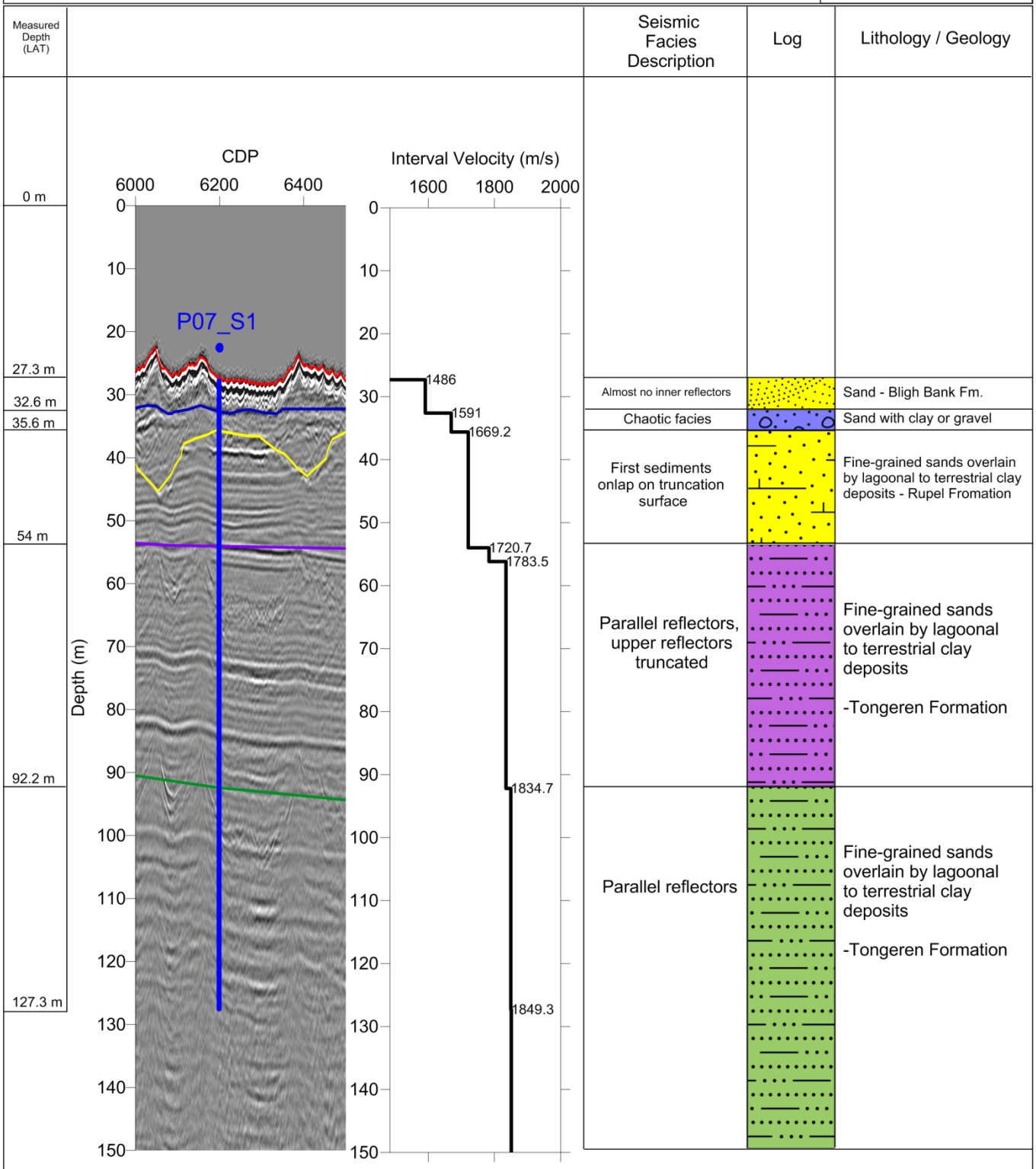
NORTHING (meters): 5734272.85

EASTING (meters): 504165.96

SEISMIC LINE: 40-4000

DEPTHS (m) **WATER DEPTH:** 27.3 m
TOTAL DEPTH: 127.3 m

SCALE **Vertical:** 1 / 300
Horizontal: 1 / 20

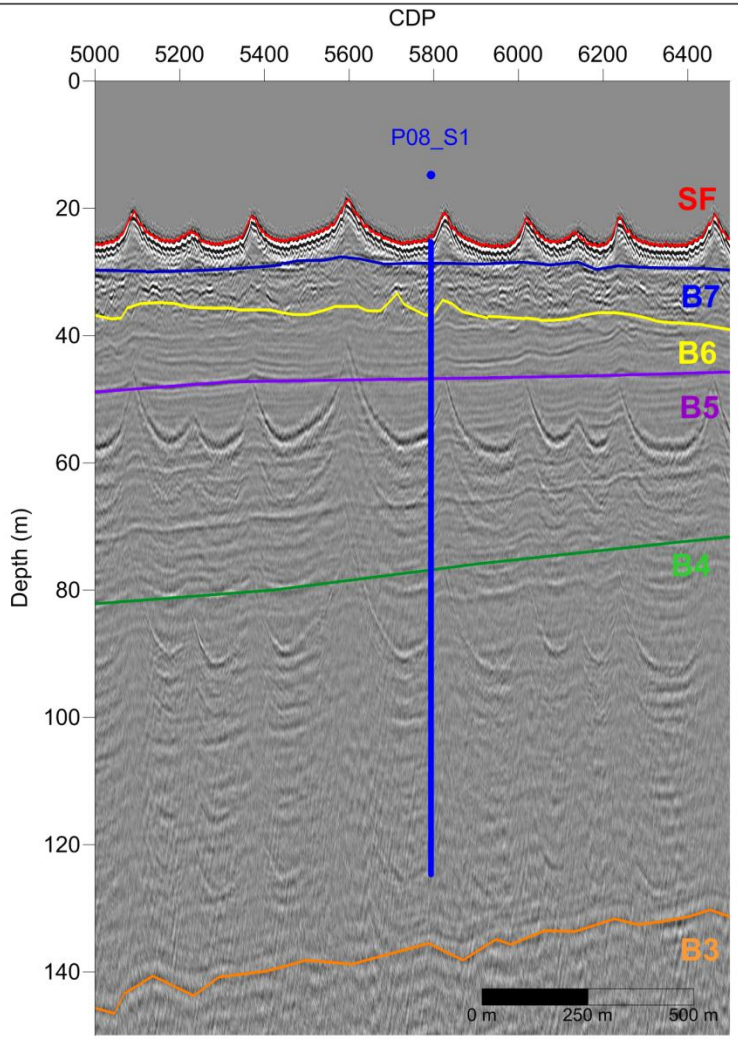


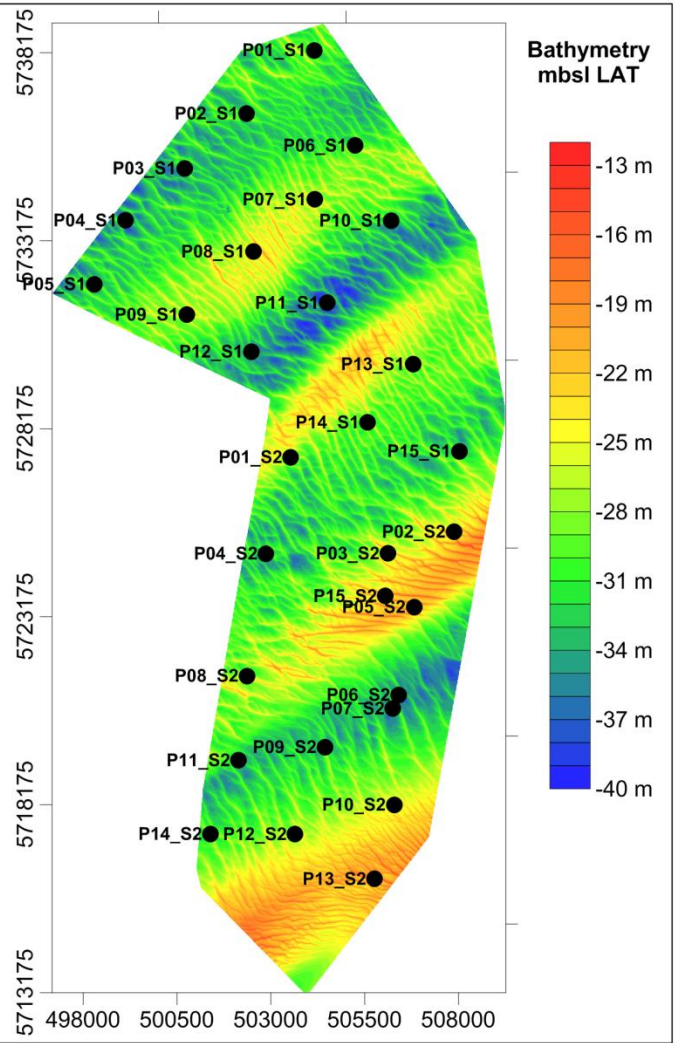
CONTRACTOR SUBCONTRACTOR

Borehole Plan P08_S1
Page 1: Overview

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES	SCALE
PROJECTED: UTM, Z31N, ETRS89 datum	Vertical
NORTHING (meters): 5732886.07	1 / 10
EASTING (meters): 502530.34	Horizontal
SEISMIC LINE: 36-3600	1 / 150
DEPTHS (m)	
WATER DEPTH: 24.6 m	
TOTAL DEPTH: 124.6 m	





