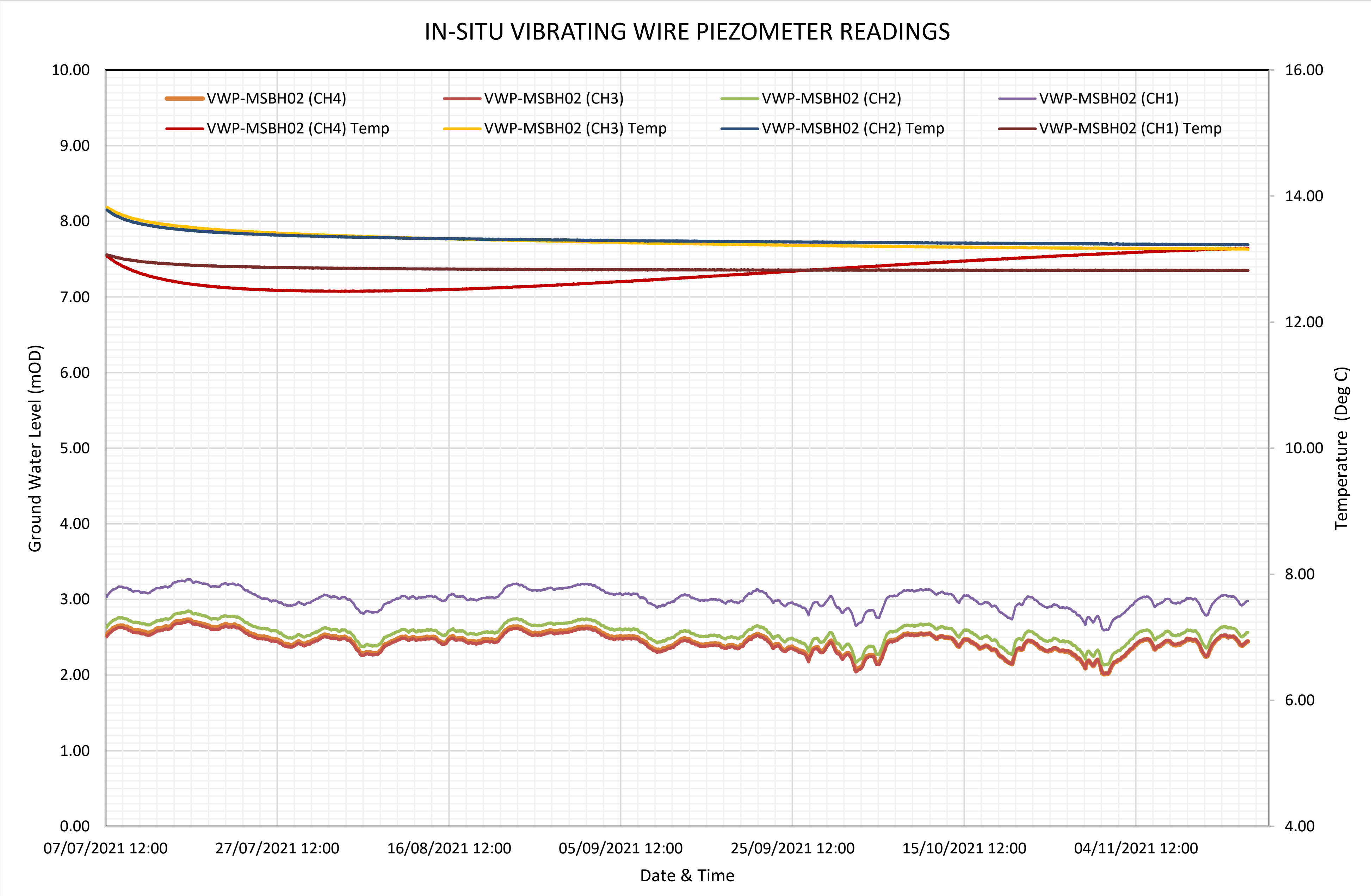
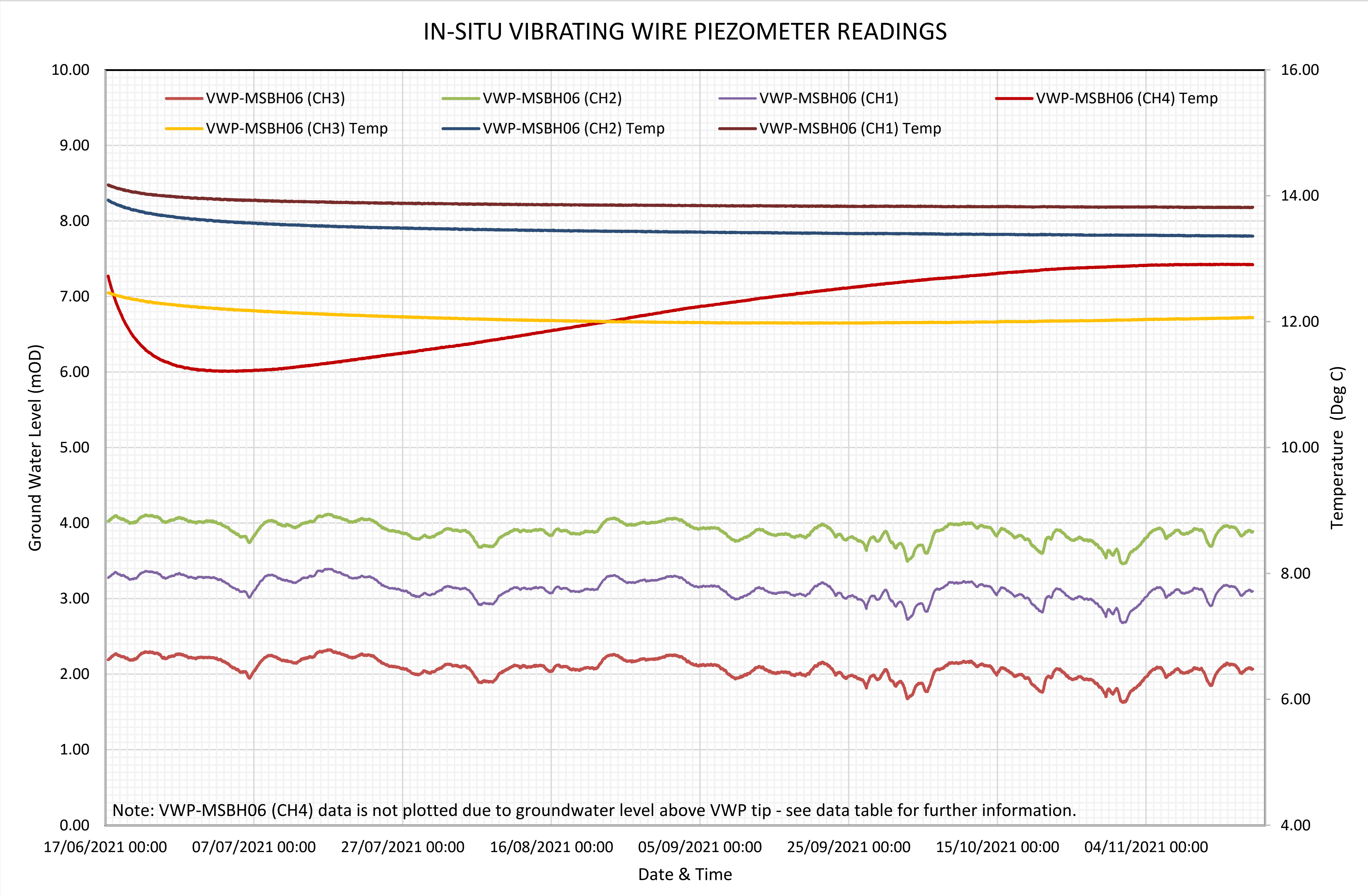
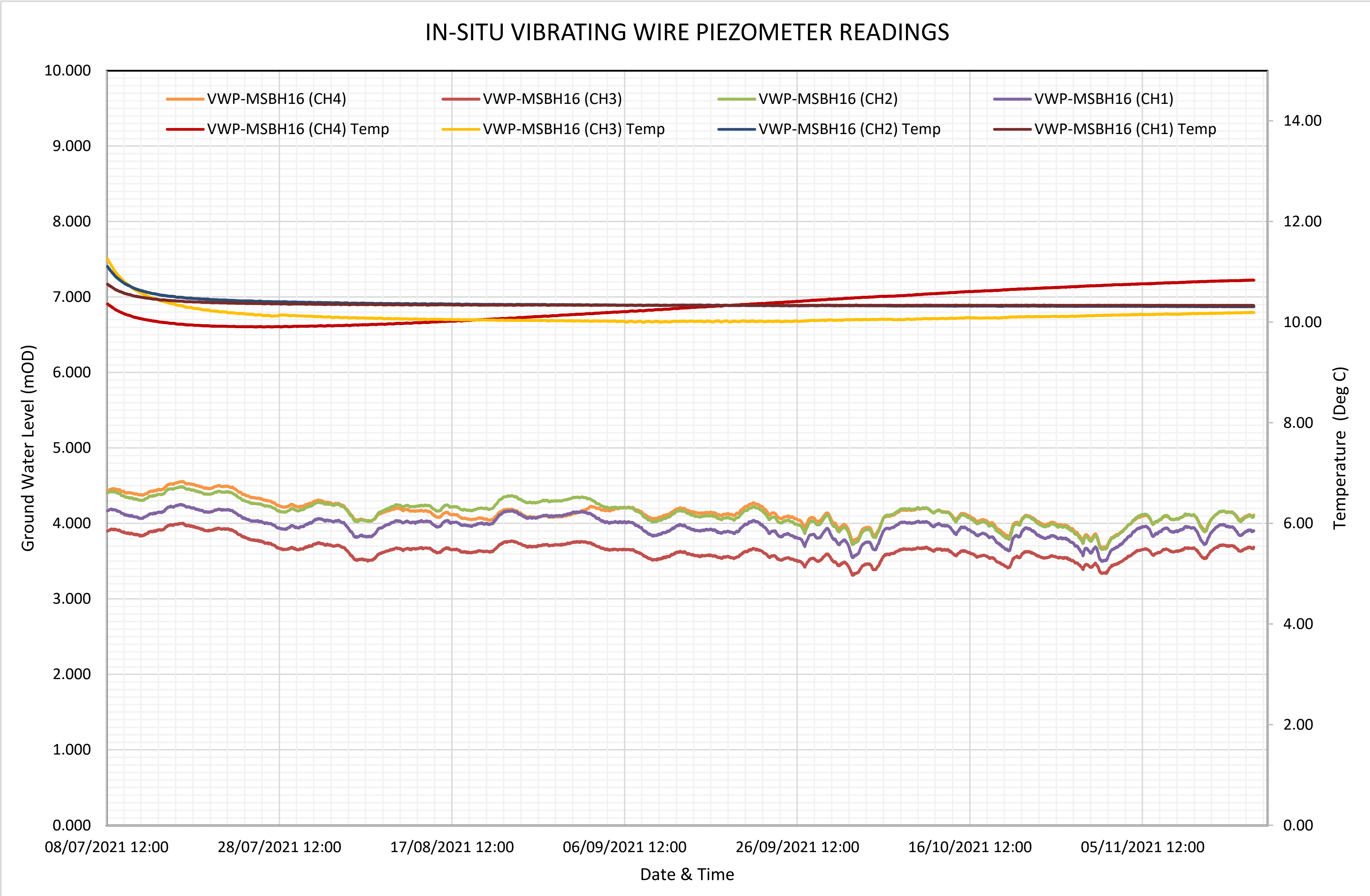
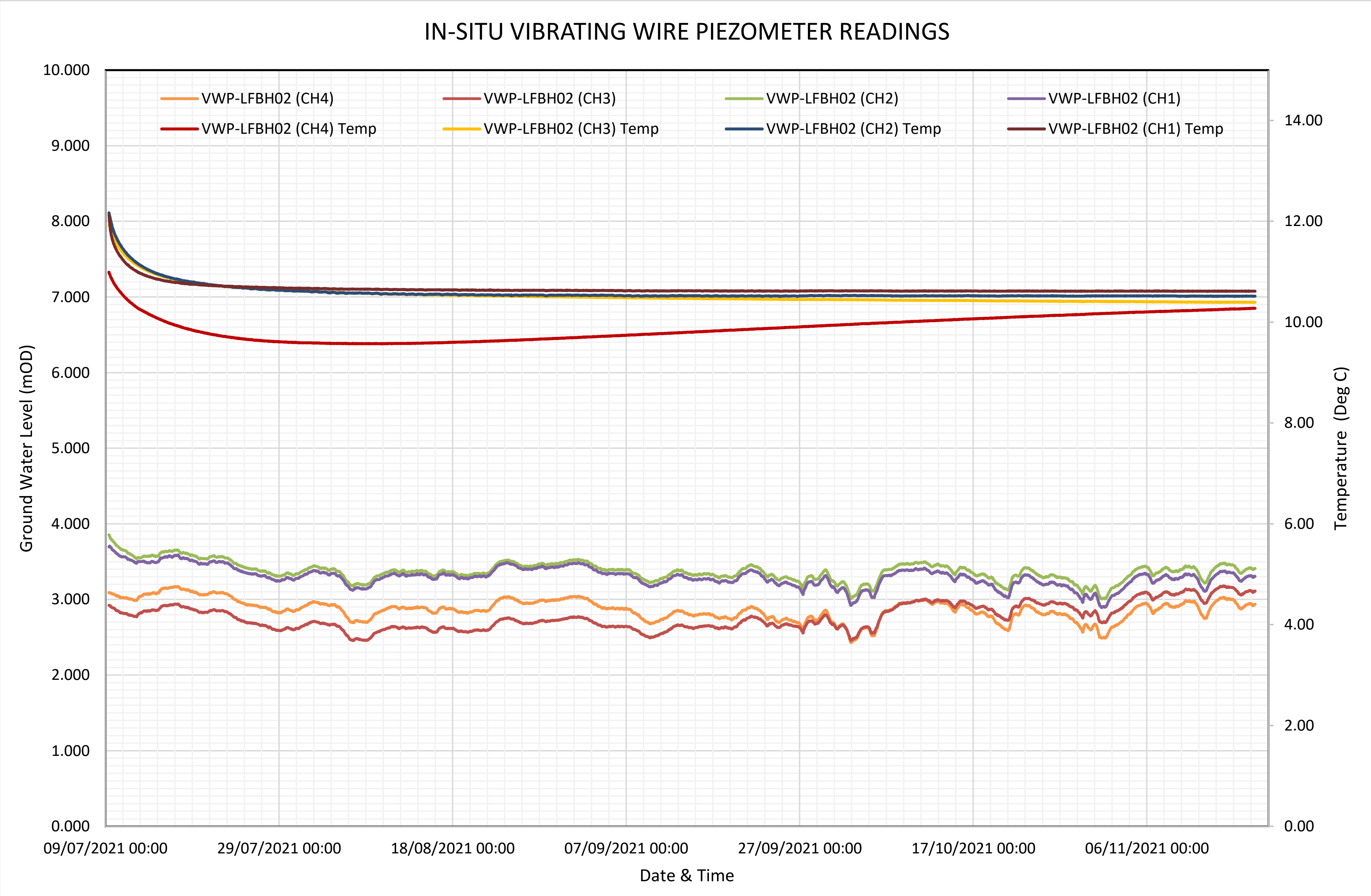

IN-SITU VIBRATING WIRE PIEZOMETER READINGS
VWP-MSBH02 (CH4)
VWP-MSBH02 (CH3)
VWP-MSBH02 (CH2)
VWP-MSBH02 (CH1)
VWP-MSBH02 (CH4) Temp
VWP-MSBH02 (CH3) Temp
VWP-MSBH02 (CH2) Temp
VWP-MSBH02 (CH1) Temp
Ground Water Level (mOD)
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Temperature (Deg C)
16.00
14.00
12.00
10.00
8.00
6.00
4.00
07/07/2021 12:00
27/07/2021 12:00
16/08/2021 12:00
05/09/2021 12:00
25/09/2021 12:00
15/10/2021 12:00
04/11/2021 12:00
Date & Time



IN-SITU VIBRATING WIRE PIEZOMETER READINGS
VWP-MSBH06 (CH3)
VWP-MSBH06 (CH2)
VWP-MSBH06 (CH1)
VWP-MSBH06 (CH4) Temp
VWP-MSBH06 (CH3) Temp
VWP-MSBH06 (CH2) Temp
VWP-MSBH06 (CH1) Temp
Ground Water Level (mOD)
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Temperature (Deg C)
16.00
14.00
12.00
10.00
8.00
6.00
4.00
Note: VWP-MSBH06 (CH4) data is not plotted due to groundwater level above VWP tip - see data table for further information.
17/06/2021 00:00
07/07/2021 00:00
27/07/2021 00:00
16/08/2021 00:00
05/09/2021 00:00
25/09/2021 00:00
15/10/2021 00:00
04/11/2021 00:00
Date & Time


IN-SITU VIBRATING WIRE PIEZOMETER READINGS
VWP-MSBH16 (CH4)
VWP-MSBH16 (CH3)
VWP-MSBH16 (CH2)
VWP-MSBH16 (CH1)
VWP-MSBH16 (CH4) Temp
VWP-MSBH16 (CH3) Temp
VWP-MSBH16 (CH2) Temp
VWP-MSBH16 (CH1) Temp
Ground Water Level (mOD)
10.000
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
Temperature (Deg C)
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
08/07/2021 12:00
28/07/2021 12:00
17/08/2021 12:00
06/09/2021 12:00
26/09/2021 12:00
16/10/2021 12:00
05/11/2021 12:00
Date & Time

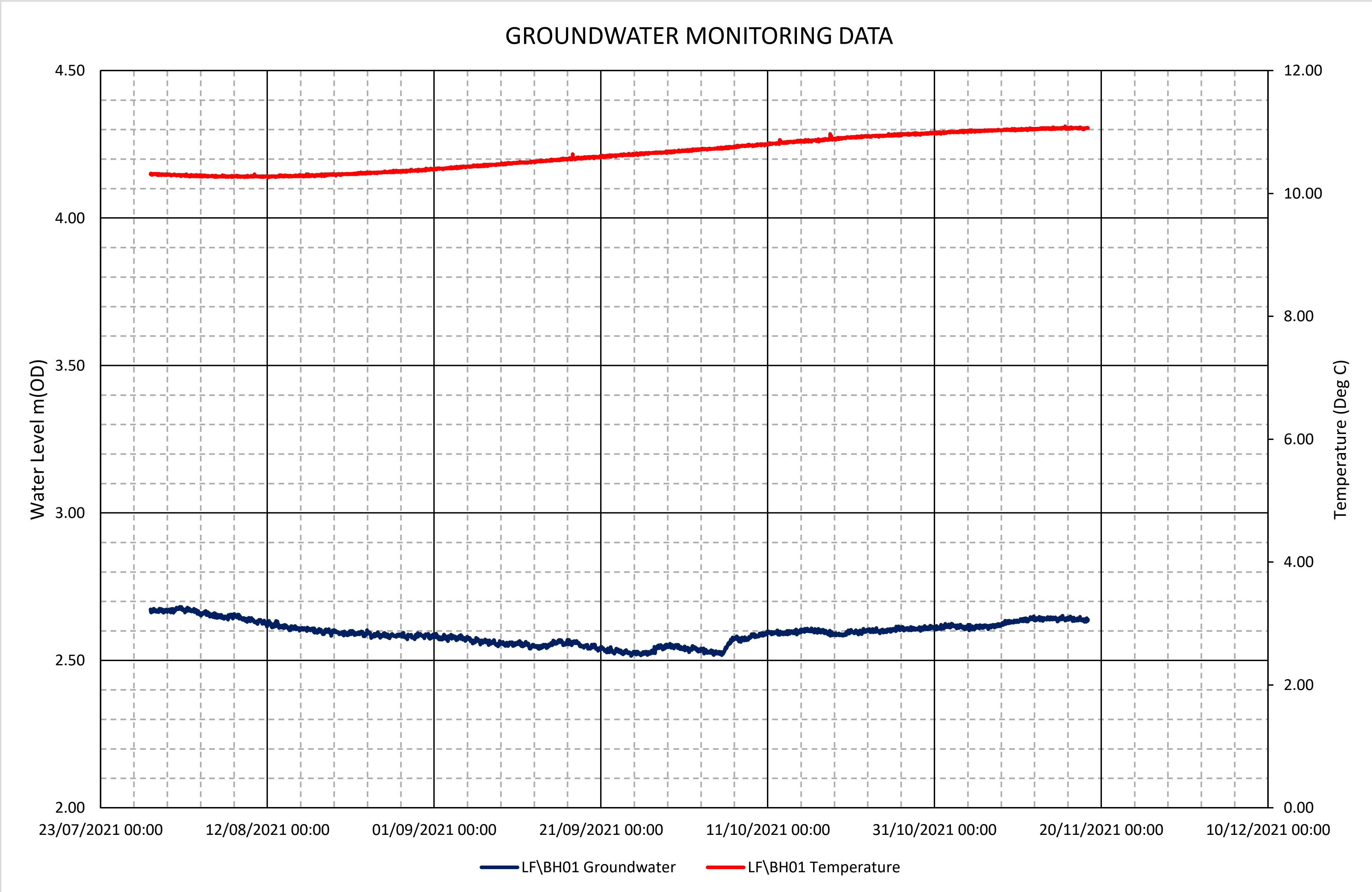


IN-SITU VIBRATING WIRE PIEZOMETER READINGS
VWP-LFBH02 (CH4)
VWP-LFBH02 (CH3)
VWP-LFBH02 (CH2)
VWP-LFBH02 (CH1)
VWP-LFBH02 (CH4) Temp
VWP-LFBH02 (CH3) Temp
VWP-LFBH02 (CH2) Temp
VWP-LFBH02 (CH1) Temp
Ground Water Level (mOD)
10.000
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
Temperature (Deg C)
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
09/07/2021 00:00
29/07/2021 00:00
18/08/2021 00:00
07/09/2021 00:00
27/09/2021 00:00
17/10/2021 00:00
06/11/2021 00:00
Date & Time

IN-SITU TESTING ENCLOSURE 7

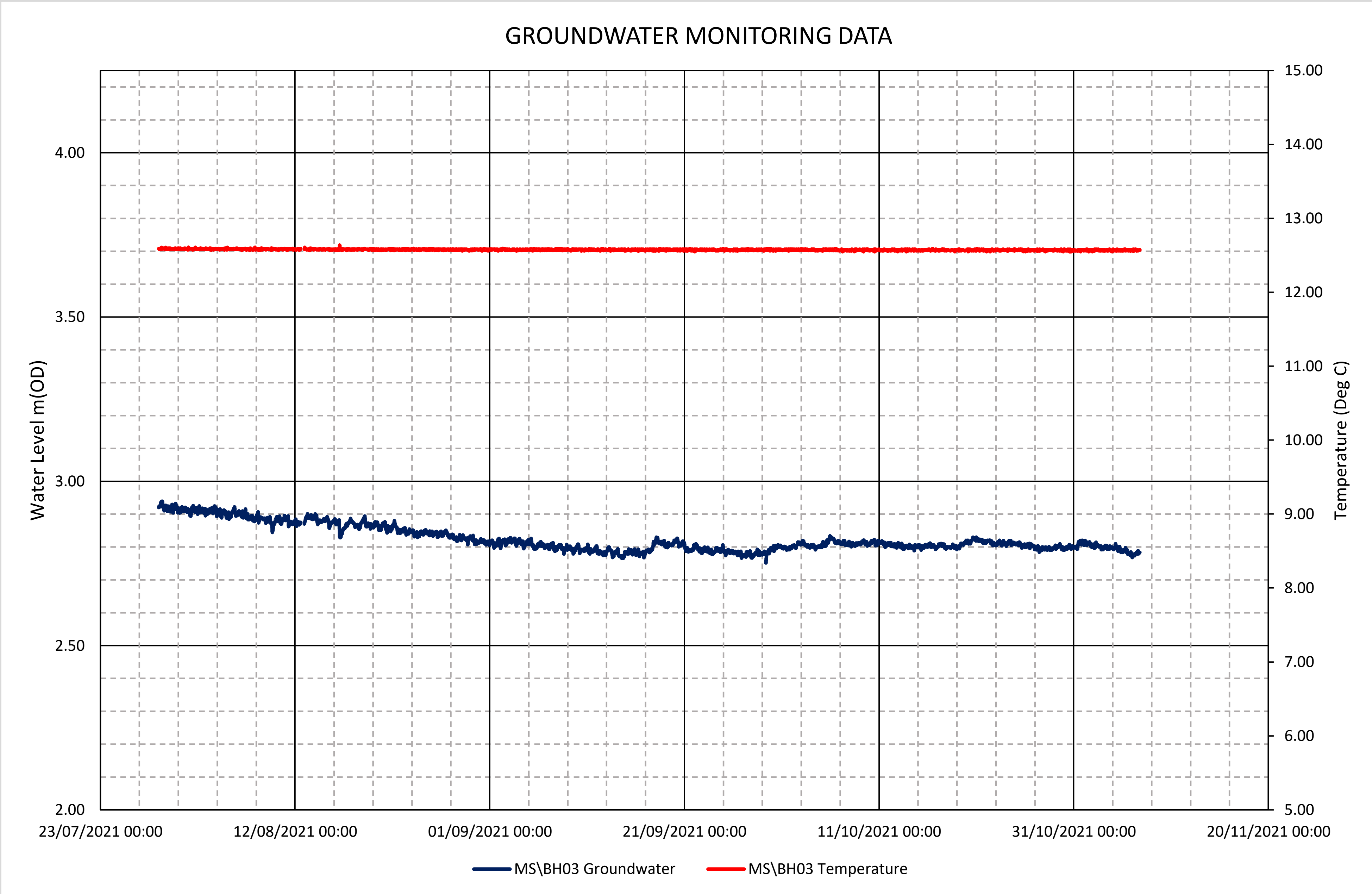
Mini-Diver Readings

GROUNDWATER MONITORING DATA



Title: Preliminary Onshore Ground Investigation for Net Zero Teeside (NZT) - South Tees Development Corporation (STDC) 'Main Site; and Onshore CO2 Export Pipeline Corridor
Contract No: 4339
Client: AECOM
Printed: 29/11/2021

GROUNDWATER MONITORING DATA



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Contract No: 4339
Client: AECOM
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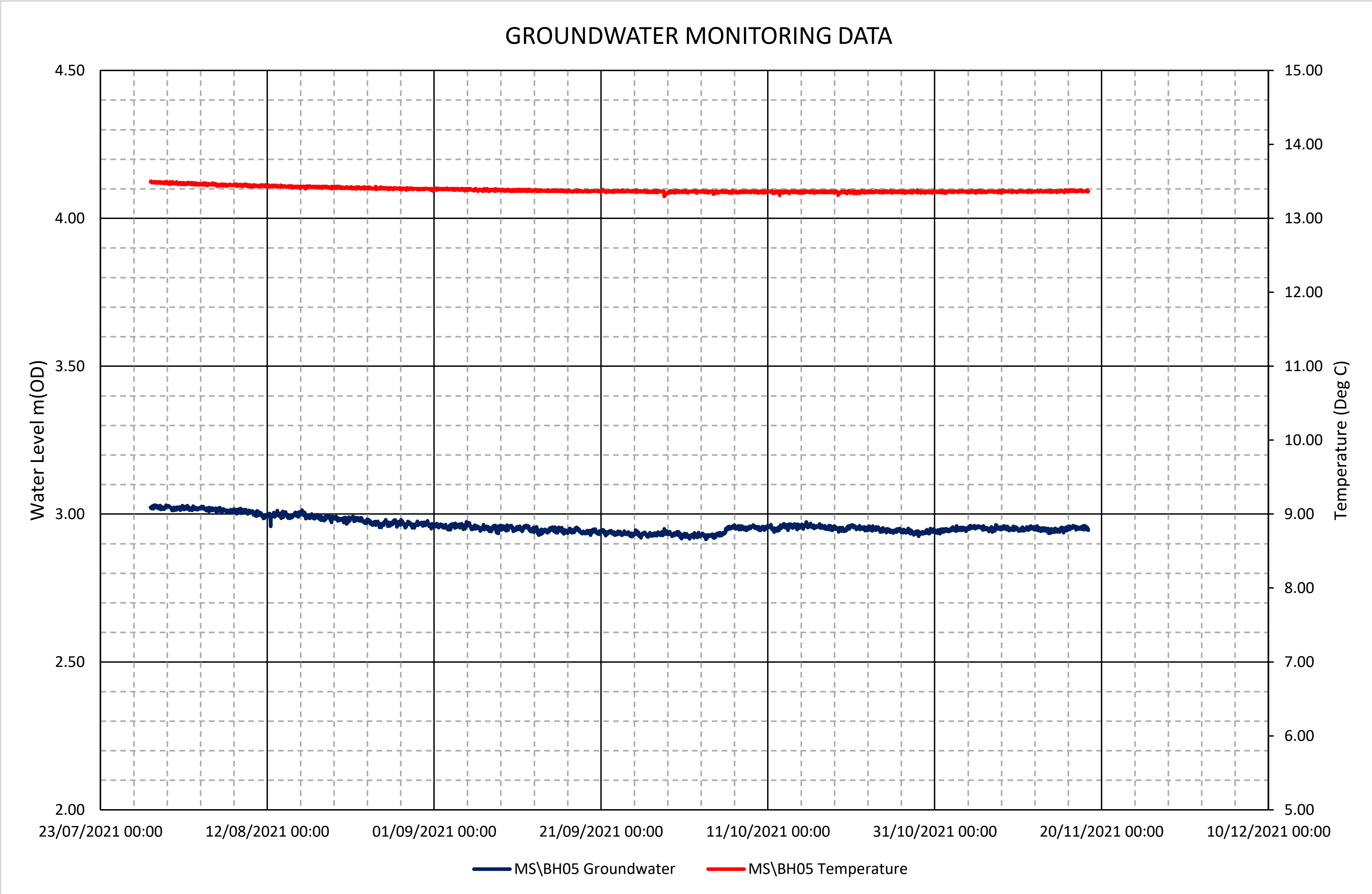
GROUNDWATER MONITORING DATA



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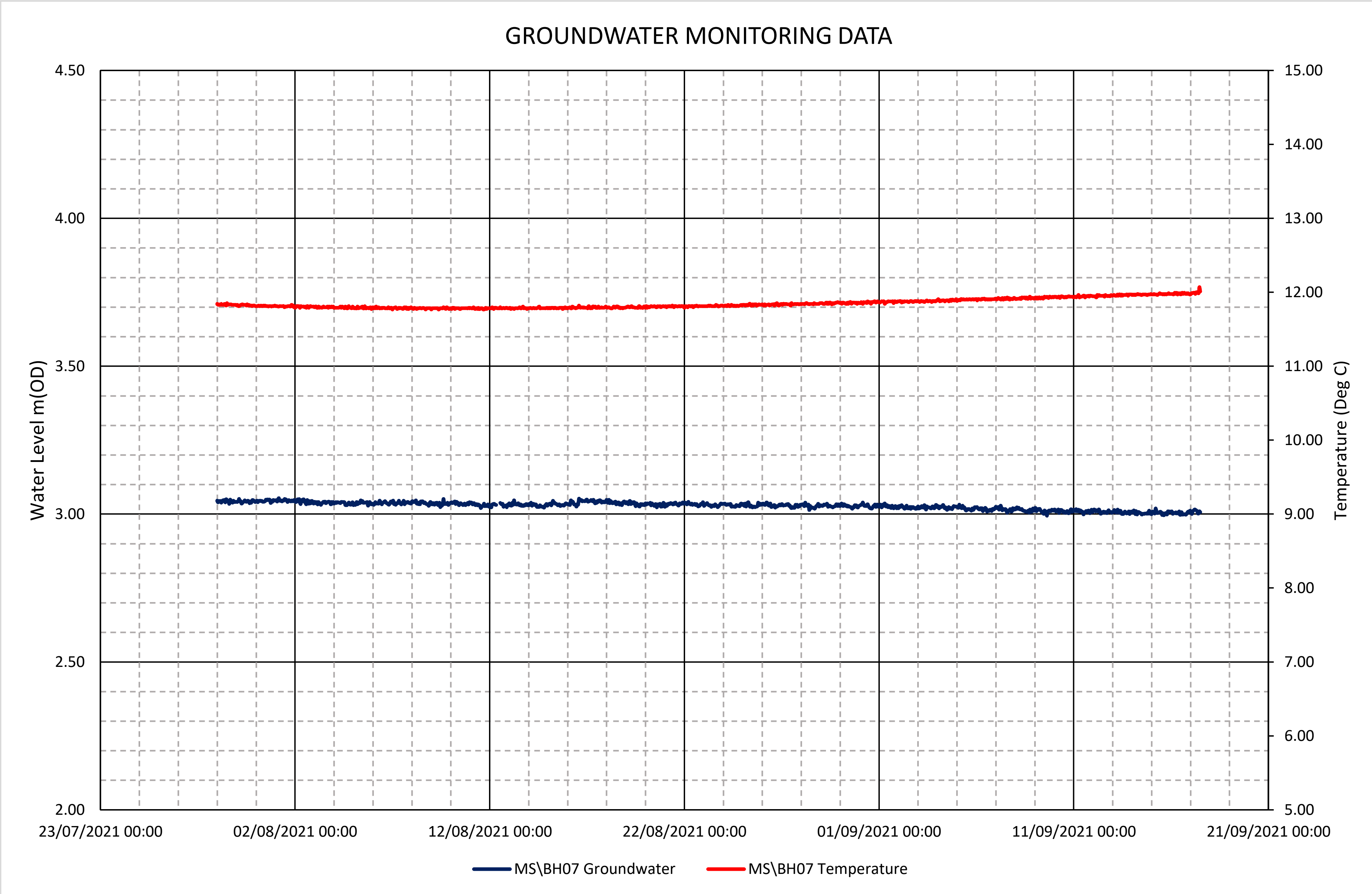
GROUNDWATER MONITORING DATA



