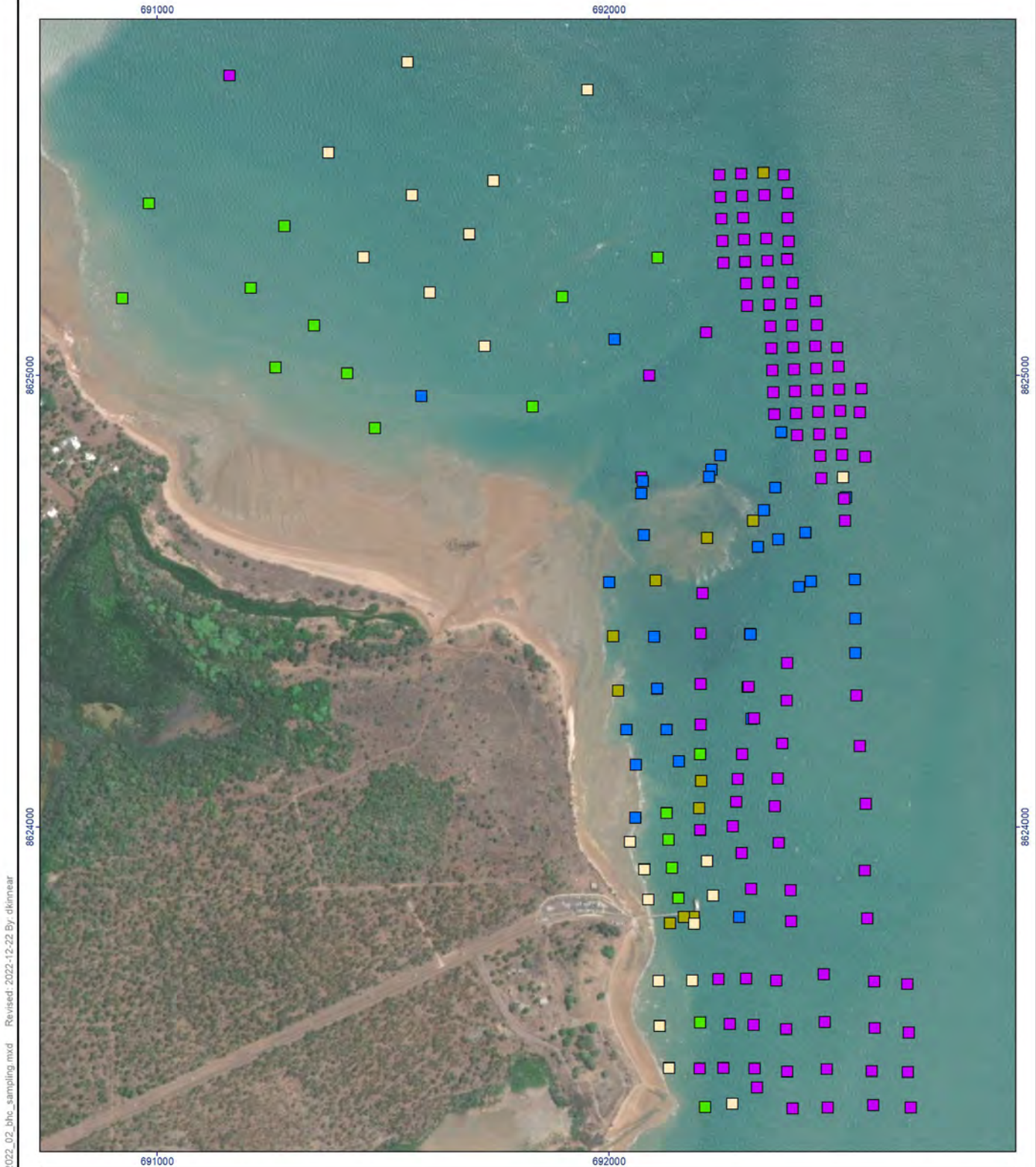

Appendix I - Benthic Community Habitat Ground Truthing Data

Mandorah Marine Facilities: Supplementary Environmental Report

Prepared for DEPARTMENT OF INFRASTRUCTURE, PLANNING AND LOGISTICS

February 2023





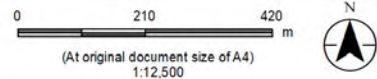
I:\AU2011-PPF\SS01\shared_projects\300003594\gis\mapdocs\mand_ma_2022_02_bhtc_sampling.mxd Revised: 2022-12-22 By: dkinneer



Notes
 1. Coordinate System: GDA 1994 MGA Zone 52
 2. Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2022).
 3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Video Ground-truthing Locations

- Biota Absent
- Coral Biota
- Seagrass
- Mixed Filter Feeders
- Macroalgae



Project Location Stantec Australia Pty Ltd
 Perth, Western Australia

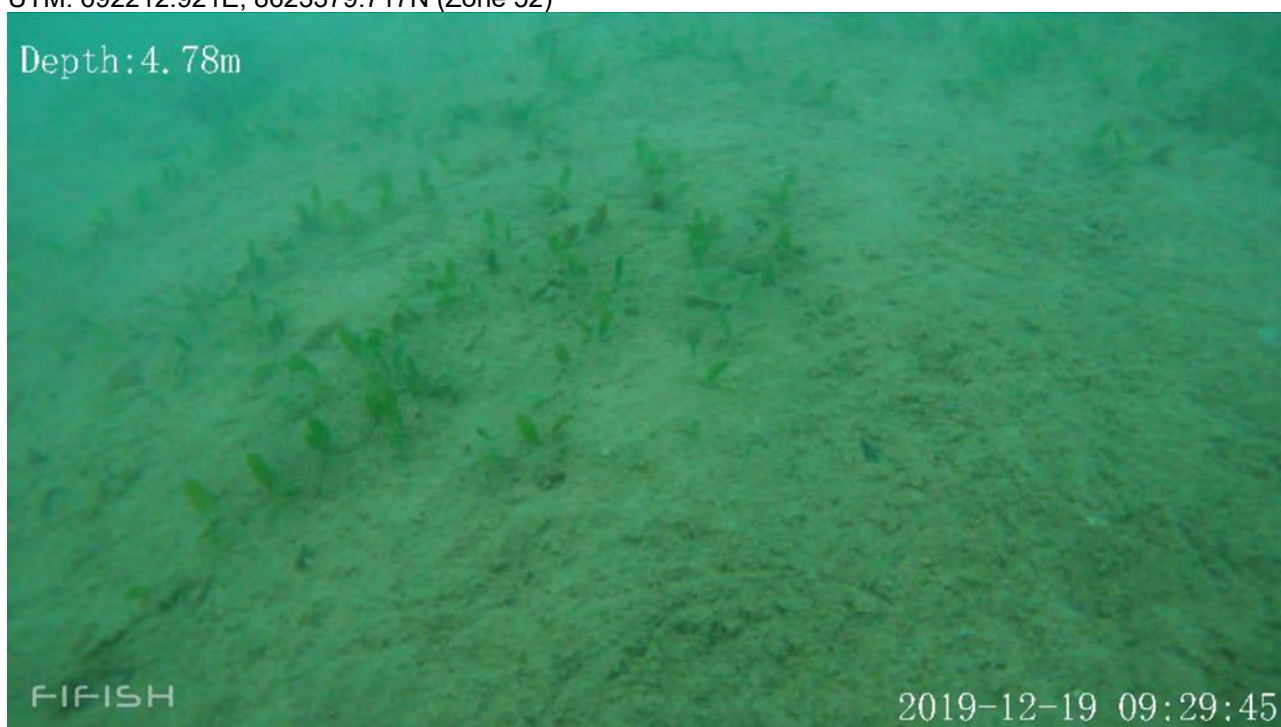
Prepared by DK on 2022-12-14
TR by DK on 2022-12-14
IR Review by AE on 2022-12-14

Client/Project 300003594 REVA
 Department of Infrastructure, Planning and Logistics
 Mandurah Maritime Facility
 Additional Environmental Investigations

Title
Video Ground-truthing Locations

Site: 001
UTM: 692212.921E, 8623379.717N (Zone 52)

Depth: 4.78m



FIFISH

2019-12-19 09:29:45

Site: 002
UTM: 692273.129E, 8623387.06N (Zone 52)

Depth: 14.66m



FIFISH

2019-12-19 09:33:16

Site: 003
UTM: 692328.278E, 8623423.203N (Zone 52)

Depth: 15.72m

FIFISH

2019-12-19 09:37:15

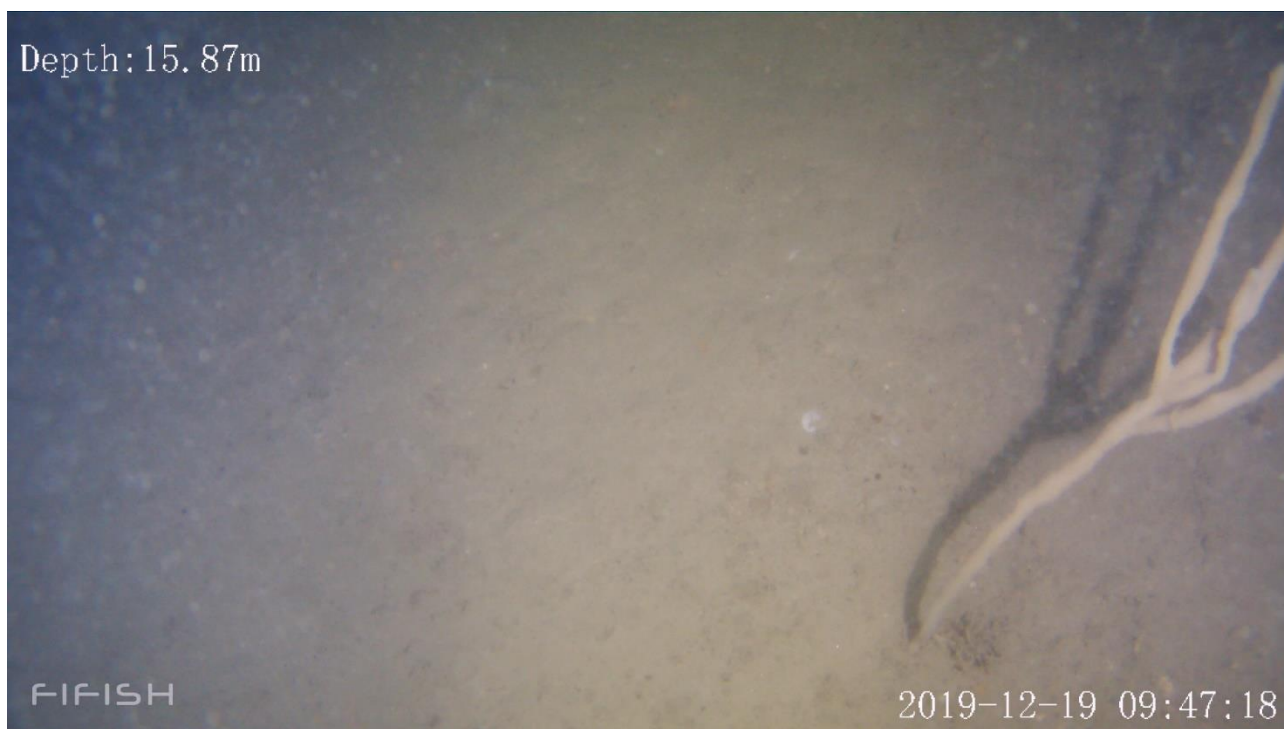
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Depth: 15.40m