Line - 36-3600

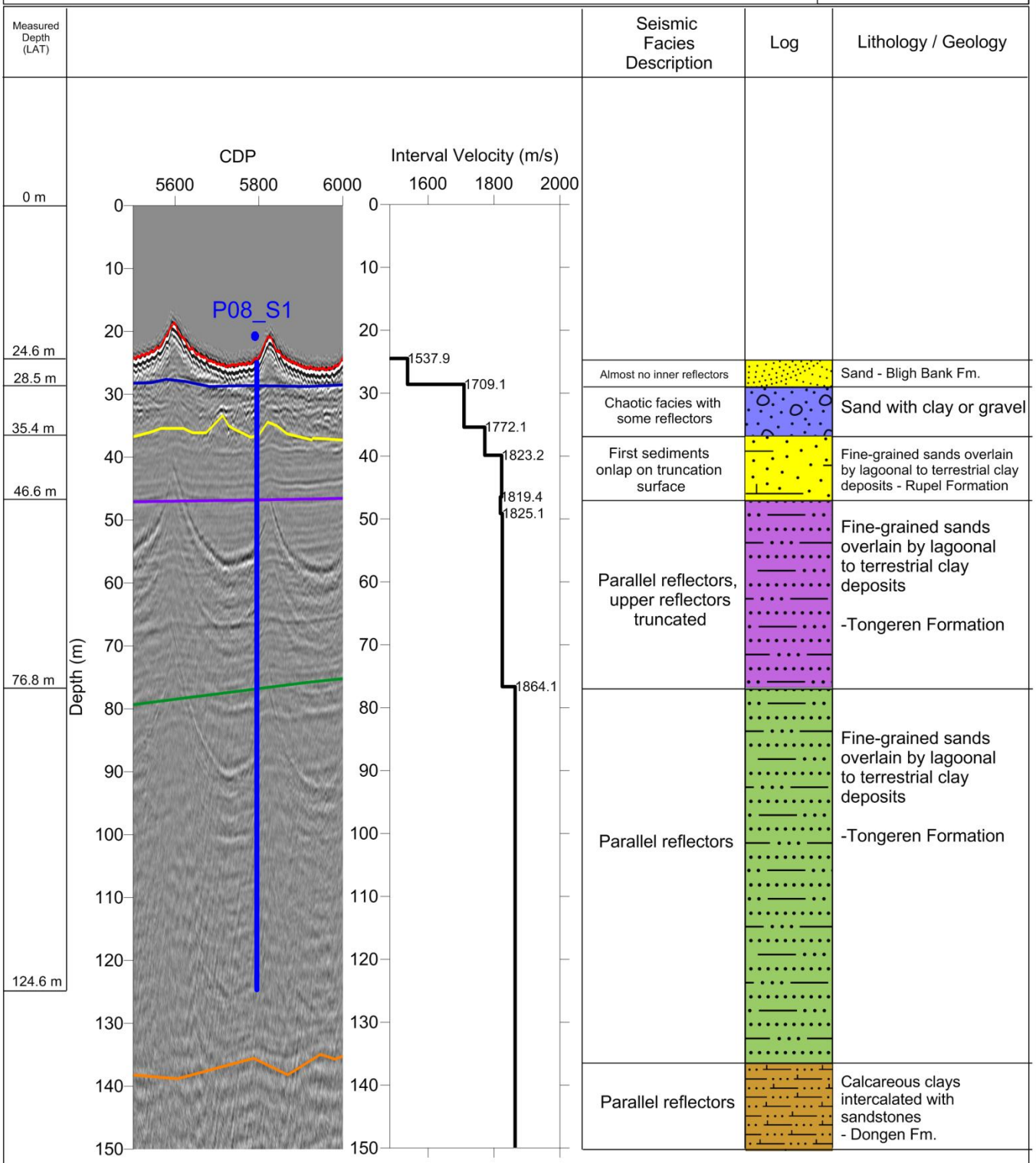
B# represents the interpreted horizons in seismic sections.

CONTRACTOR SUBCONTRACTOR

Borehole Plan P08_S1
Page 2: Prognosis

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES
PROJECTED: UTM, Z31N, ETRS89 datum
NORTHING (meters): 5732886.07
EASTING (meters): 502530.34
SEISMIC LINE: 36-3600
DEPTHS (m) **WATER DEPTH:** 24.6 m
TOTAL DEPTH: 124.6 m
SCALE **Vertical:** 1 / 300
Horizontal: 1 / 20

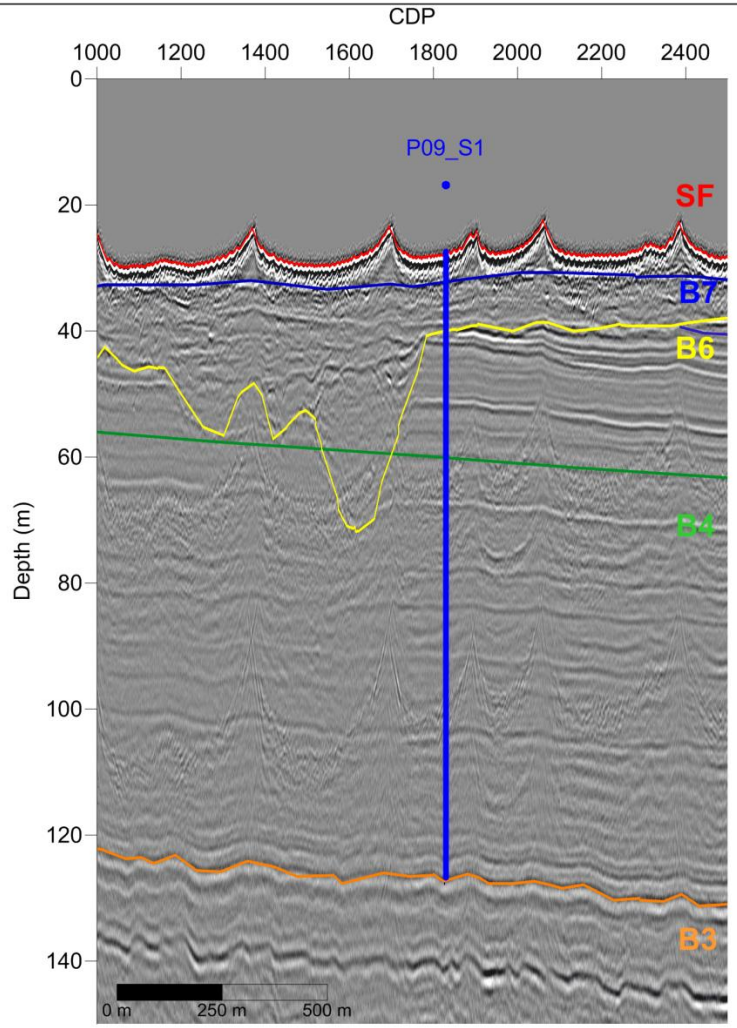


CONTRACTOR SUBCONTRACTOR

Borehole Plan P09_S1
Page 1: Overview

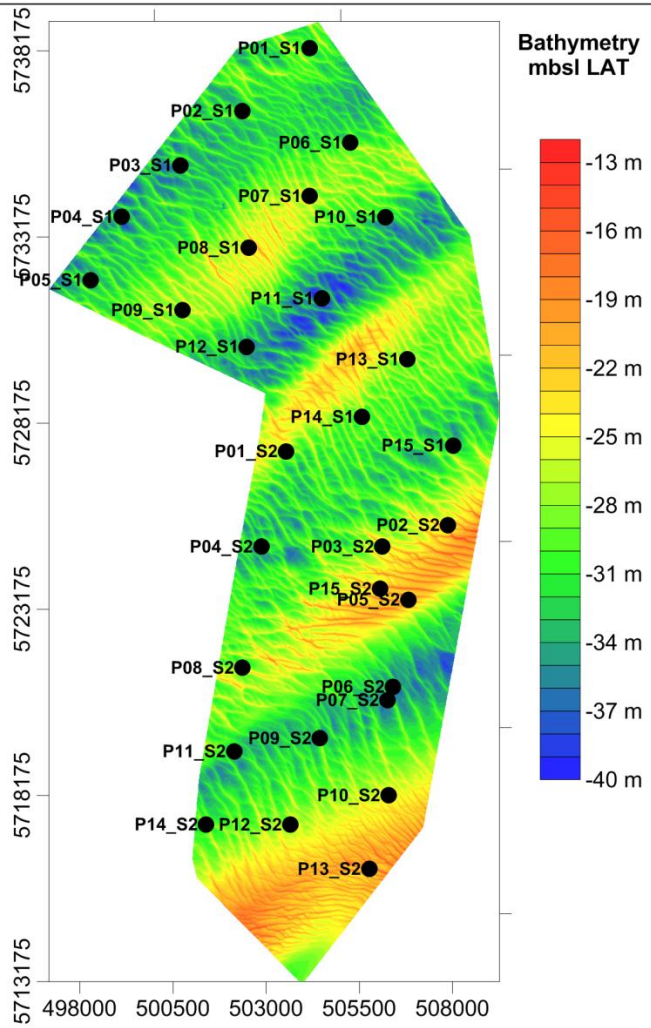
PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES	SCALE
PROJECTED: UTM, Z31N, ETRS89 datum	Vertical
NORTHING (meters): 5731208.25	1 / 10
EASTING (meters): 500759.23	Horizontal
SEISMIC LINE: 32-3200	1 / 150
DEPTHS (m)	
WATER DEPTH: 27.7 m	
TOTAL DEPTH: 127.7 m	



Line - 32-3200

B# represents the interpreted horizons in seismic sections.