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Client: AECOM
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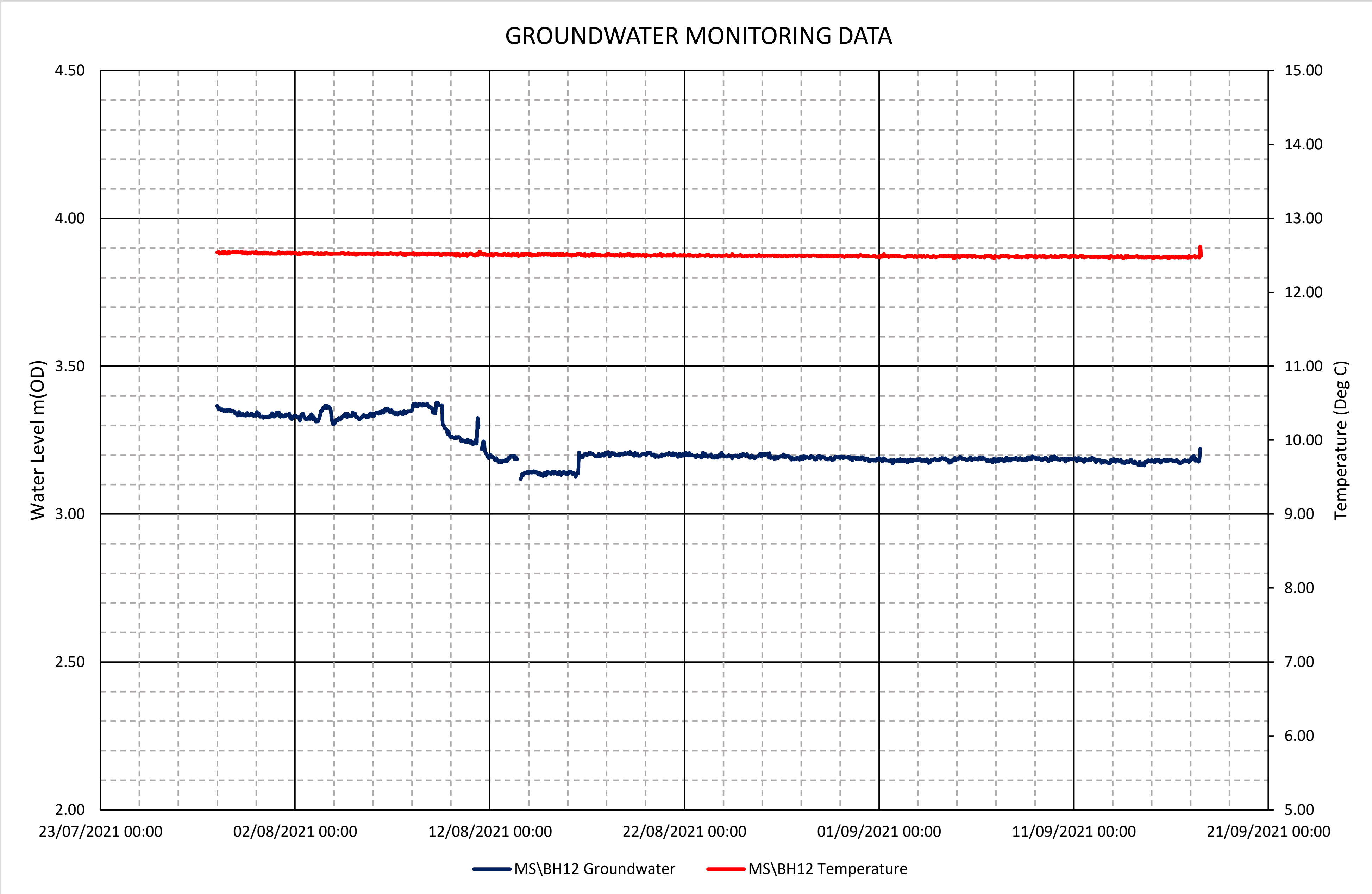
GROUNDWATER MONITORING DATA



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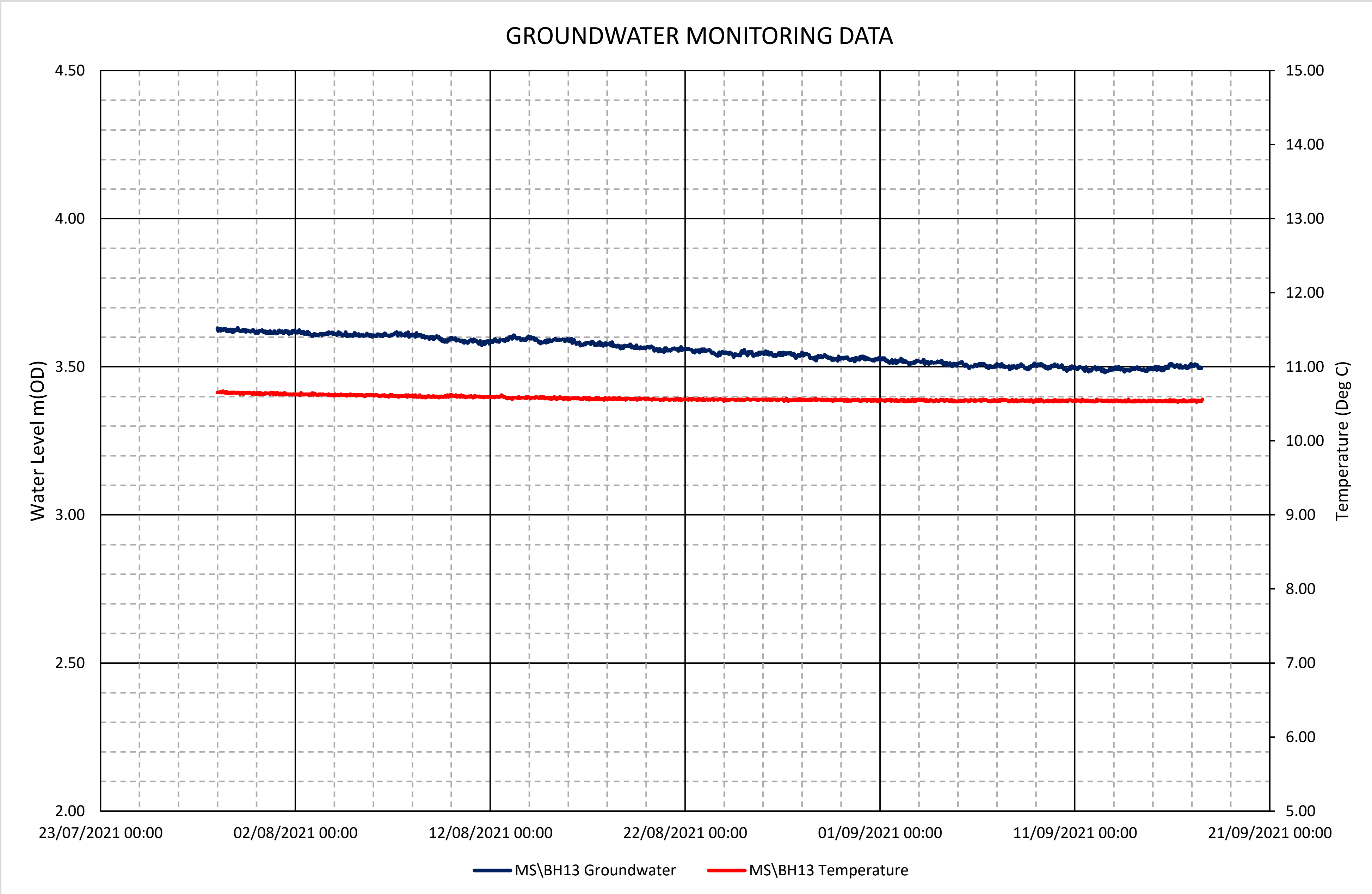
Contract No: 4339
Client: AECOM
Printed: 29/11/2021

GROUNDWATER MONITORING DATA



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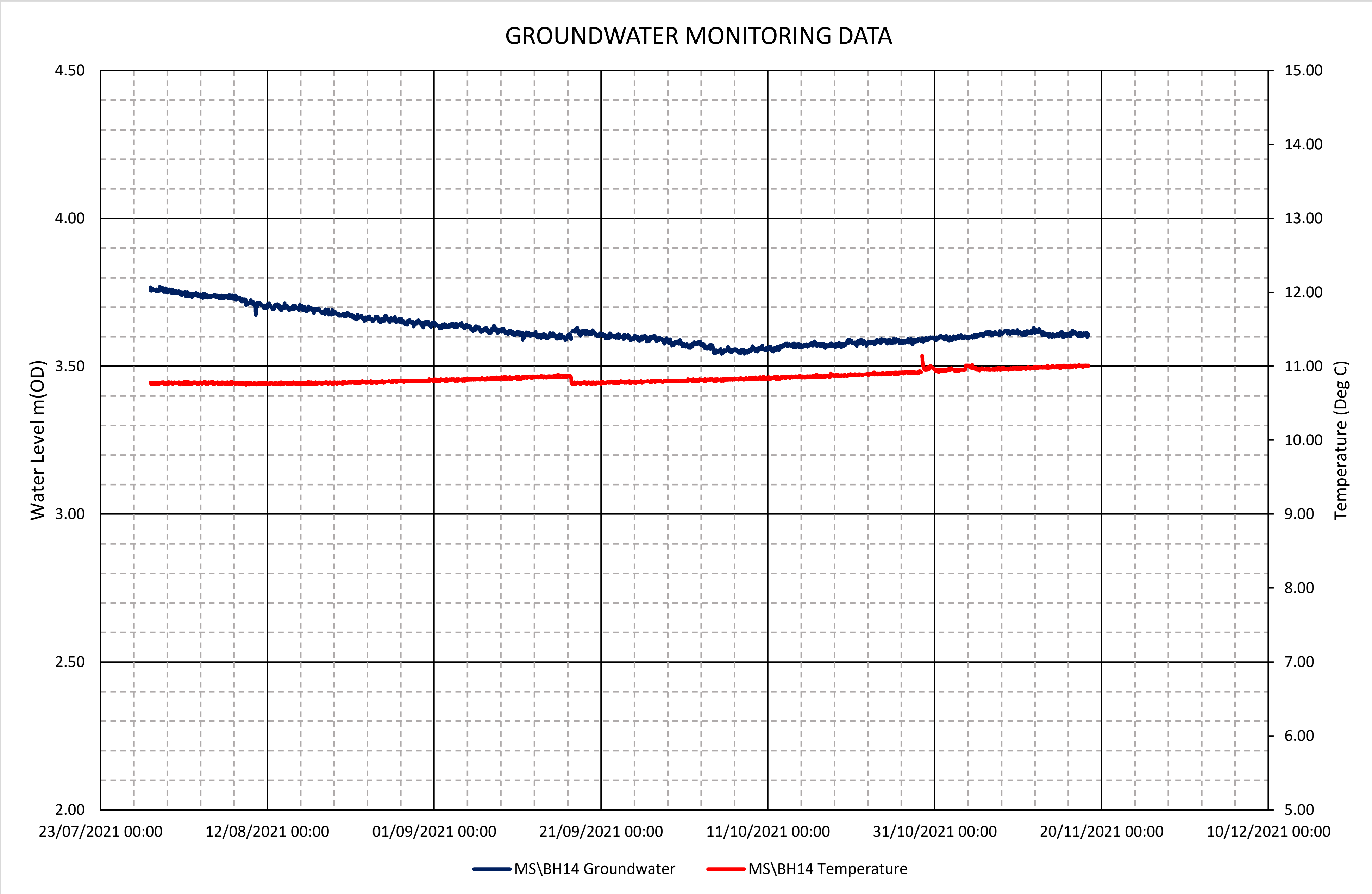
Contract No: 4339
Client: AECOM
Printed: 29/11/2021

GROUNDWATER MONITORING DATA



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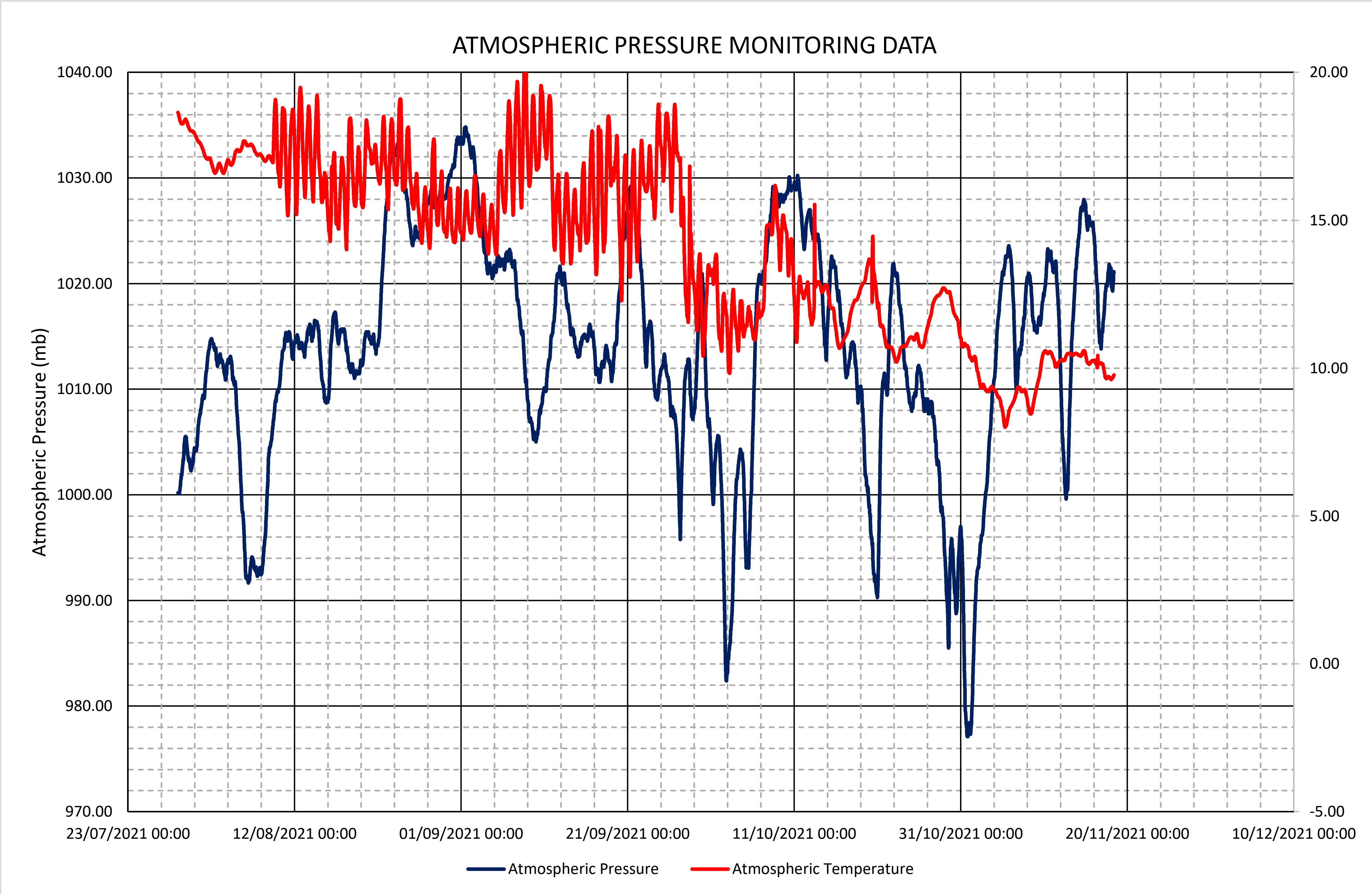
Contract No: 4339
Client: AECOM
Printed: 29/11/2021

GROUNDWATER MONITORING DATA



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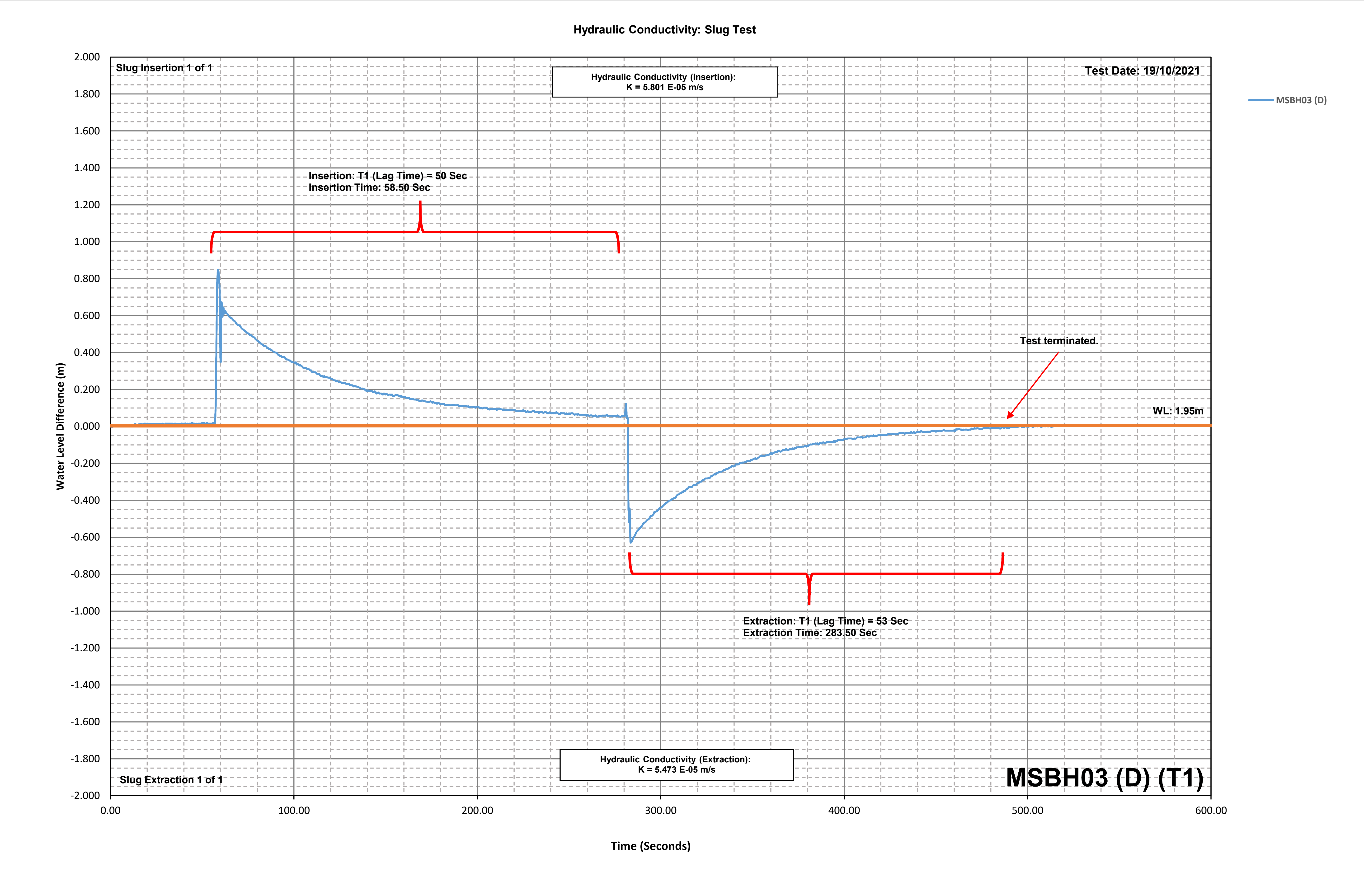
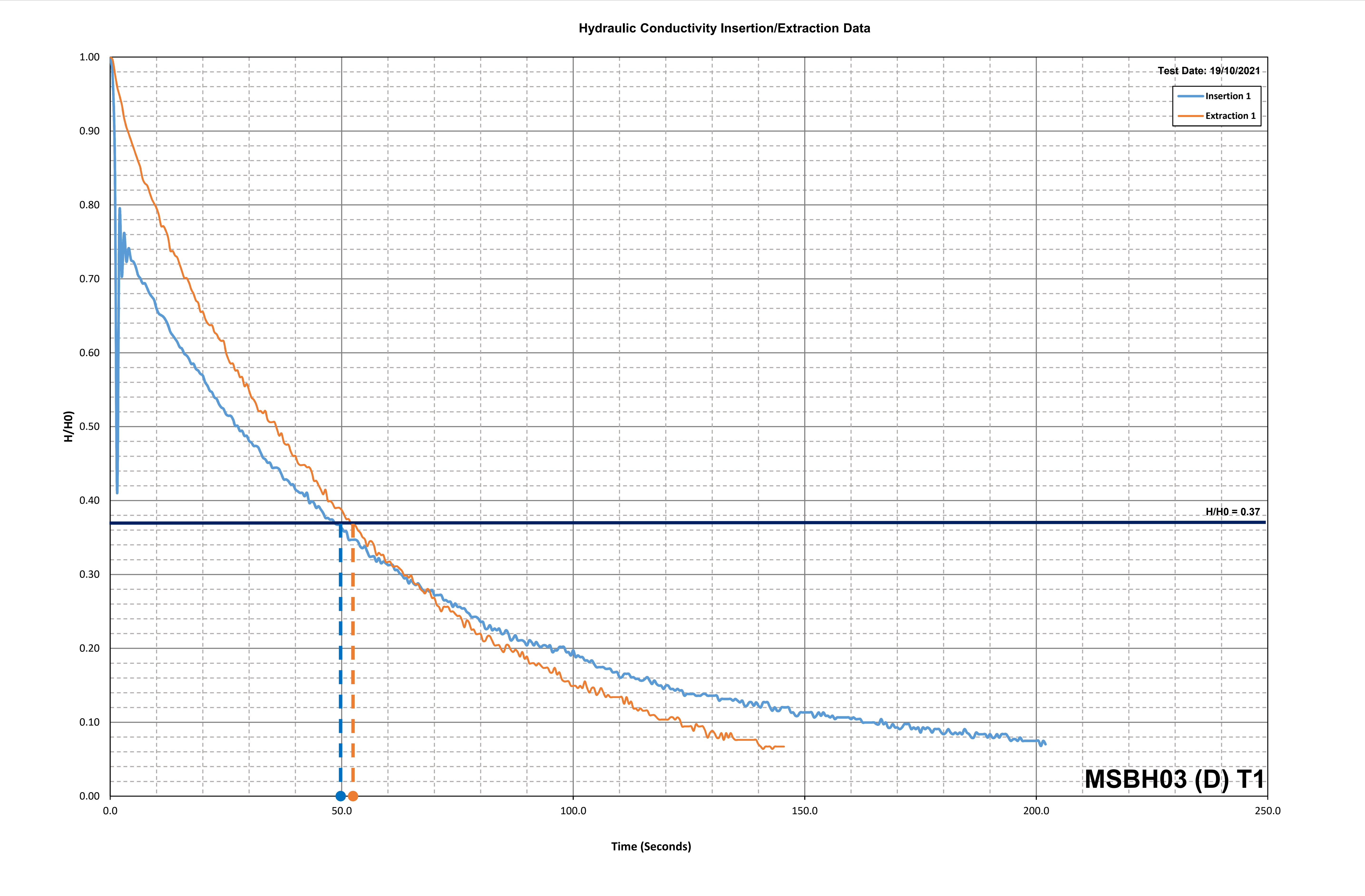
Contract No: 4339
Client: AECOM
Printed: 29/11/2021

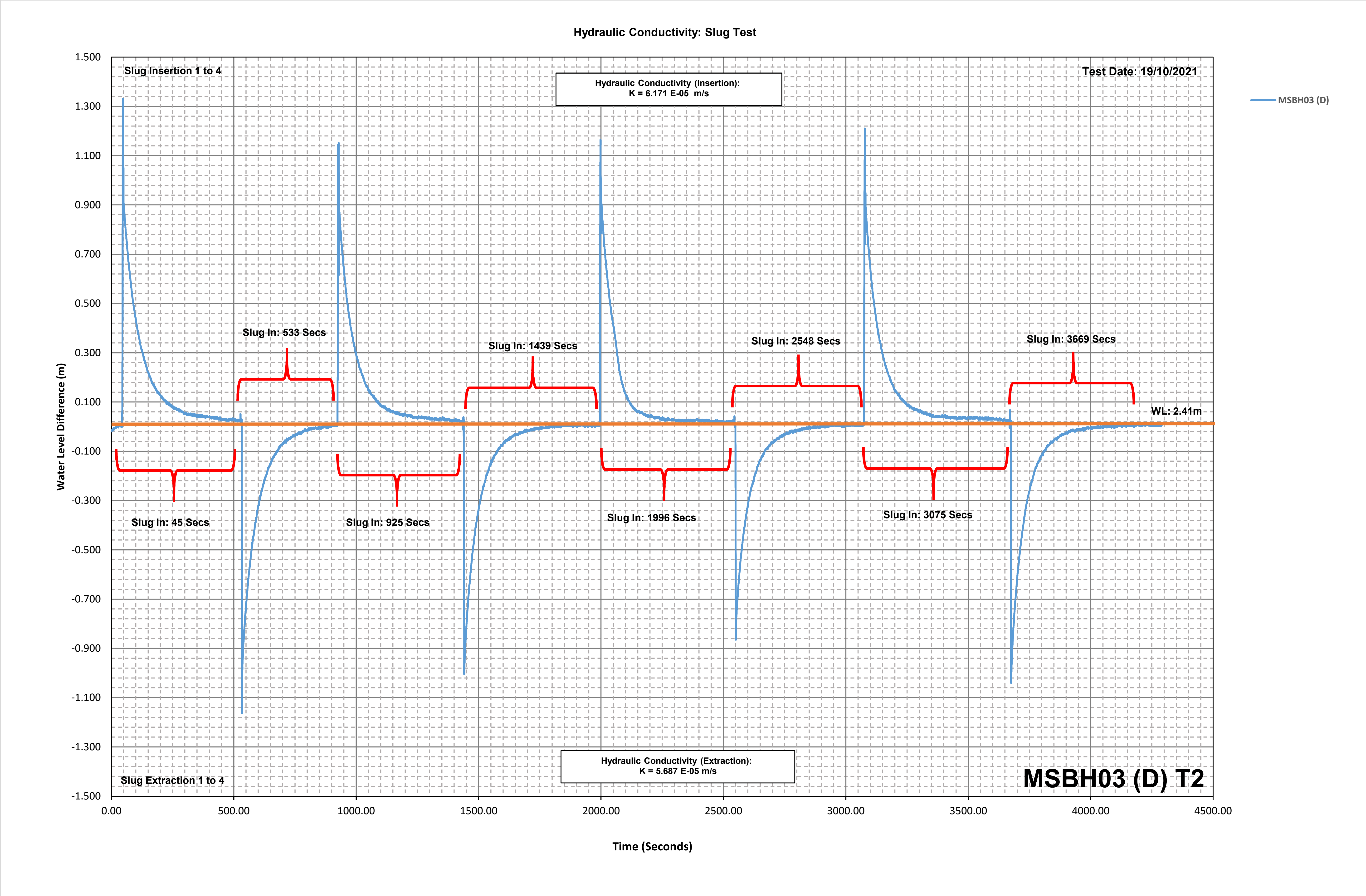
Hydraulic Conductivity: Slug Testing

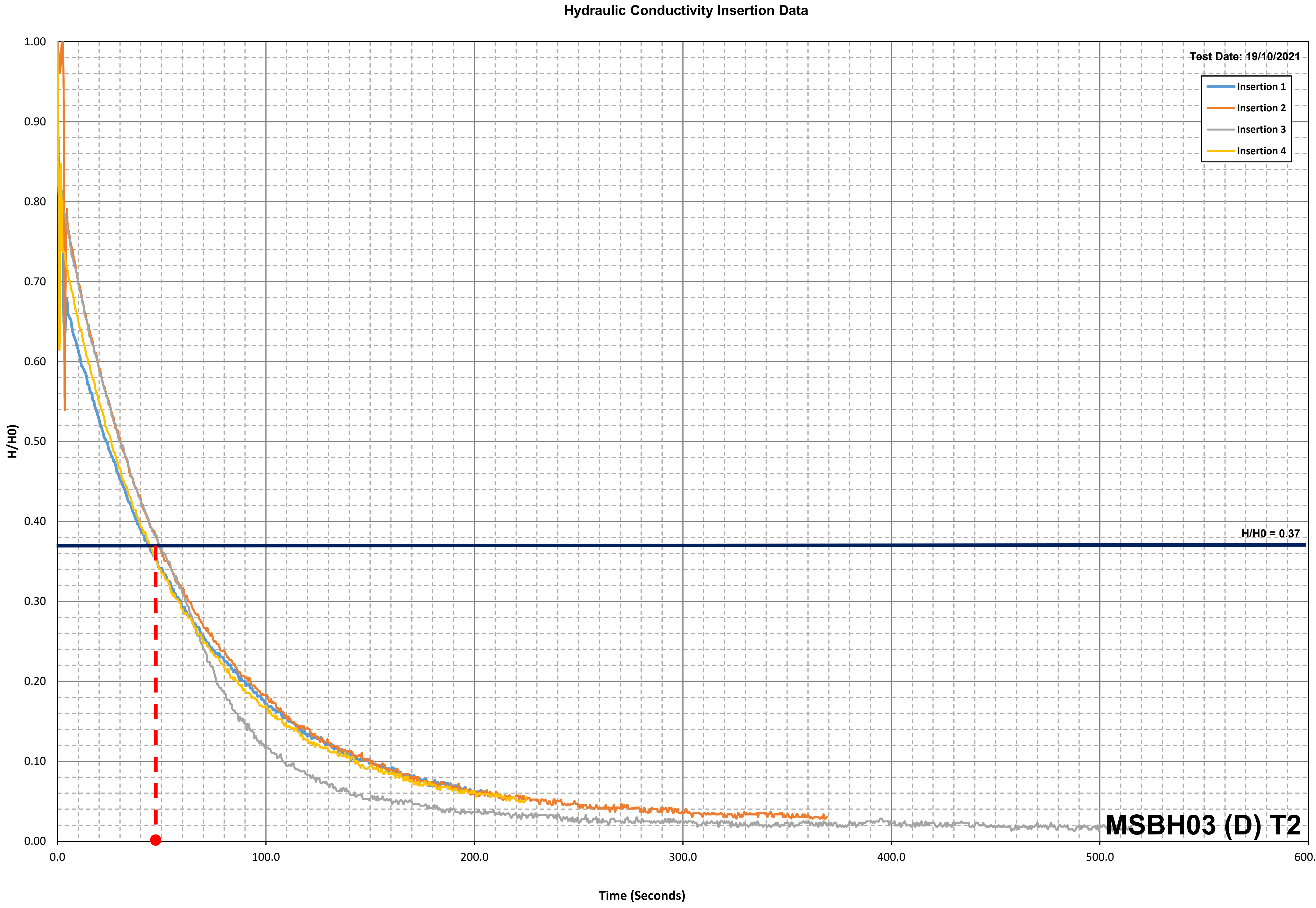
IN-SITU TESTING ENCLOSURE 8


Hydraulic Conductivity: Slug Test
Slug Insertion 1 of 1
Hydraulic Conductivity (Insertion):
K = 5.801 E-05 m/s
Test Date: 19/10/2021
MSBH03 (D)
Insertion: T1 (Lag Time) = 50 Sec
Insertion Time: 58.50 Sec
Test terminated.
WL: 1.95m
Extraction: T1 (Lag Time) = 53 Sec
Extraction Time: 283.50 Sec
Hydraulic Conductivity (Extraction):
K = 5.473 E-05 m/s
Slug Extraction 1 of 1
MSBH03 (D) (T1)
Water Level Difference (m)
2.000
1.800
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
-0.200
-0.400
-0.600
-0.800
-1.000
-1.200
-1.400
-1.600
-1.800
-2.000
0.00
100.00
200.00
300.00
400.00
500.00
600.00
Time (Seconds)