FIFISH

2019-12-19 09:42:43

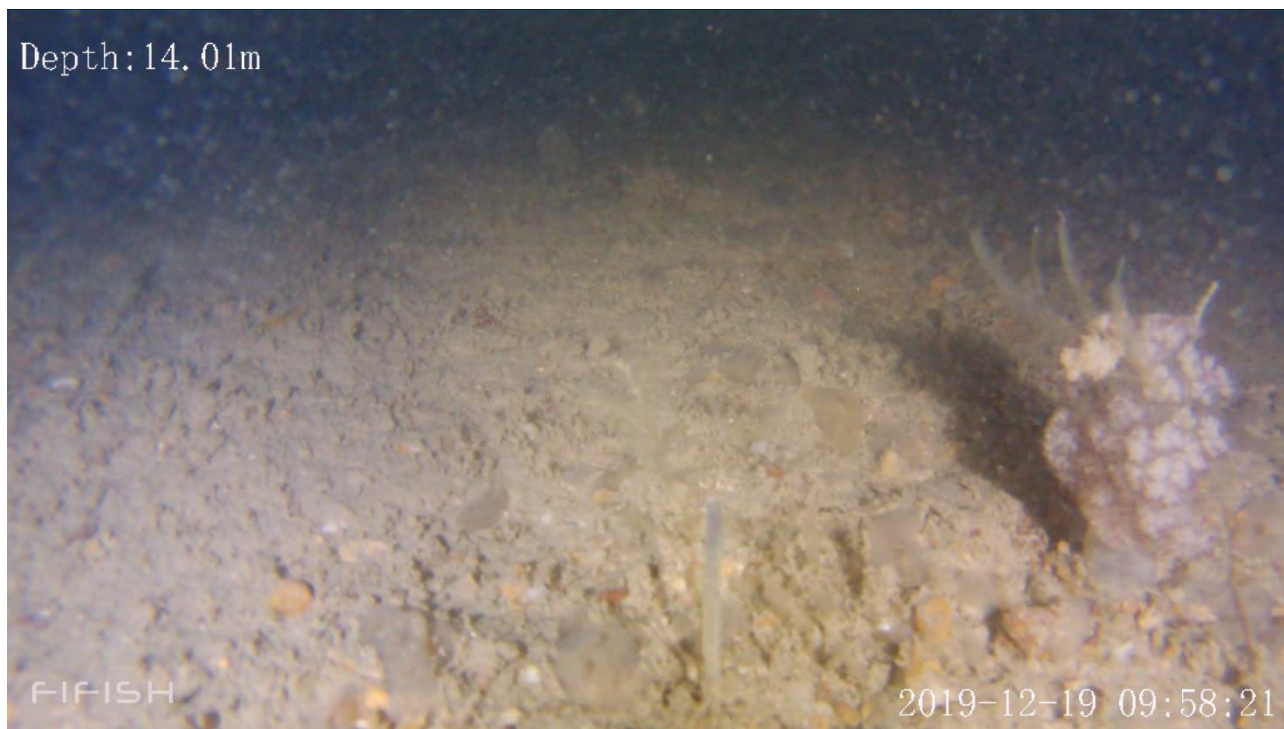
Site: 005
UTM: 692484.005E, 8623378.281N (Zone 52)



Site: 006
UTM: 692585.156E, 8623383.322N (Zone 52)



Site: 007
UTM: 692668.129E, 8623378.713N (Zone 52)



Site:008
UTM: 692661.216E, 8623457.31N (Zone 52)



Site: 009
UTM: 692581.681E, 8623458.947N (Zone 52)

Depth: 16.76m

FIFISH

2019-12-19 10:07:33

Site: 010
UTM: 692482.586E, 8623464.032N (Zone 52)

Depth: 17.80m

FIFISH

2019-12-19 10:12:45

Site: 011
UTM: 692394.475E, 8623457.981N (Zone 52)

Depth: 16.51m



Site:012
UTM: 692322.4E, 8623464.73N (Zone 52)

Depth: 15.63m



Site: 013
UTM: 692253.18E, 8623465.744N (Zone 52)

Depth: 11.71m



Site: 014
UTM: 692200.799E, 8623464.802N (Zone 52)

Depth: 4.79m



Site: 015
UTM: 692132.493E, 8623466.178N (Zone 52)

Depth: 3.20m

FIFISH

2019-12-19 10:31:47

Site: 016
UTM: 692112.263E, 8623558.324N (Zone 52)

Depth: 2.94m

FIFISH

2019-12-19 10:35:22

Site: 017
UTM: 692202.202E, 8623566.207N (Zone 52)



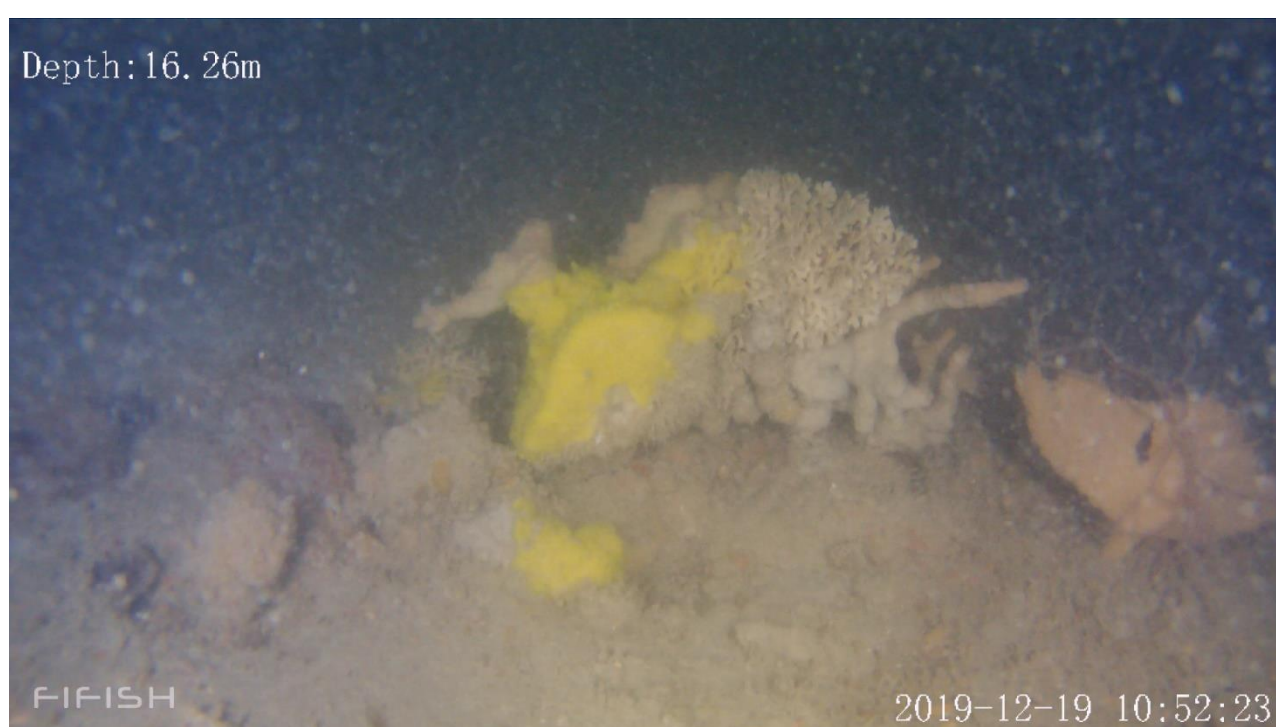
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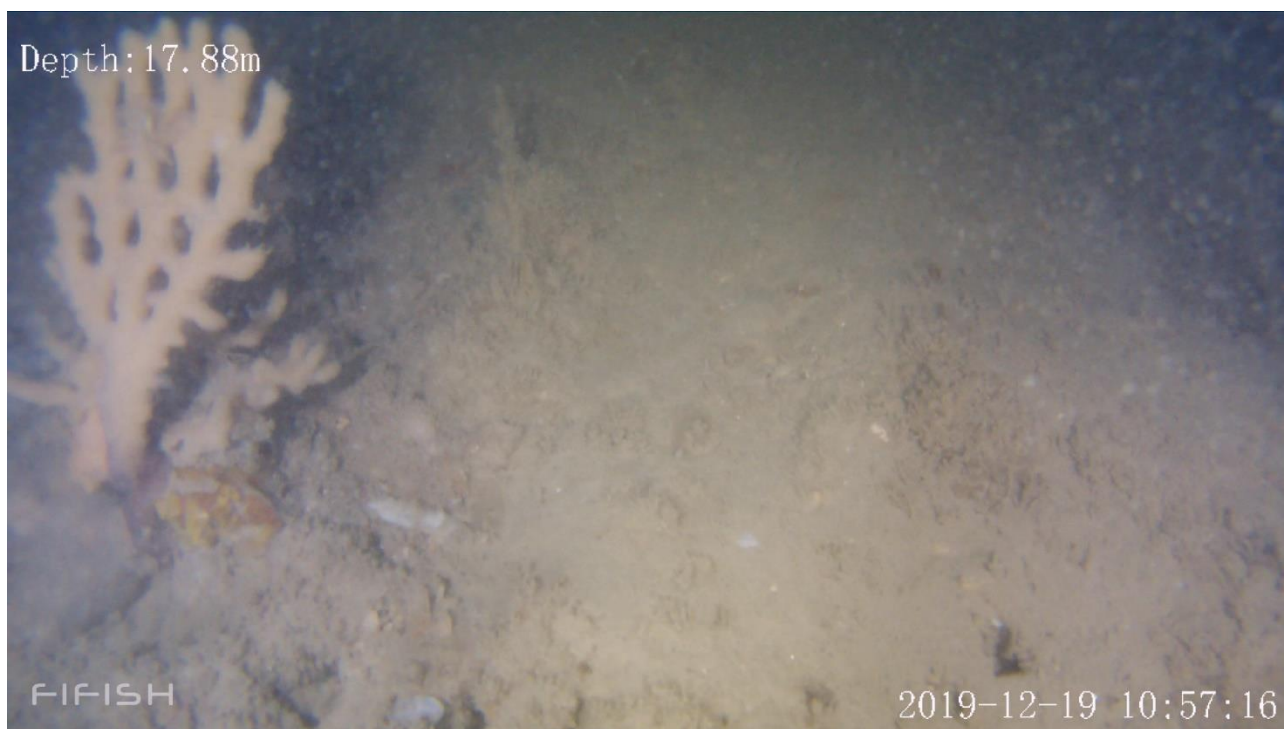
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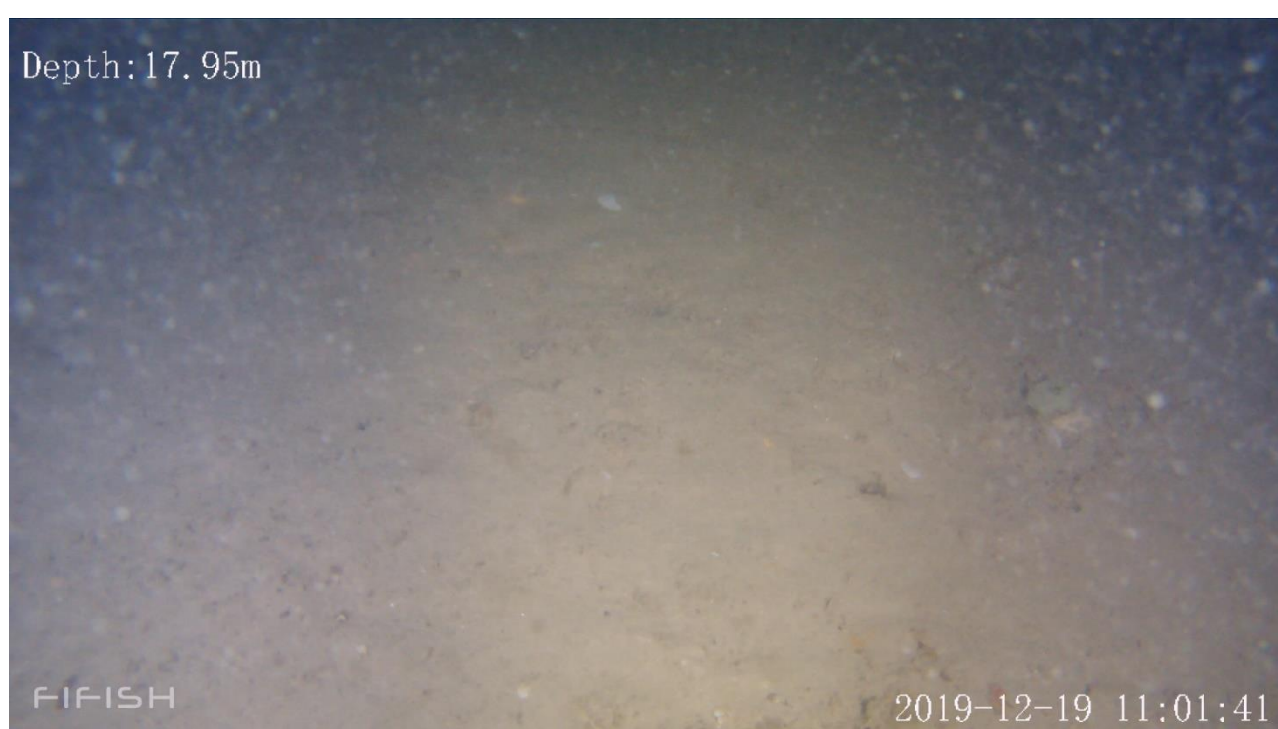
Site:020
UTM: 692391.844E, 8623552.592N (Zone 52)