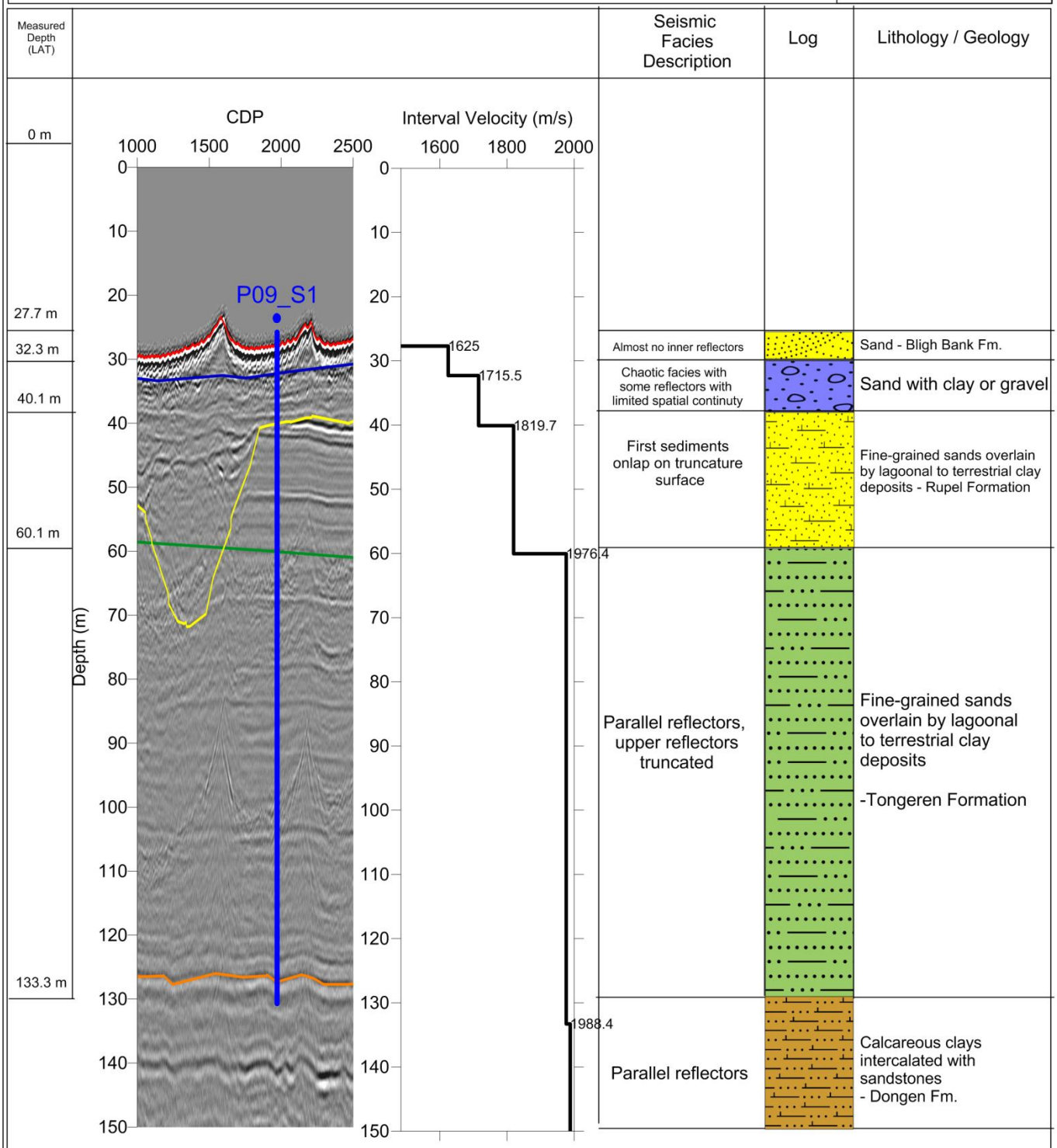


CONTRACTOR SUBCONTRACTOR

Borehole Plan P09_S1
Page 2: Prognosis

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES
PROJECTED: UTM, Z31N, ETRS89 datum
NORTHING (meters): 5731208.25
EASTING (meters): 500759.23
SEISMIC LINE: 32-3200
DEPTHS (m) **WATER DEPTH:** 27.7 m
TOTAL DEPTH: 127.7 m
SCALE **Vertical:** 1 / 8
Horizontal: 1 / 350

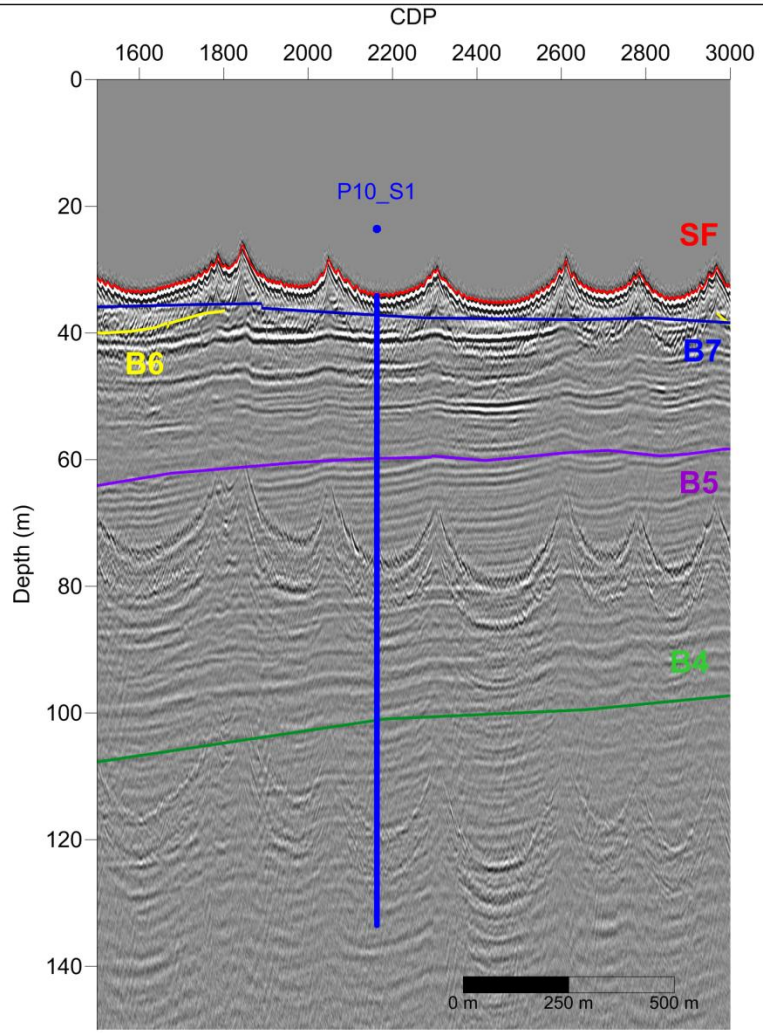


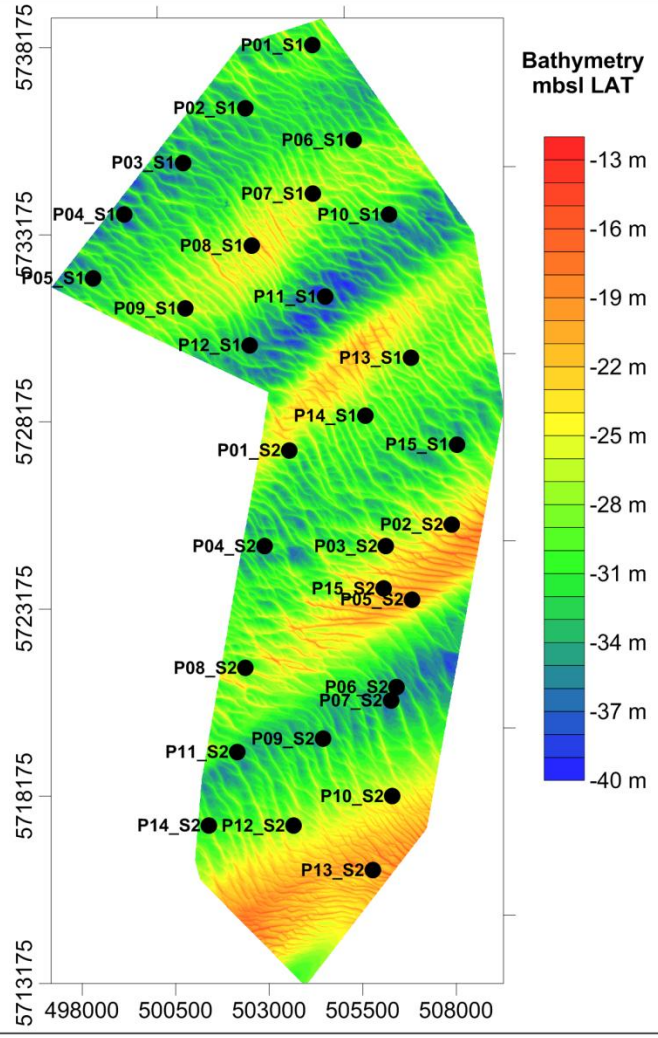
CONTRACTOR SUBCONTRACTOR

Borehole Plan P10_S1
Page 1: Overview

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES	SCALE
PROJECTED: UTM, Z31N, ETRS89 datum	Vertical
NORTHING (meters): 5733710.80	1 / 10
EASTING (meters): 506204.71	Horizontal
SEISMIC LINE: 60-6000b	1 / 150
DEPTHS (m)	
WATER DEPTH: 33.5 m	
TOTAL DEPTH: 133.5 m	





Line - 60-6000b

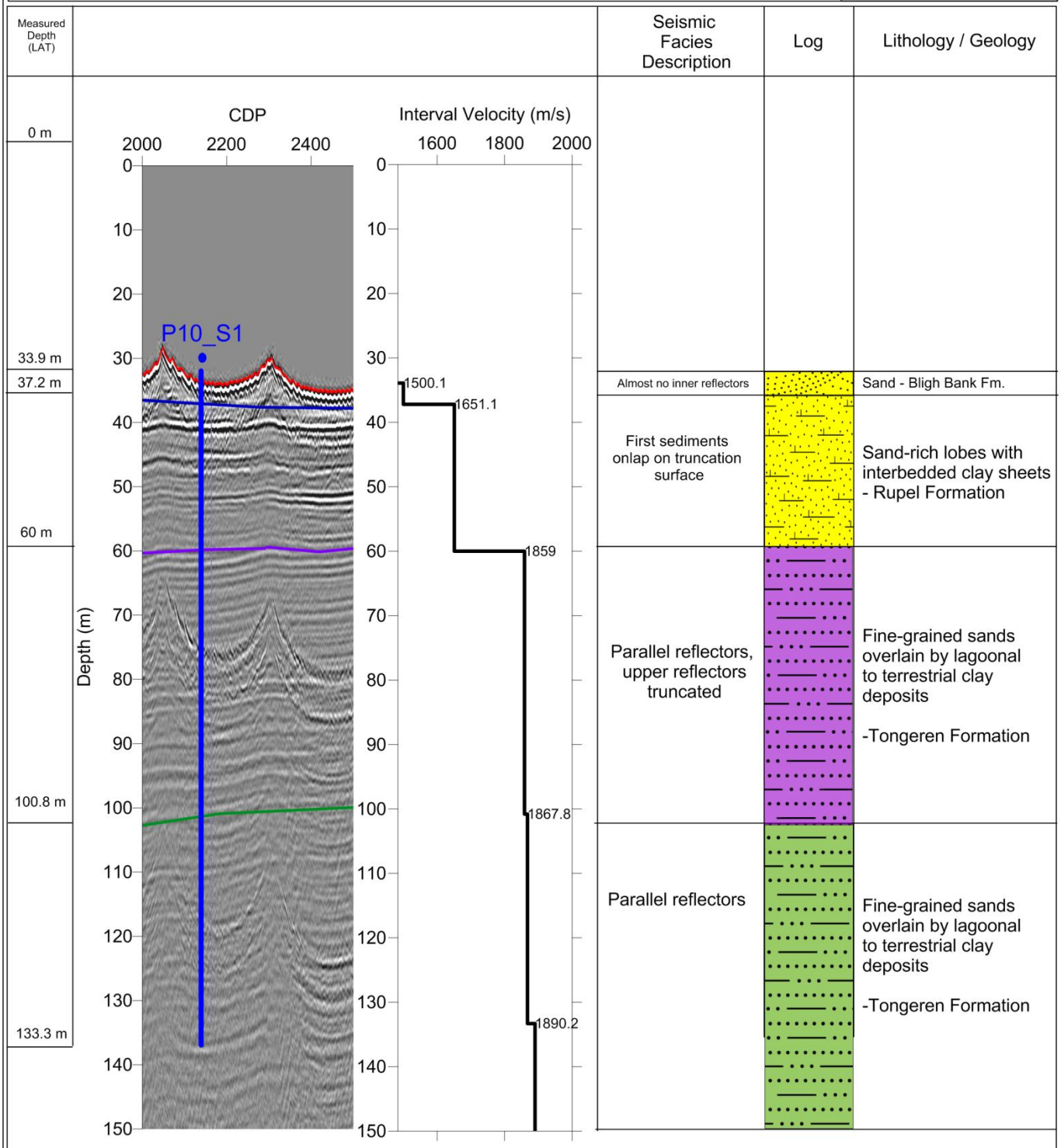
B# represents the interpreted horizons in seismic sections.