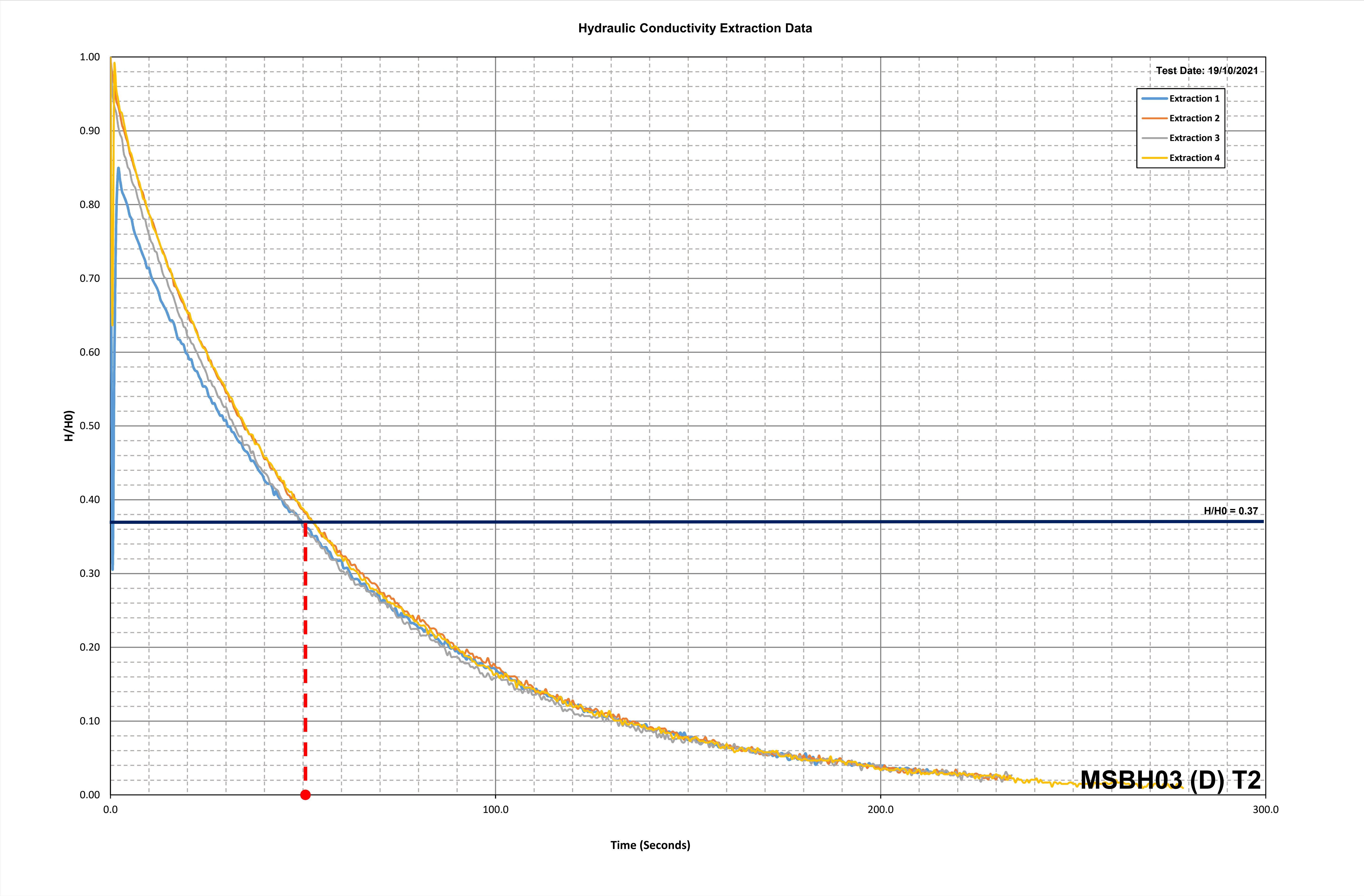


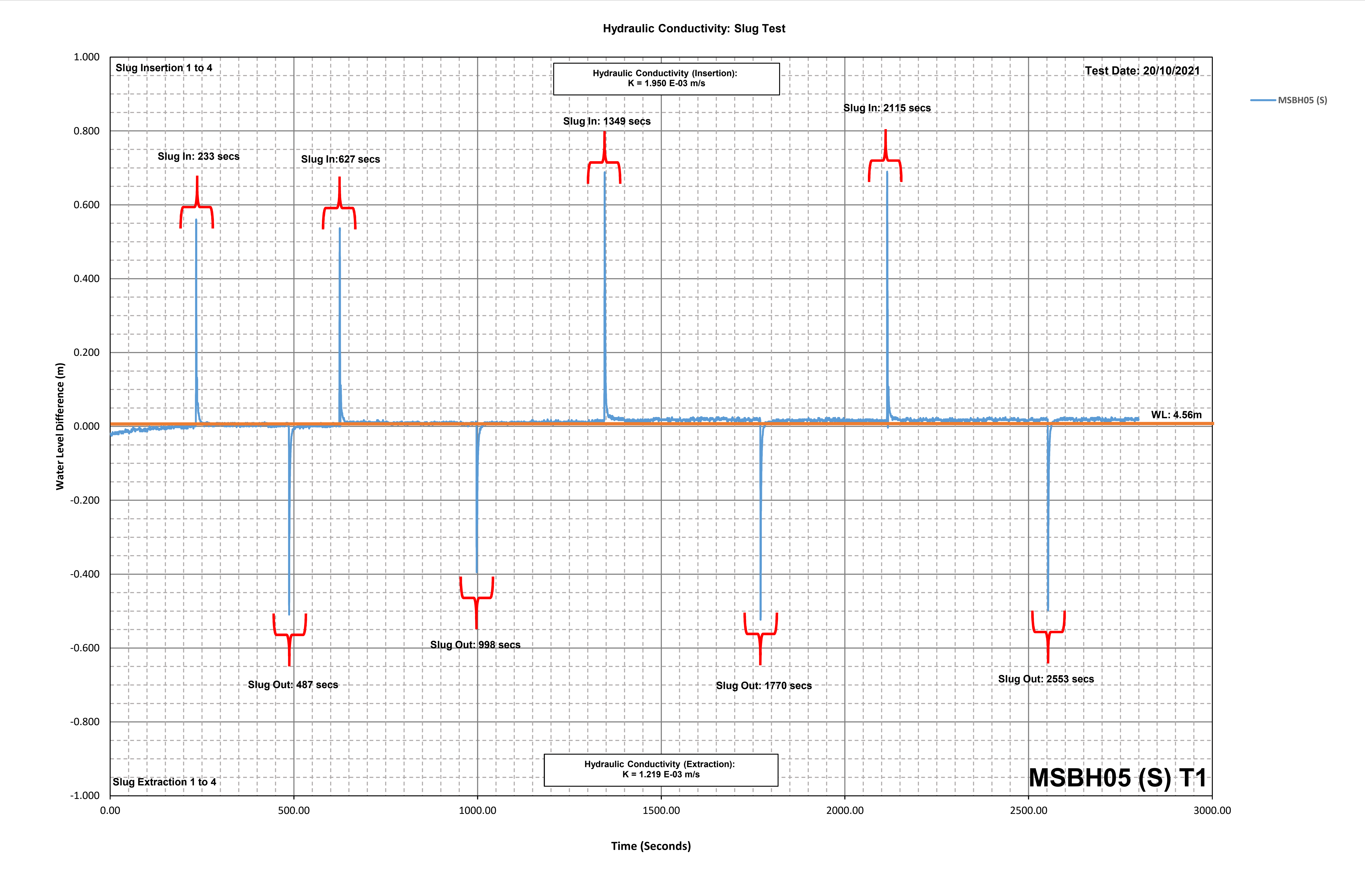
Contract: Preliminary Onshore Ground Investigation for NZT
Contract No.: 4339
Date: 28/01/2022
Sheet: 2 of 31

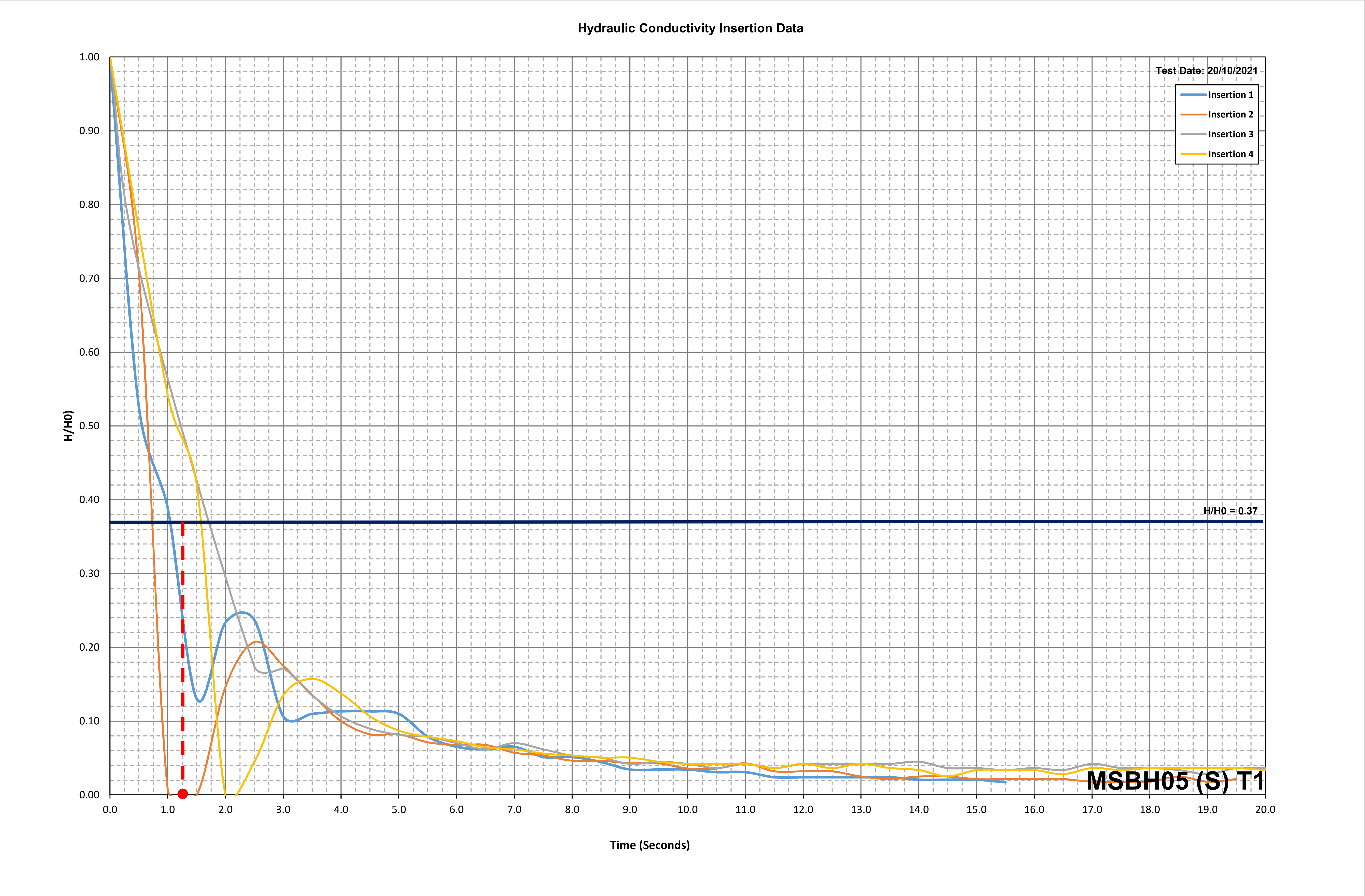

Hydraulic Conductivity: Slug Test
Slug Insertion 1 to 4
Hydraulic Conductivity (Insertion):
K = 6.171 E-05 m/s
Test Date: 19/10/2021
MSBH03 (D)
Slug In: 533 Secs
Slug In: 1439 Secs
Slug In: 2548 Secs
Slug In: 3669 Secs
WL: 2.41m
Slug In: 45 Secs
Slug In: 925 Secs
Slug In: 1996 Secs
Slug In: 3075 Secs
Hydraulic Conductivity (Extraction):
K = 5.687 E-05 m/s
Slug Extraction 1 to 4
MSBH03 (D) T2
Water Level Difference (m)
Time (Seconds)
1.500
1.300
1.100
0.900
0.700
0.500
0.300
0.100
-0.100
-0.300
-0.500
-0.700
-0.900
-1.100
-1.300
-1.500
0.00
500.00
1000.00
1500.00
2000.00
2500.00
3000.00
3500.00
4000.00
4500.00

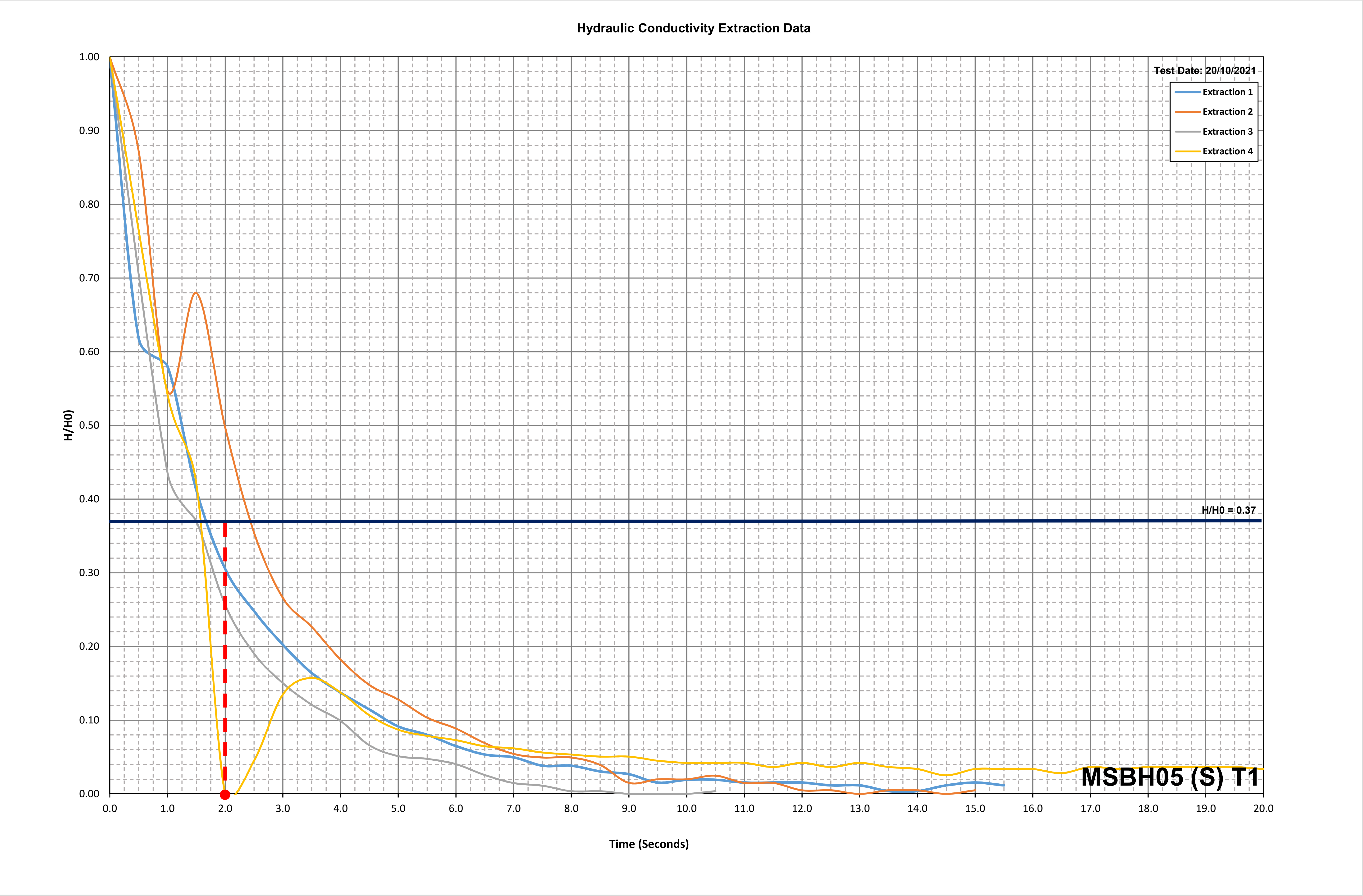


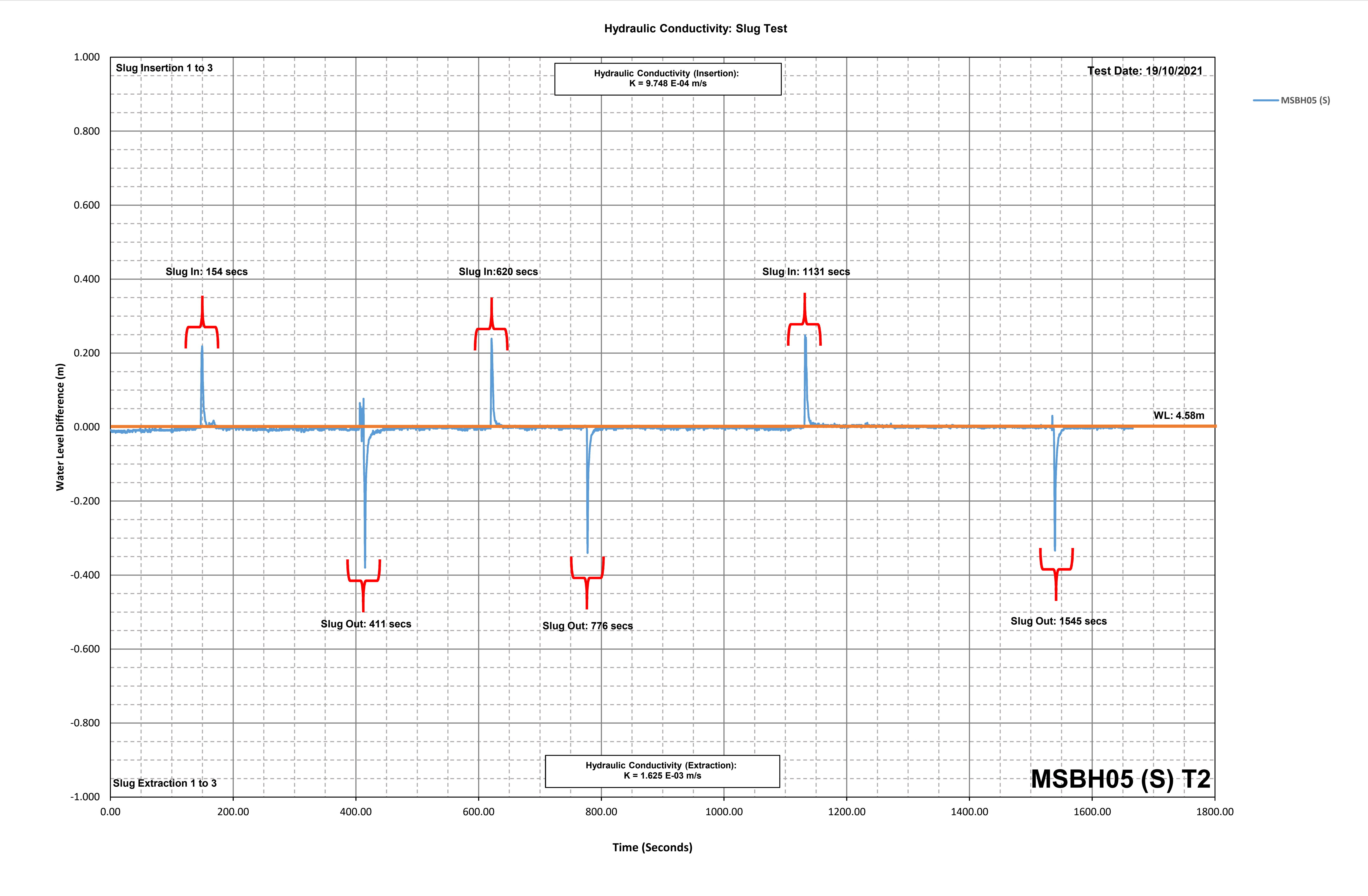
Contract: Preliminary Onshore Ground Investigation for NZT
Contract No.: 4339
Date: 28/01/2022

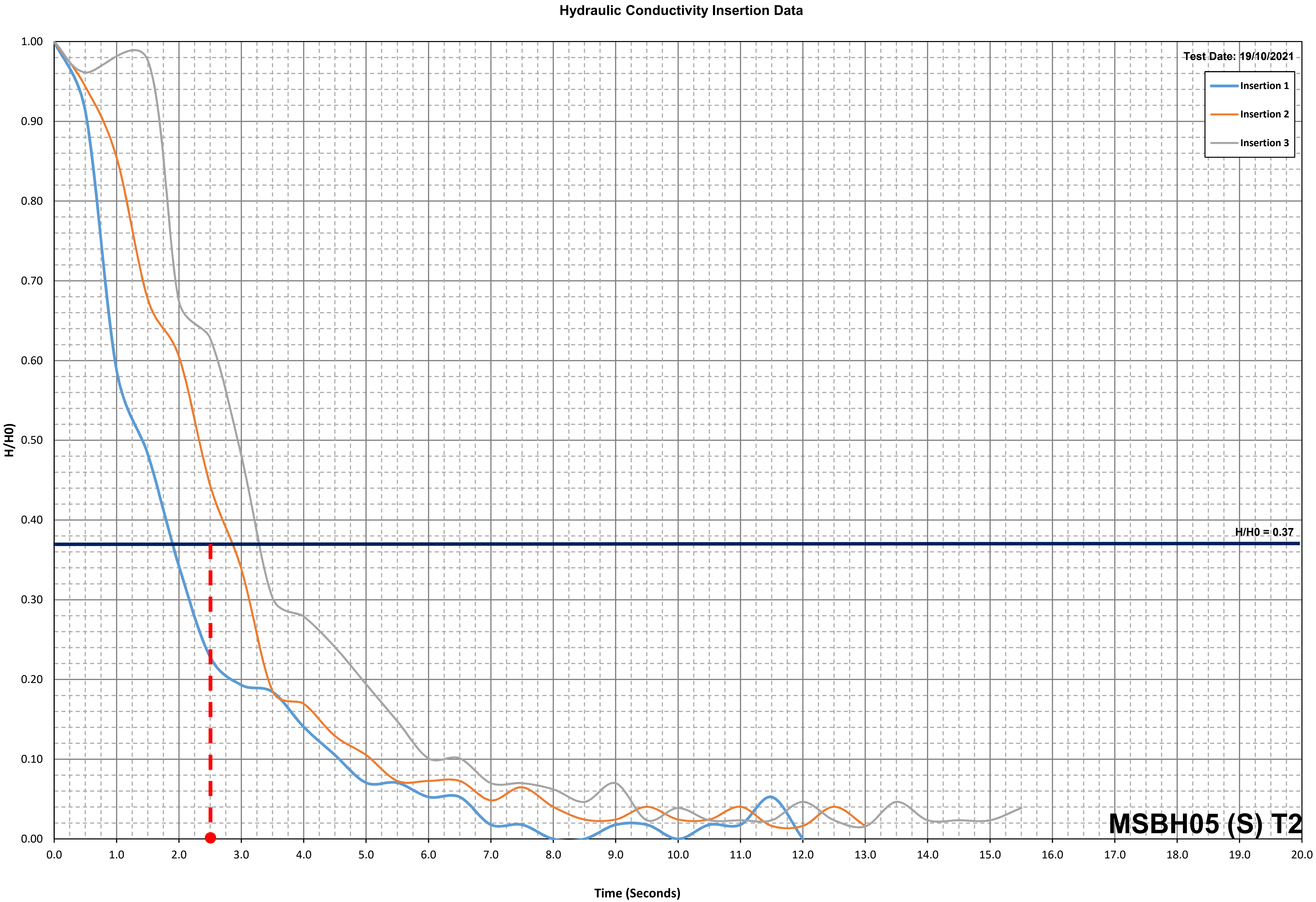

Hydraulic Conductivity Extraction Data
Test Date: 19/10/2021
Extraction 1
Extraction 2
Extraction 3
Extraction 4
H/H0 = 0.37
H/H0)
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.0
100.0
200.0
300.0
Time (Seconds)
MSBH03 (D) T2


Hydraulic Conductivity: Slug Test
Slug Insertion 1 to 4
Hydraulic Conductivity (Insertion):
K = 1.950 E-03 m/s
Test Date: 20/10/2021
MSBH05 (S)
Slug In: 233 secs
Slug In:627 secs
Slug In: 1349 secs
Slug In: 2115 secs
WL: 4.56m
Slug Out: 487 secs
Slug Out: 998 secs
Slug Out: 1770 secs
Slug Out: 2553 secs
Hydraulic Conductivity (Extraction):
K = 1.219 E-03 m/s
Slug Extraction 1 to 4
MSBH05 (S) T1
Water Level Difference (m)
1.000
0.800
0.600
0.400
0.200
0.000
-0.200
-0.400
-0.600
-0.800
-1.000
0.00
500.00
1000.00
1500.00
2000.00
2500.00
3000.00
Time (Seconds)


Hydraulic Conductivity Insertion Data
Test Date: 20/10/2021
Insertion 1
Insertion 2
Insertion 3
Insertion 4
H/H0 = 0.37
MSBH05 (S) T1
H/H0)
Time (Seconds)
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.0
1.0
2.0
3.0
4.0
5.0
6.0
7.0
8.0
9.0
10.0
11.0
12.0
13.0
14.0
15.0
16.0
17.0
18.0
19.0
20.0


Hydraulic Conductivity Extraction Data
Test Date: 20/10/2021
Extraction 1
Extraction 2
Extraction 3
Extraction 4
H/H0 = 0.37
H/H0)
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.0
1.0
2.0
3.0
4.0
5.0
6.0
7.0
8.0
9.0
10.0
11.0
12.0
13.0
14.0
15.0
16.0
17.0
18.0
19.0
20.0
Time (Seconds)
MSBH05 (S) T1


Hydraulic Conductivity: Slug Test
Slug Insertion 1 to 3
Hydraulic Conductivity (Insertion):
K = 9.748 E-04 m/s
Test Date: 19/10/2021
MSBH05 (S)
Slug In: 154 secs
Slug In:620 secs
Slug In: 1131 secs
WL: 4.58m
Slug Out: 411 secs
Slug Out: 776 secs
Slug Out: 1545 secs
Water Level Difference (m)
1.000
0.800
0.600
0.400
0.200
0.000
-0.200
-0.400
-0.600
-0.800
-1.000
Slug Extraction 1 to 3
Hydraulic Conductivity (Extraction):
K = 1.625 E-03 m/s
MSBH05 (S) T2
0.00
200.00
400.00
600.00
800.00
1000.00
1200.00
1400.00
1600.00
1800.00
Time (Seconds)


Hydraulic Conductivity Insertion Data
Test Date: 19/10/2021
Insertion 1
Insertion 2
Insertion 3
H/H0 = 0.37
MSBH05 (S) T2
H/H0)
Time (Seconds)
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.0
1.0
2.0
3.0
4.0
5.0
6.0
7.0
8.0
9.0
10.0
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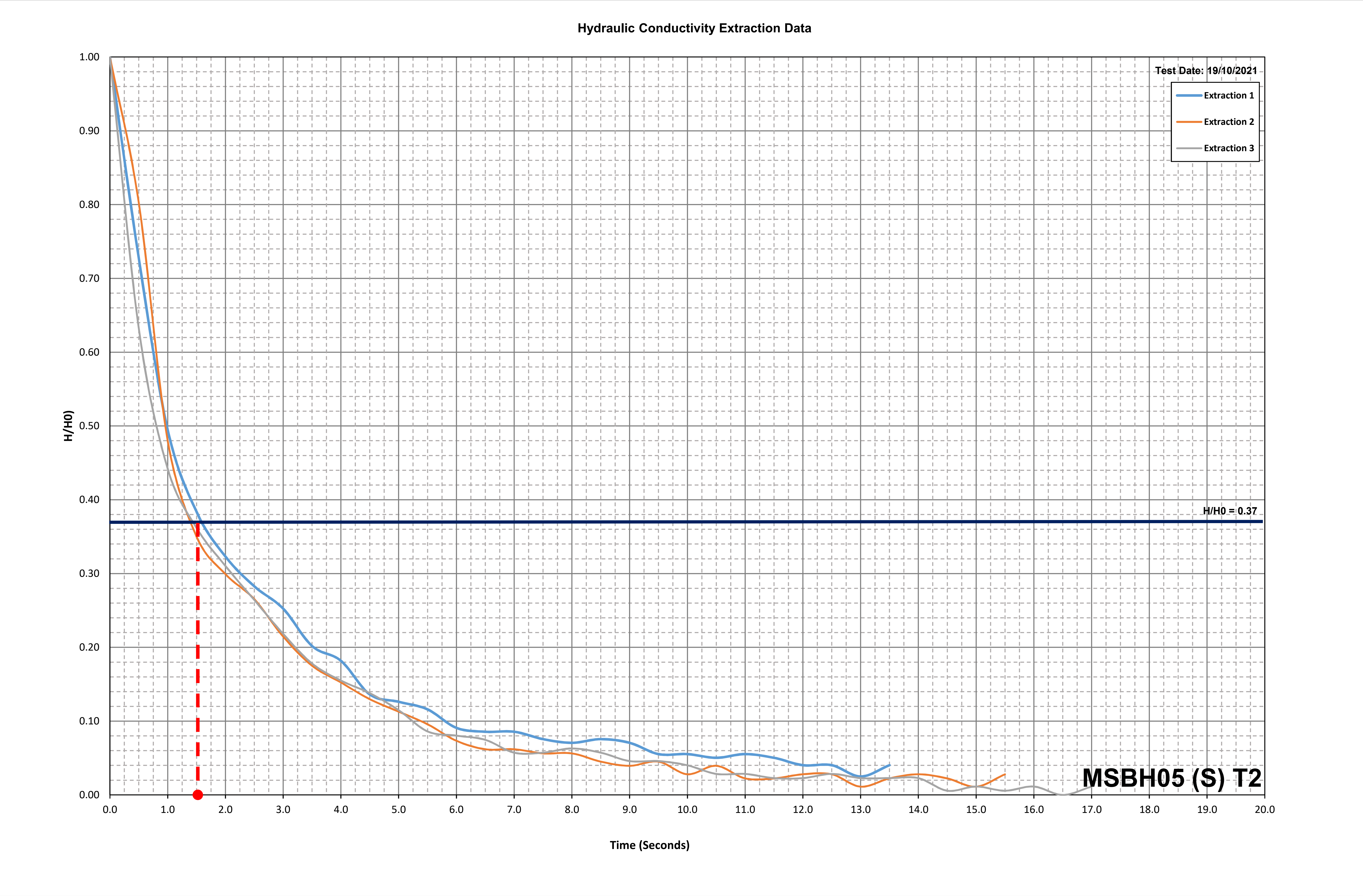
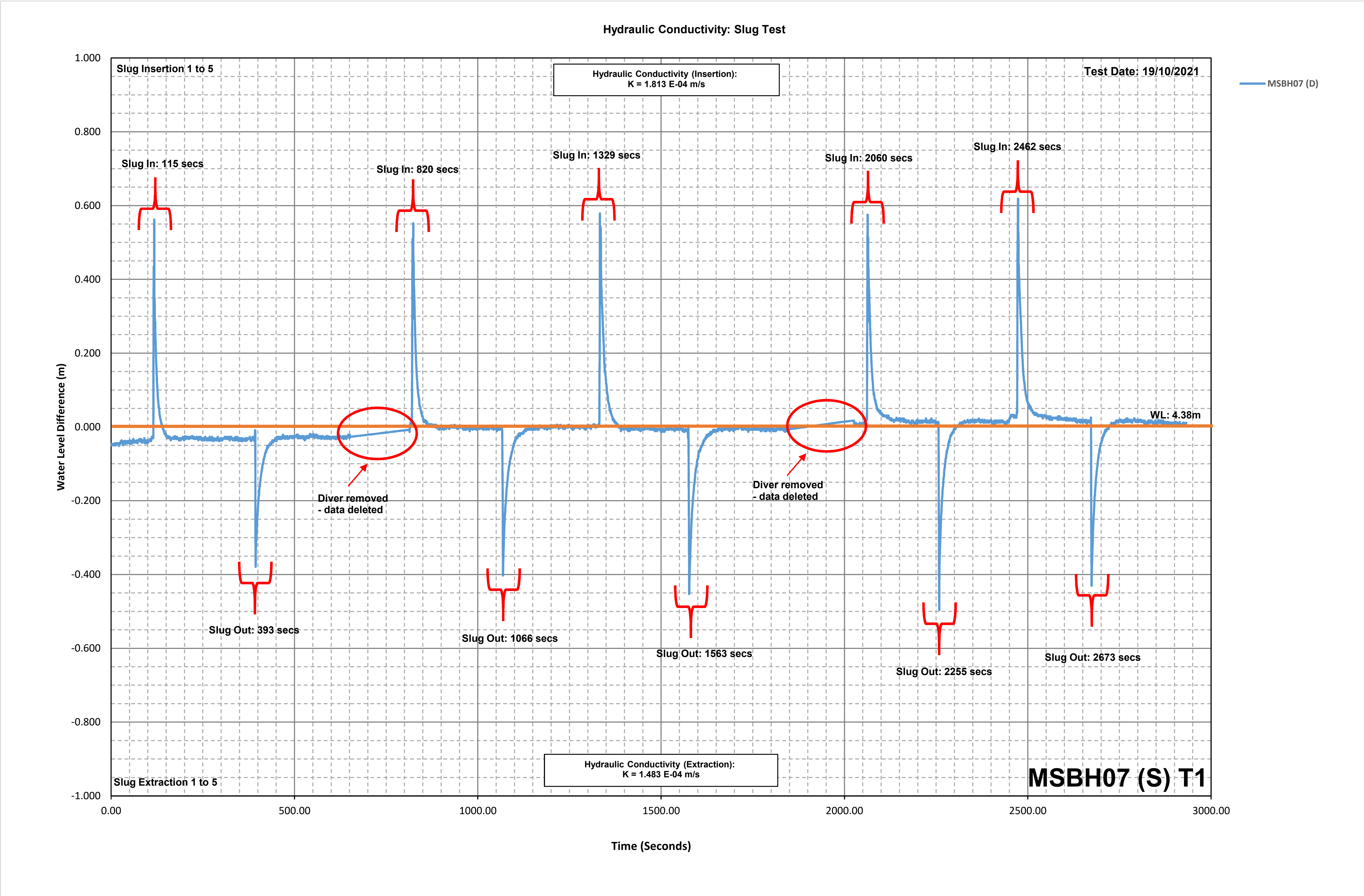
17.0
18.0
19.0
20.0



Contract: Preliminary Onshore Ground Investigation for NZT
Contract No.: 4339
Date: 28/01/2022

ALLIED EXPLORATION & GEOTECHNICS LTD
Head Office: Unit 25, Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, County Durham, DH2 2RG.