Site: 021
UTM: 692478.025E, 8623567.69N (Zone 52)



Site:022
UTM: 692588.47E, 8623554.231N (Zone 52)



Site: 023
UTM: 692663.427E, 8623544.327N (Zone 52)

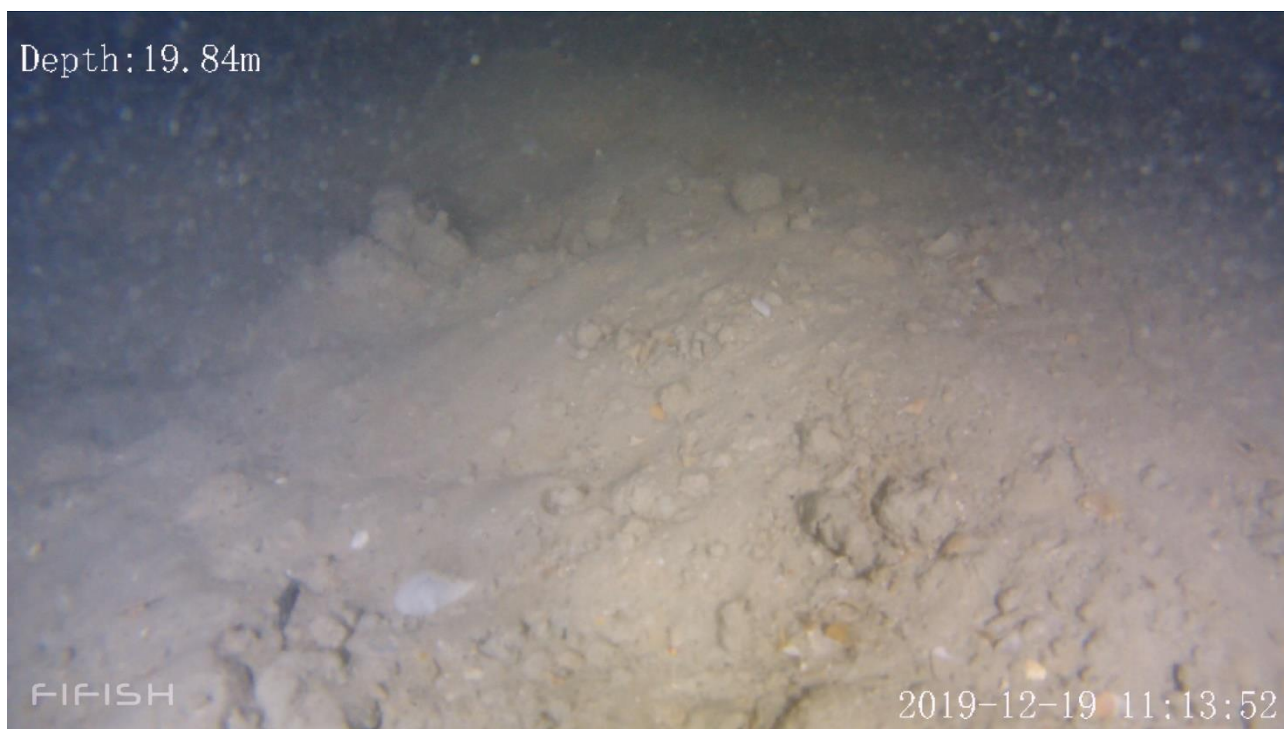


Site:024
UTM: 692660.711E, 8623652.214N (Zone 52)



Site: 025
UTM: 692586.986E, 8623657.869N (Zone 52)

Depth: 19.84m



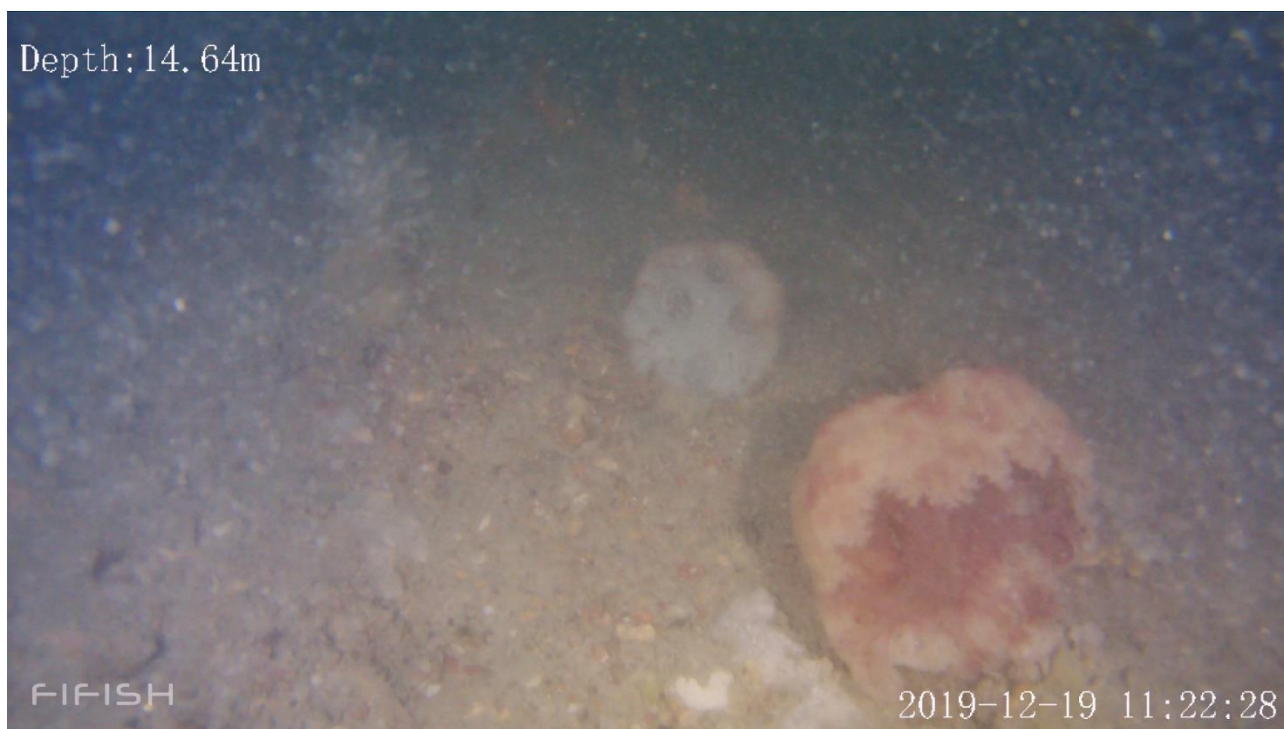
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Depth: 16.09m



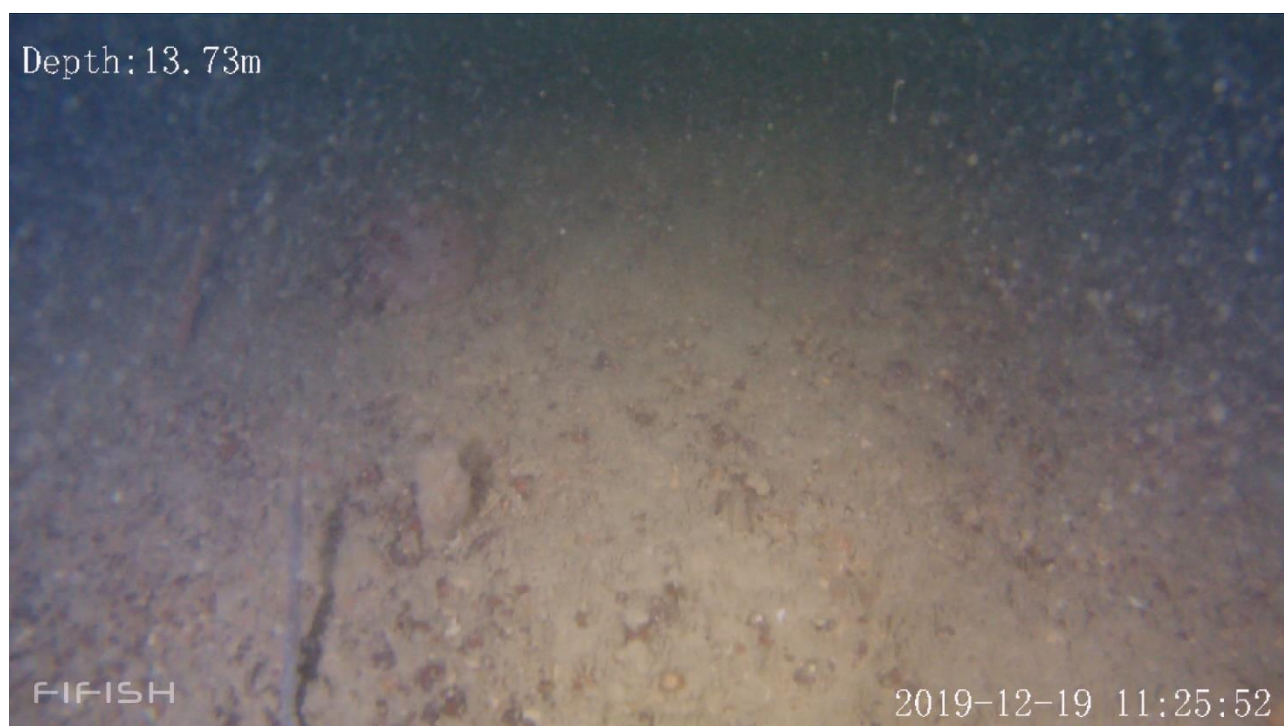
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Depth: 14.64m