CONTRACTOR SUBCONTRACTOR

Borehole Plan P10_S1
Page 2: Prognosis

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES
PROJECTED: UTM, Z31N, ETRS89 datum
NORTHING (meters): 5733710.80
EASTING (meters): 506204.71
SEISMIC LINE: 60-6000b
DEPTHS (m) **WATER DEPTH:** 33.5 m **TOTAL DEPTH:** 133.5 m
SCALE **Vertical:** 1 / 8 **Horizontal:** 1 / 120



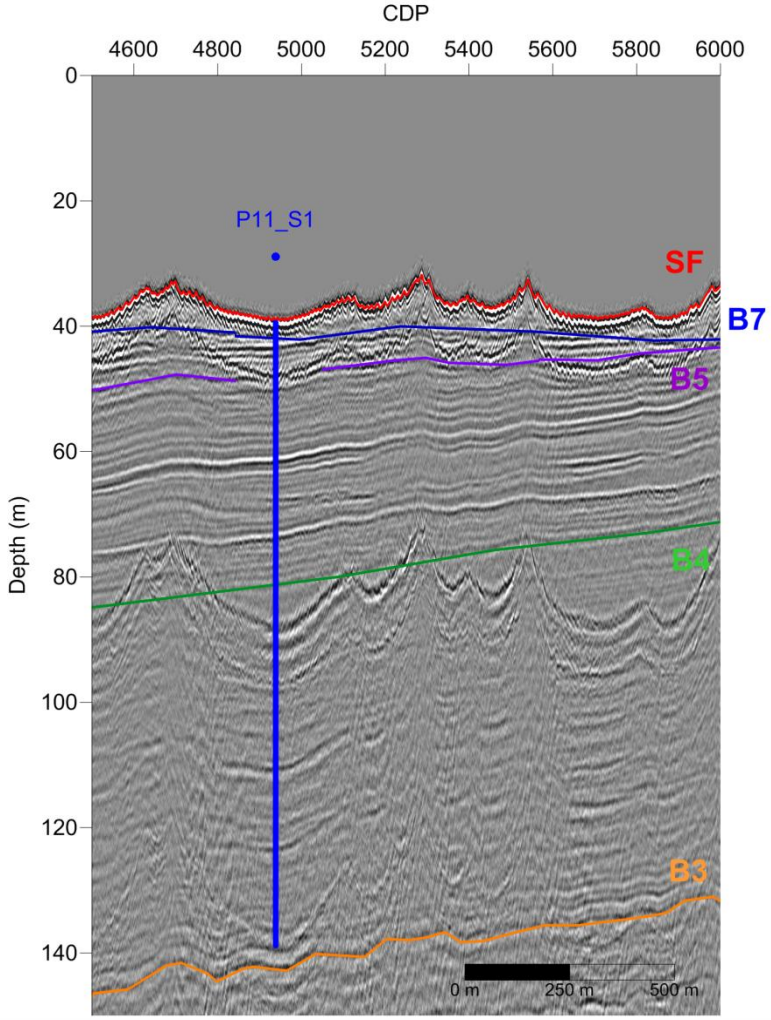
CONTRACTOR

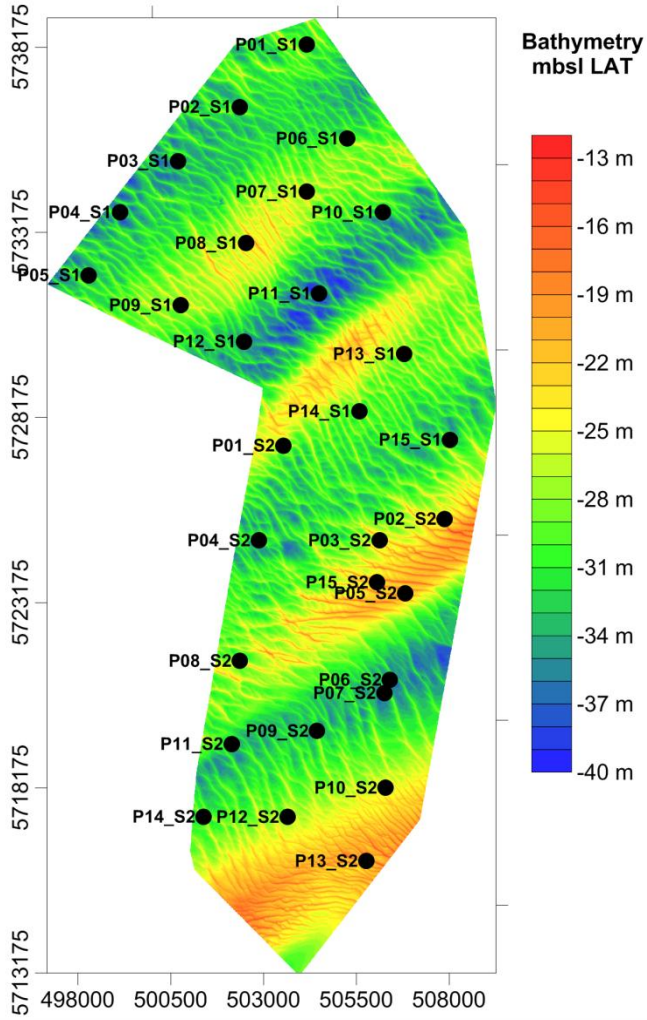
SUBCONTRACTOR

Borehole Plan P11_S1
Page 1: Overview

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES	SCALE
PROJECTED: UTM, Z31N, ETRS89 datum	Vertical
NORTHING (meters): 5731522.49	1 / 10
EASTING (meters): 504498.32	Horizontal
SEISMIC LINE: 60-6000b	1 / 150
DEPTHS (m)	
WATER DEPTH: 39 m	
TOTAL DEPTH: 139 m	





Line - 60-6000b

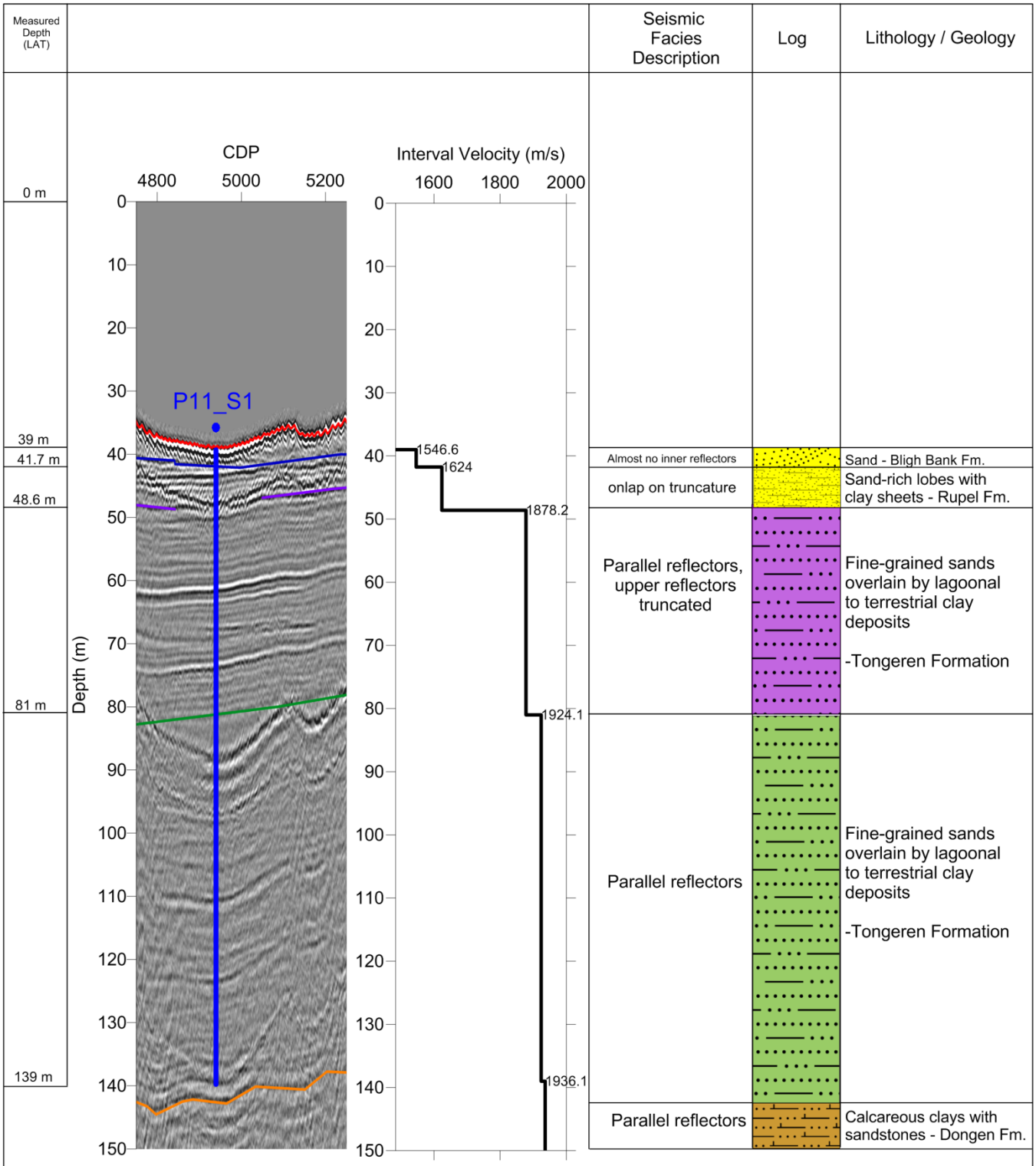
B# represents the interpreted horizons in seismic sections.