Contract: Preliminary Onshore Ground Investigation for NZT
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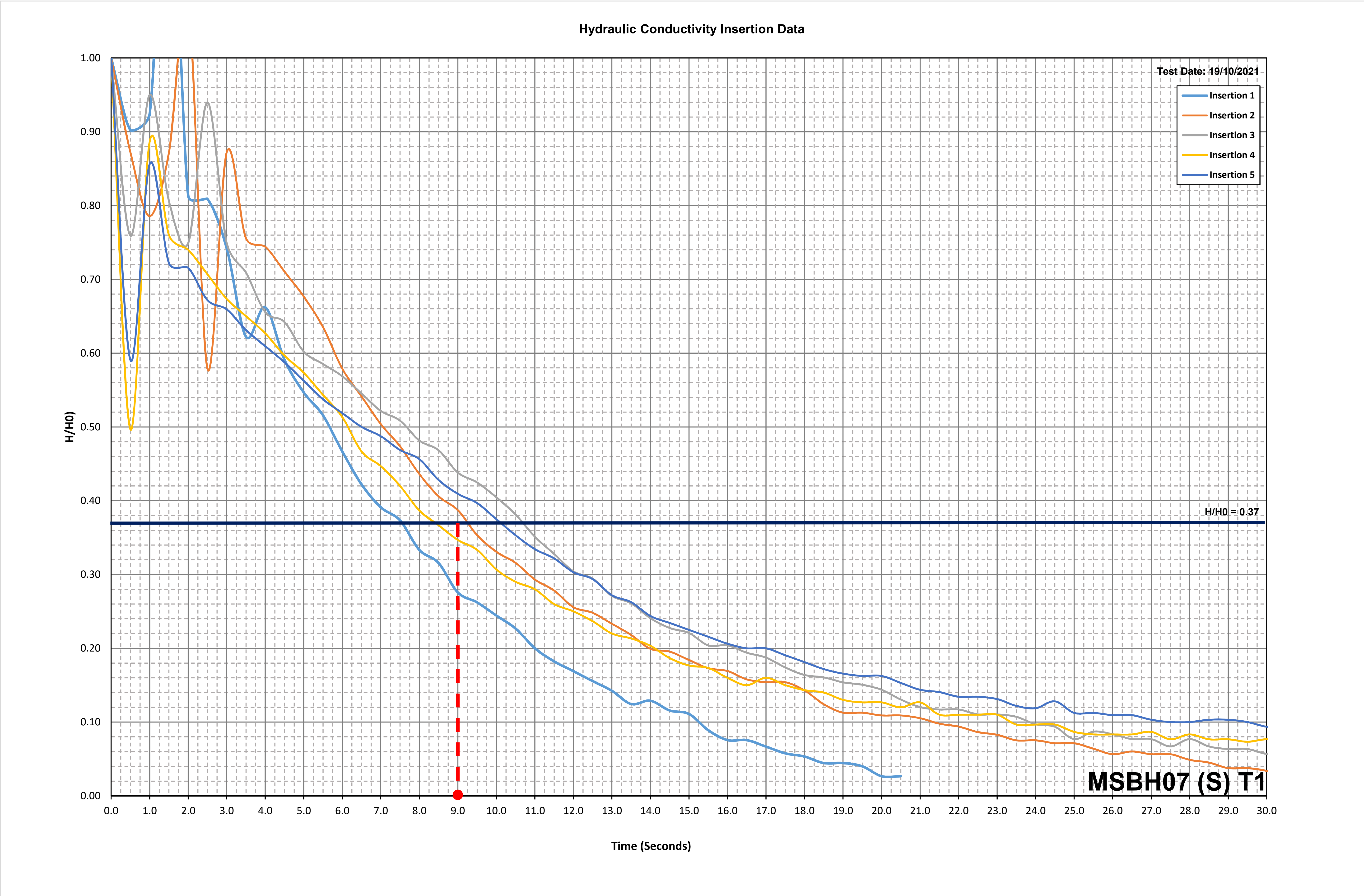
Hydraulic Conductivity Insertion Data
Test Date: 19/10/2021
Insertion 1
Insertion 2
Insertion 3
Insertion 4
Insertion 5
H/H0 = 0.37
MSBH07 (S) T1
H/H0)
Time (Seconds)
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.0
1.0
2.0
3.0
4.0
5.0
6.0
7.0
8.0
9.0
10.0
11.0
12.0
13.0
14.0
15.0
16.0
17.0
18.0
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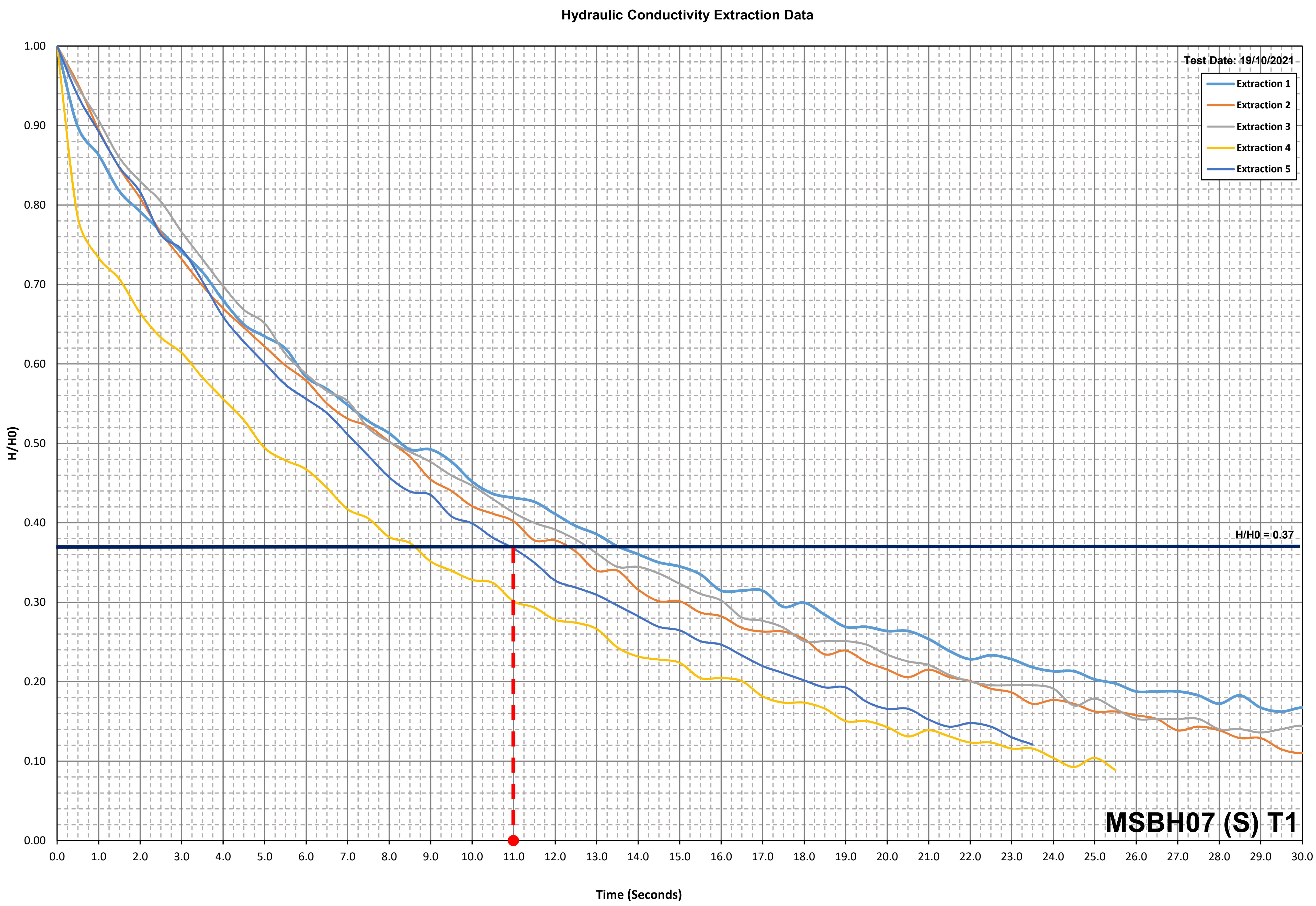
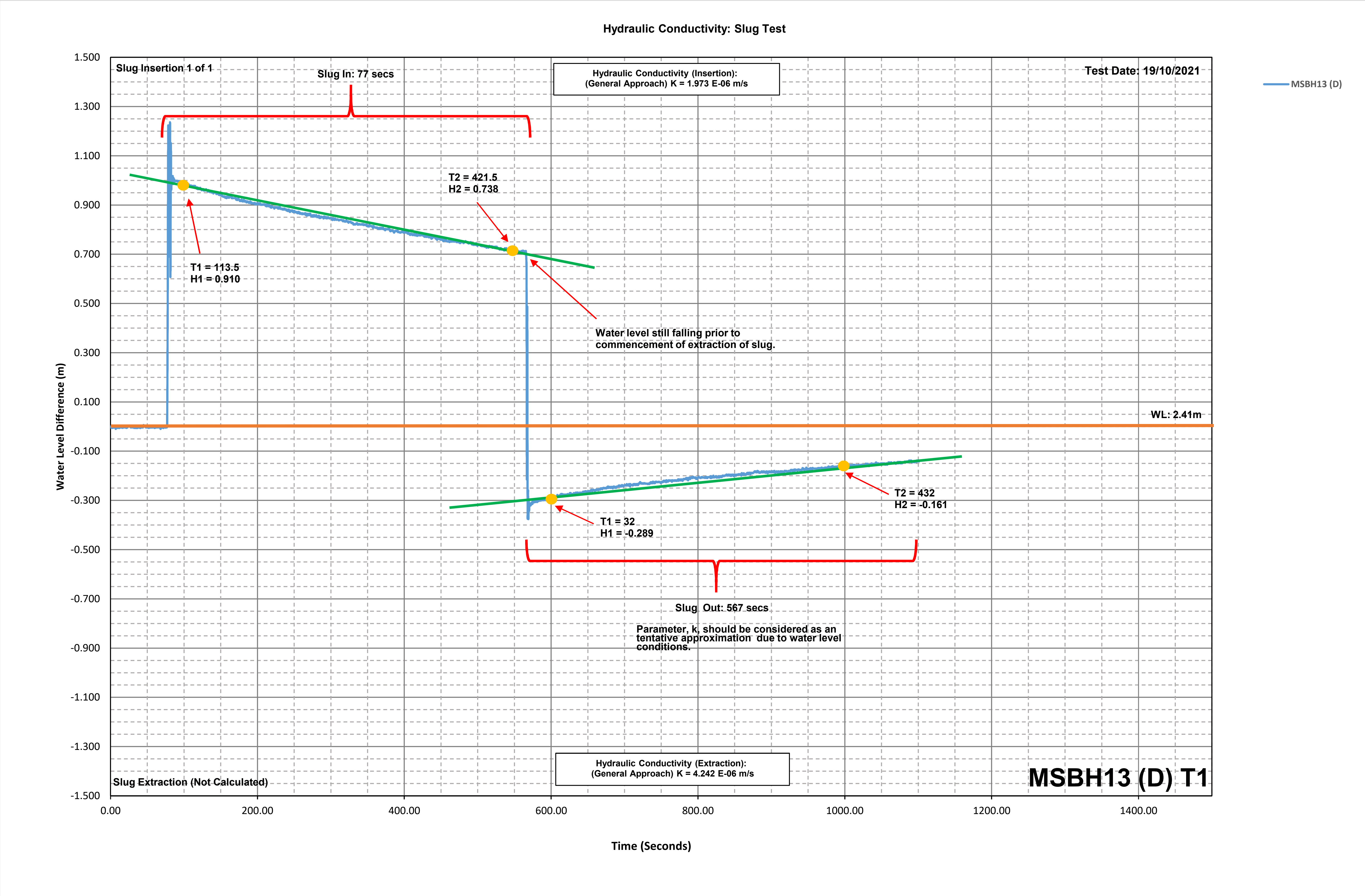
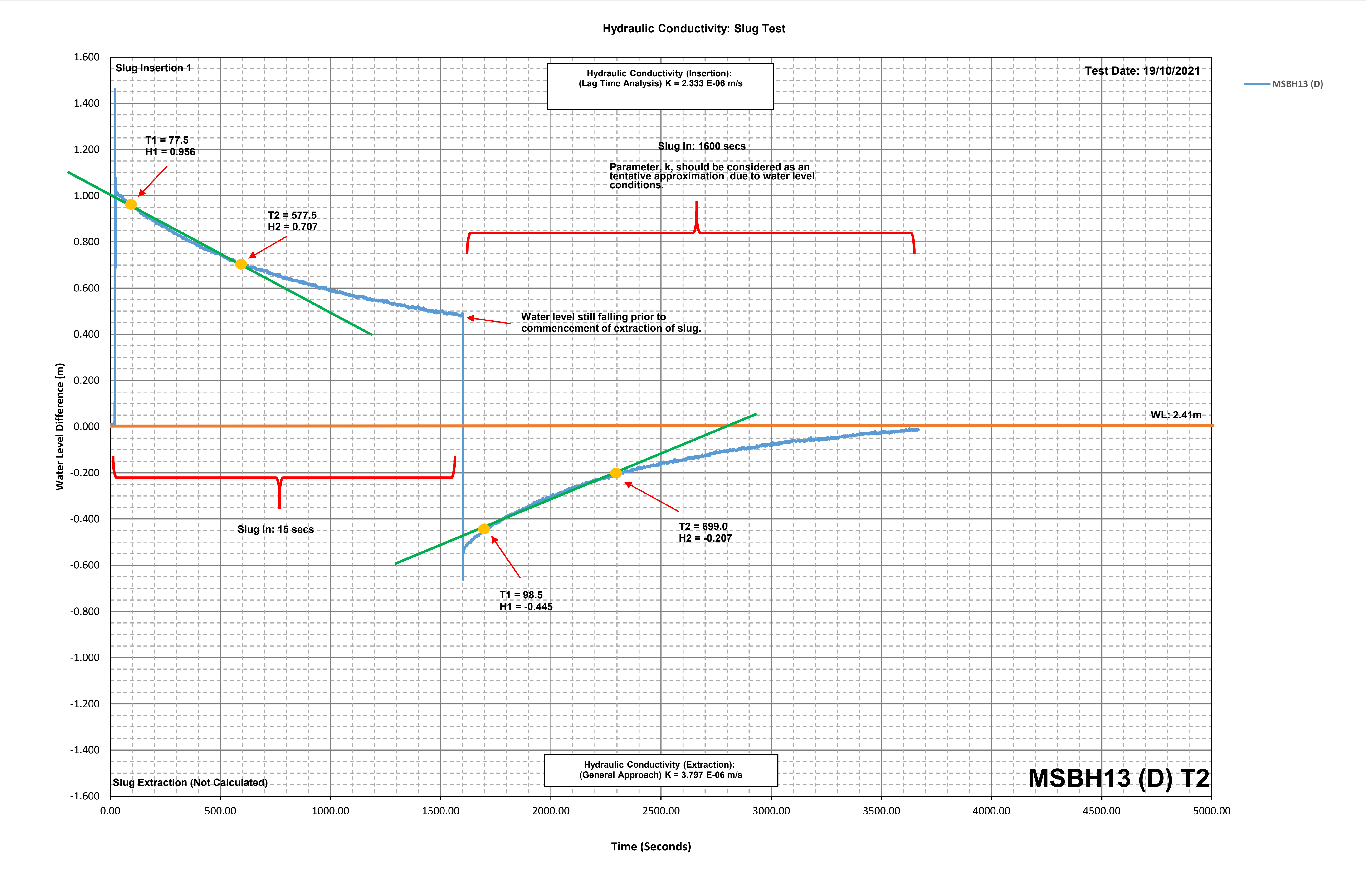
28.0
29.0
30.0


Hydraulic Conductivity Extraction Data
Test Date: 19/10/2021
Extraction 1
Extraction 2
Extraction 3
Extraction 4
Extraction 5
H/H0 = 0.37
MSBH07 (S) T1
H/H0)
Time (Seconds)
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 11.0 12.0 13.0 14.0 15.0 16.0 17.0 18.0 19.0 20.0 21.0 22.0 23.0 24.0 25.0 26.0 27.0 28.0 29.0 30.0


Hydraulic Conductivity: Slug Test
Slug Insertion 1 of 1
Slug In: 77 secs
Hydraulic Conductivity (Insertion): (General Approach) K = 1.973 E-06 m/s
Test Date: 19/10/2021
MSBH13 (D)
T2 = 421.5
H2 = 0.738
T1 = 113.5
H1 = 0.910
Water level still falling prior to commencement of extraction of slug.
WL: 2.41m
T2 = 432
H2 = -0.161
T1 = 32
H1 = -0.289
Slug Out: 567 secs
Parameter, k, should be considered as an tentative approximation due to water level conditions.
Hydraulic Conductivity (Extraction): (General Approach) K = 4.242 E-06 m/s
Slug Extraction (Not Calculated)
MSBH13 (D) T1
Water Level Difference (m)
Time (Seconds)
1.500
1.300
1.100
0.900
0.700
0.500
0.300
0.100
-0.100
-0.300
-0.500
-0.700
-0.900
-1.100
-1.300
-1.500
0.00
200.00
400.00
600.00
800.00
1000.00
1200.00
1400.00



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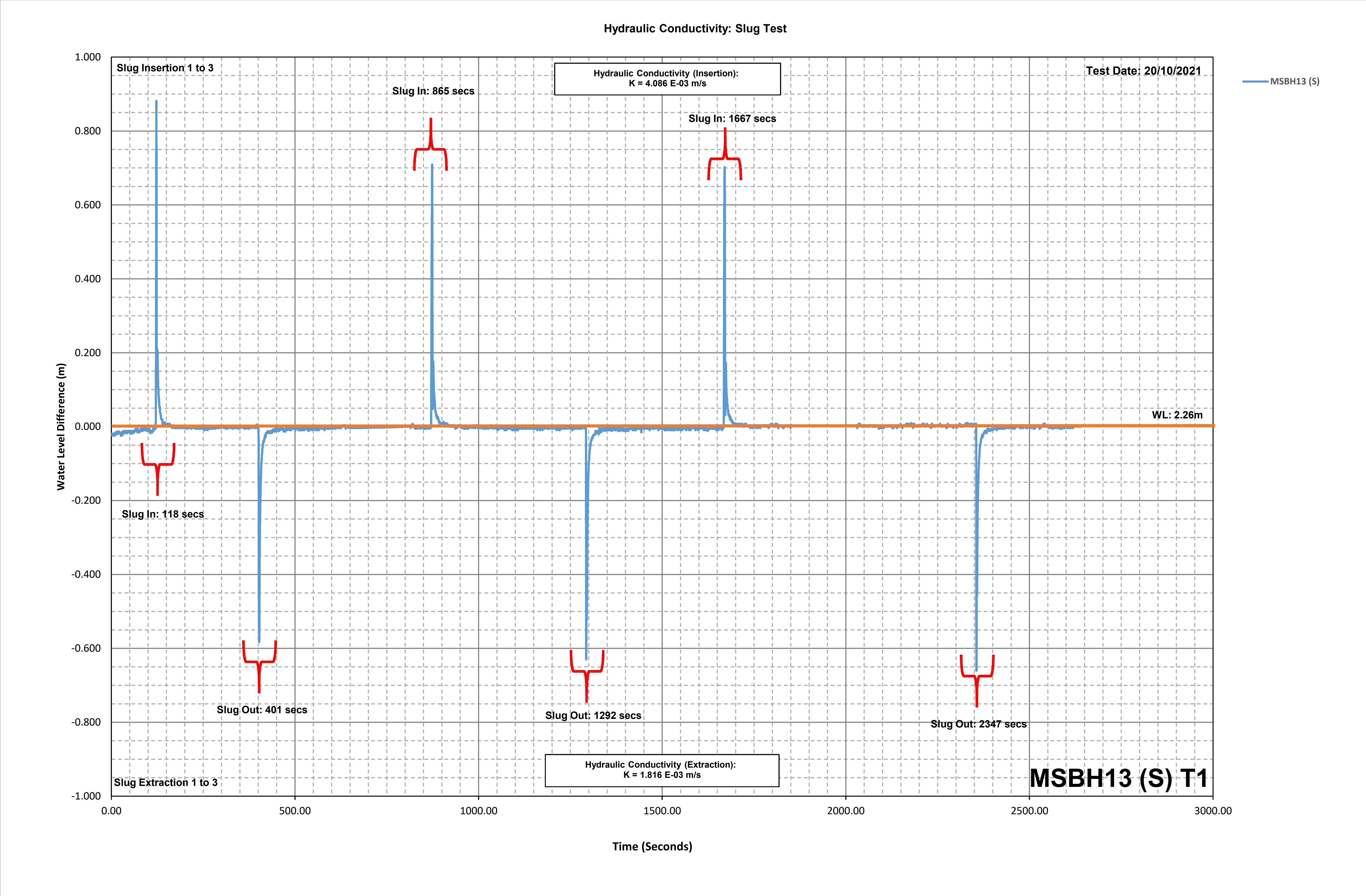
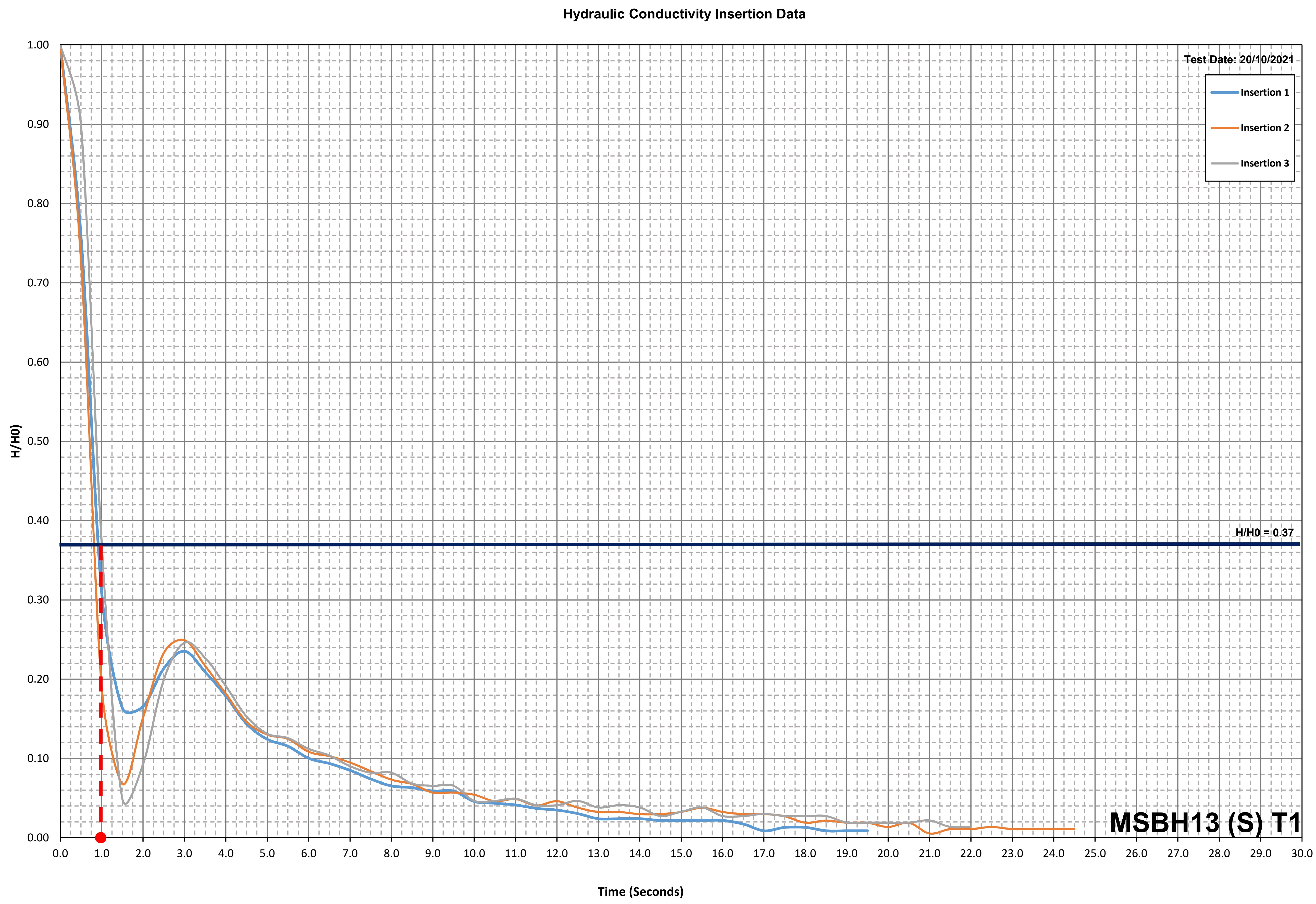
Contract No.: 4339
Date: 28/01/2022


Hydraulic Conductivity: Slug Test
Slug Insertion 1 to 3
Hydraulic Conductivity (Insertion):
K = 4.086 E-03 m/s
Test Date: 20/10/2021
MSBH13 (S)
Slug In: 865 secs
Slug In: 1667 secs
Slug In: 118 secs
WL: 2.26m
Slug Out: 401 secs
Slug Out: 1292 secs
Slug Out: 2347 secs
Hydraulic Conductivity (Extraction):
K = 1.816 E-03 m/s
Slug Extraction 1 to 3
MSBH13 (S) T1
Water Level Difference (m)
1.000
0.800
0.600
0.400
0.200
0.000
-0.200
-0.400
-0.600
-0.800
-1.000
0.00
500.00
1000.00
1500.00
2000.00
2500.00
3000.00
Time (Seconds)


Hydraulic Conductivity Insertion Data
Test Date: 20/10/2021
Insertion 1
Insertion 2
Insertion 3
H/H0 = 0.37
MSBH13 (S) T1
H/H0)
Time (Seconds)
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.0
1.0
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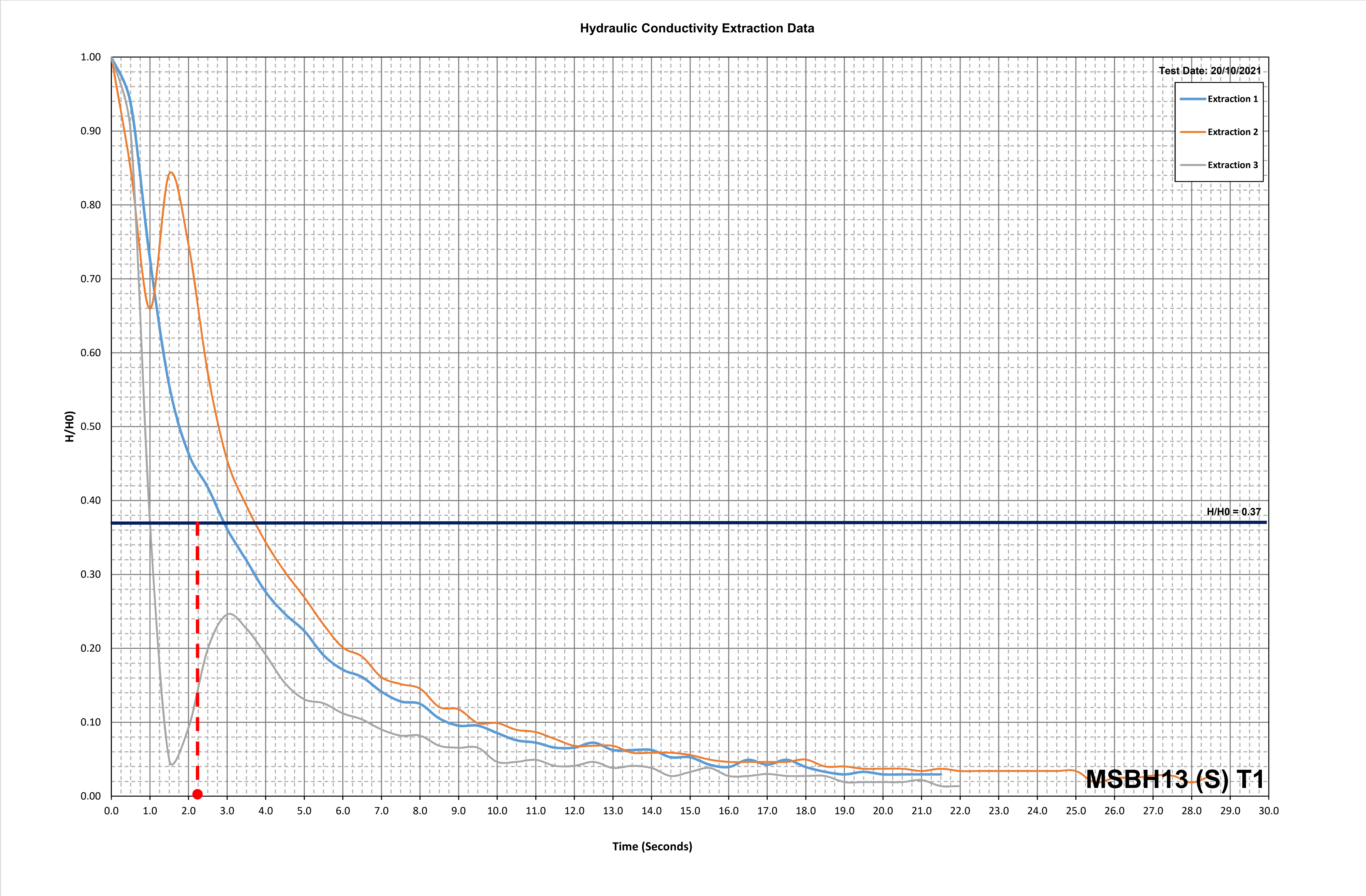
Hydraulic Conductivity Extraction Data
Test Date: 20/10/2021
Extraction 1
Extraction 2
Extraction 3
H/H0 = 0.37
MSBH13 (S) T1
H/(H0)
Time (Seconds)
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 11.0 12.0 13.0 14.0 15.0 16.0 17.0 18.0 19.0 20.0 21.0 22.0 23.0 24.0 25.0 26.0 27.0 28.0 29.0 30.0