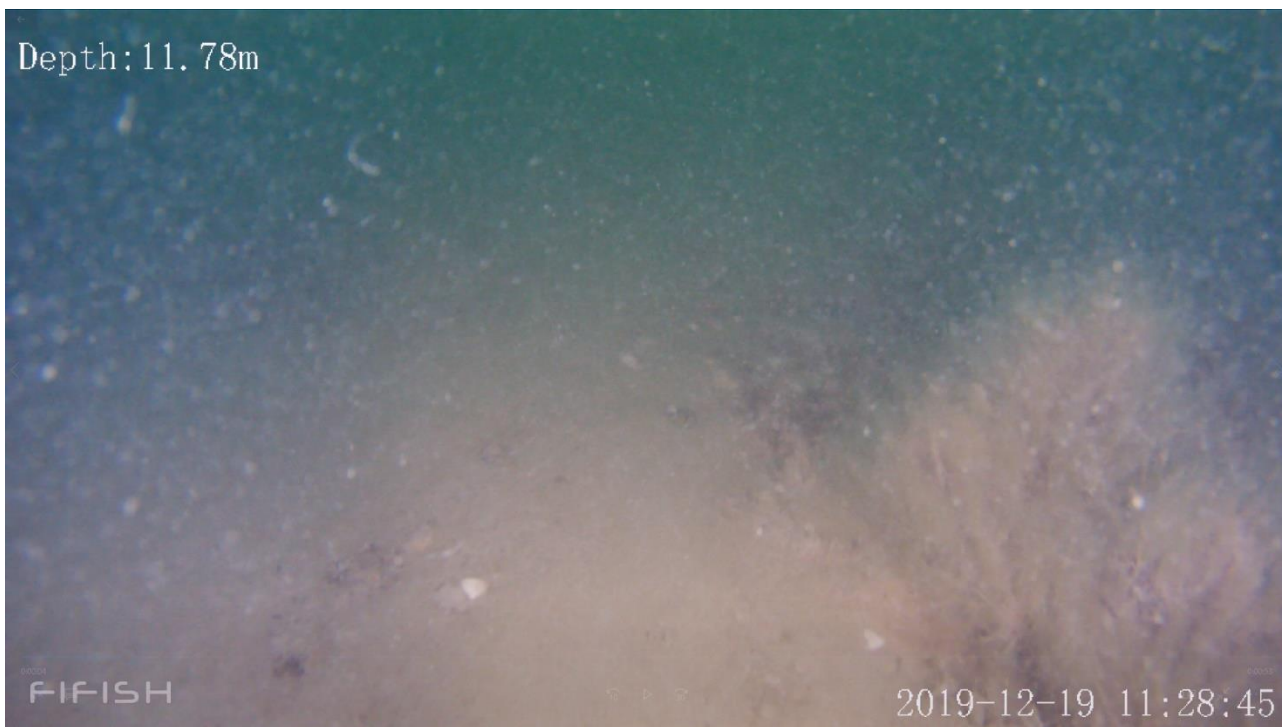
Site: 028
UTM: 692303.427E, 8623663.999N (Zone 52)

Depth: 13.73m



Site: 029
UTM: 692242.345E, 8623662.746N (Zone 52)

Depth: 11.78m



Site: 030
UTM: 692184.154E, 8623659.63N (Zone 52)

Depth: 4.76m



Site: 031
UTM: 692110.033E, 8623657.91N (Zone 52)



Site: 032
UTM: 692087.317E, 8623839.133N (Zone 52)



Site: 033

UTM: 692078.693E, 8623905.94N (Zone 52)



Site: 034

UTM: 692046.48E, 8623967.003N (Zone 52)



Site: 035

UTM: 692131.862E, 8623971.229N (Zone 52)



Site: 036

UTM: 692139.429E, 8623909.039N (Zone 52)



Site: 037

UTM: 692153.845E, 8623841.795N (Zone 52)



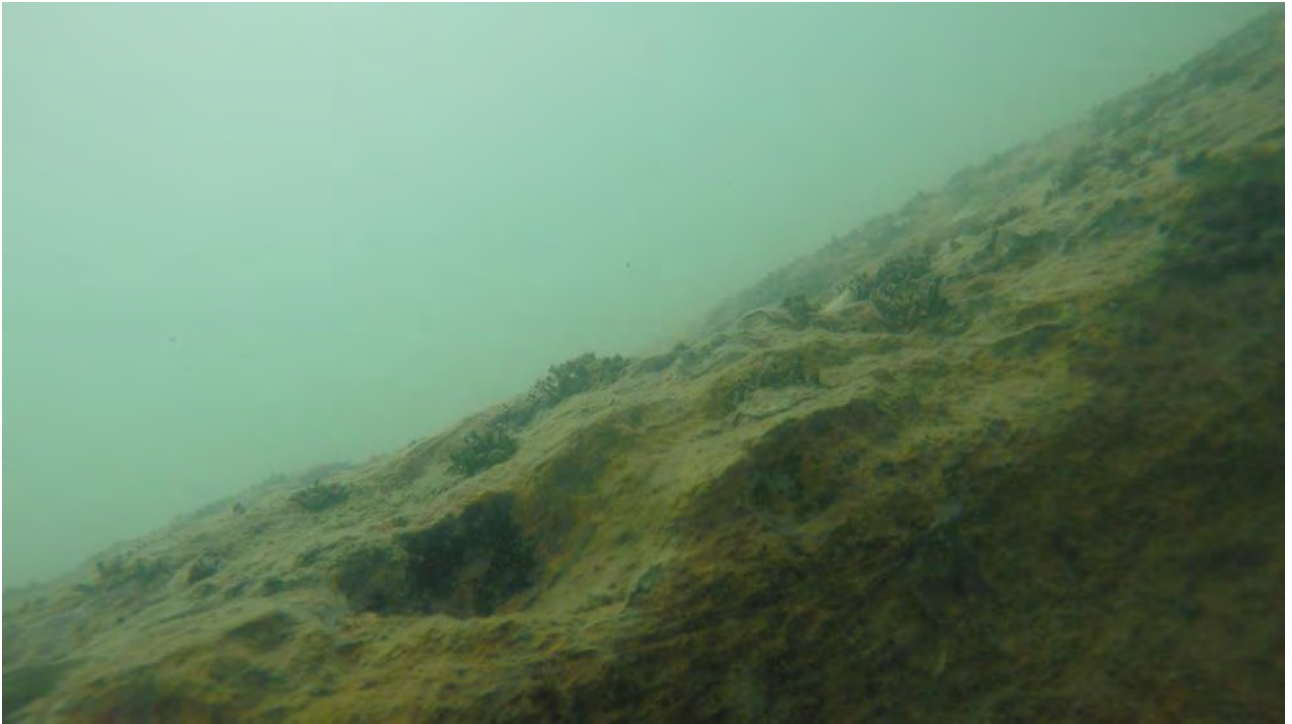
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UTM: 692127.126E, 8624030.852N (Zone 52)



Site: 039

UTM: 692058.98E, 8624020.393N (Zone 52)



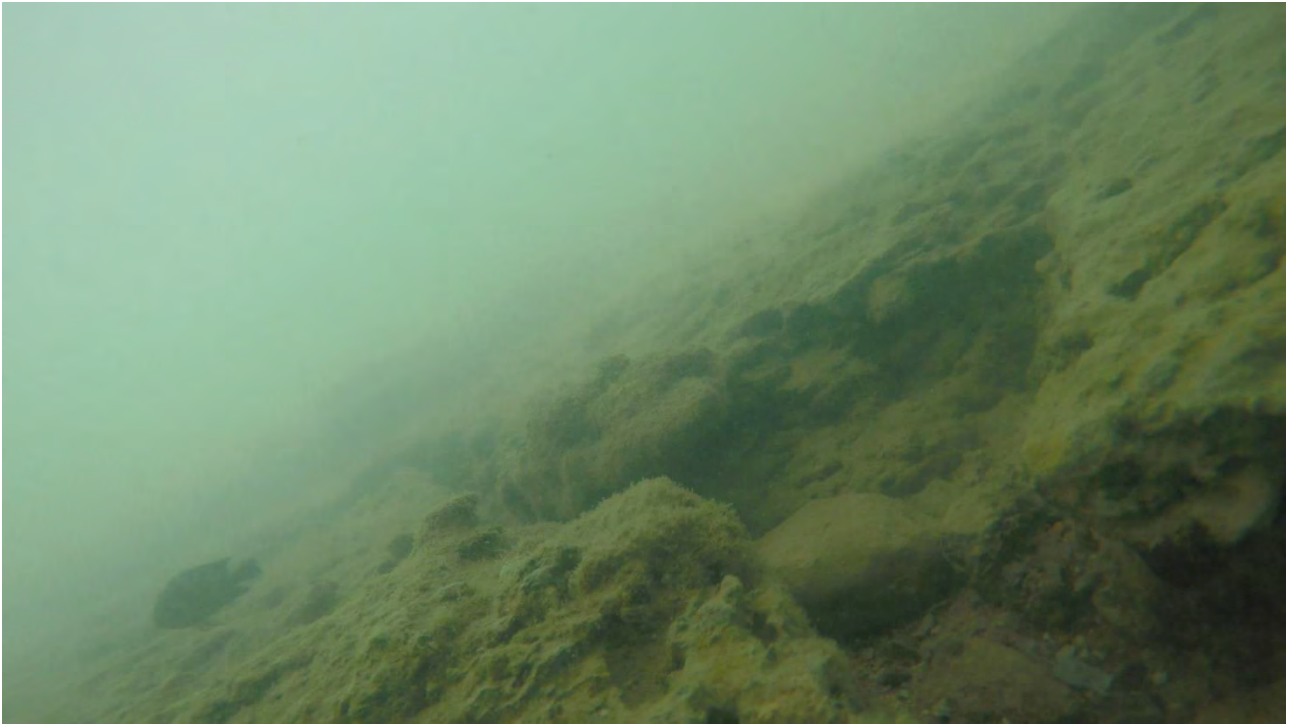
Site: 040

UTM: 692059.403E, 8624138.031N (Zone 52)



Site: 041

UTM: 692038.886E, 8624215.059N (Zone 52)



Site: 042

UTM: 692020.624E, 8624302.581N (Zone 52)



Site: 043

UTM: 692009.648E, 8624422.877N (Zone 52)



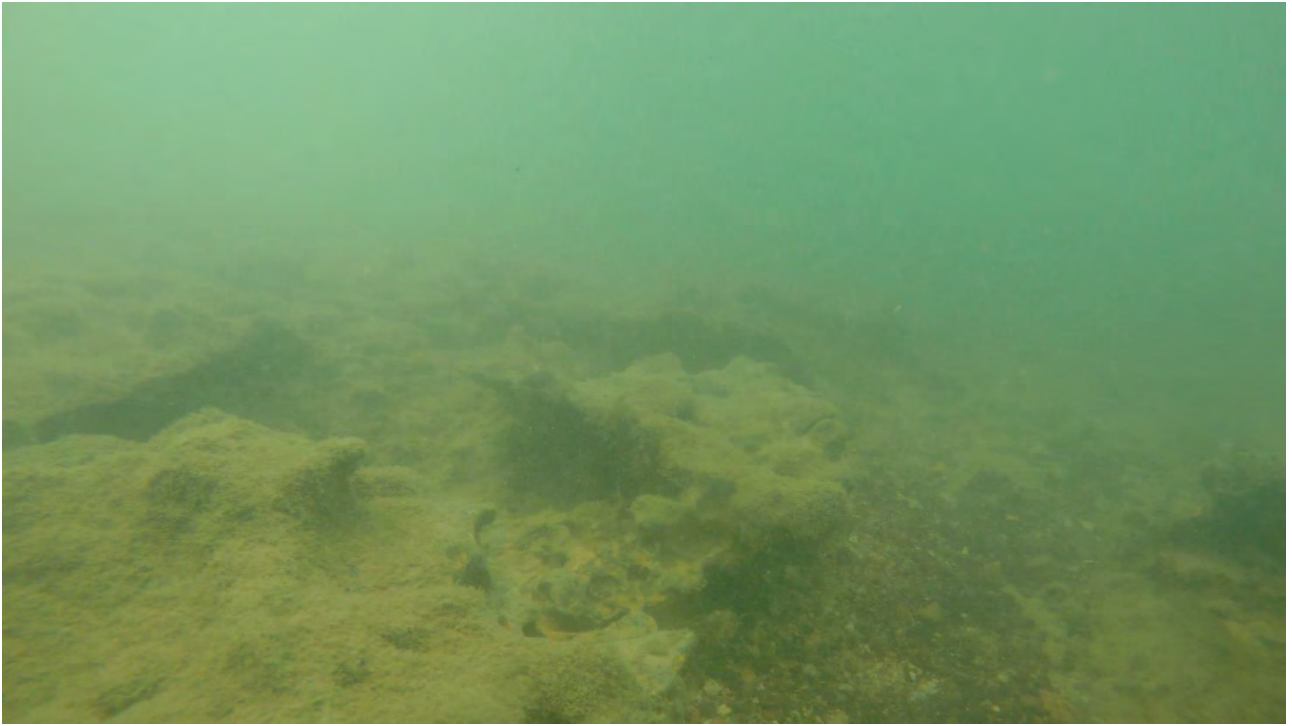
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Site: 045