CONTRACTOR SUBCONTRACTOR

Borehole Plan P11_S1
Page 2: Prognosis

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES
PROJECTED: UTM, Z31N, ETRS89 datum
NORTHING (meters): 5731522.49
EASTING (meters): 504498.32
SEISMIC LINE: 60-6000b
DEPTHS (m) **WATER DEPTH:** 39 m
TOTAL DEPTH: 139 m
SCALE **Vertical:** 1 / 300
Horizontal: 1 / 20

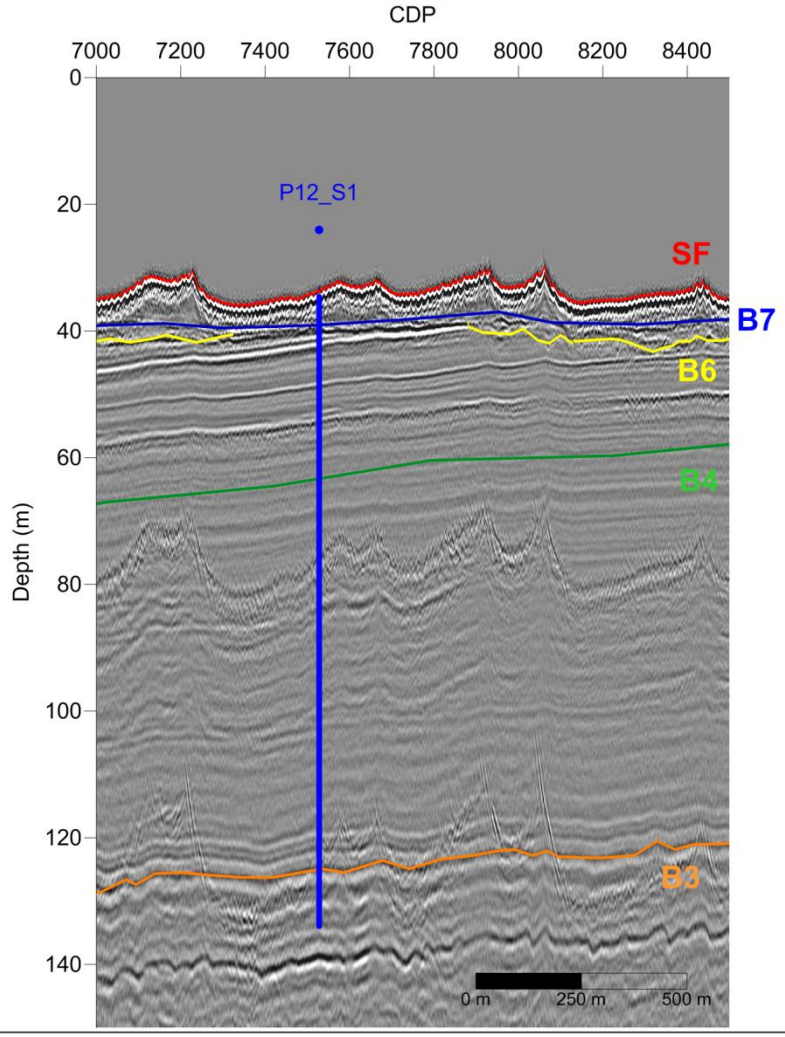


CONTRACTOR SUBCONTRACTOR

Borehole Plan P12_S1
Page 1: Overview

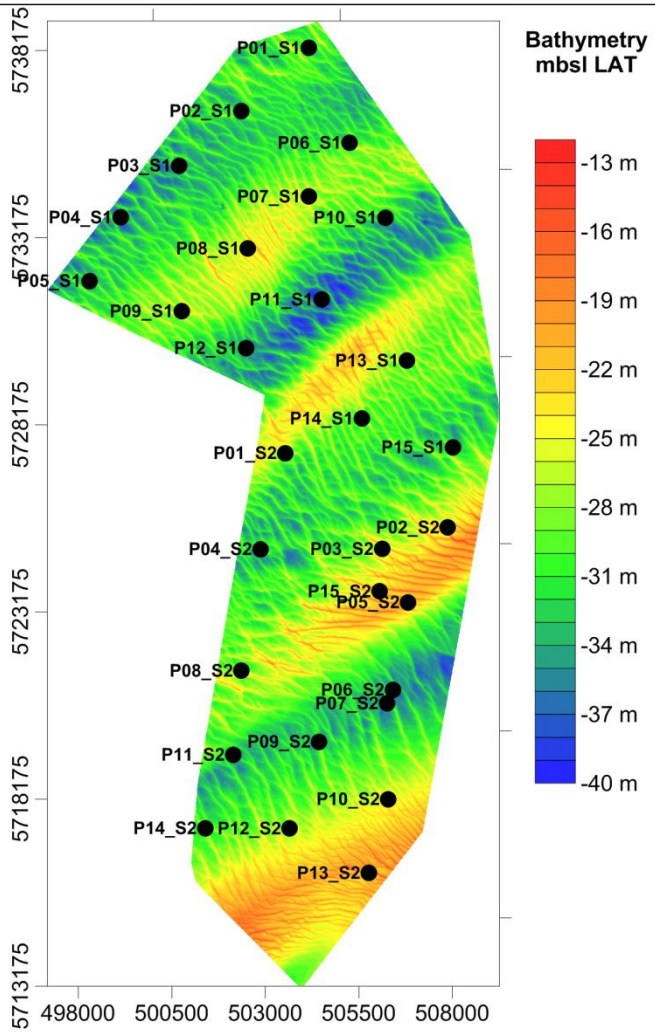
PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES	SCALE
PROJECTED: UTM, Z31N, ETRS89 datum	Vertical
NORTHING (meters): 5730225.67	1 / 10
EASTING (meters): 502478.36	Horizontal
SEISMIC LINE: 52-5200	1 / 150
DEPTHS (m)	
WATER DEPTH: 33.0 m	
TOTAL DEPTH: 133.0 m	



Line - 52-5200

B# represents the interpreted horizons in seismic sections.

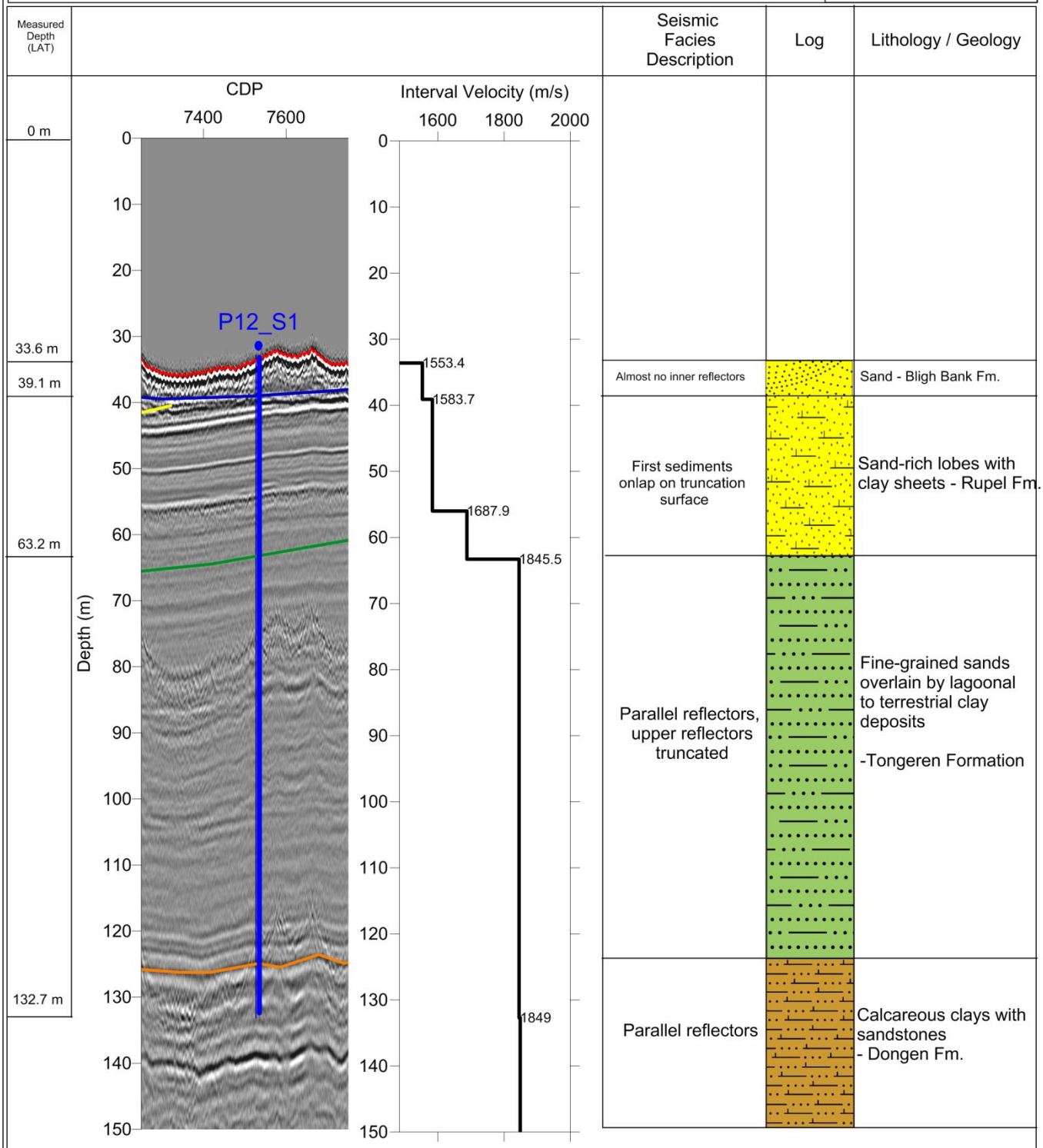


CONTRACTOR SUBCONTRACTOR

Borehole Plan P12_S1
Page 2: Prognosis

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES
PROJECTED: UTM, Z31N, ETRS89 datum
NORTHING (meters): 5730225.67
EASTING (meters): 502478.36
SEISMIC LINE: 52-5200
DEPTHS (m) **WATER DEPTH:** 33 m
TOTAL DEPTH: 133 m
SCALE **Vertical:** 1 / 7.5
Horizontal: 1 / 100