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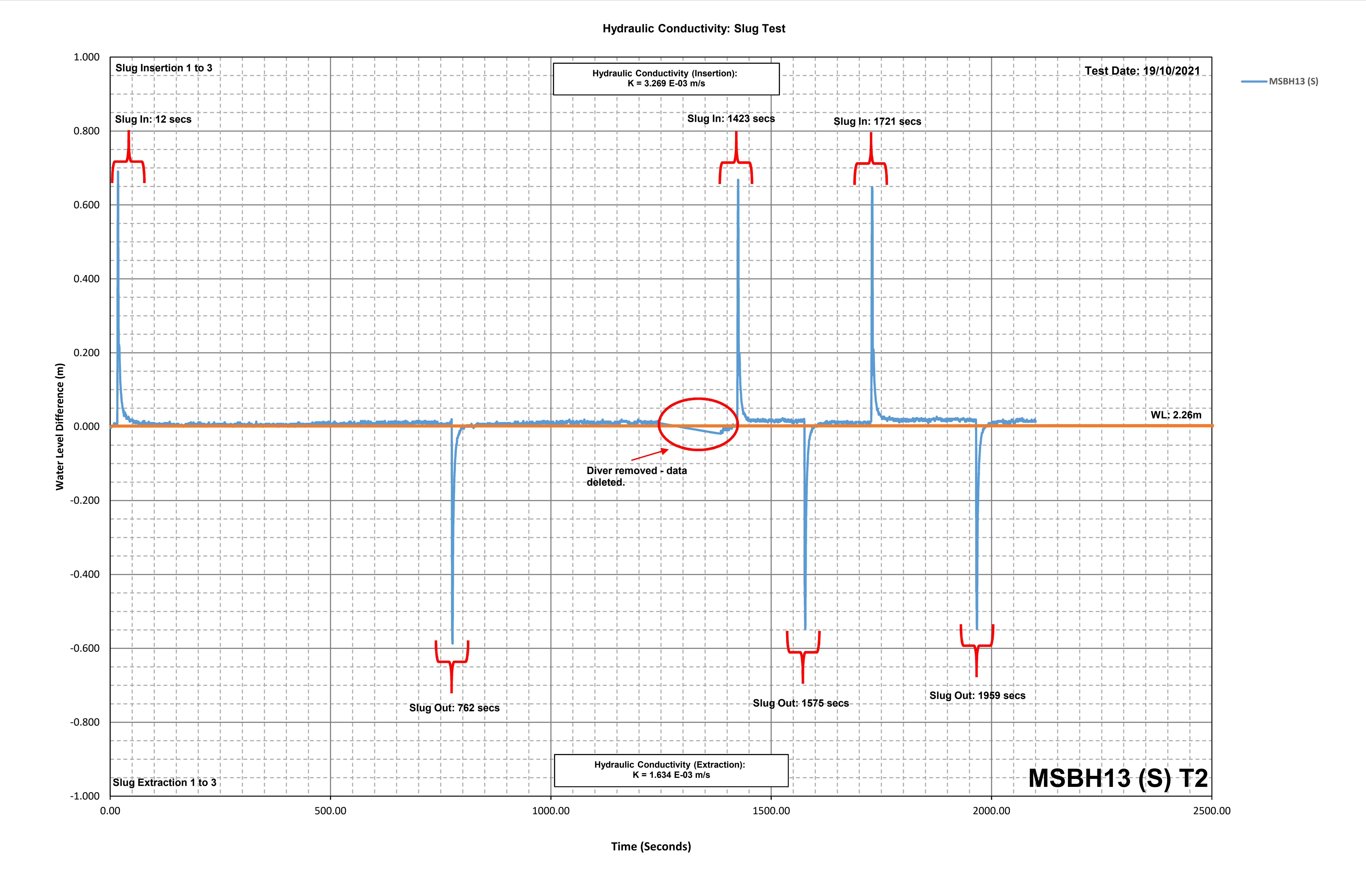

Contract: Preliminary Onshore Ground Investigation for NZT
Contract No.: 4339
Date: 28/01/2022
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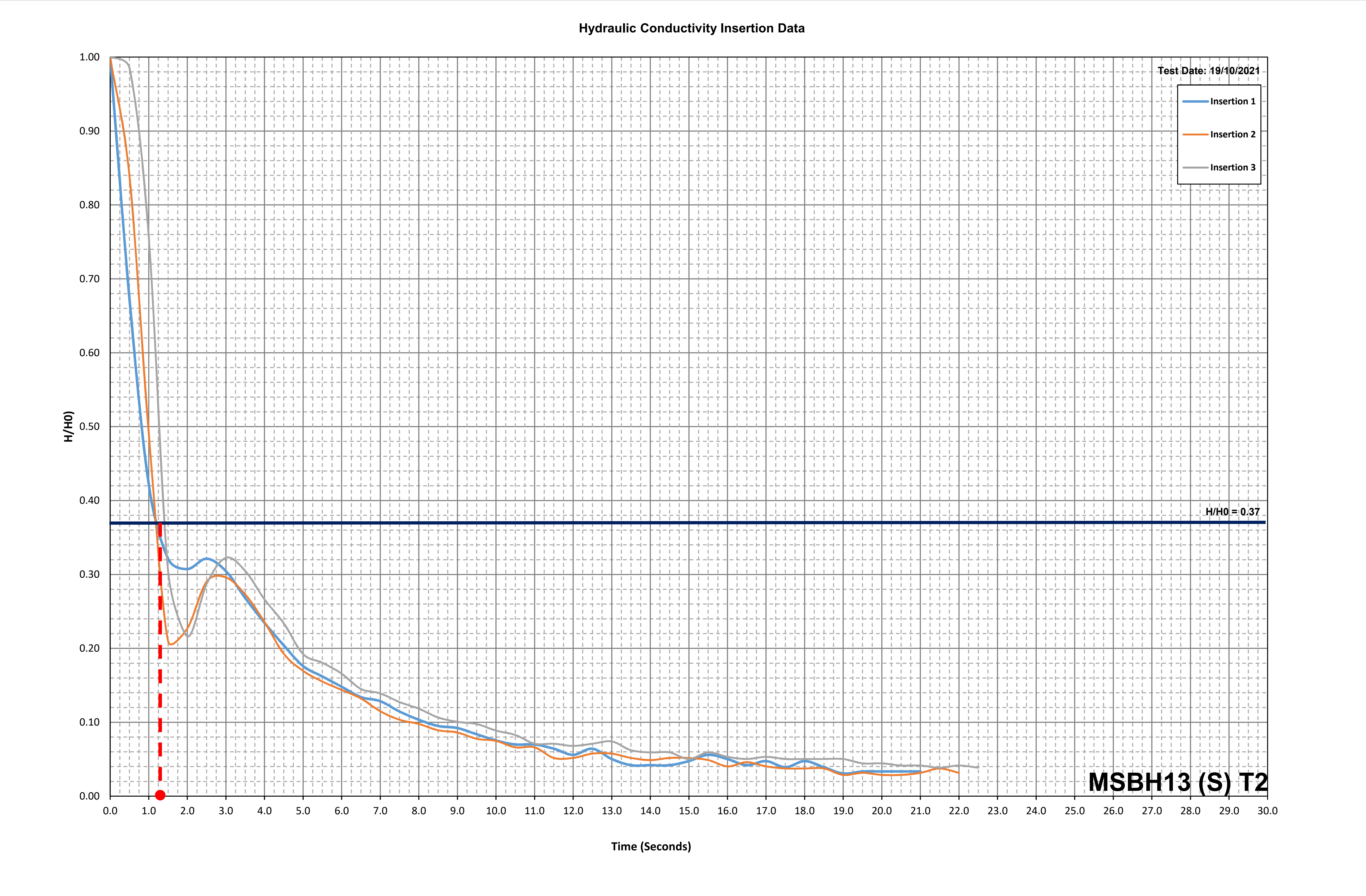
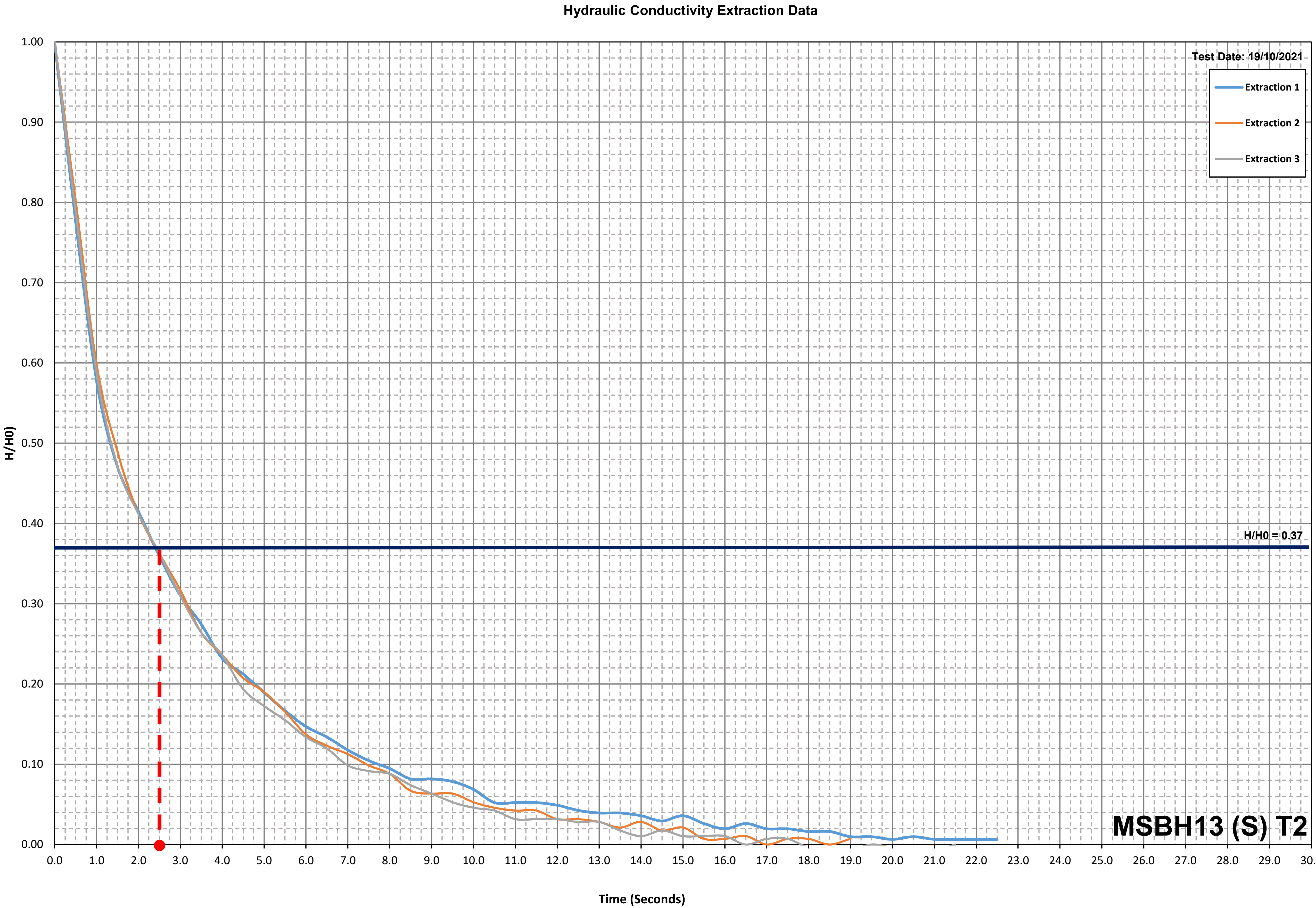

Hydraulic Conductivity Insertion Data
Test Date: 19/10/2021
Insertion 1
Insertion 2
Insertion 3
H/H0 = 0.37
H/H0)
Time (Seconds)
MSBH13 (S) T2
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 11.0 12.0 13.0 14.0 15.0 16.0 17.0 18.0 19.0 20.0 21.0 22.0 23.0 24.0 25.0 26.0 27.0 28.0 29.0 30.0


Hydraulic Conductivity Extraction Data
Test Date: 19/10/2021
Extraction 1
Extraction 2
Extraction 3
H/H0 = 0.37
MSBH13 (S) T2
H/H0)
Time (Seconds)
1.00
0.90
0.80
0.70
0.60
0.50
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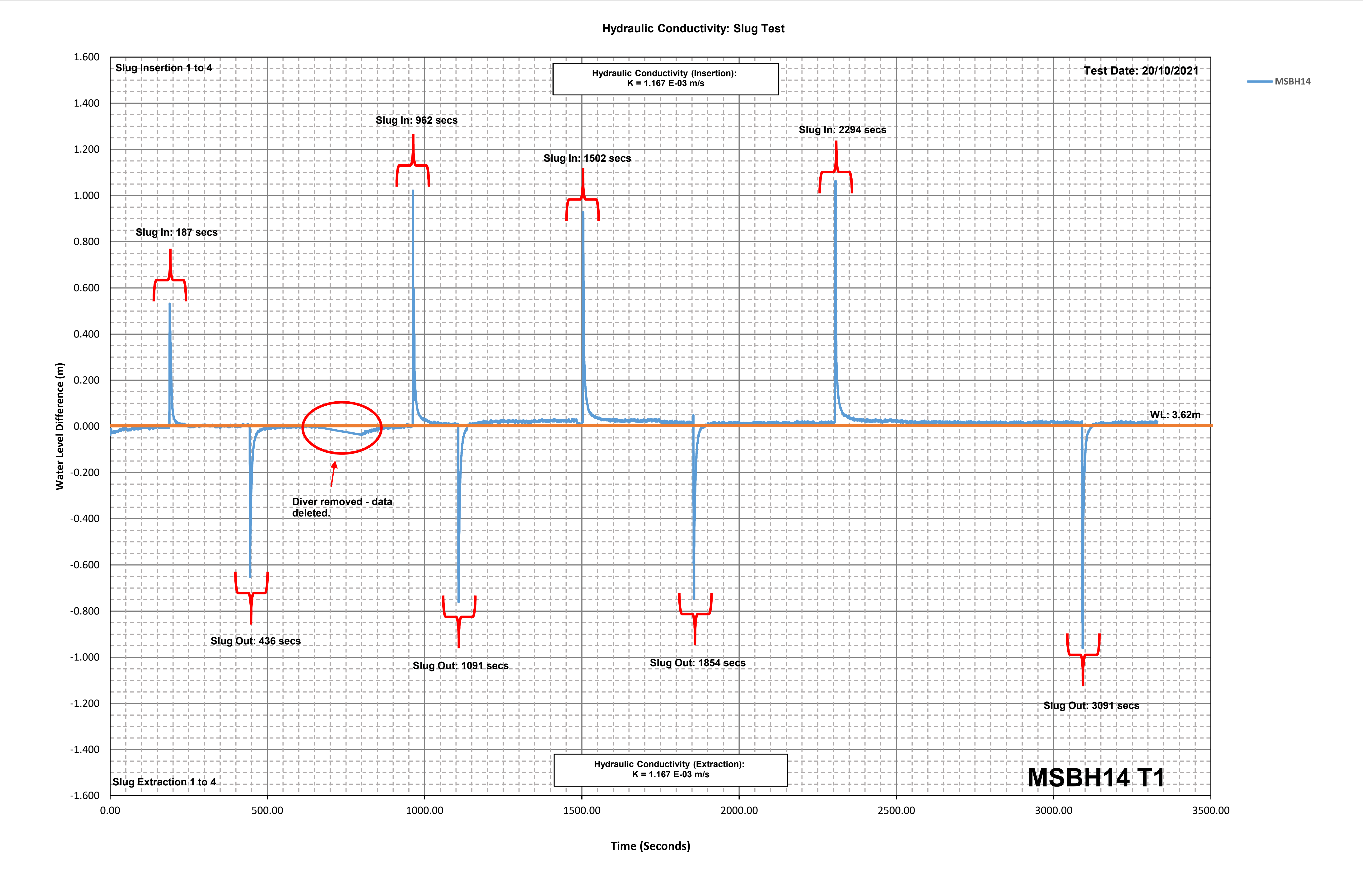

Contract: Preliminary Onshore Ground Investigation for NZT
Contract No.: 4339
Date: 28/01/2022
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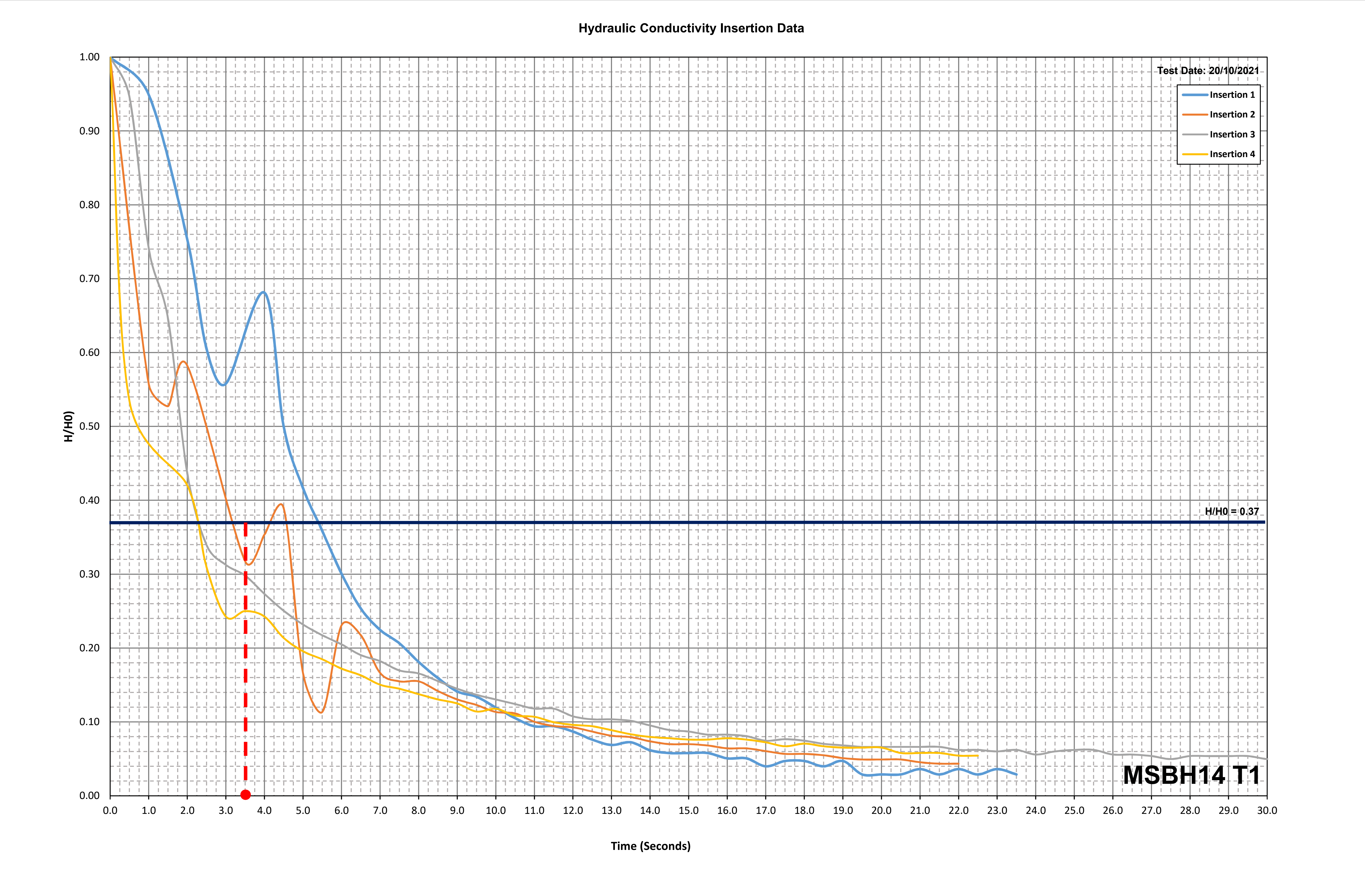
Hydraulic Conductivity Insertion Data
Test Date: 20/10/2021
Insertion 1
Insertion 2
Insertion 3
Insertion 4
H/H0 = 0.37
MSBH14 T1
H/H0)
Time (Seconds)
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.0
1.0
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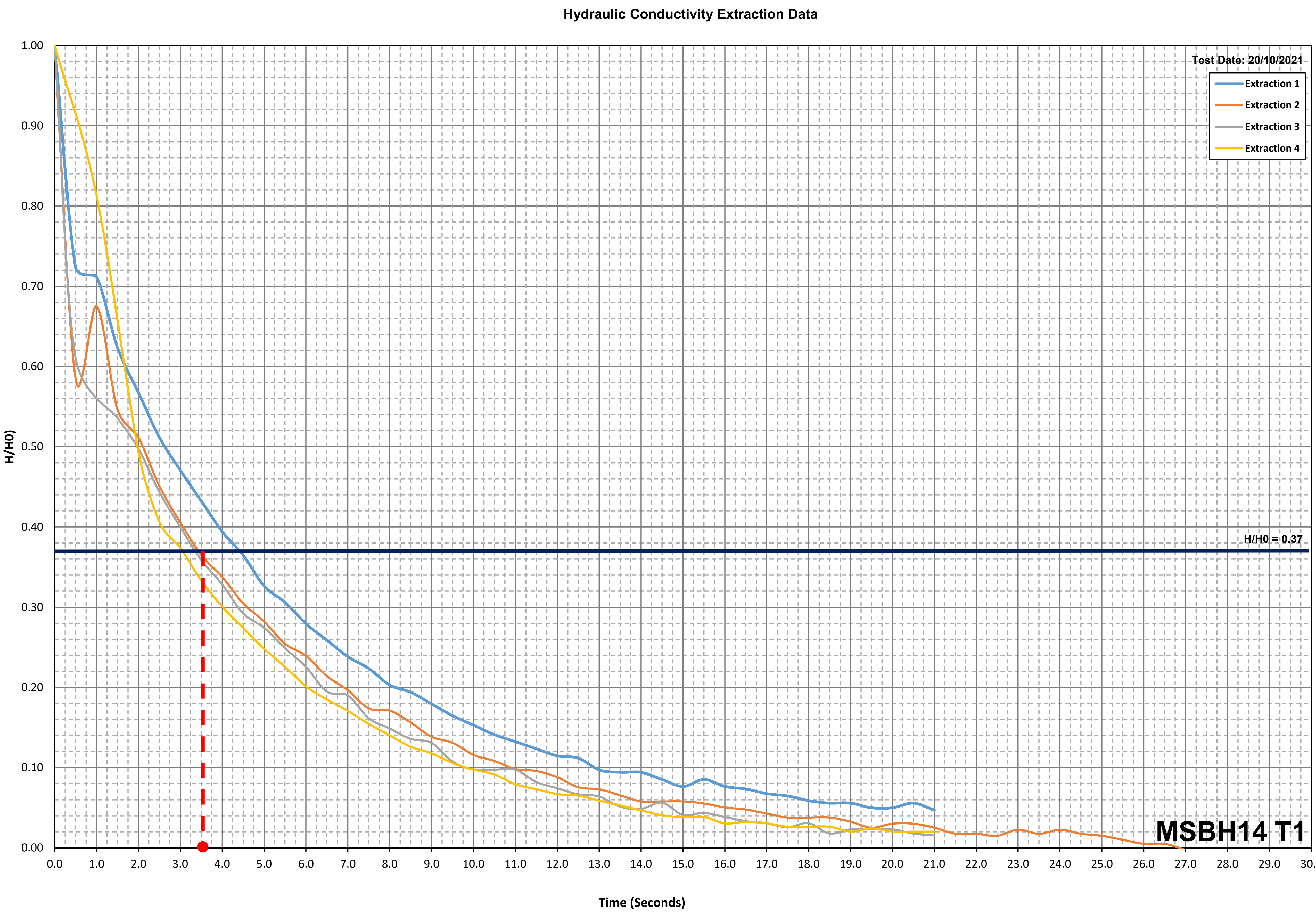

Contract: Preliminary Onshore Ground Investigation for NZT
Contract No.: 4339
Date: 28/01/2022
Sheet: 25 of 31

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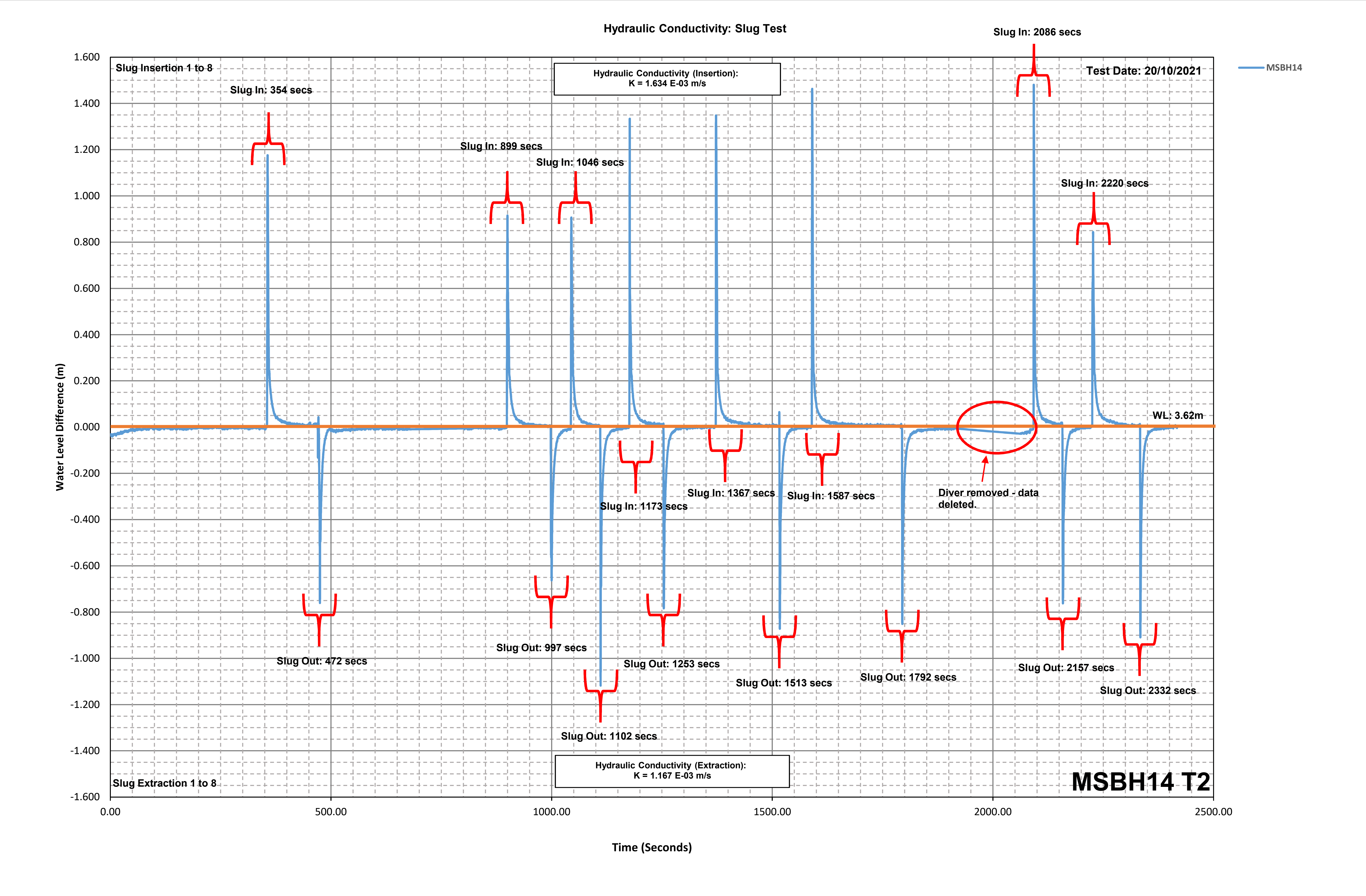
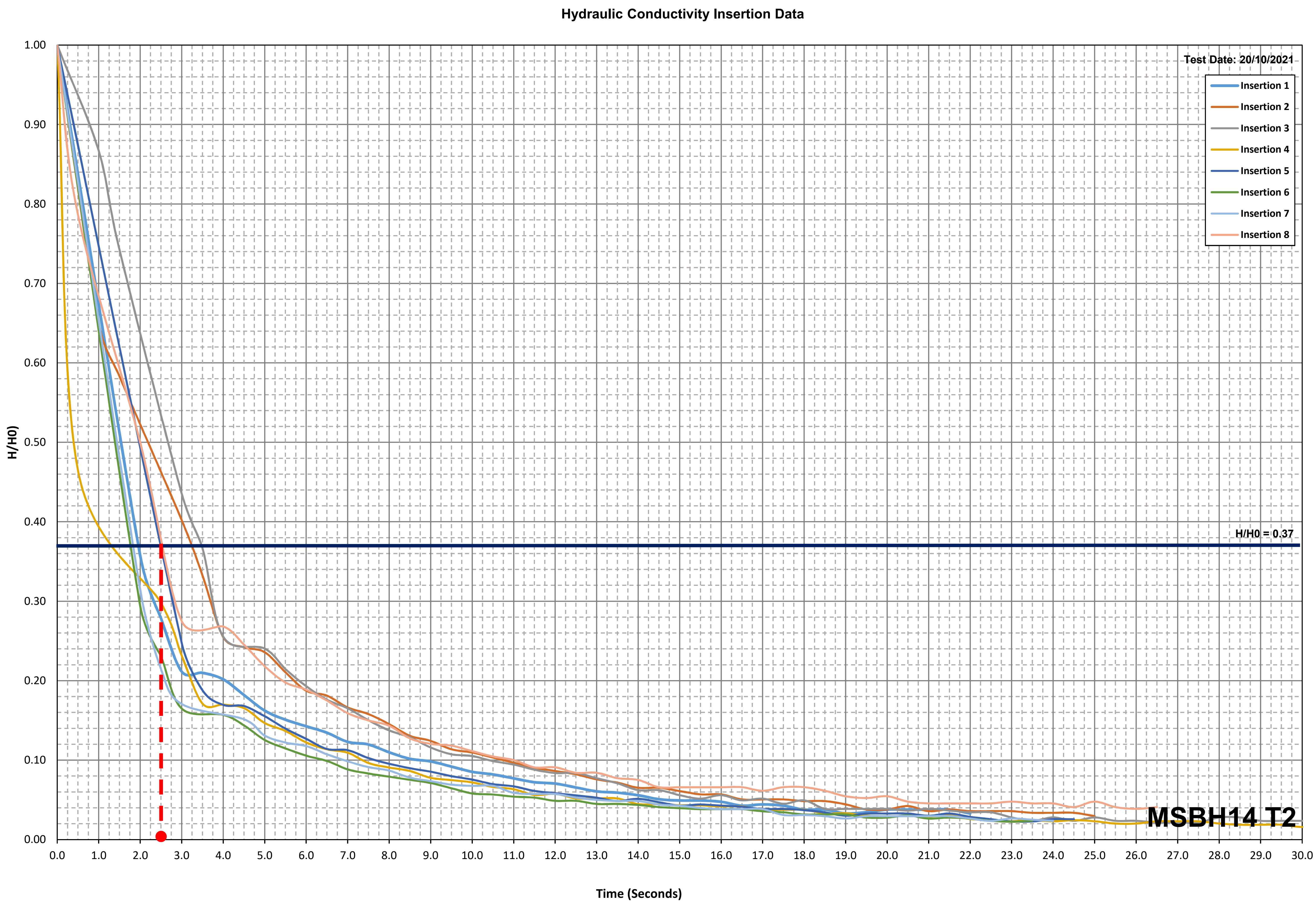
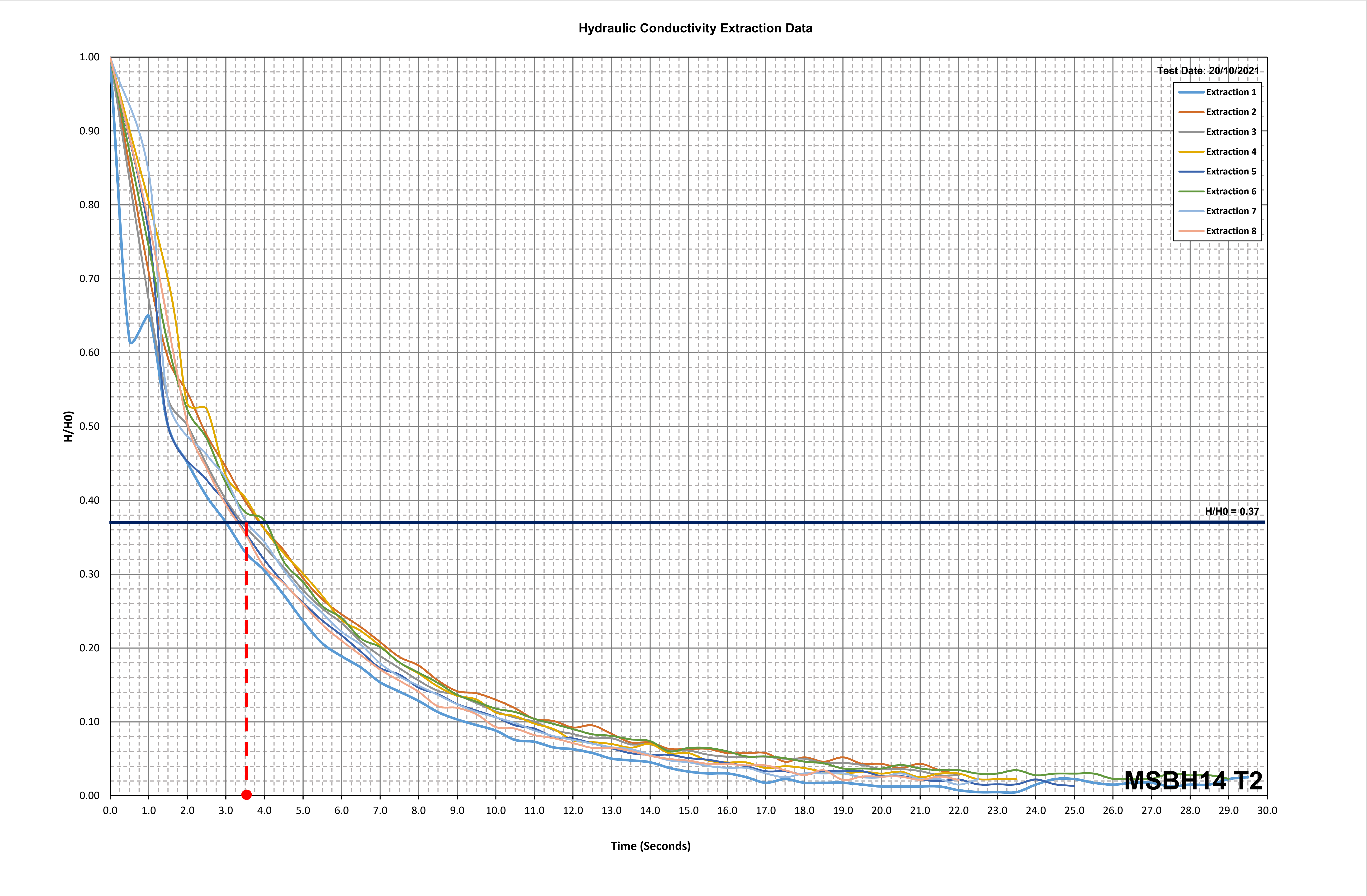