UTM: 692103.793E, 8624546.347N (Zone 52)



Site:046

UTM: 692100.061E, 8624421.539N (Zone 52)



Site: 047

UTM: 692106.742E, 8624306.123N (Zone 52)



Site: 048

UTM: 692127.506E, 8624215.576N (Zone 52)



Site: 049

UTM: 692155.135E, 8624145.324N (Zone 52)



Site: 050

UTM: 692230.717E, 8623848.321N (Zone 52)



Site: 051
UTM: 692217.635E, 8623924.746N (Zone 52)



Site: 052
UTM: 692201.968E, 8623993.628N (Zone 52)



Site: 053
UTM: 692199.2E, 8624041.773N (Zone 52)



Site:054
UTM: 692203.588E, 8624101.486N (Zone 52)



Site: 055
UTM: 692202.163E, 8624160.315N (Zone 52)



Site:056
UTM: 692202.792E, 8624227.062N (Zone 52)



Site: 057
UTM: 692203.385E, 8624316.302N (Zone 52)



Site: 058
UTM: 692203.233E, 8624429.15N (Zone 52)



Site:059

UTM: 692207.625E, 8624517.26N (Zone 52)



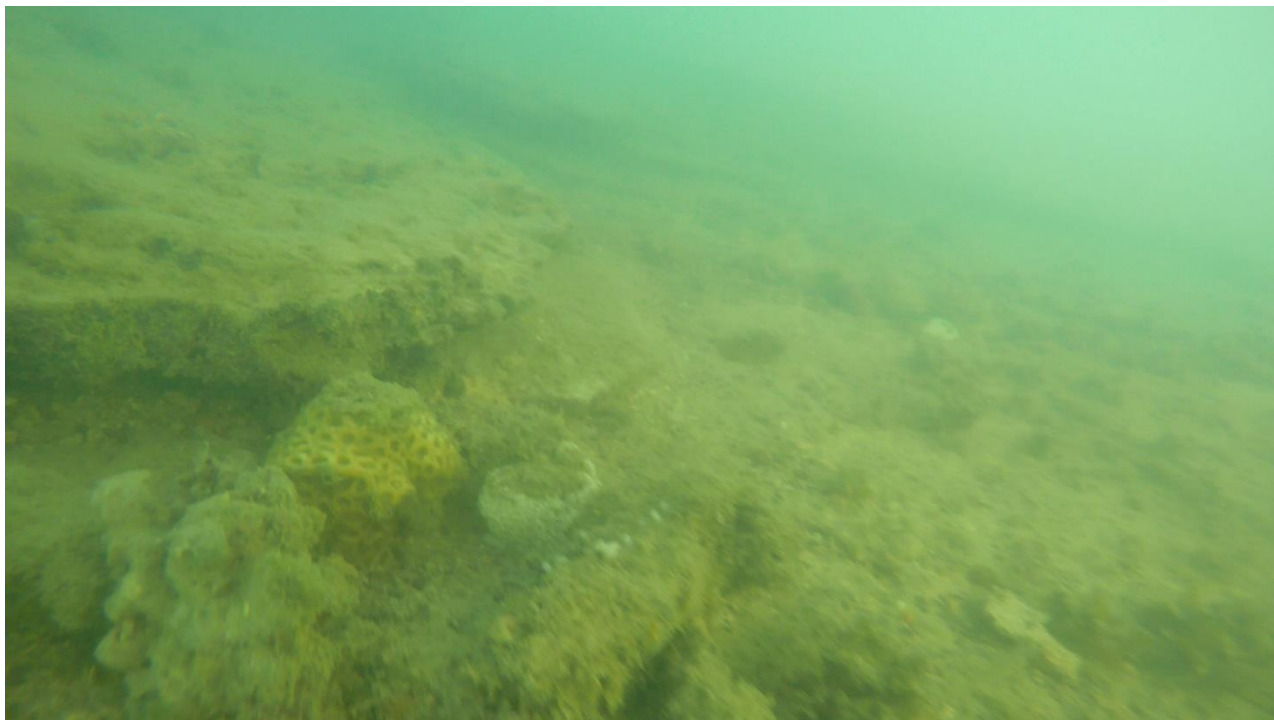
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Site:061

UTM: 692311.96E, 8624428.244N (Zone 52)



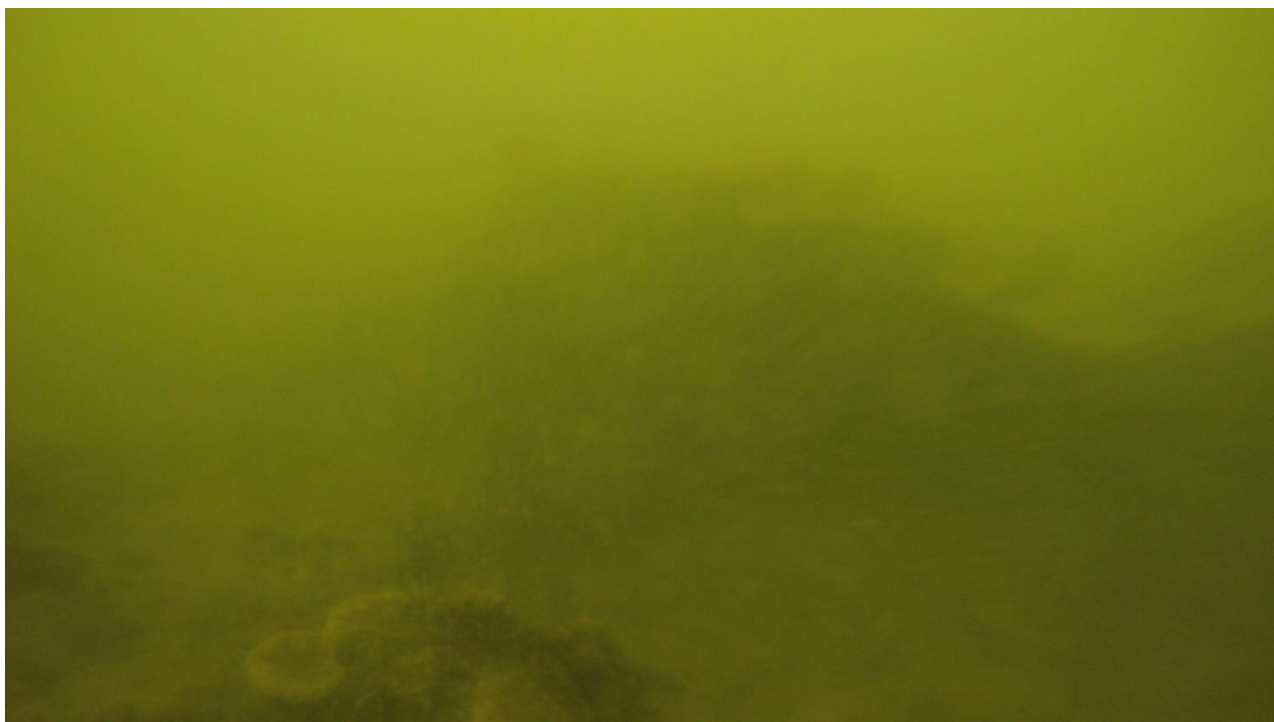
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UTM: 692307.542E, 8624310.078N (Zone 52)



Site:063

UTM: 692315.413E, 8624239.589N (Zone 52)



Site: 064

UTM: 692294.416E, 8624160.993N (Zone 52)



Site:065
UTM: 692285.526E, 8624106.103N (Zone 52)



Site: 066
UTM: 692281.932E, 8624056.158N (Zone 52)



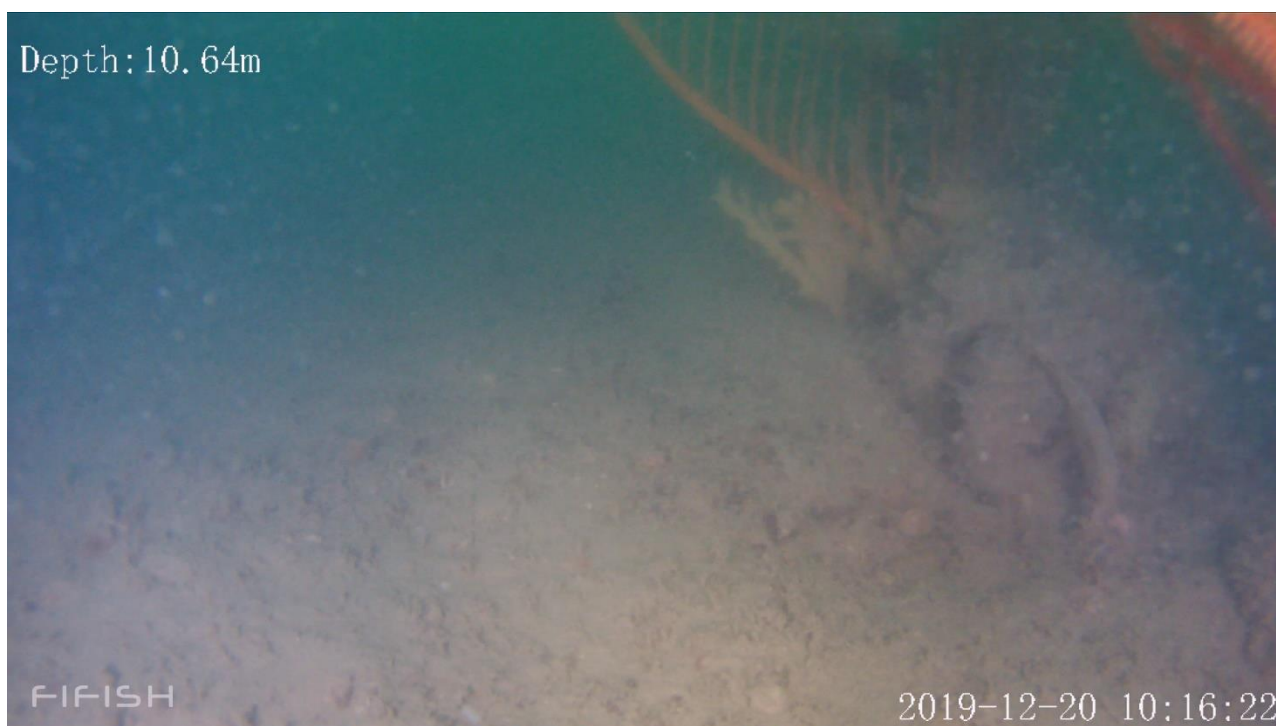
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UTM: 692274.682E, 8624001.072N (Zone 52)