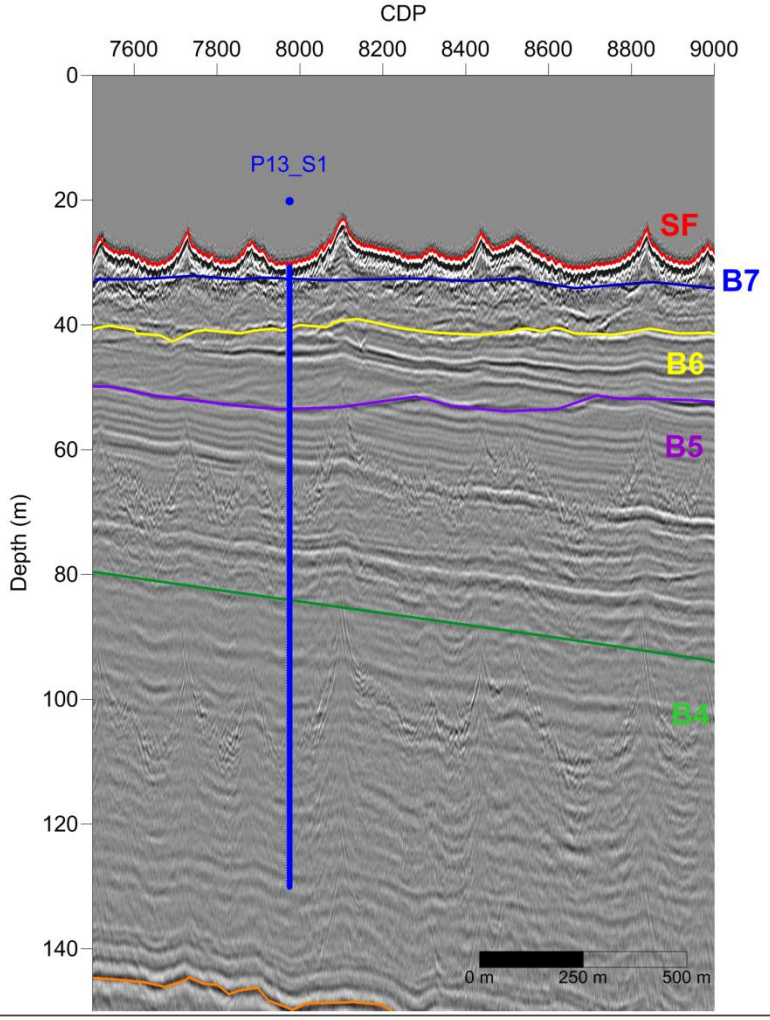
CONTRACTOR

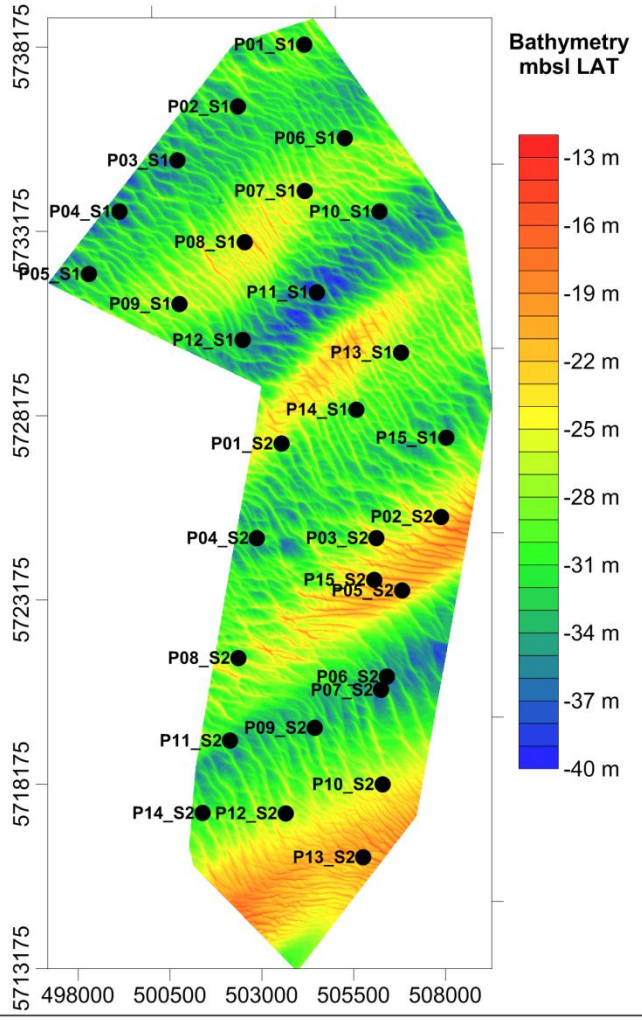
SUBCONTRACTOR

Borehole Plan P13_S1
Page 1: Overview

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES	SCALE
PROJECTED: UTM, Z31N, ETRS89 datum	Vertical
NORTHING (meters): 5729890.18	1 / 10
EASTING (meters): 506785.41	Horizontal
SEISMIC LINE: 88-8800	1 / 150
DEPTHS (m)	
WATER DEPTH: 30.0 m	
TOTAL DEPTH: 130.0 m	





Line - 88-8800

B# represents the interpreted horizons in seismic sections.

CONTRACTOR SUBCONTRACTOR

Borehole Plan P13_S1
Page 2: Prognosis

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES
PROJECTED: UTM, Z31N, ETRS89 datum