Contract: Preliminary Onshore Ground Investigation for NZT
Contract No.: 4339
Date: 28/01/2022
Sheet: 26 of 31


Hydraulic Conductivity Insertion Data
Test Date: 20/10/2021
Insertion 1
Insertion 2
Insertion 3
Insertion 4
Insertion 5
Insertion 6
Insertion 7
Insertion 8
H/H0 = 0.37
MSBH14 T2
H/H0)
Time (Seconds)
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 11.0 12.0 13.0 14.0 15.0 16.0 17.0 18.0 19.0 20.0 21.0 22.0 23.0 24.0 25.0 26.0 27.0 28.0 29.0 30.0


Hydraulic Conductivity Extraction Data
Test Date: 20/10/2021
Extraction 1
Extraction 2
Extraction 3
Extraction 4
Extraction 5
Extraction 6
Extraction 7
Extraction 8
H/H0 = 0.37
MSBH14 T2
H/H0)
Time (Seconds)
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
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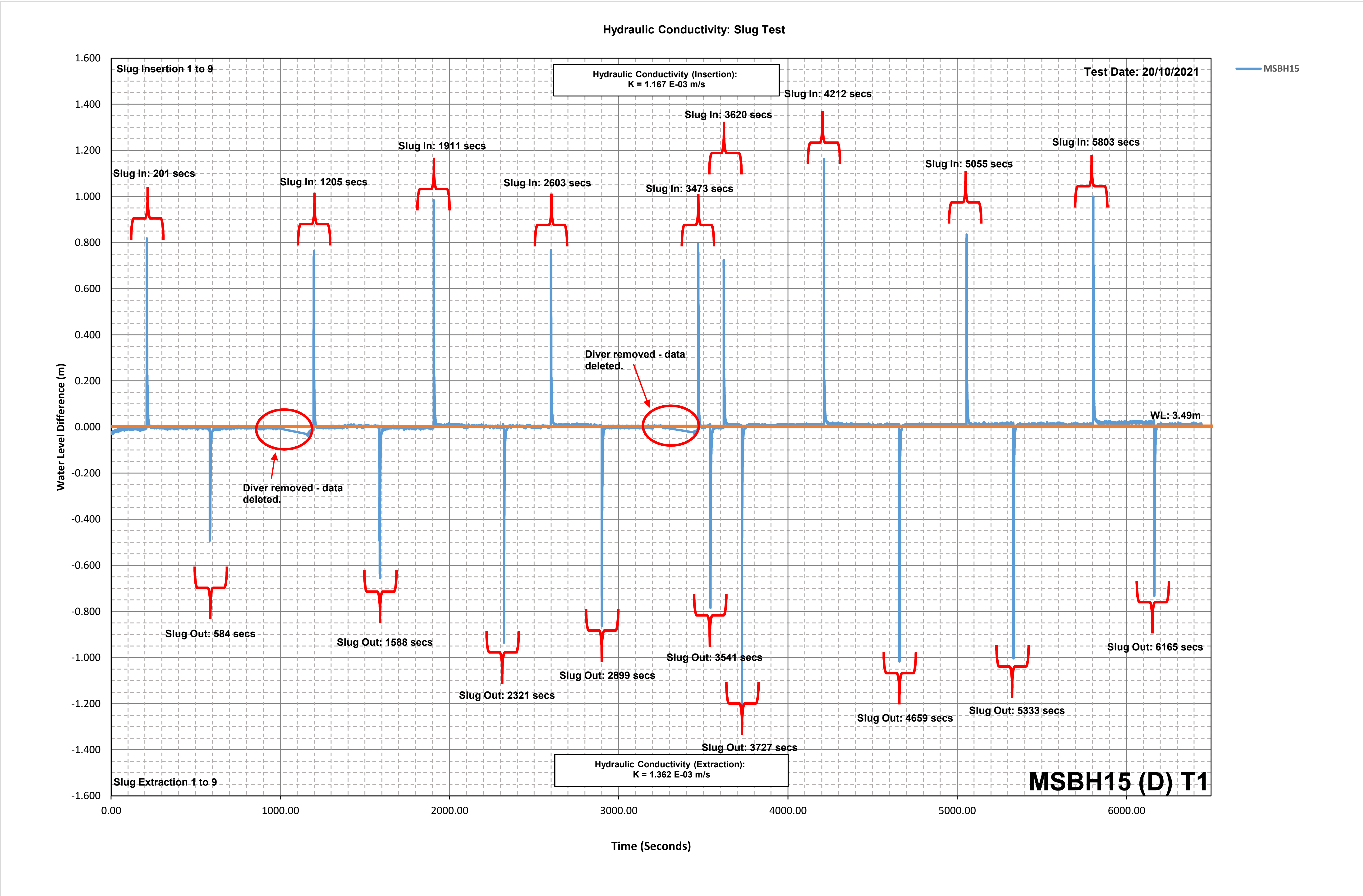
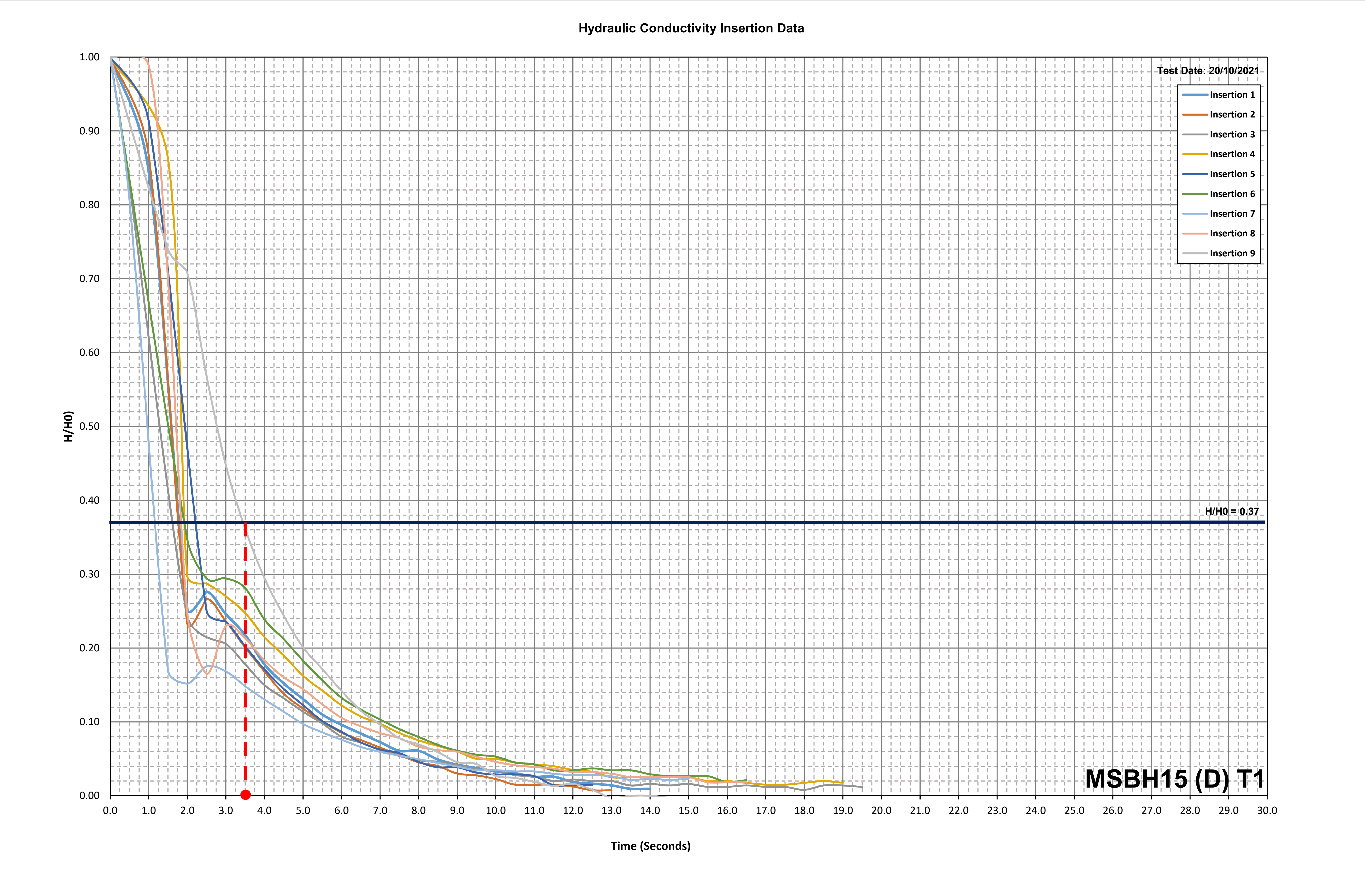


Contract: Preliminary Onshore Ground Investigation for NZT
Contract No.: 4339
Date: 28/01/2022
Sheet: 29 of 31


Hydraulic Conductivity Insertion Data
Test Date: 20/10/2021
Insertion 1
Insertion 2
Insertion 3
Insertion 4
Insertion 5
Insertion 6
Insertion 7
Insertion 8
Insertion 9
H/H0 = 0.37
H/H0)
Time (Seconds)
MSBH15 (D) T1
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
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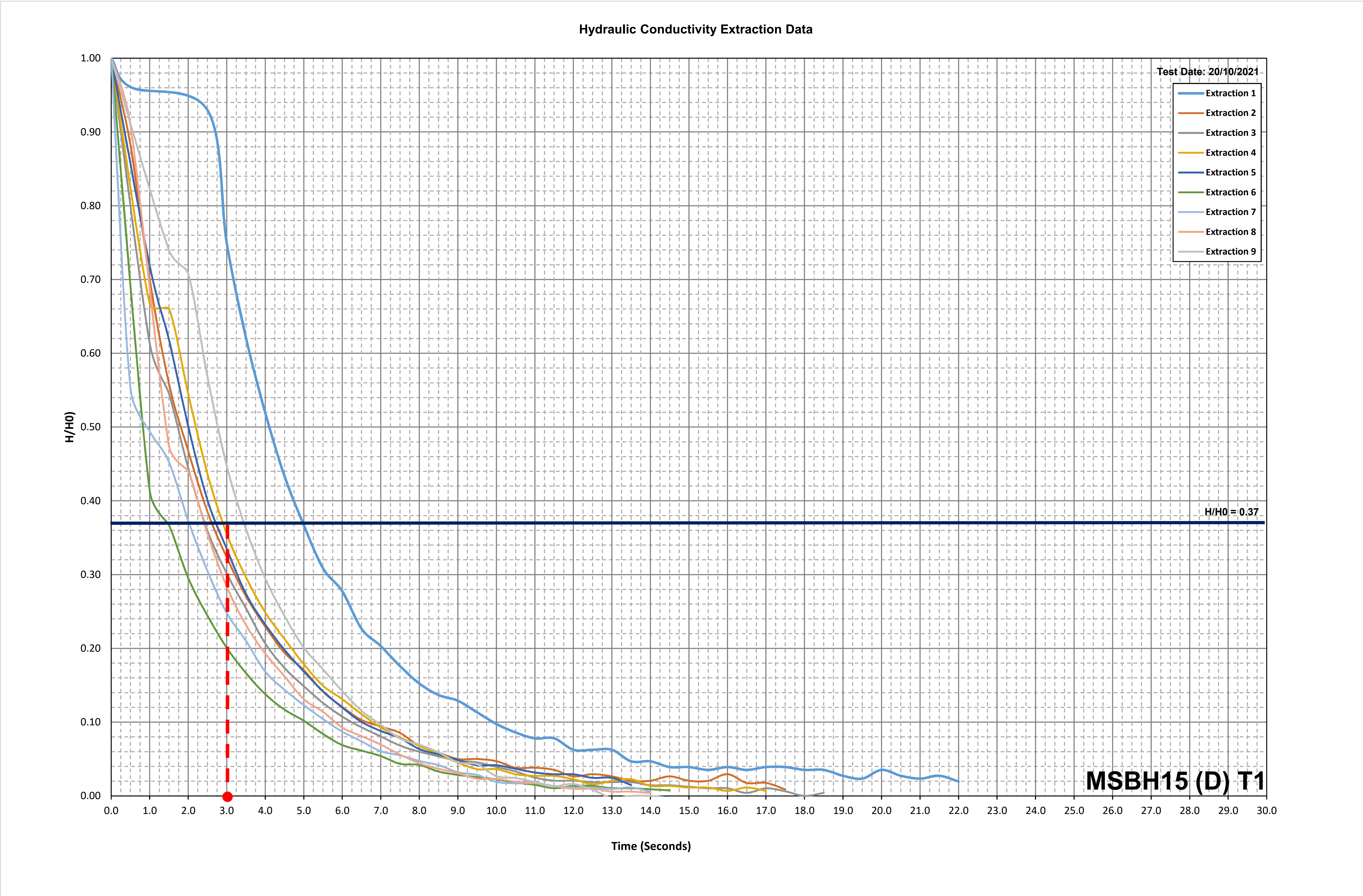
Hydraulic Conductivity Extraction Data
Test Date: 20/10/2021
Extraction 1
Extraction 2
Extraction 3
Extraction 4
Extraction 5
Extraction 6
Extraction 7
Extraction 8
Extraction 9
H/H0 = 0.37
H/H0)
Time (Seconds)
MSBH15 (D) T1
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
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Laboratory Report Certificate

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG - Tel: 0191 3874700 Fax: 0191 3874710
Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL – Tel: 01722 735 300 Fax: 01722 735 999

LABORATORY REPORT CERTIFICATE

UKAS TESTING 1367

Contract Title: Preliminary Onshore Ground Investigation for NZT

AEG Reference: 4339

Client Address: AECOM
Aldgate Tower
2 Leman Street
London
E1 8FA

We certify that Laboratory testing was carried out on samples from the above contract in accordance with techniques outlined in BS 1377: 1990, BS EN ISO 17892:2014 or other appropriate standards as quoted. The samples were received from May 2021 and the following results, given on the attached enclosures, were obtained.

The tests carried out are indicated in the attached table showing the enclosure number and the total number of pages.

For and on behalf of Allied Exploration & Geotechnics Limited

☐ Nick Vater (Managing Director)

☑ Michelle Selkirk (Laboratory Manager)

Signed [redacted] Date: 18 October 2021

Tests marked not UKAS accredited in this certificate are not included in the UKAS accreditation schedule for our laboratory. Any opinions and interpretations expressed herein are outside the scope of the laboratory's UKAS accreditation.

Please note the material was derived from samples taken outside the control of the laboratory.

LABORATORY REPORT CERTIFICATE

ENCLOSURES

Enclosure Number	Description	Reference	No. of Pages
0	Laboratory Report Certificate		3
1	Sample Description Sheets		16
2	Moisture Content	BS 1377 Part 2 1990 (BS EN ISO 17892-1:2014)	4
2	Plasticity Index and Moisture Content	BS 1377 Part 2 1990 (BS EN ISO 17892-1:2014)	13
3	Determination of Density by Linear Measurement	BS 1377 Part 2 1990 (BS EN ISO 17892-2:2014)	2
4	Determination of Particle Density	BS 1377 Part 2 1990	1
5	Particle Size Distribution Sieving	BS 1377 Part 2 1990	120
5	Particle Size Distribution Sedimentation	BS 1377 Part 2 1990	44
6	Determination of Loss on Ignition, Organic Content, Chloride, Total Sulphur, Sulphate and pH (Tested externally)	See DETS certificates	24
7	Determination of Dry Density/Moisture Content Relationship	BS 1377 Part 4 1990	23
8	Determination of MCV / Moisture Relationship	BS 1377 Part 4 1990	9
9	Determination of California Bearing Ratio	BS 1377 Part 4 1990	8
10	Determination of One Dimensional Consolidation Properties	BS 1377 Part 5 1990	42
11	Shear Strength by Direct Shear	BS 1377 Part 7 1990	105
12	Undrained Shear Strength in Triaxial Cell without Pore Water Pressure Measurement	BS 1377 Part 7 1990	2
13	Consolidated Undrained Shear Strength in Triaxial Cell with Measurement of Pore Pressure	BS 1377 Part 8 1990	52
14	Determination of Point Load Index	ISRM 1985	10
15	Determination of Unconfined Compressive Strength (Tested externally)		14
16	Slag Analysis (Tested externally)		-

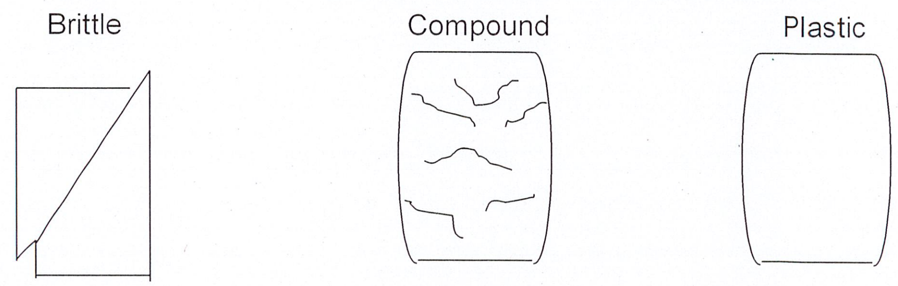
LABORATORY REPORT CERTIFICATE

ABBREVIATIONS

All the abbreviations used on the laboratory certificates are given below:

Br	Brittle	**PSD**	Particle Size Distribution by sieve analysis
C	Compound	**SB**	Shear Box
CBR	California Bearing Ratio	**SED**	Sedimentation Analysis
CDT	Consolidated Drained Triaxial	**SO4**	Sulphate (total, water extract, groundwater)
CL	Chloride content (water or soil)	**CP2**	Dry Density/Moisture Content 2.5kg rammer
US	Unsuitable sample for test	**CP4**	As above using 4.5kg rammer
UUT	Undrained Unconsolidated Triaxial	**CPV**	As above using vibrating hammer
HSV	Vane Test	**CUT**	Consolidated Undrained Triaxial
IS	Insufficient sample for test	**R**	Remoulded
LOI	Loss On Ignition	**U**	Undisturbed
M	Multi-stage testing	**MC**	Moisture Content
MCV	Moisture Content Value	**PL**	Point Load
NAT	Natural preparation method	**NMC**	Natural (or as received) moisture content
P	Plastic	**PFH**	Permeability Falling Head Method
OED	Oedometer	**PTXL**	Permeability in Triaxial Cell
OMC	Optimum Moisture Content	**ORG**	Organic content
B	Large disturbed (bulk) sample	**PD**	Particle Density (SG)
J	Small disturbed (jar) sample	**PI**	Liquid limit, plastic limit and plasticity index

Typical Mode of Failure for Triaxial Testing



LABORATORY TESTING ENCLOSURE 1

Sample Description Sheets

ALLIED EXPLORATION & GEOTECHNICS LIMITED

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Regional Office: Unit 20, Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL - **Tel:** 01772 735 300 **Fax:** 01772 735 999

LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
LF\BH01	0.30	B8	MADE GROUND (Grey clayey/silty sandy gravel and cobbles of slag).	MC PSD
LF\BH01	1.20	B10	MADE GROUND (Grey slightly clayey/silty sandy gravel and cobbles of slag).	MC PSD US for CP2
LF\BH01	1.50	J9	MADE GROUND (Light grey gravel of slag).	CL BRE
LF\BH01	3.40	B14	Brown gravelly SAND.	PSD CP2
LF\BH01	3.65	B16	Brown SAND with shell fragments.	Density PSD PD CP2
LF\BH01	8.70	B28	Brown slightly silty SAND.	Density PSD PD SBOX
LF\BH01	10.20	B33	Brown slightly silty slightly gravelly SAND.	MC PSD
LF\BH01	17.60	U54	Medium strength brown sandy slightly gravelly CLAY of high plasticity.	MC PI OED UUT
LF\BH01	20.75	U59	Very high strength brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI UUT
LF\BH01	22.70	U63	Stiff brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI CUT
LF\BH01	25.20	J71	Grey brown slightly sandy CLAY of intermediate plasticity.	MC PI
LF\BH01	26.60	U74	High strength brown mottled slightly sandy CLAY of intermediate plasticity.	MC PI UUT
LF\BH01	28.20	J80	Grey with red brown veining sandy slightly gravelly CLAY of low plasticity.	MC PI CL BRE
LF\BH02	0.40	B5	MADE GROUND (Dark grey slightly sandy gravel of slag with a high cobble content).	MC PSD US for CP2
LF\BH02	0.50	J4	MADE GROUND (Dark grey slightly sandy gravel of slag).	CL BRE
LF\BH02	1.20	B7	MADE GROUND (Brown sand).	MC PSD CP2
LF\BH02	4.20	B14	MADE GROUND (Brown sand).	Density PSD PD CP2
LF\BH02	9.00	B29	MADE GROUND (Brown gravelly sand. Gravel includes slag).	MC PSD SBOX
LF\BH02	12.45	B40	Brown slightly silty SAND.	MC PSD
LF\BH02	17.40	U53	Very soft brown silty sandy CLAY of intermediate plasticity.	MC PI OED CUT
LF\BH02	20.90	J62	Brown slightly sandy slightly gravelly CLAY.	CL BRE

Contract Title :- Preliminary Onshore Ground Investigation for NZT	Client :- AECOM

Signed :- [redacted]	Name :- M. SELKIRK	Page 1 of 16	UKAS TESTING 1367
Date of issue :- 18/10/2021	Certificate No :- SD/4339/1	AEG Contract No. :- 4339	

ALLIED EXPLORATION & GEOTECHNICS LIMITED

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Regional Office: Unit 20, Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL - **Tel:** 01772 735 300 **Fax:** 01772 735 999

LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
LF\BH02	21.00	U61	Stiff brown slightly sandy slightly gravelly CLAY of low to intermediate plasticity.	MC PI OED
LF\BH02	25.10	J69	Laminated brown silty CLAY of high plasticity with silt dustings on laminae.	MC PI
LF\BH02	26.50	U75	Very high strength brown slightly sandy slightly gravelly CLAY of low plasticity.	MC PI UUT
LF\BH02	27.00	J76	Brown slightly sandy slightly gravelly CLAY.	CL BRE
LF\TP01	0.80	B4	MADE GROUND (Grey slightly sandy gravel and cobbles of slag).	MC US for CP2 CPV CBR MCV
LF\TP01	1.80	B8	MADE GROUND (Brown sandy gravel of slag).	MC PI Density PSD
LF\TP01	1.90	J10	MADE GROUND (Brown grey sandy gravel of slag).	CL BRE
LF\TP01	2.90	B13	MADE GROUND (Grey slightly sandy gravel and cobbles of slag).	MC US for CP2
LF\TP02	0.80	B4	MADE GROUND (Brown slightly sandy gravel of slag).	MC US for CP2
LF\TP02	1.80	B8	MADE GROUND (Grey clayey/silty sandy gravel of slag with a high cobble content).	PSD
LF\TP02	2.80	B9	MADE GROUND (Grey sandy gravel of slag).	MC CP2
LF\TP03	0.80	B4	MADE GROUND (Brown slightly sandy gravel of slag with a medium cobble content).	PSD
LF\TP03	1.80	B9	MADE GROUND (Grey sandy gravel and cobbles of slag).	US for CP2 CPV CBR
LF\TP03	2.80	B13	MADE GROUND (Grey sandy gravel and cobbles of slag).	US for CP2
LF\TP03	3.80	B17	MADE GROUND (Brown slightly sandy gravel of slag with a high cobble content).	PSD
LF\TP03	3.95	J18	MADE GROUND (Brown slightly sandy gravel of slag).	CL BRE
MS\BH02	0.90	B7	Brown SAND.	MC
MS\BH02	2.70	B14	Brown silty SAND.	MC PSD CP2 MCV
MS\BH02	3.00	J15	Light brown SAND.	ORG
MS\BH02	3.40	B16	Brown SAND with shell fragments.	Density PSD PD CP2 CPV CBR
MS\BH02	4.95	B21	Light brown SAND.	MC PSD PD SB

Contract Title :- Preliminary Onshore Ground Investigation for NZT	Client :- AECOM

Signed : [redacted]	Name :- M. SELKIRK	Page 2 of 16	UKAS TESTING 1367
Date of issue :- 18/10/2021	Certificate No :- SD/4339/2	AEG Contract No. :- 4339	

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LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
MS\BH02	5.70	B24	Light brown SAND.	MC PD
MS\BH02	7.20	B30	Light brown SAND.	MC
MS\BH02	7.50	J31	Light brown SAND.	BRE CL
MS\BH02	10.40	B41	Brown slightly silty SAND.	MC PSD SB
MS\BH02	11.40	B45	Brown slightly sandy CLAY/SILT of low plasticity.	MC PI PSD SED
MS\BH02	11.70	UT1	Medium strength brown slightly sandy CLAY of low to intermediate plasticity.	MC PI UUT
MS\BH02	13.00	B48	Brown slightly sandy CLAY of low to intermediate plasticity.	MC PI PSD SED
MS\BH02	15.10	B52	Brown slightly sandy CLAY of high plasticity.	MC PI
MS\BH02	17.50	B64	Brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI PSD SED
MS\BH02	20.00	B70	Brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI
MS\BH02	21.25	U72	Soft laminated brown slightly sandy CLAY of intermediate plasticity.	MC PI CUT
MS\BH02	22.20	B75	Brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI PSD SED
MS\BH02	23.00	U77	Very high strength brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI UUT
MS\BH03	1.50	J10	Grey SAND and GRAVEL.	ORG LOI
MS\BH03	1.75	B13	Brown silty SAND.	MC PSD ORG LOI
MS\BH03	2.80	B16	Brown gravelly SAND with shell fragments.	Density PSD CP2 CBR MCV IS for CPV
MS\BH03	3.45	B18	Brown SAND.	MC
MS\BH03	5.00	J23	Light brown SAND.	BRE CL
MS\BH03	6.45	B27	Brown slightly silty SAND.	MC PSD
MS\BH03	7.95	B32	Brown slightly silty SAND.	MC PSD SB
MS\BH03	8.70	B35	Brown SAND.	MC

Contract Title :- Preliminary Onshore Ground Investigation for NZT

Client :- AECOM

Signed :- [redacted] ame :- M. SELKIRK

Date of issue :- 18/10/2021

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AEG Contract No. :- 4339

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LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
MS\BH03	9.35	B37	Brown clayey gravelly SAND with clay pockets.	MC PI (NP) PSD SB
MS\BH03	10.50	B42	Brown slightly sandy CLAY of low plasticity with shell fragments.	MC PI PSD SED
MS\BH03	11.70	UT1	Soft brown silty sandy CLAY of low plasticity.	MC PI OED US for CUT
MS\BH03	12.80	J48	Brown silty CLAY of low plasticity.	MC PI
MS\BH03	14.50	B54	Brown slightly sandy CLAY of high plasticity with occasional pockets of peat.	MC PI PSD SED
MS\BH03	15.10	J55	Red brown with grey veining slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI ORG LOI
MS\BH03	16.10	U60	Stiff brown slightly sandy CLAY of intermediate plasticity.	MC PI CUT
MS\BH03	16.50	B62	Brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI PSD SED
MS\BH03	19.10	U70	Soft and firm fissured brown slightly sandy CLAY of intermediate plasticity with some silt dustings.	MC PI CUT
MS\BH03	21.20	J76	Red brown slightly sandy slightly gravelly CLAY of low plasticity.	MC PI
MS\BH03	22.90	B81	Brown slightly sandy slightly gravelly CLAY of high plasticity.	MC PI PSD SED
MS\BH03	23.50	J4	Dark brown slightly sandy slightly gravelly CLAY of low plasticity.	MC PI
MS\BH04	0.43	B5	MADE GROUND (Brown slightly sandy gravel and cobbles of slag).	MC Density PSD PD CP2 CPV CBR MCV
MS\BH04	0.90	U6	Brown slightly silty gravelly SAND.	MC PSD
MS\BH04	1.20	B8	Brown gravelly SAND.	CL BRE
MS\BH04	2.70	B12	Brown gravelly SAND with shell fragments.	Density PSD PD CP2 CBR MCV IS for CPV
MS\BH04	3.45	B14	Brown gravelly SAND.	MC PSD SB
MS\BH04	4.95	B18	Brown SAND.	Density PSD PD CP2 CPV CBR MCV
MS\BH04	5.70	J19	Brown slightly gravelly SAND including shell fragments.	MC
MS\BH04	7.95	J25	Light brown SAND.	MC
MS\BH04	11.70	J35	Brown sandy CLAY.	MC

Contract Title :- Preliminary Onshore Ground Investigation for NZT

Client :- AECOM

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Name :- M. SELKIRK

Date of issue :- 18/10/2021

Certificate No :- SD/4339/4

AEG Contract No. :- 4339

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LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
MS\BH04	11.70	B36	Brown slightly sandy CLAY including shell fragments.	MC PSD SED SB
MS\BH04	12.70	B38	Brown slightly sandy CLAY.	MC PSD SED
MS\BH04	13.20	UT8	Brown clayey sandy SILT of low plasticity.	MC PI OED
MS\BH04	14.85	U41	Firm laminated dark brown with grey mottling CLAY of high plasticity.	MC PI CUT
MS\BH04	15.30	B43	Brown with grey veining slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI
MS\BH04	16.30	U44	Very high strength brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI UUT
MS\BH04	17.80	U48	Stiff brown slightly sandy CLAY of intermediate plasticity.	MC PI CUT
MS\BH04	20.50	B54	Laminated brown silty CLAY of intermediate plasticity.	MC PI
MS\BH04	23.80	B62	Brown slightly sandy slightly gravelly CLAY of low to intermediate plasticity.	MC PI
MS\BH05	2.70	J5	MADE GROUND (Brown gravel of slag).	MC IS for PD
MS\BH05	2.70	B6	MADE GROUND (Grey gravel and cobbles of slag, concrete, brick and metal).	MC Density PSD ORG US for CP2 CPV CBR MCV
MS\BH05	4.20	J7	MADE GROUND (Dark grey sandy gravel including brick and slag).	MC PD
MS\BH05	4.20	B8	Brown clayey very gravelly SAND with occasional pockets of organic clay.	PSD
MS\BH05	4.80	J9	Light brown SAND.	MC
MS\BH05	5.70	B12	Brown SAND with occasional pockets of organic clay.	MC PSD SB
MS\BH05	7.20	J15	Brown slightly gravelly SAND.	MC
MS\BH05	7.95	J17	Light brown SAND.	CL BRE
MS\BH05	7.95	B18	Light brown slightly silty SAND.	MC PSD ORG SB
MS\BH05	9.45	J21	Brown SAND.	MC
MS\BH05	10.95	J25	Light brown SAND with shell fragments.	MC
MS\BH05	11.70	B28	Brown gravelly SAND.	ORG