Site: 068

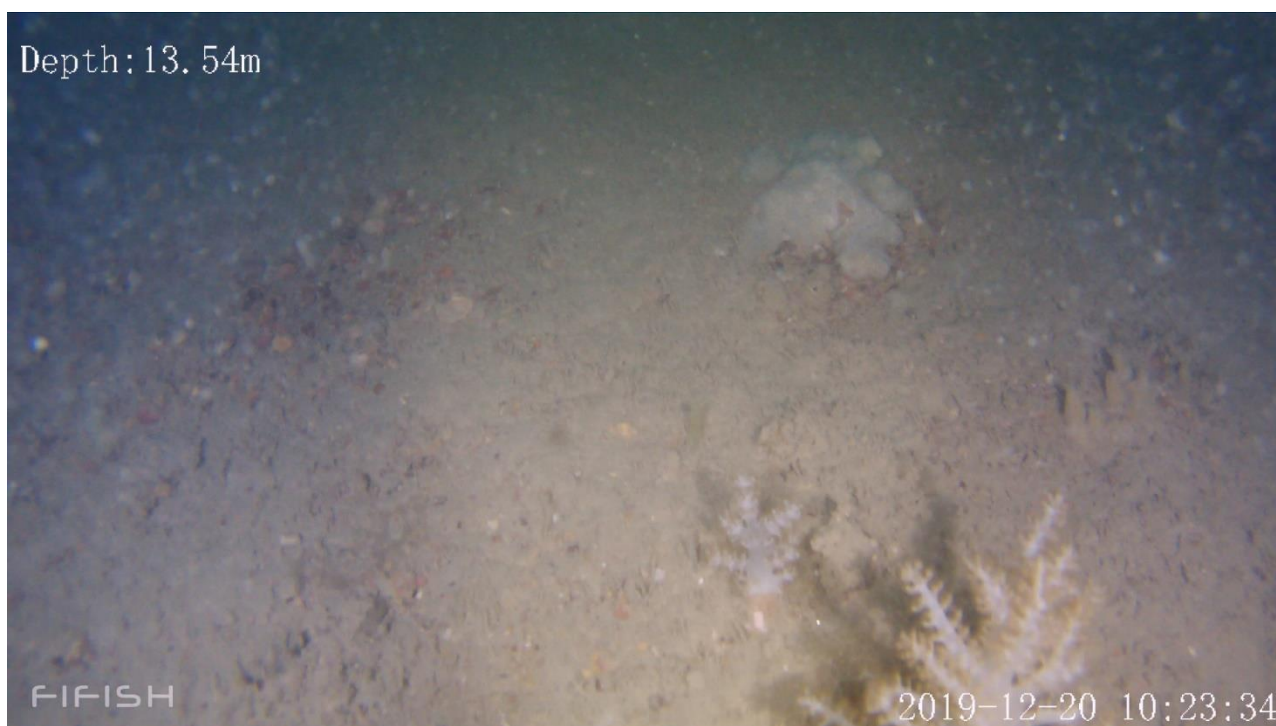
UTM: 692293.677E, 8623942.126N (Zone 52)



Site: 069
UTM: 692314.72E, 8623862.697N (Zone 52)



Site: 070
UTM: 692402.042E, 8623859.535N (Zone 52)



Site:071

UTM: 692376.288E, 8623964.625N (Zone 52)

Depth:12.55m



FIFISH

2019-12-20 10:27:18

Site: 072

UTM: 692367.585E, 8624045.631N (Zone 52)

Depth:11.47m

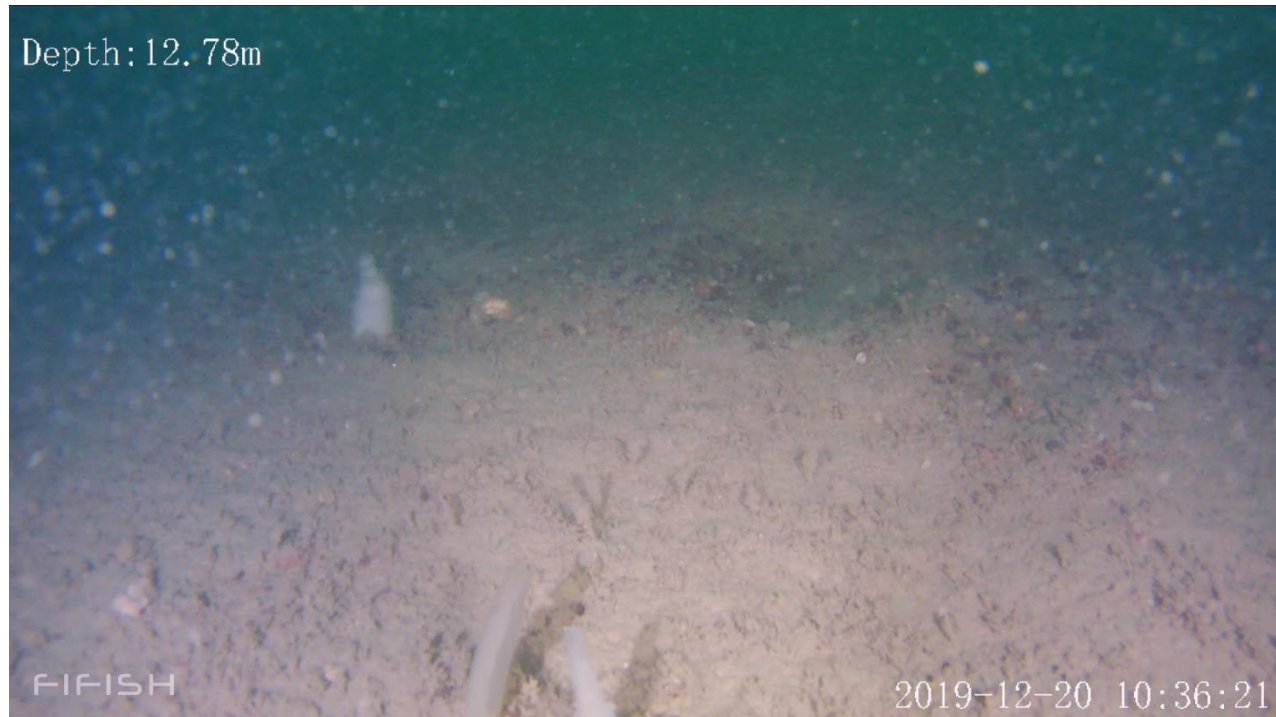


FIFISH

2019-12-20 10:30:09

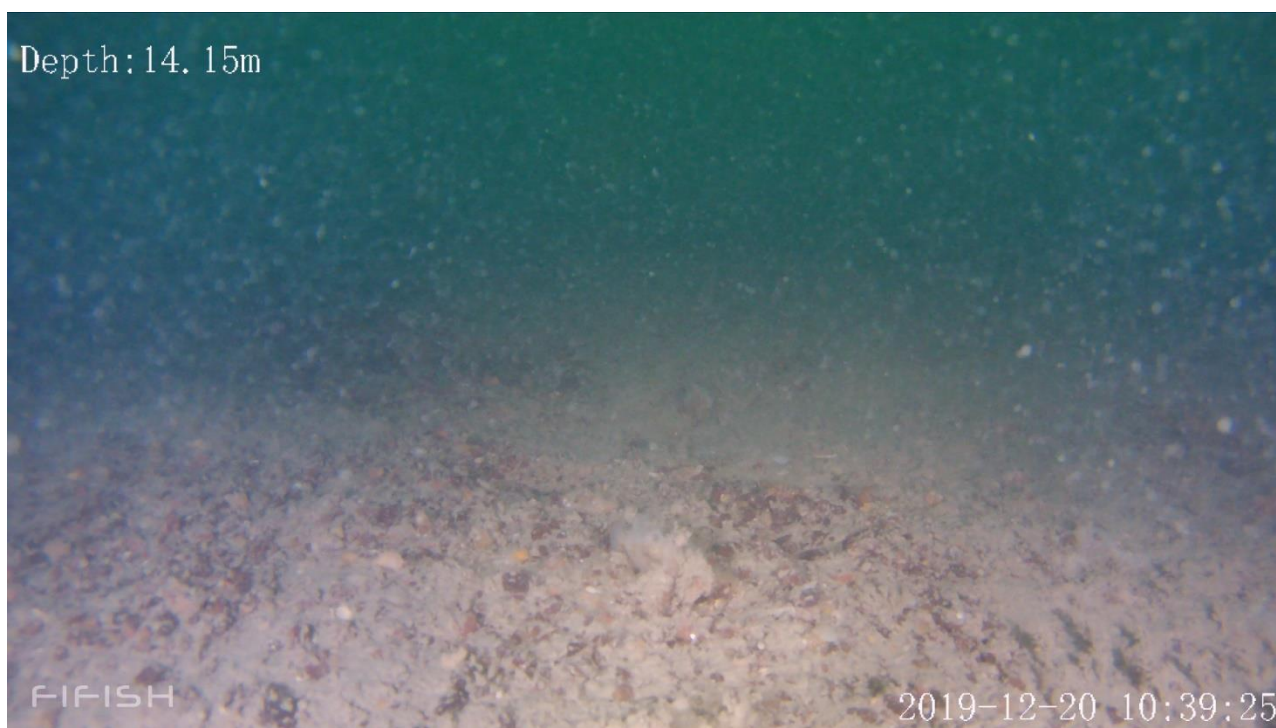
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UTM: 692373.794E, 8624107.728N (Zone 52)



Site: 074

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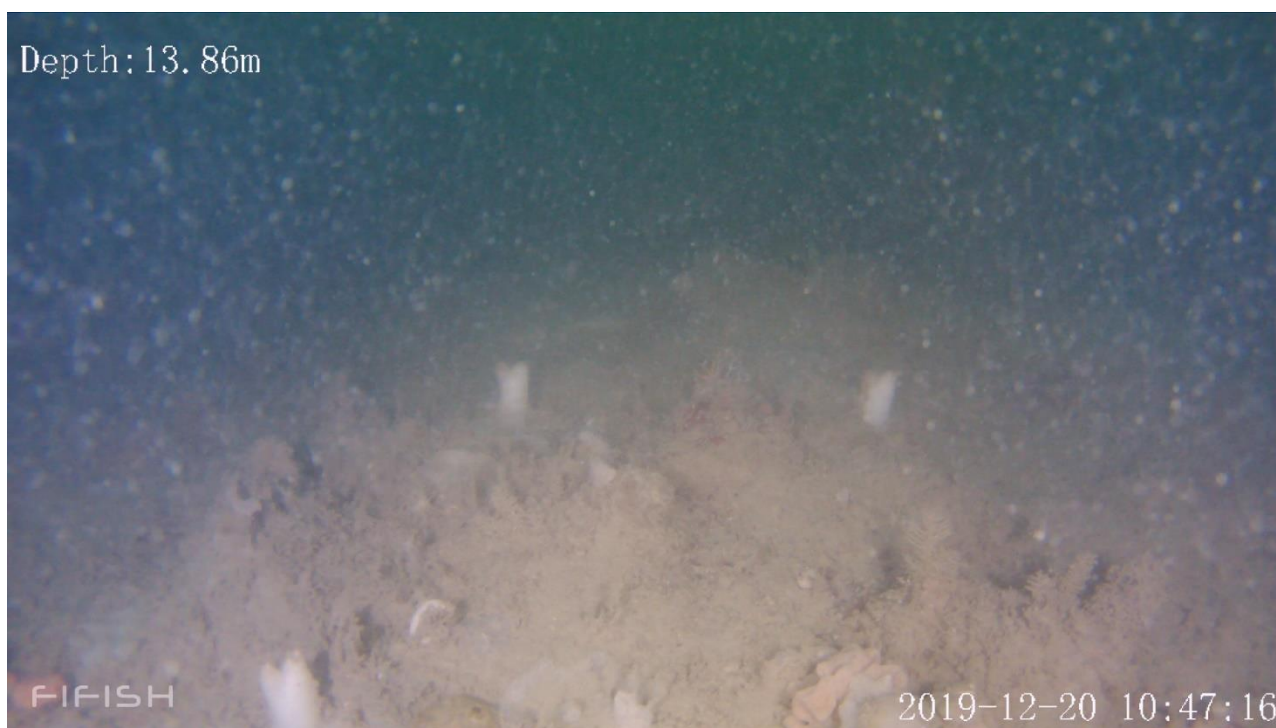
Site: 075