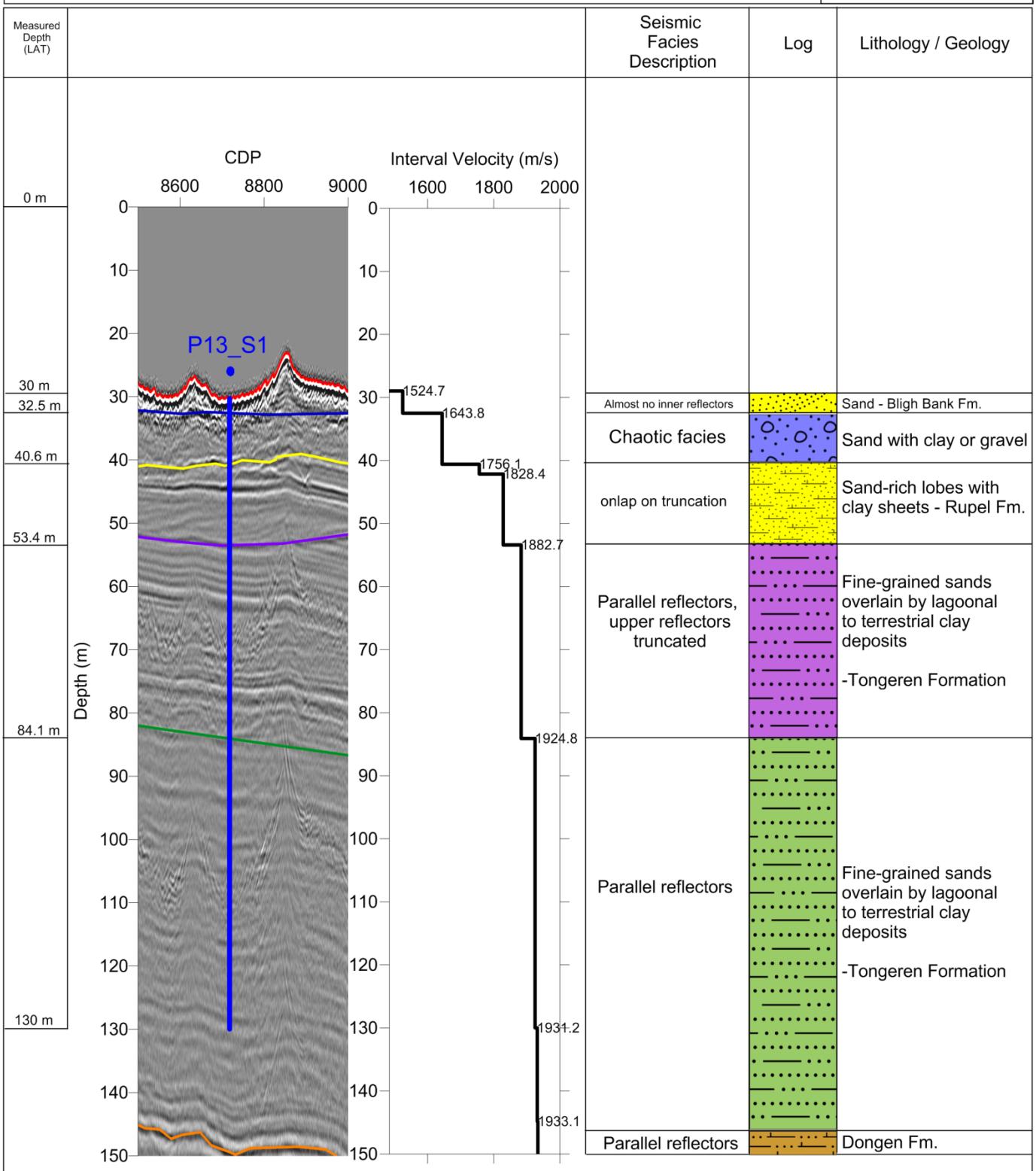
NORTHING (meters): 5729890.18

EASTING (meters): 506785.41

SEISMIC LINE: 88-8800

DEPTHS (m) **WATER DEPTH:** 30 m
TOTAL DEPTH: 130 m

SCALE **Vertical:** 1 / 120
Horizontal: 1 / 8

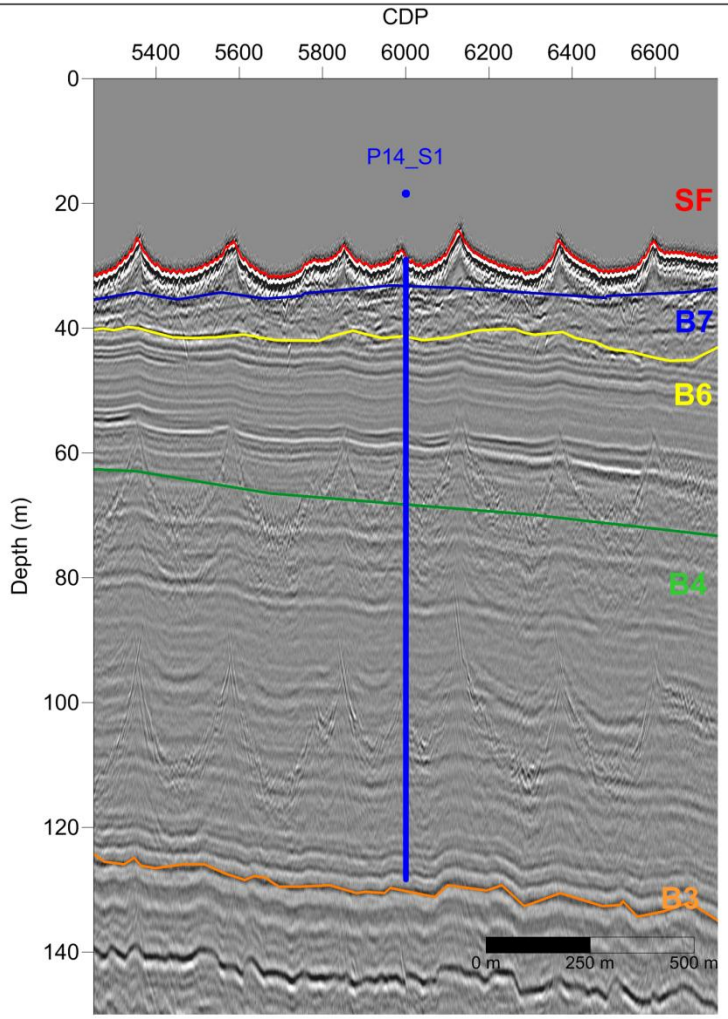


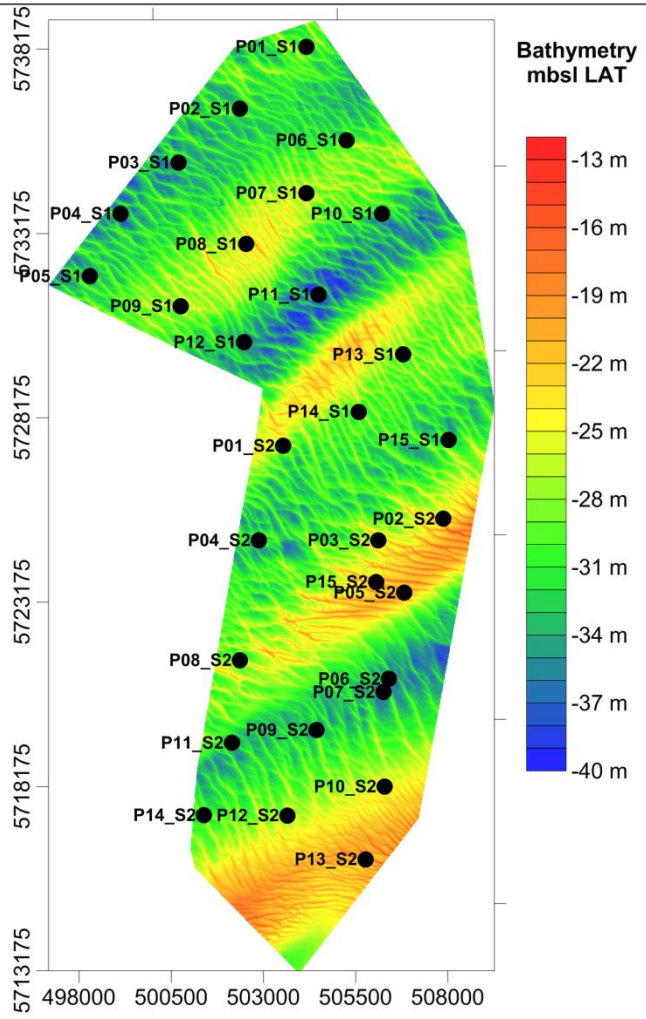
CONTRACTOR SUBCONTRACTOR

Borehole Plan P14_S1
Page 1: Overview

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES	SCALE
PROJECTED: UTM, Z31N, ETRS89 datum	Vertical
NORTHING (meters): 5728341.93	1 / 10
EASTING (meters): 505574.31	Horizontal
SEISMIC LINE: 88-8800	1 / 150
DEPTHS (m)	
WATER DEPTH: 28.9 m	
TOTAL DEPTH: 128.9 m	





Line - 88-8800

B# represents the interpreted horizons in seismic sections.

CONTRACTOR SUBCONTRACTOR

Borehole Plan P14_S1
Page 2: Prognosis

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES
PROJECTED: UTM, Z31N, ETRS89 datum