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LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
MS\BH05	12.45	B30	Brown slightly silty very gravelly SAND.	MC PSD SB
MS\BH05	13.95	J33	Brown slightly sandy CLAY of high plasticity.	MC PI
MS\BH05	15.00	J35	Brown slightly sandy slightly gravelly CLAY.	BRE CL
MS\BH05	15.00	B36	Brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI PSD SED
MS\BH05	16.00	U1	High strength brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI UUT
MS\BH05	18.30	C7	Soft and firm partially laminated grey brown CLAY of high plasticity with silt dustings.	MC PI PSD SED CUT
MS\BH05	19.80	J41	Laminated brown silty CLAY of intermediate plasticity with silt dustings on the laminae.	MC PI
MS\BH05	19.80	B42	Brown slightly sandy slightly gravelly CLAY.	PSD SED
MS\BH06	0.50	J9	MADE GROUND (Light brown gravelly sand. Gravel includes brick fragments).	BRE CL
MS\BH06	1.20	B32	MADE GROUND (Red brown clayey sandy gravel of slag and metal fragments with a high cobble content).	MC PSD SED PD US for CP2 CPV CBR MCV
MS\BH06	1.50	J11	MADE GROUND (Red brown gravelly sand).	BRE CL
MS\BH06	2.70	B34	MADE GROUND (Red brown clayey very sandy gravel including brick fragments with a high cobble content).	PSD
MS\BH06	4.90	J15	MADE GROUND (Dark brown gravel including brick and slag).	MC BRE CL
MS\BH06	5.70	J17	Brown SAND.	BRE CL
MS\BH06	8.70	B40	Brown SAND.	PSD SB
MS\BH06	10.95	J24	Brown SAND.	MC
MS\BH06	12.45	J26	Brown slightly gravelly SAND.	MC
MS\BH06	13.90	J28	Brown sandy slightly gravelly CLAY of low plasticity.	MC PI PSD SED
MS\BH06	14.70	SL11	Brown slightly sandy CLAY of intermediate plasticity.	MC PI
MS\BH06	16.30	C1	High strength brown slightly sandy CLAY of high plasticity.	MC PI UUT
MS\BH06	17.30	J1	Red brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI

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LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
MS\BH06	19.80	J2	Laminated brown slightly sandy CLAY of intermediate plasticity.	MC PI
MS\BH07	2.00	B4	MADE GROUND (Grey gravel and cobbles of slag).	MC Density PSD ORG LOI US for MCV, CP2, CPV CBR and PD
MS\BH07	5.70	B11	Brown SAND with shell fragments.	MC PSD
MS\BH07	7.50	J19	Fissured brown slightly sandy CLAY of high plasticity.	MC PI ORG LOI
MS\BH07	9.00	J23	Light brown SAND.	MC PI(NP)
MS\BH07	10.20	B27	Brown silty SAND.	MC PSD SBOX
MS\BH07	14.00	J42	Brown slightly sandy CLAY of intermediate plasticity.	MC PI ORG LOI
MS\BH07	15.70	J47	Brown slightly organic slightly sandy CLAY.	CL BRE
MS\BH07	16.20	UT2	Very high strength brown slightly sandy slightly gravelly CLAY of high plasticity.	MC PI UUT
MS\BH07	17.10	U54	Firm brown with grey veining slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI CUT
MS\BH07	17.60	B58	Brown slightly sandy slightly gravelly CLAY.	PSD SED
MS\BH07	18.10	U59	High strength brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI UUT
MS\BH07	19.40	U63	Firm red brown with grey mottling slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI CUT
MS\BH07	19.80	B65	Brown slightly sandy slightly gravelly CLAY.	PSD SED
MS\BH07	21.90	U69	High strength brown slightly sandy slightly gravelly CLAY of low plasticity.	MC PI UUT
MS\BH08	1.80	J13	MADE GROUND (Grey slightly clayey slightly sandy gravel).	MC
MS\BH08	1.80	B14	MADE GROUND (Grey slightly clayey slightly sandy gravel).	BRE CL
MS\BH08	2.70	B16	MADE GROUND (Grey slightly clayey slightly sandy gravel of slag with a high cobble content).	PSD
MS\BH08	3.45	B18	MADE GROUND (Grey slightly clayey slightly sandy gravel of slag with a high cobble content).	US for MCV
MS\BH08	5.70	J19	MADE GROUND (Brown sandy gravel).	MC
MS\BH08	5.70	B20	MADE GROUND (Brown sandy gravel).	SB

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Client :- AECOM

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Date of issue :- 18/10/2021

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LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
MS\BH08	6.30	B22	Brown slightly clayey slightly gravelly SAND.	Density IS for PD
MS\BH08	7.80	J25	Brown SAND.	BRE CL
MS\BH08	8.50	J27	Dark brown grey slightly organic CLAY of intermediate to high plasticity with sand dustings.	MC PI
MS\BH08	8.50	B28	Dark brown grey slightly sandy CLAY.	MC Density PSD SED
MS\BH08	8.70	UT1	Brown SAND becoming at 8.90m very low strength brown sandy CLAY of intermediate plasticity.	MC PI OED UUT
MS\BH08	9.25	B30	Brown very clayey slightly gravelly SAND.	Density PSD SED PD SB
MS\BH08	10.20	J33	Brown sandy CLAY.	BRE CL
MS\BH08	10.20	B34	Brown very clayey SAND.	MC PSD SED
MS\BH08	12.45	J39	Light brown SAND.	MC
MS\BH08	12.45	B40	Brown slightly silty SAND.	PSD
MS\BH08	14.70	UT2	Very low strength brown slightly sandy CLAY of low plasticity.	MC PI OED UUT
MS\BH08	14.70	B48	Brown CLAY.	PSD SED
MS\BH08	15.20	J49	Brown slightly sandy CLAY of intermediate plasticity.	MC PI
MS\BH08	15.70	J51	Brown slightly sandy CLAY of intermediate plasticity.	MC PI ORG
MS\BH08	15.70	B52	Brown silty CLAY.	PSD SED
MS\BH08	16.30	J53	Brown organic SILT of very high plasticity with pockets of peat.	MC PI ORG
MS\BH08	16.30	B54	Brown slightly sandy CLAY.	PSD SED
MS\BH08	17.80	J55	Brown slightly sandy CLAY of intermediate to high plasticity.	MC PI
MS\BH08	20.35	U59	Very high strength brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI OED UUT
MS\BH08	20.80	J60	Brown silty CLAY of intermediate plasticity.	MC PI
MS\BH08	20.80	B61	Brown slightly sandy slightly gravelly CLAY.	PSD SED

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LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
MS\BH08	23.30	U63	Firm and stiff grey slightly sandy slightly gravelly CLAY of low plasticity.	MC PI OED
MS\BH08	23.80	J65	Brown sandy slightly gravelly CLAY.	PSD SED
MS\BH08	24.35	U67	High strength grey brown slightly sandy slightly gravelly CLAY low plasticity.	MC PI UUT
MS\BH09	1.50	J7	MADE GROUND (Dark grey slightly gravelly sand).	CL BRE LOI
MS\BH09	1.95	B9	MADE GROUND (Dark grey slightly clayey sandy gravel of glass and slag with a medium cobble content).	MC Density PSD PD US for CP2
MS\BH09	4.85	B18	Brown SAND.	MC PSD CP2
MS\BH09	10.95	B38	Brown gravelly SAND with shell fragments.	PSD
MS\BH09	13.40	B46	Brown slightly sandy slightly gravelly CLAY.	PSD SED
MS\BH09	13.50	J47	Brown slightly sandy CLAY of intermediate plasticity.	MC PI ORG LOI
MS\BH09	14.00	J50	Brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI ORG LOI
MS\BH09	15.20	J55	Brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI
MS\BH09	15.70	U57	High strength brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI UUT
MS\BH09	16.90	J58	Brown slightly sandy slightly gravelly CLAY.	CL BRE
MS\BH09	17.00	B60	Brown slightly sandy slightly gravelly CLAY.	PSD SED
MS\BH09	18.00	J61	Brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI
MS\BH09	18.50	B64	Brown silty slightly sandy slightly gravelly CLAY.	PSD SED
MS\BH09	18.60	J63	Brown slightly sandy CLAY of high plasticity.	MC PI
MS\BH10	2.70	B9	MADE GROUND (Grey very sandy gravel of slag).	MC PSD US for CP2
MS\BH10	5.70	B17	Brown SAND with shell fragments.	PSD
MS\BH10	7.20	J18	Brown slightly gravelly SAND.	CL BRE
MS\BH10	9.45	J24	Brown sandy CLAY/SILT of low plasticity.	MC PI

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LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
MS\BH10	9.45	B25	Brown slightly organic slightly sandy CLAY.	PSD SED
MS\BH10	11.30	J28	Brown slightly organic slightly sandy CLAY.	CL BRE
MS\BH10	11.70	U30	Soft brown grey slightly organic CLAY of intermediate plasticity with sand pockets.	MC PI OED CUT
MS\BH10	12.60	J31	Brown CLAY of intermediate plasticity.	MC PI ORG LOI
MS\BH10	12.60	B32	Brown slightly sandy CLAY.	PSD SED
MS\BH10	13.60	J1	Brown CLAY of high plasticity.	MC PI
MS\BH10	13.60	J33	Brown CLAY.	CL BRE
MS\BH10	13.60	B34	Brown CLAY.	PSD SED
MS\BH10	14.10	J35	Brown with grey mottling slightly sandy slightly gravelly CLAY of high plasticity with a peat pocket.	MC PI ORG LOI
MS\BH10	15.10	U38	Firm brown with grey mottling CLAY of high plasticity.	MC PI CUT
MS\BH10	15.60	J39	Brown slightly sandy CLAY.	CL BRE
MS\BH10	16.60	B43	Brown slightly sandy slightly gravelly CLAY.	PSD SED
MS\BH10	17.25	U44	Very high strength brown slightly sandy slightly gravelly CLAY intermediate plasticity.	MC PI UUT
MS\BH11	1.20	B11	MADE GROUND (Brown slightly silty sandy gravel).	MC PSD US for CP2 CPV CBR MCV
MS\BH11	2.70	B15	MADE GROUND (Brown sandy gravel of brick and slag with a high cobble content).	MC PSD US for CP2
MS\BH11	4.20	B19	MADE GROUND (Brown grey slightly silty sandy gravel and cobbles of slag).	PSD
MS\BH11	5.70	B25	Brown clayey SAND with shell fragments.	Density PSD
MS\BH11	6.45	J26	Light brown SAND.	BRE CL
MS\BH11	8.70	B33	Brown gravelly SAND.	MC PI PSD
MS\BH11	10.95	J38	Light brown slightly clayey SAND.	BRE CL
MS\BH11	12.90	B43	Brown sandy slightly gravelly CLAY of low to intermediate plasticity.	MC PI PSD SED

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Client :- AECOM

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Name :- M. SELKIRK

Date of issue :- 18/10/2021

Certificate No :- SD/4339/10

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LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
MS\BH11	13.20	UT1	Low strength brown slightly sandy CLAY of low plasticity.	MC PI ORG UUT OED
MS\BH11	13.20	J44	Fissured brown slightly sandy CLAY.	BRE CL
MS\BH11	15.90	U51	Firm and stiff brown with grey veining slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI OED CUT
MS\BH11	16.35	B52	Brown slightly sandy slightly gravelly CLAY of intermediate to high plasticity.	MC PI PSD SED
MS\BH11	17.20	J53	Brown slightly sandy slightly gravelly CLAY.	CL BRE
MS\BH11	17.20	B54	Brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI PSD SED
MS\BH11	17.55	U55	Very high strength brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI OED UUT
MS\BH11	20.40	J58	Brown slightly sandy slightly gravelly CLAY.	MC
MS\BH12	1.20	B8	MADE GROUND (Brown gravel and cobbles of slag).	PSD
MS\BH12	4.95	B17	Brown clayey/silty SAND with shell fragments.	PSD
MS\BH12	5.80	J18	Brown slightly sandy CLAY of intermediate plasticity with occasional sand pockets.	MC PI
MS\BH12	7.90	B25	Brown clayey very gravelly SAND.	MC Density PSD SED
MS\BH12	15.40	J44	Brown slightly sandy CLAY of intermediate plasticity.	MC PI
MS\BH12	15.40	B45	Brown CLAY.	PSD SED
MS\BH12	16.20	UT1	Very low strength brown slightly sandy CLAY of intermediate plasticity.	MC PI OED UUT
MS\BH12	16.65	J46	Brown slightly sandy CLAY of intermediate plasticity.	MC PI
MS\BH12	18.90	J48	Brown slightly sandy slightly gravelly CLAY of low to intermediate plasticity.	MC PI
MS\BH13	0.15	B7	MADE GROUND (Brown very sandy gravel and cobbles of slag and concrete).	MC PSD PD
MS\BH13	0.50	J8	MADE GROUND (Red brown sandy gravel).	CL BRE
MS\BH13	3.00	J16	Brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI
MS\BH13	4.20	B19	Brown slightly organic slightly sandy CLAY of high plasticity.	MC PI PSD SED CP2 CPV CBR MCV Combine with B21 @ 4.80m

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LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
MS\BH13	4.50	J20	Brown slightly organic slightly sandy CLAY.	CL BRE
MS\BH13	5.70	UT1	Low strength brown with grey mottling organic slightly sandy CLAY of intermediate plasticity becoming brown SAND at 6.00m.	MC PI OED UUT
MS\BH13	7.20	B27	Brown very silty SAND.	MC PSD SED SBOX
MS\BH13	11.50	J37	Brown CLAY of high plasticity.	MC PI
MS\BH13	11.70	UT2	Firm brown with grey mottling slightly organic slightly sandy CLAY of high plasticity.	MC PI OED
MS\BH13	12.80	U46	High strength brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI UUT
MS\BH13	14.70	U49	Firm brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI CUT
MS\BH14	1.20	B6	MADE GROUND (Dark grey silty very sandy gravel of slag with a medium cobble content).	Density PSD PD US for CP2
MS\BH14	1.50	J7	MADE GROUND (Brown sandy gravel including brick fragments).	CL BRE
MS\BH14	1.95	B8	MADE GROUND (Brown slightly clayey sandy gravel including brick and slag with a medium cobble content).	US for CP2 Combined with B11 @ 2.70
MS\BH14	4.50	J17	Brown sandy slightly gravelly SILT of intermediate plasticity with occasional rootlets.	MC PI ORG LOI
MS\BH14	6.00	J23	Brown SAND.	MC CL ORG BRE LOI
MS\BH14	8.70	B32	Brown silty SAND.	MC PSD SBOX
MS\BH14	11.70	B42	Brown silty SAND.	MC PSD
MS\BH14	14.20	U51	Stiff brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI OED
MS\BH14	15.05	U54	Very high strength brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI UUT
MS\BH14	15.60	J56	Laminated brown CLAY of intermediate plasticity.	MC PI ORG LOI
MS\BH14	16.62	U59	Very high strength brown slightly sandy slightly gravelly CLAY of low to intermediate plasticity.	MC PI UUT
MS\BH14	16.95	J60	Brown slightly sandy slightly gravelly CLAY.	CL BRE LOI
MS\BH15	1.25	B6	MADE GROUND (Brown slightly sandy slightly gravelly clay of intermediate plasticity. Gravel includes brick and tile fragments).	MC PI PSD SED CP2
MS\BH15	2.20	B10	MADE GROUND (Brown clayey very sandy gravel incliuding slag and brick fragments with a high cobble content).	Density PSD PD US for CP2

Contract Title :- Preliminary Onshore Ground Investigation for NZT

Client :- AECOM

Signed :- [redacted]

Name :- M. SELKIRK

Date of issue :- 18/10/2021

Certificate No :- SD/4339/12

AEG Contract No. :- 4339

UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED
Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG - Tel: 0191 387 4700 Fax: 0191 387 4710
Regional Office: Unit 20, Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL - Tel: 01772 735 300 Fax: 01772 735 999

LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
MS\BH15	4.20	B17	MADE GROUND (Brown grey sandy gravel of slag with a high cobble content).	PSD US for CP2
MS\BH15	7.50	J29	Light brown slightly gravelly SAND.	CL BRE
MS\BH15	7.95	B30	Brown SAND with shell fragments.	MC PSD SBOX
MS\BH15	14.00	J52	Grey brown slightly sandy CLAY of low plasticity with occasional sand pockets.	MC PI ORG LOI
MS\BH15	14.70	UT1	Firm brown slightly sandy CLAY of low plasticity.	MC PI ORG LOI OED IS for UUT
MS\BH15	15.00	J59	Fissured brown CLAY of high plasticity with sand dustings.	MC PI
MS\BH15	16.00	J65	Brown silty CLAY of high plasticity.	MC PI
MS\BH15	17.70	UT2	High strength laminated brown CLAY of high plasticity with silt dustings on laminae.	MC PI OED UUT
MS\BH15	18.00	J75	Red brown slightly sandy slightly gravelly CLAY.	CL BRE
MS\BH15	19.50	J80	Friable dark grey slightly sandy slightly gravelly CLAY of low plasticity.	MC PI
MS\BH16	0.10	J2	MADE GROUND (Friable light brown sandy gravelly clay with rootlets).	ORG LOI
MS\BH16	2.00	J11	MADE GROUND (Brown slightly sandy slightly gravelly clay of intermediate plasticity).	MC PI
MS\BH16	2.50	J13	MADE GROUND (Brown slightly sandy slightly gravelly clay of intermediate plasticity).	MC PI CL BRE
MS\BH16	2.50	B14	MADE GROUND (Brown slightly sandy slightly gravelly clay. Gravel includes glass fragments).	CP2
MS\BH16	5.00	J22	Grey brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI
MS\BH16	5.65	J27	Dark brown organic sandy SILT of extremely high plasticity with rootlets.	MC PI ORG LOI
MS\BH16	5.90	B30	Dark grey sandy SILT with shell fragments and organic matter.	MC PI(NP) PSD SED ORG LOI SBOX
MS\BH16	10.20	B44	Brown silty SAND with shell fragments.	MC PI(NP) Density PSD PD ORG LOI
MS\BH16	13.50	J57	Brown slightly sandy CLAY of high plasticity.	MC PI
MS\BH16	14.70	UT1	High strength brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI LOI OED UUT
MS\BH16	18.00	J76	Brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI CL BRE

Contract Title :- Preliminary Onshore Ground Investigation for NZT	Client :- AECOM

Signed :- [redacted]	Name :- M. SELKIRK		UKAS TESTING 1367
Date of issue :- 18/10/2021	Certificate No :- SD/4339/13	AEG Contract No. :- 4339	

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LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
MS\BH17	0.50	B4	MADE GROUND (Brown sandy slightly gravelly clay of low to intermediate plasticity. Gravel includes brick, glass and slag).	MC PI Density PSD SED PD IS for CP2
MS\BH17	1.00	J7	MADE GROUND (Brown slightly sandy slightly gravelly clay).	CL BRE
MS\BH17	1.20	B8	MADE GROUND (Brown slightly sandy slightly gravelly clay).	CP2
MS\BH17	5.00	J21	MADE GROUND (Brown gravelly sand).	CL BRE
MS\BH17	5.20	B22	MADE GROUND (Brown slightly silty sandy gravel and cobbles of slag).	Density PSD PD
MS\BH17	6.20	B26	MADE GROUND (Dark grey slightly silty sandy gravel and cobbles of brick, glass and metal with pockets of silt of intermediate plasticity).	MC PI PSD ORG LOI
MS\BH17	7.95	B31	Brown silty SAND with shell fragments.	MC PSD SBOX
MS\BH17	10.50	J41	Brown slightly sandy CLAY/SILT of low plasticity.	MC PI ORG LOI
MS\BH17	14.50	J47	Brown sandy CLAY.	CL ORG LOI BRE
MS\BH17	14.70	UT1	Low strength brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI UUT
MS\BH17	15.50	J52	Brown slightly sandy CLAY of intermediate plasticity.	MC PI CL BRE
MS\BH17	17.70	UT2	Very high strength brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI LOI OED UUT
MS\BH17	18.50	J63	Brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI CL BRE
MS\BH17	20.00	J68	Light grey GRAVEL of weathered mudstone.	MC
MS\TP01	0.40	B3	MADE GROUND (Brown gravelly sand. Gravel includes clinker and slag).	MC CP2 CPV CBR MCV
MS\TP01	1.40	B8	MADE GROUND (Brown clayey/silty very sandy gravel including slag, nails, wire and metal).	Density PSD PD
MS\TP01	2.20	J12	MADE GROUND (Brown sandy gravel of slag).	CL BRE
MS\TP01	2.40	B13	MADE GROUND (Brown sandy gravel including metal and slag).	MC CP2
MS\TP01	3.40	B17	Brown gravelly SAND.	MC CP2 CPV CBR MCV
MS\TP01	4.20	J21	Brown slightly gravelly SAND.	CL BRE
MS\TP01	4.40	B22	Brown slightly clayey gravelly SAND with pockets of clay.	MC PSD

Contract Title :- Preliminary Onshore Ground Investigation for NZT	Client :- AECOM
Signed :- [redacted]	Name :- M. SELKIRK
Date of issue :- 18/10/2021	Certificate No :- SD/4339/14
AEG Contract No. :- 4339	UKAS TESTING 1367

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LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
MS\TP03	0.40	B3	MADE GROUND (Grey slightly sandy gravel and cobbles of slag).	US for Density CP2 CPV CBR MCV
MS\TP03	1.40	B8	MADE GROUND (Brown slightly sandy gravel of slag).	MC PSD
MS\TP03	2.20	J12	MADE GROUND (Brown slightly sandy gravel of slag).	CL BRE
MS\TP03	2.40	B13	MADE GROUND (Grey gravel and cobbles of slag).	PSD US for CP2
MS\TP04	0.40	B3	MADE GROUND (Brown slightly sandy gravel of slag).	MC US for CP2 MCV
MS\TP04	1.40	B8	MADE GROUND (Grey slightly sandy gravel of slag with a medium cobble content).	Density PSD PD
MS\TP04	2.40	B12	MADE GROUND (Grey slightly sandy gravel and cobbles of slag).	US for CP2
MS\TP04	2.70	J14	MADE GROUND (Grey slightly sandy gravel including slag).	CL BRE
MS\TP04	3.40	B17	MADE GROUND (Grey slightly sandy gravel of slag).	US for CP2
MS\TP04	4.40	B21	MADE GROUND (Grey slightly sandy gravel of slag with a medium cobble content).	MC PSD
MS\TP05	0.40	B3	MADE GROUND (Red brown slightly clayey gravelly sand with clay pockets. Gravel includes brick and slag).	CP2 CBR MCV IS for CPV
MS\TP05	0.70	J5	MADE GROUND (Brown sandy gravel including brick and tile fragments).	CL BRE
MS\TP05	1.40	B9	MADE GROUND (Brown clayey very sandy gravel including clinker, ash, brick and slag).	MC PSD SED
MS\TP05	2.70	J14	MADE GROUND (Brown sandy gravel of slag).	CL BRE
MS\TP05	3.40	B17	MADE GROUND (Brown silty sandy gravel of slag with a high cobble content).	MC PSD US for CP2
MS\TP05	4.20	J21	MADE GROUND (Brown sandy gravel of slag).	CL BRE
MS\TP06	0.40	B3	MADE GROUND (Brown sandy gravel and cobbles of brick and slag).	MC PSD US for CP2
MS\TP06	3.20	J10	MADE GROUND (Brown slightly sandy gravel of slag).	CL BRE
MS\TP07	0.40	B3	MADE GROUND (Brown clayey sandy gravel of brick, tile and slag with clay pockets).	PSD US for CP2 CPV
MS\TP07	1.70	J9	MADE GROUND (Brown sandy gravel including brick fragments).	CL BRE
MS\TP07	2.20	J12	MADE GROUND (Grey slightly sandy gravel of slag).	CL BRE

Contract Title :- Preliminary Onshore Ground Investigation for NZT

Client :- AECOM

Signed :- [redacted]

Name :- M. SELKIRK

Date of issue :- 18/10/2021

Certificate No :- SD/4339/15

AEG Contract No. :- 4339

UKAS TESTING 1367

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LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
MS\TP07	2.40	B13	MADE GROUND (Red brown and grey slightly sandy gravel of slag).	US for CP2
MS\TP07	3.40	B17	MADE GROUND (Brown and white slightly sandy gravel of slag).	PSD SB
MS\TP09	1.20	J8	MADE GROUND (Brown sandy gravel).	CL BRE
MS\TP09	1.40	B9	MADE GROUND (Dark grey sandy gravel of slag with a high cobble content).	US forCP2
MS\TP09	2.40	B13	MADE GROUND (Grey sandy gravel of brick and slag).	MC PSD
MS\TP09	4.20	J21	MADE GROUND (Brown sandy gravel including brick fragments).	CL BRE
MS\TP09	4.40	B22	MADE GROUND (Brown slightly clayey very sandy gravel of slag with a medium cobble content).	MC PSD US for CP2
MS\TP10	0.20	J1	Brown slightly sandy slightly gravelly CLAY of high plasticity with occasional rootlets.	MC PI
MS\TP10	0.40	LB3	Brown slightly sandy CLAY of high plasticity with occasional rootlets.	MC PI PSD SED

Contract Title :- Preliminary Onshore Ground Investigation for NZT	Client :- AECOM
Signed :- [redacted]	Name :- M. SELKIRK
Date of issue :- 18/10/2021	Certificate No :- SD/4339/16
AEG Contract No. :- 4339	UKAS TESTING 1367

Moisture Content/Plasticity Index and Moisture Content

LABORATORY TESTING ENCLOSURE 2

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MOISTURE CONTENT CERTIFICATE

BS 1377 : Part 2 : Clause 3.2

Exploratory Hole No.	Sample Depth (m)	Sample ID	Specific Depth (m)	Moisture Content (%)	Date Tested	Remarks
LF\BH01	0.30	B8	0.30	8.0	04/08/2021	
LF\BH01	1.20	B10	1.20	8.4	03/08/2021	
LF\BH01	10.20	B33	10.20	21	04/08/2021	
LF\BH02	0.40	B5	0.40	4.0	03/08/2021	
LF\BH02	1.20	B7	1.20	11	29/07/2021	
LF\BH02	9.00	B29	9.00	18	11/08/2021	
LF\BH02	12.45	B40	12.45	23	29/07/2021	
LF\TP01	0.80	B4	0.80	3.7	12/08/2021	
LF\TP01	1.80	B8	1.80	12	09/08/2021	
LF\TP01	2.90	B13	2.90	7.9	06/08/2021	
LF\TP02	0.80	B4	0.80	11	13/08/2021	
LF\TP02	2.80	B9	2.80	14	13/08/2021	
MS\BH02	0.90	B7	0.90	3.1	30/07/2021	
MS\BH02	2.70	B14	2.70	25	29/07/2021	
MS\BH02	3.40	B16	3.40	24	04/08/2021	
MS\BH02	4.95	B21	4.95	19	03/08/2021	
MS\BH02	5.70	B24	5.70	21	24/08/2021	
MS\BH02	7.20	B30	7.20	9.5	04/08/2021	
MS\BH02	10.40	B41	10.40	20	03/08/2021	
MS\BH03	1.75	B13	1.75	24	29/07/2021	

For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Preliminary Onshore Ground Investigation for NZT

Client :- AECOM

Signed :- [redacted]

Name :- M. SELKIRK

Date of issue :- 02/09/2021

Certificate No :- MC/4339/1

AEG Contract No. :- 4339

UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

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MOISTURE CONTENT CERTIFICATE

BS 1377 : Part 2 : Clause 3.2

Exploratory Hole No.	Sample Depth (m)	Sample ID	Specific Depth (m)	Moisture Content (%)	Date Tested	Remarks
MS\BH03	3.45	B18	3.45	23	03/08/2021	
MS\BH03	6.45	B27	6.45	21	11/08/2021	
MS\BH03	7.95	B32	7.95	23	03/08/2021	
MS\BH03	8.70	B35	8.70	22	30/07/2021	
MS\BH04	0.90	U6	0.90	5.5	10/08/2021	
MS\BH04	3.45	B14	3.45	20	13/08/2021	
MS\BH04	5.70	J19	5.70	23	10/08/2021	
MS\BH04	7.95	J25	7.95	20	10/08/2021	
MS\BH04	11.70	J35	11.70	23	17/08/2021	
MS\BH04	12.70	B38	12.70	32	24/08/2021	
MS\BH05	2.70	J5	2.70	0.60	04/08/2021	
MS\BH05	2.70	B6	2.70	1.9	02/08/2021	
MS\BH05	4.20	J7	4.20	17	04/08/2021	
MS\BH05	4.80	J9	4.80	22	29/07/2021	
MS\BH05	5.70	B12	5.70	25	29/07/2021	
MS\BH05	7.20	J15	7.20	21	04/08/2021	
MS\BH05	7.95	B18	7.95	22	03/08/2021	
MS\BH05	9.45	J21	9.45	21	04/08/2021	
MS\BH05	10.95	J25	10.95	21	29/07/2021	
MS\BH05	12.45	B30	12.45	19	03/08/2021	

For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Preliminary Onshore Ground Investigation for NZT	Client :- AECOM

Signed :- [redacted]	Name :- M. SELKIRK	
Date of issue :- 02/09/2021	Certificate No :- MC/4339/2	AEG Contract No. :- 4339

UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

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MOISTURE CONTENT CERTIFICATE

BS 1377 : Part 2 : Clause 3.2

Exploratory Hole No.	Sample Depth (m)	Sample ID	Specific Depth (m)	Moisture Content (%)	Date Tested	Remarks
MS\BH05	21.50	C12	21.55	14	10/08/2021	
MS\BH05	22.00	C13	22.95	21	10/08/2021	
MS\BH05	23.50	C15	23.50	21	10/08/2021	
MS\BH06	1.20	B32	1.20	15	12/08/2021	
MS\BH06	4.90	J15	4.90	11	29/07/2021	
MS\BH06	10.95	J24	10.95	20	05/08/2021	
MS\BH06	12.45	J26	12.45	19	05/08/2021	
MS\BH07	2.00	B4	2.00	1.0	02/08/2021	
MS\BH07	5.70	B11	5.70	21	03/08/2021	
MS\BH07	10.20	B27	10.20	22	30/07/2021	
MS\BH08	1.80	J13	1.80	16	05/08/2021	
MS\BH08	5.70	J19	5.70	7.8	05/08/2021	
MS\BH08	10.20	B34	10.20	22	11/08/2021	
MS\BH08	12.45	J39	12.45	16	29/07/2021	
MS\BH09	4.85	B18	4.85	21	12/08/2021	
MS\BH10	2.70	B9	2.70	2.9	09/08/2021	
MS\BH11	1.20	B11	1.20	12	11/08/2021	
MS\BH11	2.70	B15	2.70	21	11/08/2021	
MS\BH11	20.40	J58	20.40	17	05/08/2021	
MS\BH13	0.15	B7	0.15	9.0	03/08/2021	

For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Preliminary Onshore Ground Investigation for NZT	Client :- AECOM

Signed :- [redacted]	Name :- M. SELKIRK		Page 3 of 4
Date of issue :- 02/09/2021	Certificate No :- MC/4339/3	AEG Contract No. :- 4339	

UKAS TESTING 1367

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MOISTURE CONTENT CERTIFICATE