UTM: 692393.787E, 8624280.555N (Zone 52)



Site: 076

UTM: 692395.071E, 8624363.891N (Zone 52)



Site: 077
UTM: 692407.693E, 8624463.378N (Zone 52)



Site: 078
UTM: 692446.832E, 8624544.249N (Zone 52)



Site: 079

UTM: 692544.363E, 8624548.763N (Zone 52)

Depth: 14.93m



Site: 080

UTM: 692545.958E, 8624461.719N (Zone 52)

Depth: 14.07m



Site: 081

UTM: 692545.262E, 8624385.018N (Zone 52)

Depth: 13.79m



FIFISH

2019-12-20 11:13:27

Site: 082

UTM: 692547.895E, 8624290.592N (Zone 52)

Depth: 17.04m



FIFISH

2019-12-20 11:18:44

Site: 083
UTM: 692555.491E, 8624178.984N (Zone 52)

Depth: 19.54m

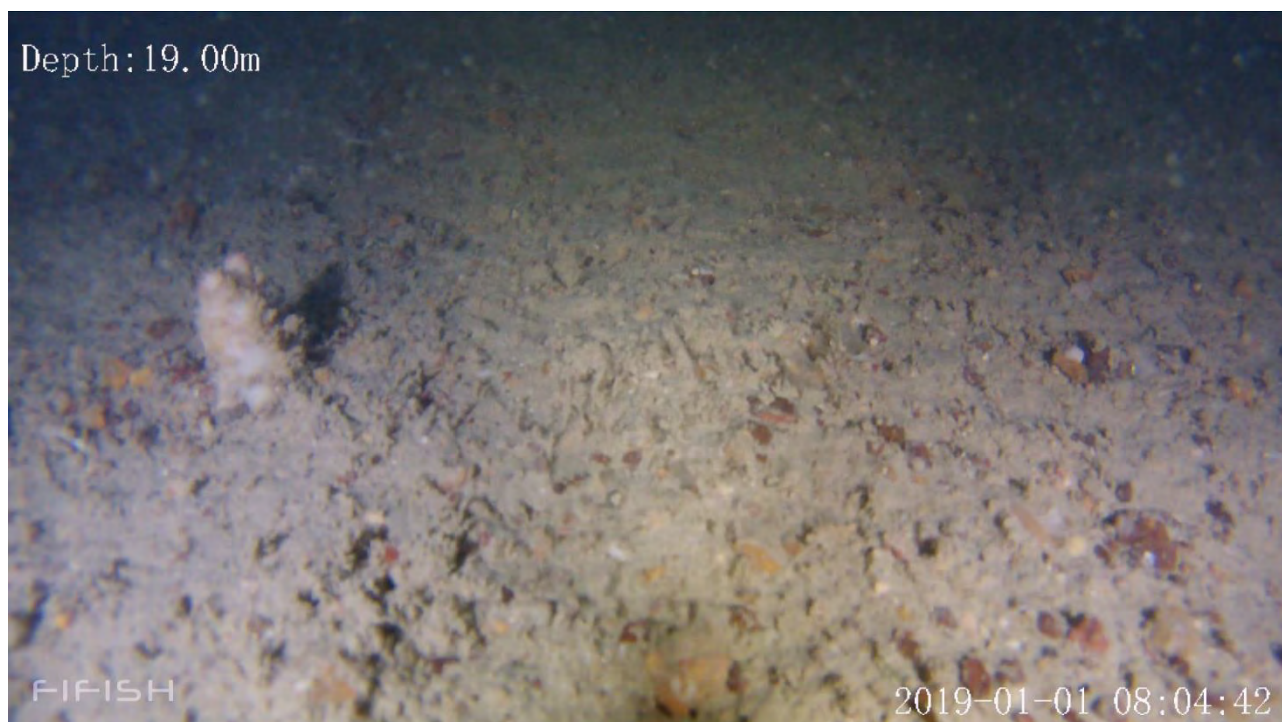


FIFISH

2019-12-20 11:23:46

Site: 084
UTM: 692568.232E, 8624051.301N (Zone 52)

Depth: 19.00m



FIFISH

2019-01-01 08:04:42

Site: 085
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Depth: 18.50m

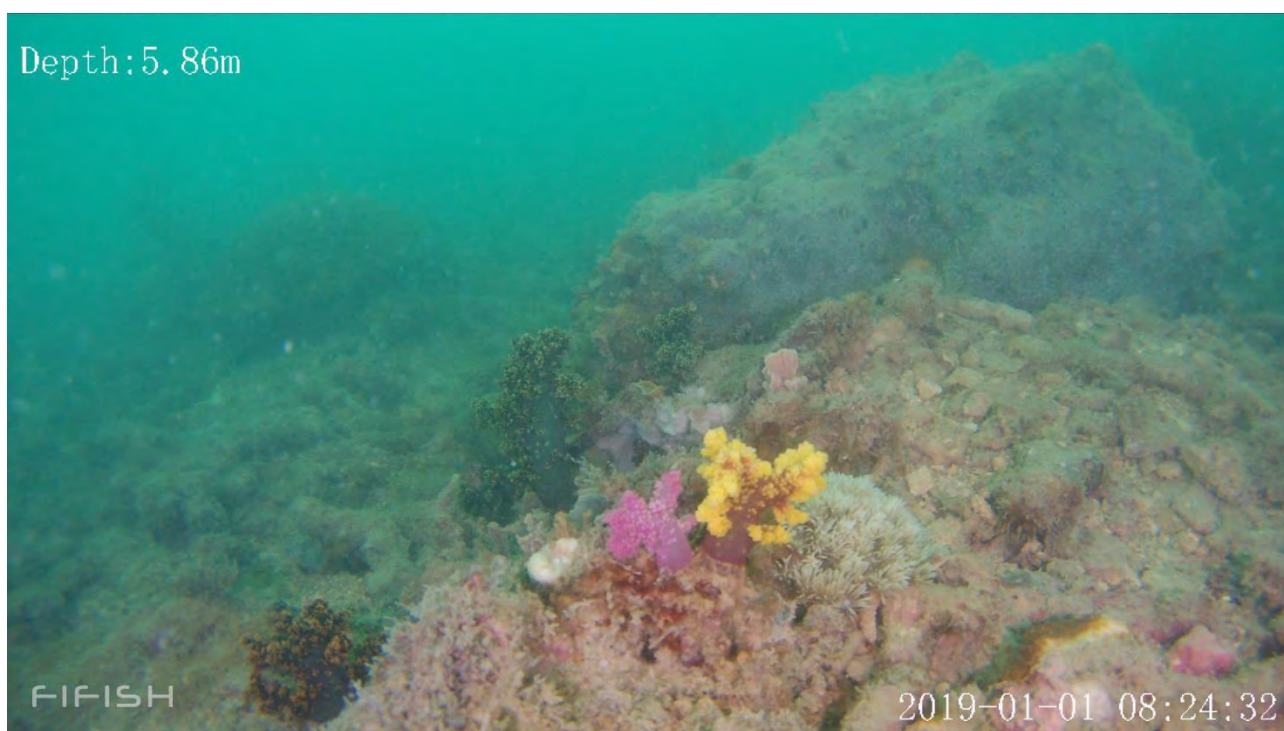


Site: 086
UTM: 692321.529E, 8624532.913N (Zone 52)

Depth: 4.69m



Site: 087
UTM: 692345.411E, 8624527.039N (Zone 52)



Site: 088
UTM: 692368.806E, 8624529.649N (Zone 52)



Site: 089
UTM: 692421.196E, 8624531.697N (Zone 52)



Site: 090
UTM: 692318.688E, 8624678.048N (Zone 52)



Site: 091
UTM: 692343.138E, 8624701.857N (Zone 52)



Site: 092
UTM: 692368.111E, 8624752.029N (Zone 52)



Site: 093
UTM: 692071.55E, 8624738.881N (Zone 52)

Depth: 3.31m



Site: 094
UTM: 692071.417E, 8624774.469N (Zone 52)

Depth: 6.99m



Site:095
UTM: 692074.806E, 8624765.78N (Zone 52)

Depth:4.65m

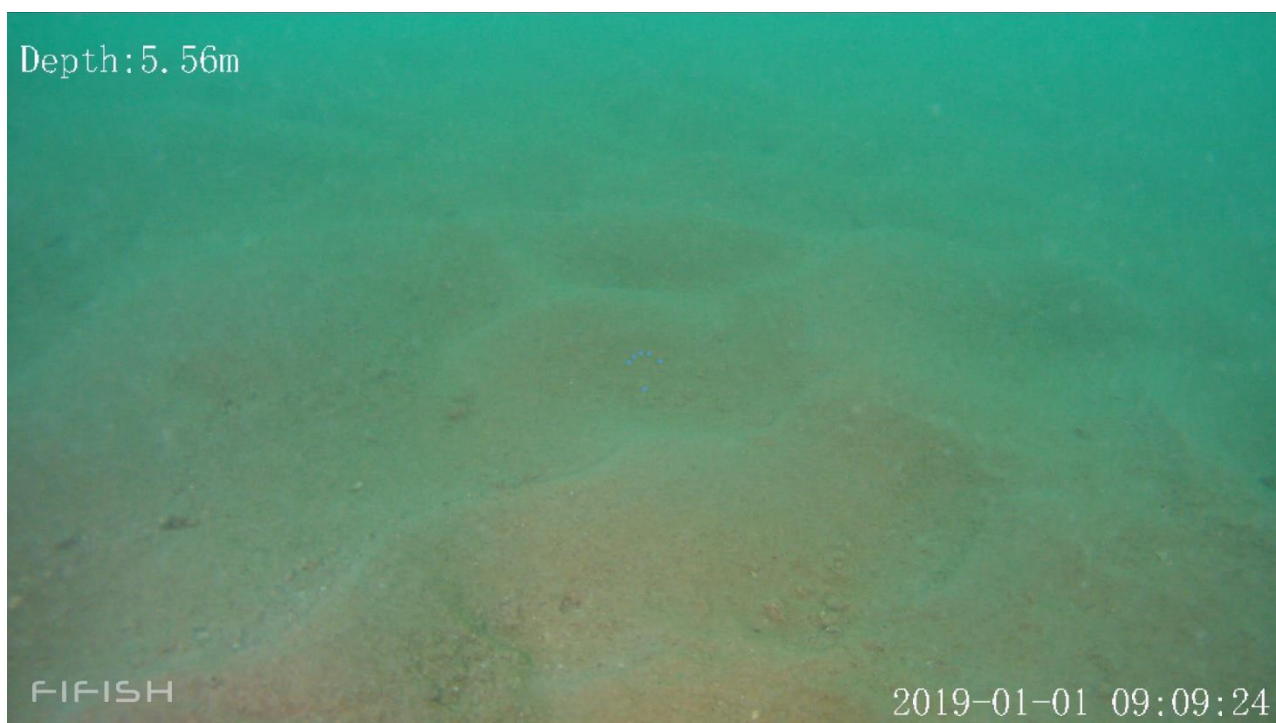


FIFISH

2019-01-01 08:59:13

Site:096
UTM: 691744.864E, 8625431.591N (Zone 52)