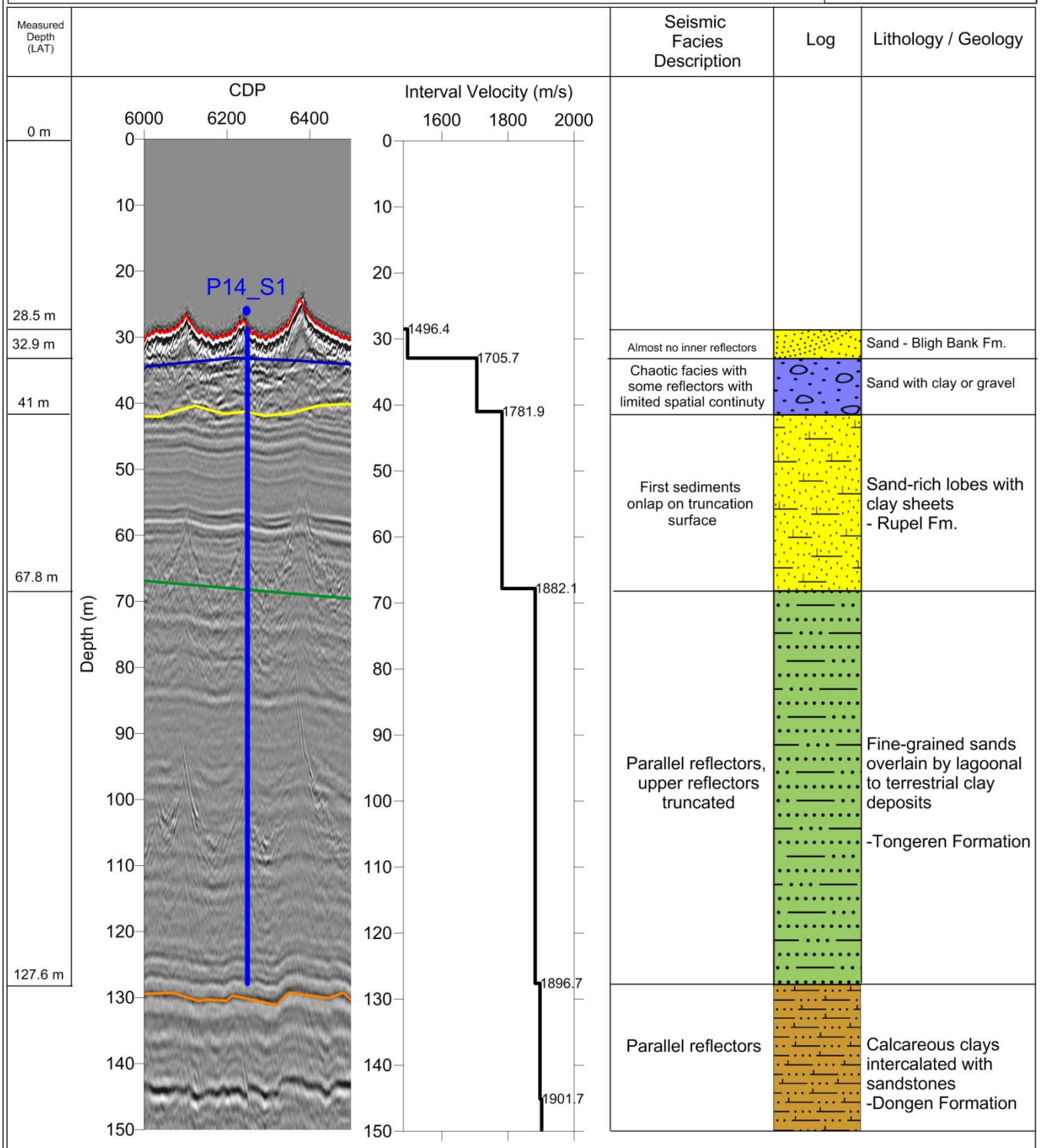
NORTHING (meters): 5728341.93

EASTING (meters): 505574.31

SEISMIC LINE: 88-8800

DEPTHS (m) **WATER DEPTH:** 28.9 m
TOTAL DEPTH: 128.9 m

SCALE **Vertical:** 1 / 7.5
Horizontal: 1 / 120

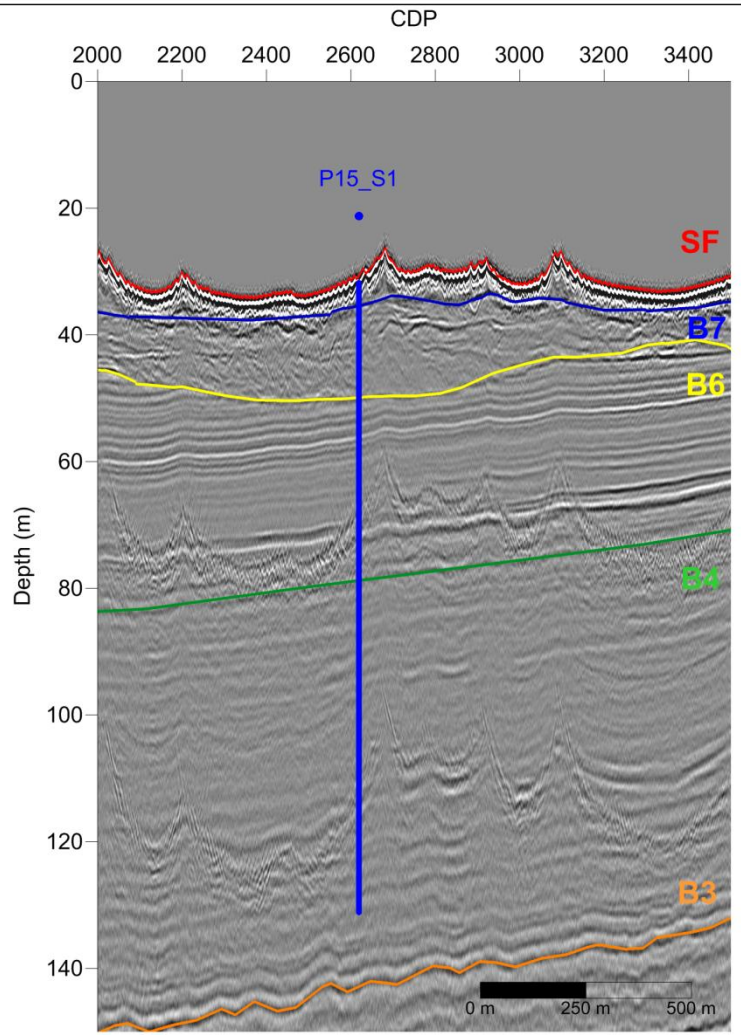


CONTRACTOR SUBCONTRACTOR

Borehole Plan P15_S1
Page 1: Overview

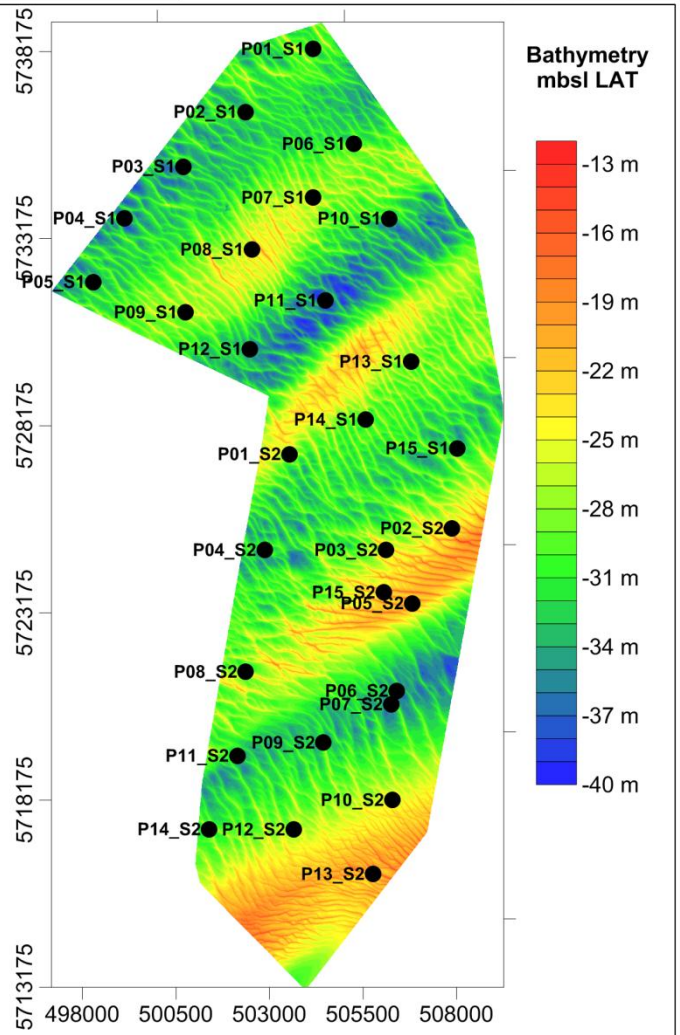
PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES	SCALE
PROJECTED: UTM, Z31N, ETRS89 datum	Vertical
NORTHING (meters): 5727575.49	1 / 10
EASTING (meters): 508017.71	Horizontal
SEISMIC LINE: 112-11200c	1 / 150
DEPTHS (m)	
WATER DEPTH: 31 m	
TOTAL DEPTH: 131 m	



Line - 112-11200c

B# represents the interpreted horizons in seismic sections.



CONTRACTOR SUBCONTRACTOR

Borehole Plan P15_S1
Page 2: Prognosis

PROJECT: Borssele Wind Farm Geophysical Survey

SURFACE CO-ORDINATES
PROJECTED: UTM, Z31N, ETRS89 datum

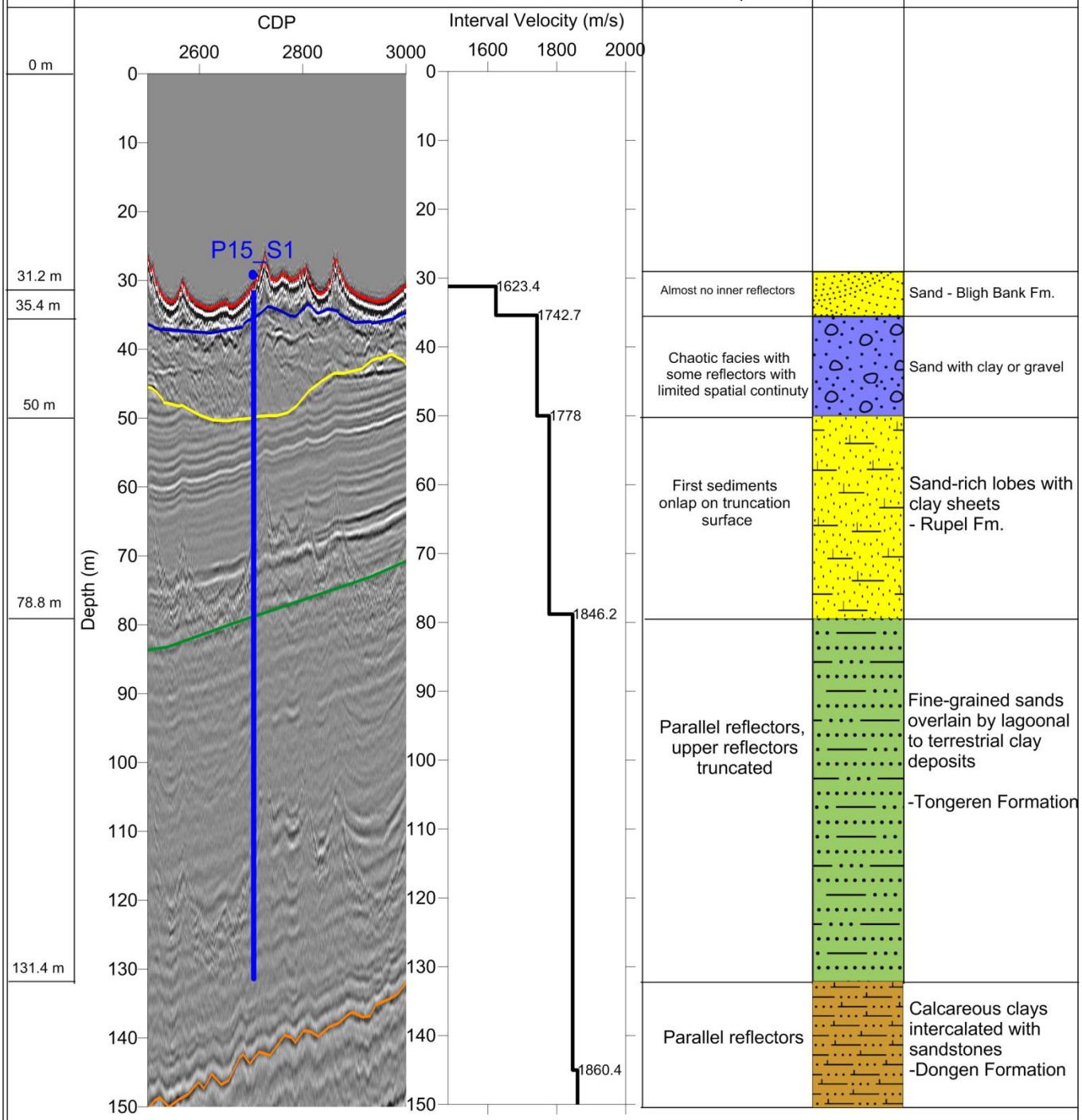
NORTHING (meters): 5727575.49

EASTING (meters): 508017.71

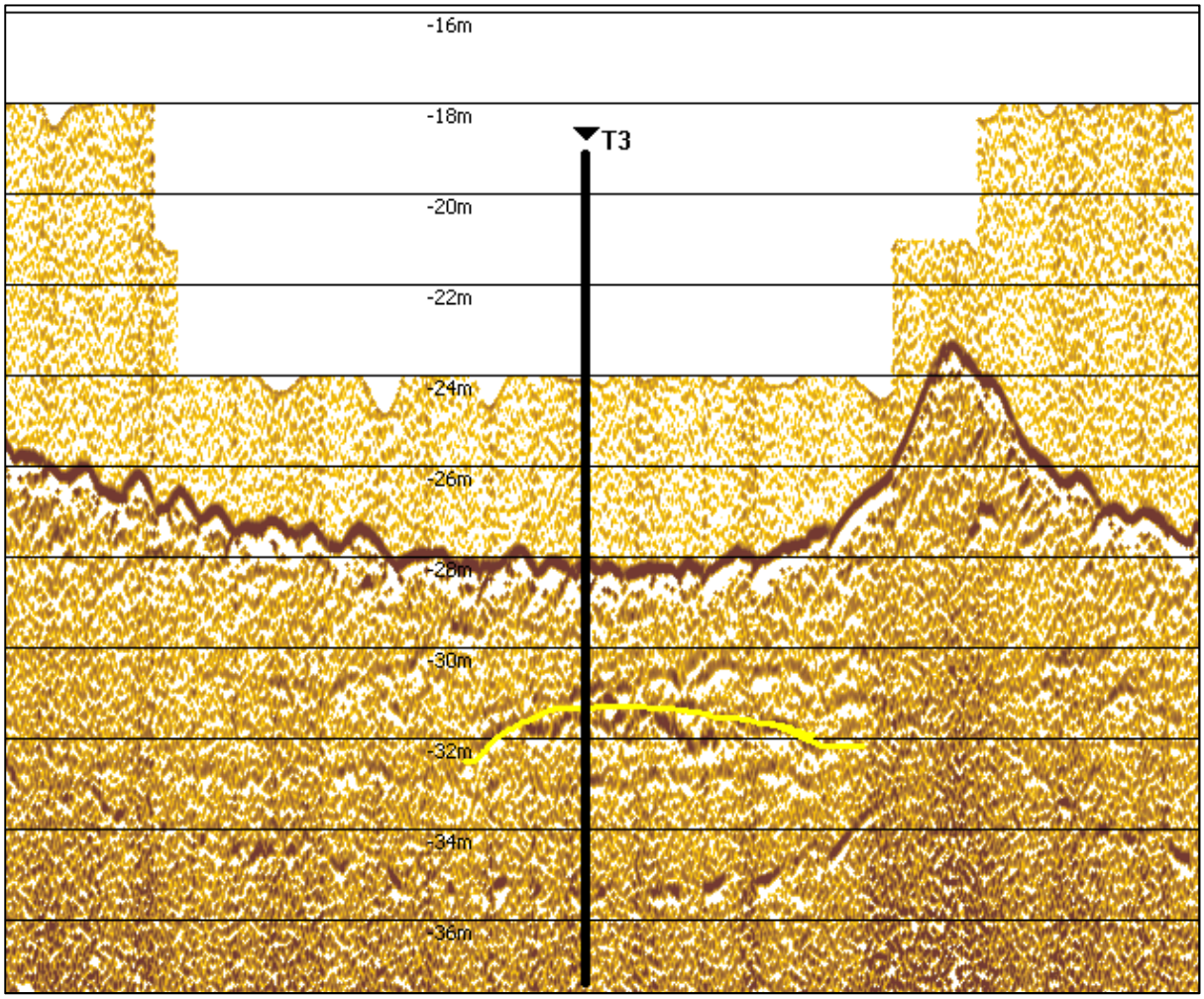
SEISMIC LINE: 120-12000

DEPTHS (m) **WATER DEPTH:** 31 m
TOTAL DEPTH: 131 m

SCALE **Vertical:** 1 / 7.5
Horizontal: 1 / 100



PROPOSED BOREHOLE BASED UPON SBP DATA



Surface coordinates in ETRS89, UTM31N
Easting: 505887.12
Northing: 5717328.14
Survey line: 36-3600
Seabed elevation: 27.35m below LAT
Target depth: 3m below seabed
Goal: Assess denser material identified on SBP

Remarks: Liquefaction hazard from MCS data present at same location