BS 1377 : Part 2 : Clause 3.2

Exploratory Hole No.	Sample Depth (m)	Sample ID	Specific Depth (m)	Moisture Content (%)	Date Tested	Remarks
MS\BH13	7.20	B27	7.20	26	29/07/2021	
MS\BH14	8.70	B32	8.70	24	30/07/2021	
MS\BH14	11.70	B42	11.70	24	29/07/2021	
MS\BH15	7.95	B30	7.95	22	03/08/2021	
MS\BH17	7.95	B31	7.95	23	30/07/2021	
MS\BH17	20.00	J68	20.00	9.2	29/07/2021	
MS\TP01	0.40	B3	0.40	10	16/08/2021	
MS\TP01	2.40	B13	2.40	12	10/08/2021	
MS\TP01	3.40	B17	3.40	20	17/08/2021	
MS\TP01	4.40	B22	4.40	23	06/08/2021	
MS\TP03	1.40	B8	1.40	5.4	06/08/2021	
MS\TP04	0.40	B3	0.40	5.4	06/08/2021	
MS\TP04	4.40	B21	4.40	13	06/08/2021	
MS\TP05	1.40	B9	1.40	24	12/08/2021	
MS\TP05	3.40	B17	3.40	11	06/08/2021	
MS\TP06	0.40	B3	0.40	5.4	09/08/2021	
MS\TP09	2.40	B13	2.40	14	06/08/2021	
MS\TP09	4.40	B22	4.40	17	09/08/2021	

For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Preliminary Onshore Ground Investigation for NZT	Client :- AECOM

Signed :- [redacted]	Name :- M. SELKIRK	Page 4 of 4
Date of issue :- 03/09/2021	Certificate No :- MC/4339/4	AEG Contract No. :- 4339

UKAS TESTING 1367

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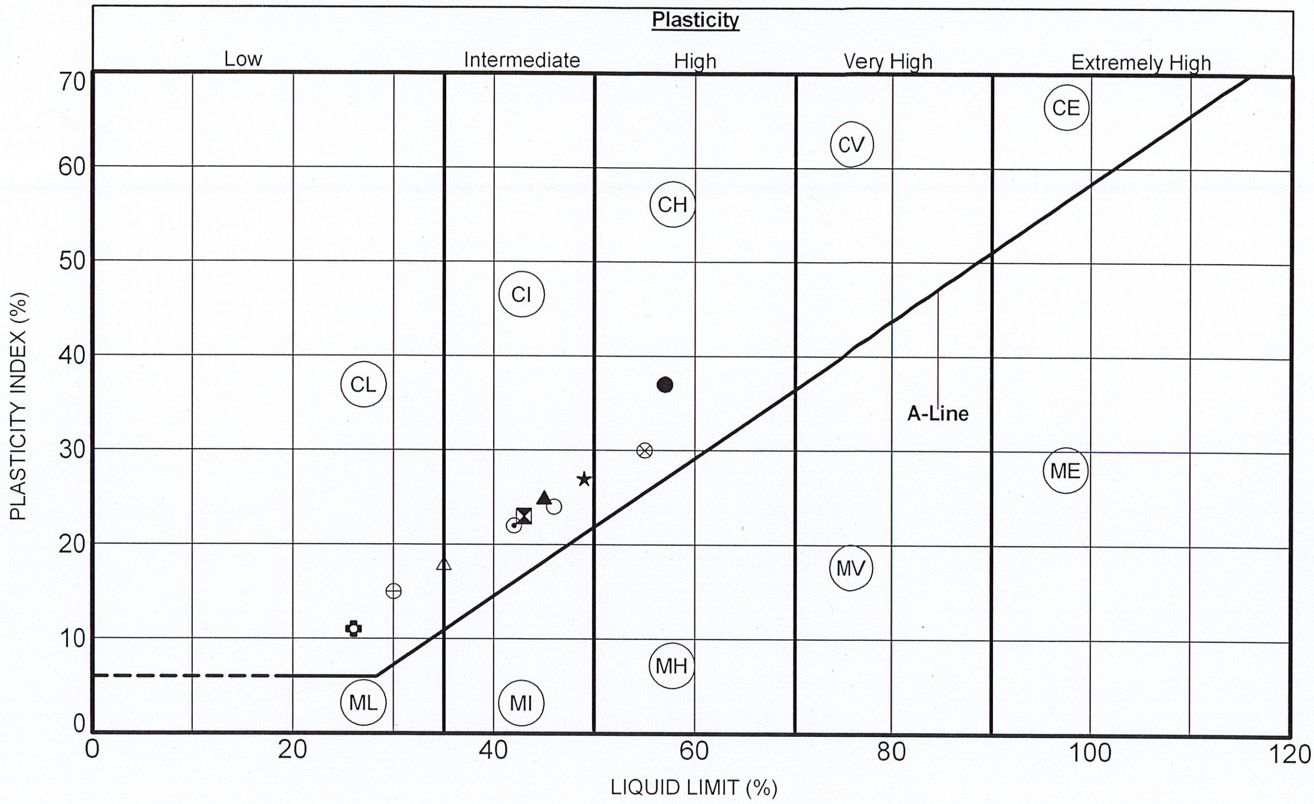
ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method :- BS 1377 : Part 2 : Clause 3.2, 4.1 to 4.4 & 5 : 1990



Exploratory Hole No.	Depth (m)	Sample Type/Ref.	Specific Depth (m)	LL	PL	PI	I_L	Preparation Method	<0.425mm (%)	m/c (%)	Date Tested
●LF\BH01	17.60	U54	17.88	57	20	37	0.38	Natural		34	31/08/2021
⧗LF\BH01	20.75	U59	20.75	43	20	23	0.00	Natural		20	10/08/2021
▲LF\BH01	22.70	U63	22.70	45	20	25	0.08	Natural		22	10/08/2021
★LF\BH01	25.20	J71	25.20	49	22	27	0.70	Natural		41	04/08/2021
⊙LF\BH01	26.60	U74	26.85	42	20	22	-0.09	Natural		18	31/08/2021
✿LF\BH01	28.20	J80	28.20	26	15	11	-0.09	Natural		14	28/07/2021
○LF\BH02	17.40	U53	17.40	46	22	24	0.21	Natural		27	09/09/2021
△LF\BH02	21.00	U61	21.00	35	17	18	0.06	Natural		18	16/08/2021
⊗LF\BH02	25.10	J69	25.10	55	25	30	0.20	Natural		31	04/08/2021
⊕LF\BH02	26.50	U75	26.52	30	15	15	0.00	Natural		15	16/08/2021

For description of sample please refer to the Laboratory Sample Description Sheet. # = Insufficient for 4 point PI
If sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve.

Contract Title :-	Client :-
Preliminary Onshore Ground Investigation for NZT	AECOM

Signed :-	Name :-	Page 1 of 13
[redacted]	M. SELKIRK	
Date of issue :- 22/09/2021	Certificate No :- PI/4339/1	AEG Contract No. :- 4339

UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

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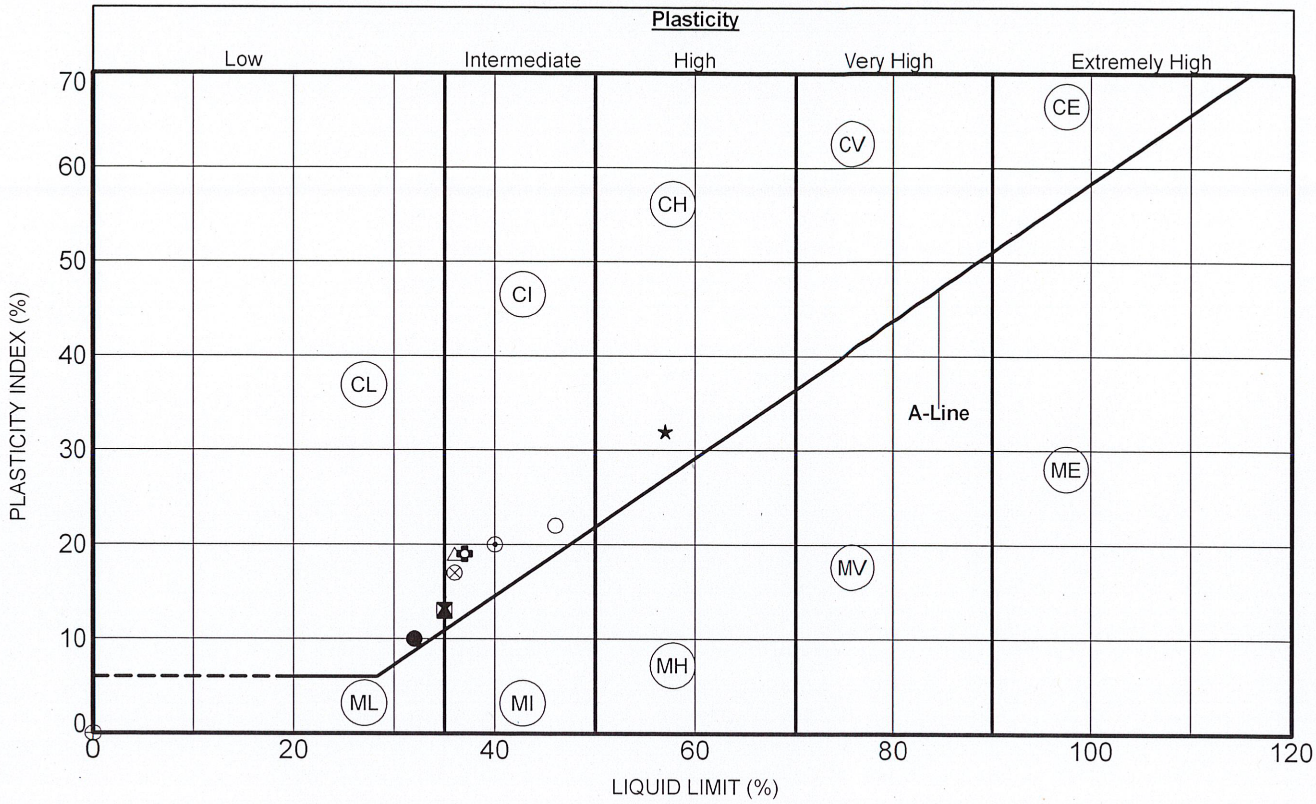
ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method :- BS 1377 : Part 2 : Clause 3.2, 4.1 to 4.4 & 5 : 1990



Exploratory Hole No.	Depth (m)	Sample Type/Ref.	Specific Depth (m)	LL	PL	PI	I_L	Preparation Method	<0.425mm (%)	m/c (%)	Date Tested
● MS\BH02	11.40	B45	11.40	32	22	10	0.60	Natural	99.0	28	29/07/2021
⧗ MS\BH02	11.70	UT1	11.70	35	22	13	0.62	Natural		30	16/08/2021
▲ MS\BH02	13.00	B48	13.00	35	22	13	0.54	Natural	100.0	29	09/08/2021
★ MS\BH02	15.10	B52	15.10	57	25	32	0.44	Natural		39	09/08/2021
⊙ MS\BH02	17.50	B64	17.50	40	20	20	0.05	Natural	94.0	21	09/08/2021
✿ MS\BH02	20.00	B70	20.00	37	18	19	0.26	Natural		23	09/08/2021
○ MS\BH02	21.25	U72	21.25	46	24	22	0.23	Natural		29	12/08/2021
△ MS\BH02	22.20	B75	22.20	36	17	19	0.05	Natural	90.0	18	10/08/2021
⊗ MS\BH02	23.00	U77	23.00	36	19	17	-0.12	Natural		17	18/08/2021
⊕ MS\BH03	9.35	B37	9.35	NP	NP	NP		Natural	90.0	25	11/08/2021

For description of sample please refer to the Laboratory Sample Description Sheet. # = Insufficient for 4 point PI
If sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve.

Contract Title :- Preliminary Onshore Ground Investigation for NZT	Client :- AECOM

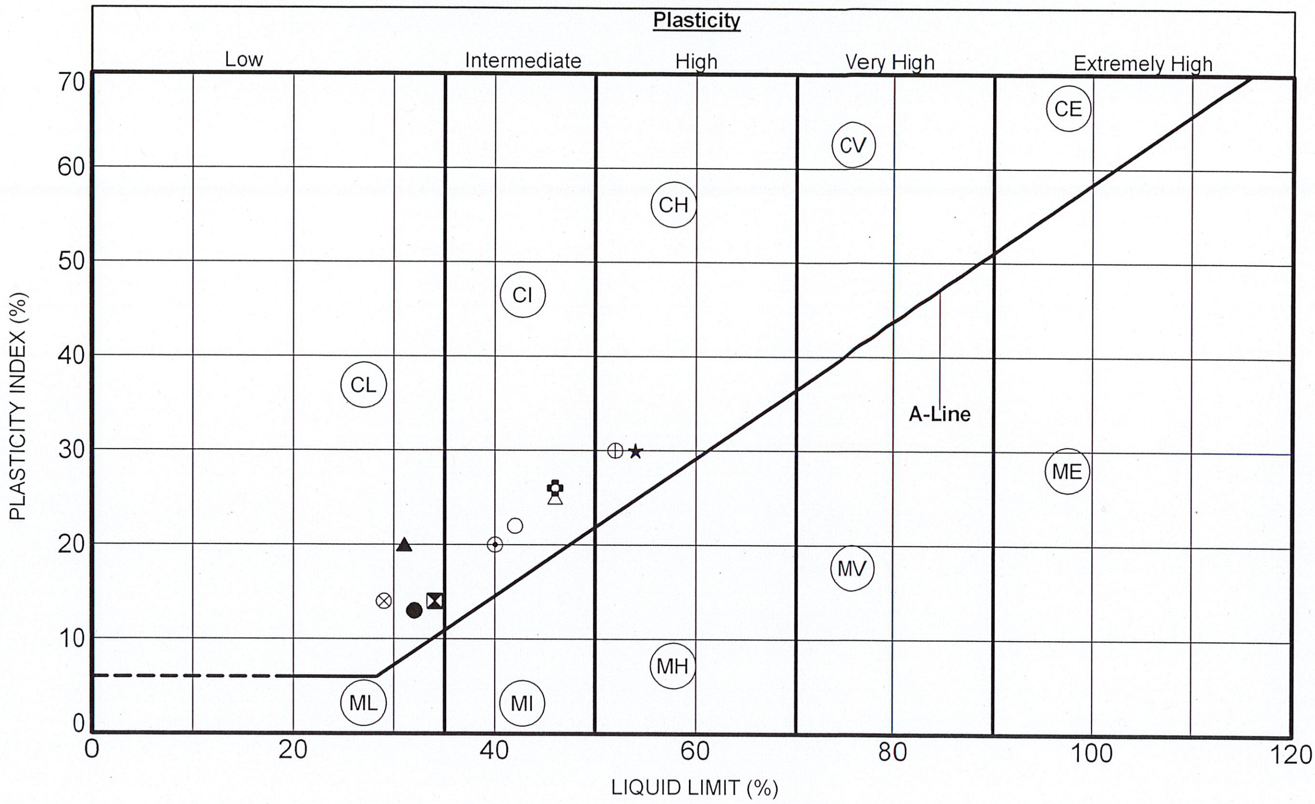
Signed :- [redacted]	Name :- M. SELKIRK	Page 2 of 13	UKAS TESTING 1367
Date of issue :- 22/09/2021	Certificate No :- PI/4339/2	AEG Contract No. :- 4339	

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG - **Tel:** 0191 387 4700 **Fax:** 0191 387 4710
Regional Office: Unit 20, Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL - **Tel:** 01772 735 300 **Fax:** 01772 735 999

ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method :- BS 1377 : Part 2 : Clause 3.2, 4.1 to 4.4 & 5 : 1990



Exploratory Hole No.	Depth (m)	Sample Type/Ref.	Specific Depth (m)	LL	PL	PI	I_L	Preparation Method	<0.425mm (%)	m/c (%)	Date Tested
● MS\BH03	10.50	B42	10.50	32	19	13	0.69	Natural	98.0	28	29/07/2021
⧗ MS\BH03	11.70	UT1	11.70	34	20	14	0.36	Natural		25	09/08/2021
▲ MS\BH03	12.80	J48	12.80	31	11	20	0.80	Natural		27	29/07/2021
★ MS\BH03	14.50	B54	14.50	54	24	30	-0.03	Natural	99.0	23	03/08/2021
⊙ MS\BH03	15.10	J55	15.10	40	20	20	0.10	Natural		22	29/07/2021
✿ MS\BH03	16.10	U60	16.10	46	20	26	0.04	Natural		21	24/08/2021
○ MS\BH03	16.50	B62	16.50	42	20	22	0.09	Natural	93.0	22	02/08/2021
△ MS\BH03	19.10	U70	19.10	46	21	25	0.36	Natural		30	23/08/2021
⊗ MS\BH03	21.20	J76	21.20	29	15	14	0.21	Natural		18	29/07/2021
⊕ MS\BH03	22.90	B81	22.90	52	22	30	0.33	Natural	96.0	32	03/08/2021

For description of sample please refer to the Laboratory Sample Description Sheet. # = Insufficient for 4 point PI
If sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve.

Contract Title :- Preliminary Onshore Ground Investigation for NZT	Client :- AECOM

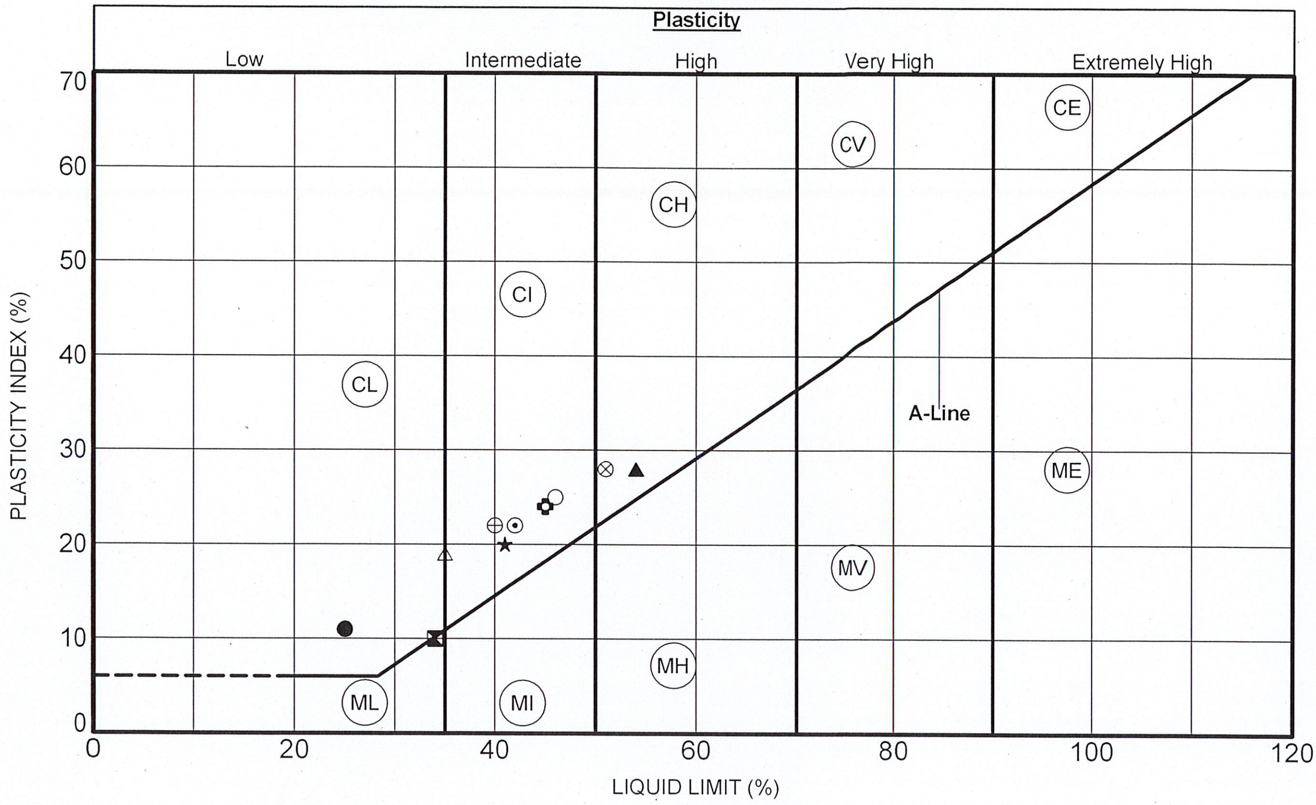
Signed :- [redacted]	Name :- M. SELKIRK	Page 3 of 13	UKAS TESTING 1367
Date of issue :- 22/09/2021	Certificate No :- PI/4339/3	AEG Contract No. :- 4339	

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG - **Tel:** 0191 387 4700 **Fax:** 0191 387 4710
Regional Office: Unit 20, Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL - **Tel:** 01772 735 300 **Fax:** 01772 735 999

ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method :- BS 1377 : Part 2 : Clause 3.2, 4.1 to 4.4 & 5 : 1990



Exploratory Hole No.	Depth (m)	Sample Type/Ref.	Specific Depth (m)	LL	PL	PI	I_L	Preparation Method	<0.425mm (%)	m/c (%)	Date Tested
● MS\BH03	23.50	J4	23.50	25	14	11	-0.59	Natural		7.5	29/07/2021
⧗ MS\BH04	13.20	UT8	13.20	34	24	10	0.30	Natural		27	18/08/2021
▲ MS\BH04	14.85	U41	14.85	54	26	28	0.21	Natural		32	12/08/2021
★ MS\BH04	15.30	B43	15.30	41	21	20	0.00	Natural		21	06/08/2021
⊙ MS\BH04	16.30	U44	16.30	42	20	22	-0.05	Natural		19	18/08/2021
✿ MS\BH04	17.80	U48	17.80	45	21	24	0.17	Natural		25	24/08/2021
○ MS\BH04	20.50	B54	20.50	46	21	25	0.16	Natural		25	06/08/2021
△ MS\BH04	23.80	B62	23.80	35	16	19	0.05	Natural		17	12/08/2021
⊗ MS\BH05	13.95	J33	13.95	51	23	28	0.25	Natural		30	04/08/2021
⊕ MS\BH05	15.00	B36	15.00	40	18	22	0.18	Natural	81.0	22	03/08/2021

For description of sample please refer to the Laboratory Sample Description Sheet. # = Insufficient for 4 point PI
If sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve.

Contract Title :- Preliminary Onshore Ground Investigation for NZT	Client :- AECOM

AEG	Signed :- [redacted]	Name :- M. SELKIRK	
	Date of issue :- 22/09/2021	Certificate No :- PI/4339/4	AEG Contract No. :- 4339

UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG - **Tel:** 0191 387 4700 **Fax:** 0191 387 4710
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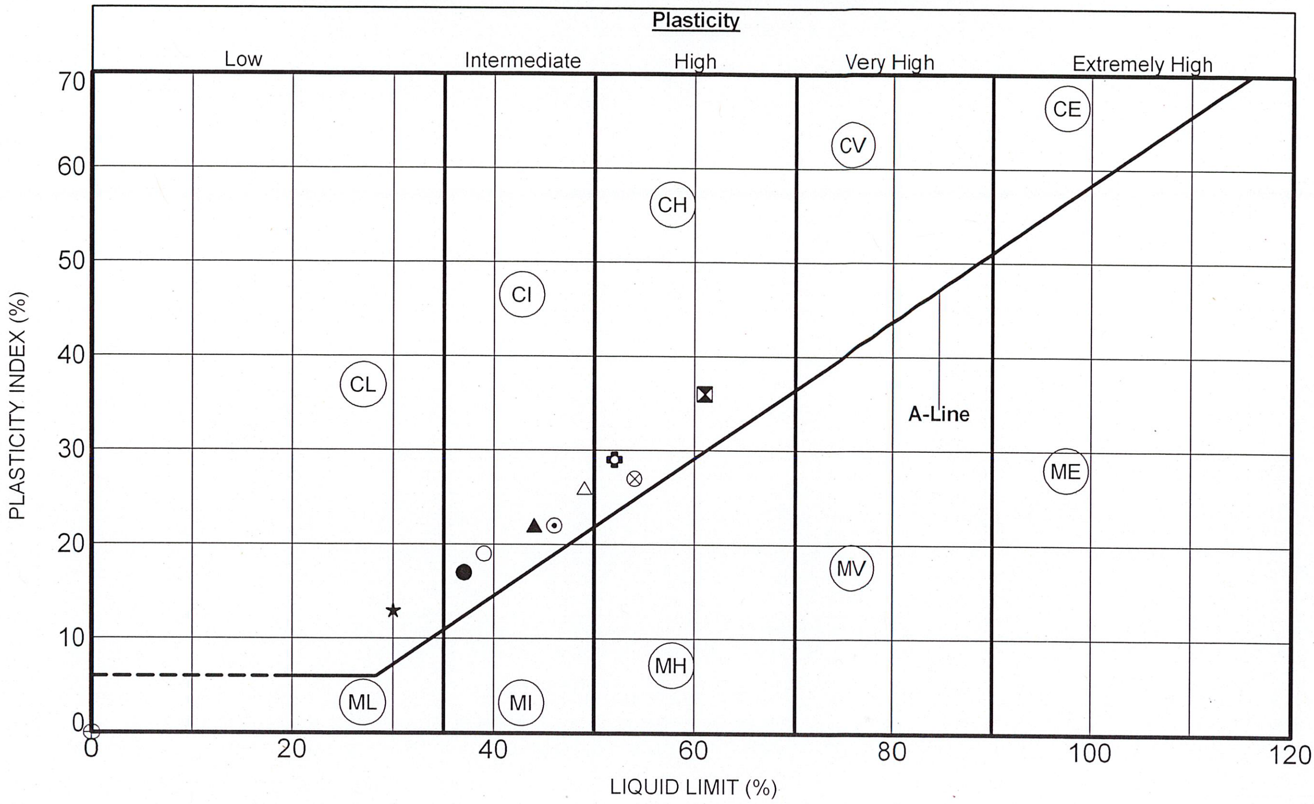
ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method :- BS 1377 : Part 2 : Clause 3.2, 4.1 to 4.4 & 5 : 1990



	Exploratory Hole No.	Depth (m)	Sample Type/Ref.	Specific Depth (m)	LL	PL	PI	I_L	Preparation Method	<0.425mm (%)	m/c (%)	Date Tested
●	MS\BH05	16.00	U1	16.00	37	20	17	0.00	Natural		20	09/08/2021
⧗	MS\BH05	18.30	C7	18.30	61	25	36	0.22	Natural	97.0	33	23/08/2021
▲	MS\BH05	19.80	J41	19.80	44	22	22	0.14	Natural		25	04/08/2021
★	MS\BH06	13.90	J28	13.90	30	17	13	0.46	Natural	97.0	23	04/08/2021
⊙	MS\BH06	14.70	SL11	14.70	46	24	22	0.36	Natural		32	23/08/2021
✿	MS\BH06	16.30	C1	16.85	52	23	29	0.00	Natural		23	25/08/2021
○	MS\BH06	17.30	J1	17.30	39	20	19	0.05	Natural		21	05/08/2021
△	MS\BH06	19.80	J2	19.80	49	23	26	0.31	Natural		31	05/08/2021
⊗	MS\BH07	7.50	J19	7.50	54	27	27	0.41	Natural		38	29/07/2021
⊕	MS\BH07	9.00	J23	9.00	NP	NP	NP		Natural		25	28/07/2021

For description of sample please refer to the Laboratory Sample Description Sheet. # = Insufficient for 4 point PI
If sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve.

Contract Title :- Preliminary Onshore Ground Investigation for NZT	Client :- AECOM

Signed :- [redacted]	Name :- M. SELKIRK		UKAS TESTING 1367
Date of issue :- 22/09/2021	Certificate No :- PI/4339/5	AEG Contract No. :- 4339	

ALLIED EXPLORATION & GEOTECHNICS LIMITED

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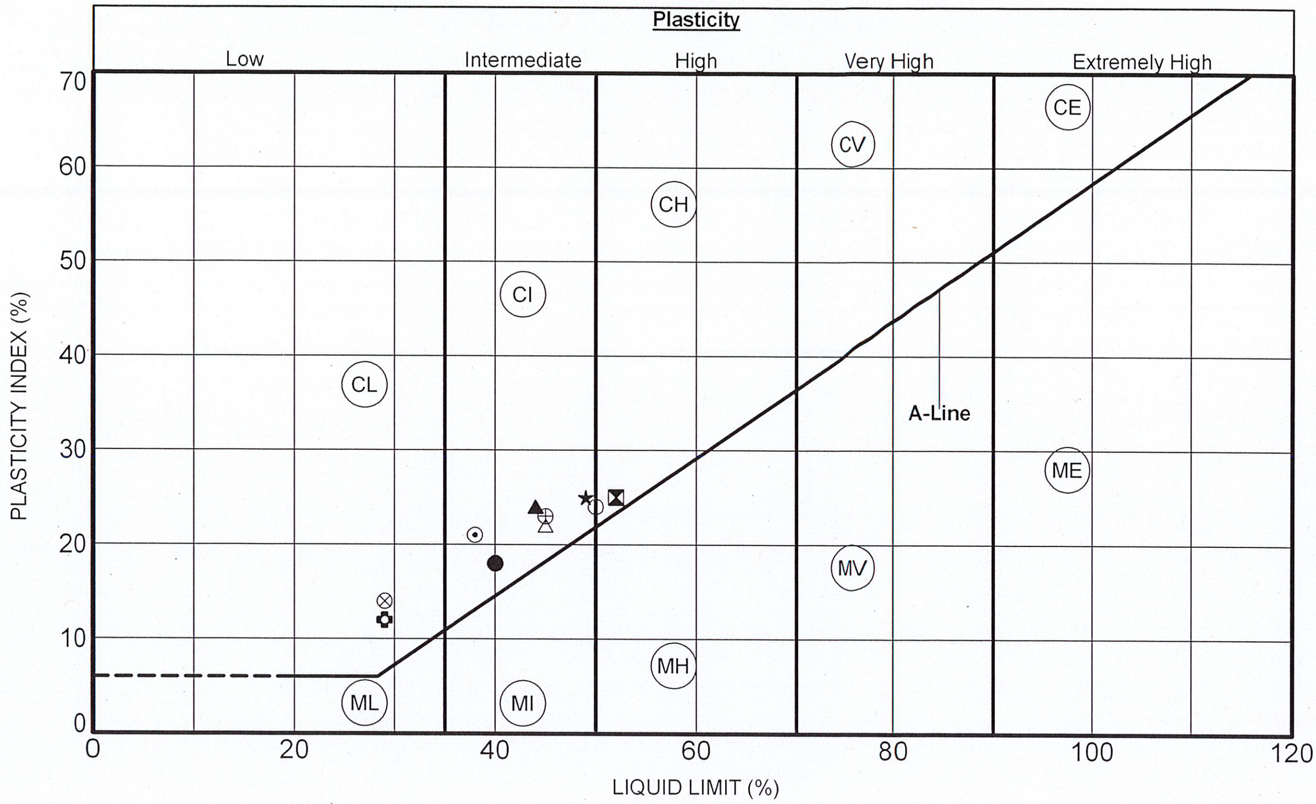
ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method :- BS 1377 : Part 2 : Clause 3.2, 4.1 to 4.4 & 5 : 1990



Exploratory Hole No.	Depth (m)	Sample Type/Ref.	Specific Depth (m)	LL	PL	PI	I_L	Preparation Method	<0.425mm (%)	m/c (%)	Date Tested
● MS\BH07	14.00	J42	14.00	40	22	18	0.56	Natural		32	29/07/2021
⧗ MS\BH07	16.20	UT2	16.20	52	27	25	-0.36	Natural		18	16/08/2021
▲ MS\BH07	17.10	U54	17.10	44	20	24	0.00	Natural		20	12/08/2021
★ MS\BH07	18.10	U59	18.10	49	24	25	-0.16	Natural		20	16/08/2021
⊙ MS\BH07	19.40	U63	19.40	38	17	21	0.14	Natural		20	09/09/2021
✿ MS\BH07	21.90	U69	21.90	29	17	12	-0.25	Natural		14	18/08/2021
○ MS\BH08	8.50	J27	8.50	50	26	24	0.50	Natural		38	28/07/2021
△ MS\BH08	8.70	UT1	8.95	45	23	22	-0.18	Natural		19	06/08/2021
⊗ MS\BH08	14.70	UT2	14.90	29	15	14	0.64	Natural		24	06/08/2021
⊕ MS\BH08	15.20	J49	15.20	45	22	23	0.48	Natural		33	05/08/2021

For description of sample please refer to the Laboratory Sample Description Sheet. # = Insufficient for 4 point PI
If sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve.

Contract Title :- Preliminary Onshore Ground Investigation for NZT	Client :- AECOM

Signed :- [redacted]	Name :- M. SELKIRK	Page 6 of 13	UKAS TESTING 1367
Date of issue :- 22/09/2021	Certificate No :- PI/4339/6	AEG Contract No. :- 4339	