Depth:5.56m



FIFISH

2019-01-01 09:09:24

Site: 097
UTM: 691690.256E, 8625313.205N (Zone 52)

Depth: 5.42m

FIFISH

2019-01-01 09:12:56

Site: 098
UTM: 691603.682E, 8625183.784N (Zone 52)

Depth: 4.85m

FIFISH

2019-01-01 09:17:37

Site:099
UTM: 691420.537E, 8625004.294N (Zone 52)



Site: 100
UTM: 691329.144E, 8624913.626N (Zone 52)



Site: 101
UTM: 692187.636E, 8623800.481N (Zone 52)

Depth: 6.16m



FIFISH

2019-12-21 09:21:06

Site: 102
UTM: 692165.705E, 8623800.442N (Zone 52)

Depth: 3.71m



FIFISH

2019-12-21 09:24:03

Site: 103
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Depth: 3.35m

FIFISH

2019-12-21 09:39:51

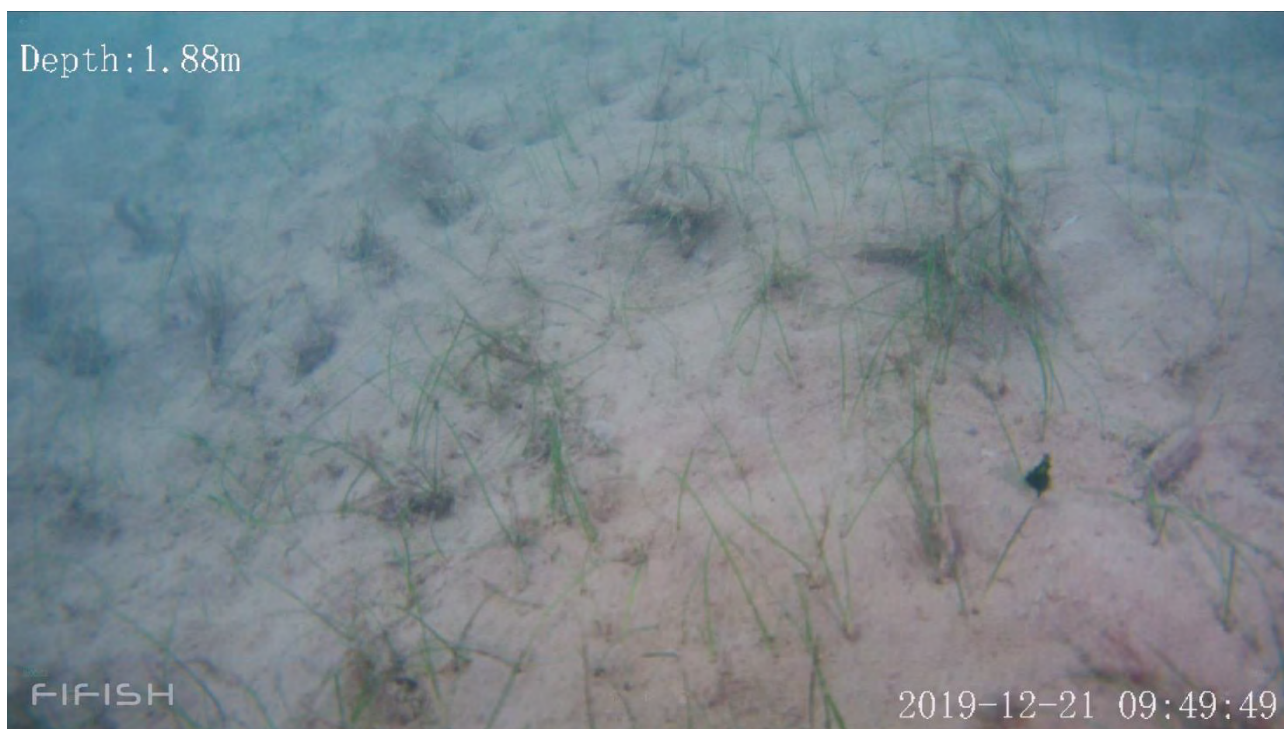
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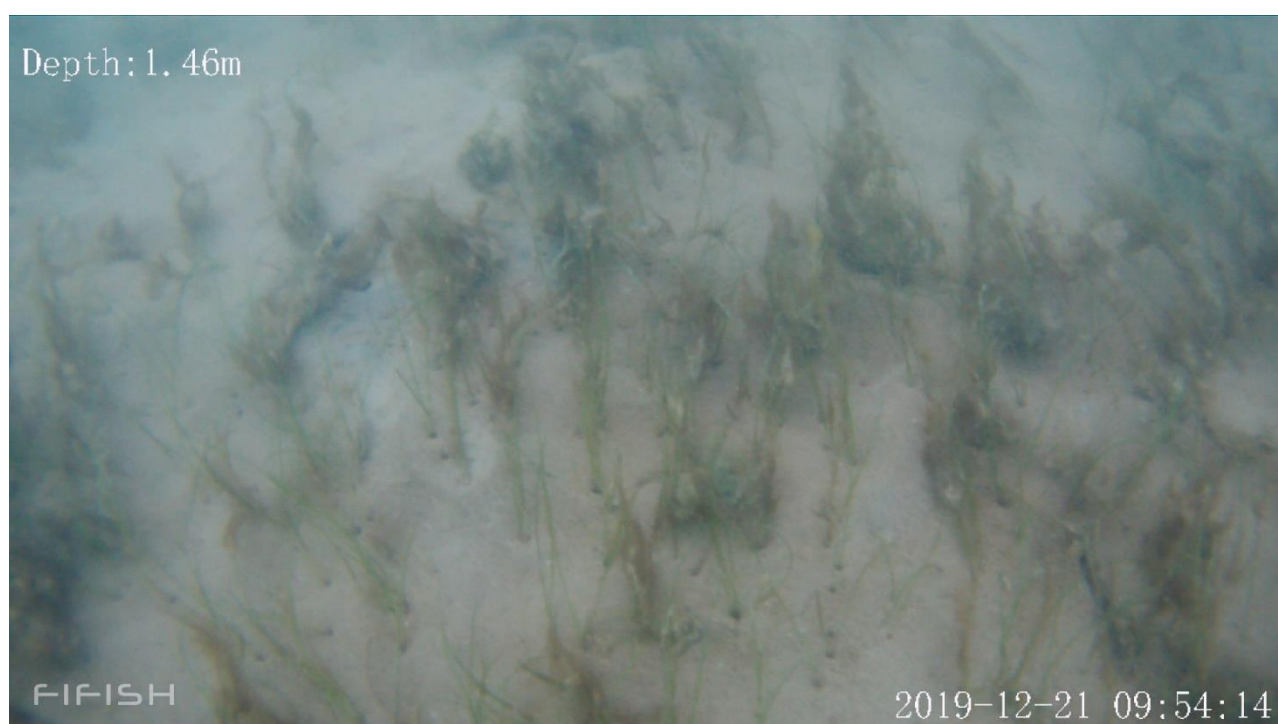
FIFISH

2019-12-21 09:45:02

Site: 105
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Site: 106
UTM: 691261.333E, 8625018.071N (Zone 52)



Site: 107
UTM: 691481.899E, 8624883.297N (Zone 52)



Site: 108
UTM: 691584.58E, 8624954.344N (Zone 52)



Site:109
UTM: 691724.85E, 8625064.787N (Zone 52)



Site: 110
UTM: 691896.115E, 8625174.1N (Zone 52)



Site: 111
UTM: 692089.225E, 8625000.045N (Zone 52)



Site: 112
UTM: 691959.879E, 8624897.461N (Zone 52)



Site: 113
UTM: 691881.294E, 8624798.78N (Zone 52)



Site: 114
UTM: 691281.168E, 8625330.849N (Zone 52)



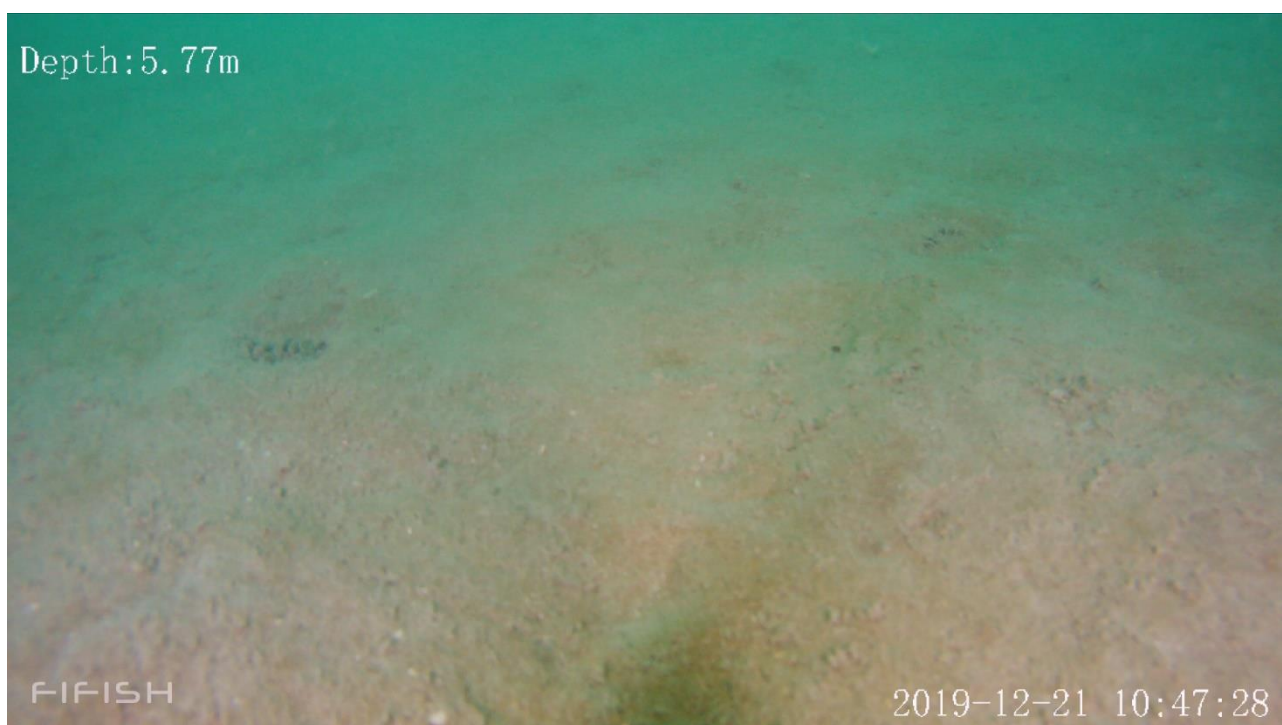
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Depth: 2.64m



Site:116
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Depth:5.77m



Site: 117
UTM: 692246.801E, 8624823.089N (Zone 52)

Depth: 5.59m



Site: 118
UTM: 692227.563E, 8624791.502N (Zone 52)

Depth: 2.50m



Site:119
UTM: 692221.661E, 8624775.499N (Zone 52)



Site: 120
UTM: 692434.687E, 8624652.199N (Zone 52)



Site:121
UTM: 692374.955E, 8624636.739N (Zone 52)



Site:122
UTM: 692329.722E, 8624620.445N (Zone 52)



Site: 123

UTM: 692236.017E, 8620563.355N (Zone 52)

Depth: 1.55m



FIFISH

2019-12-22 10:38:59

Site: 124

UTM: 692480.899E, 8620875.187N (Zone 52)

Depth: 2.05m

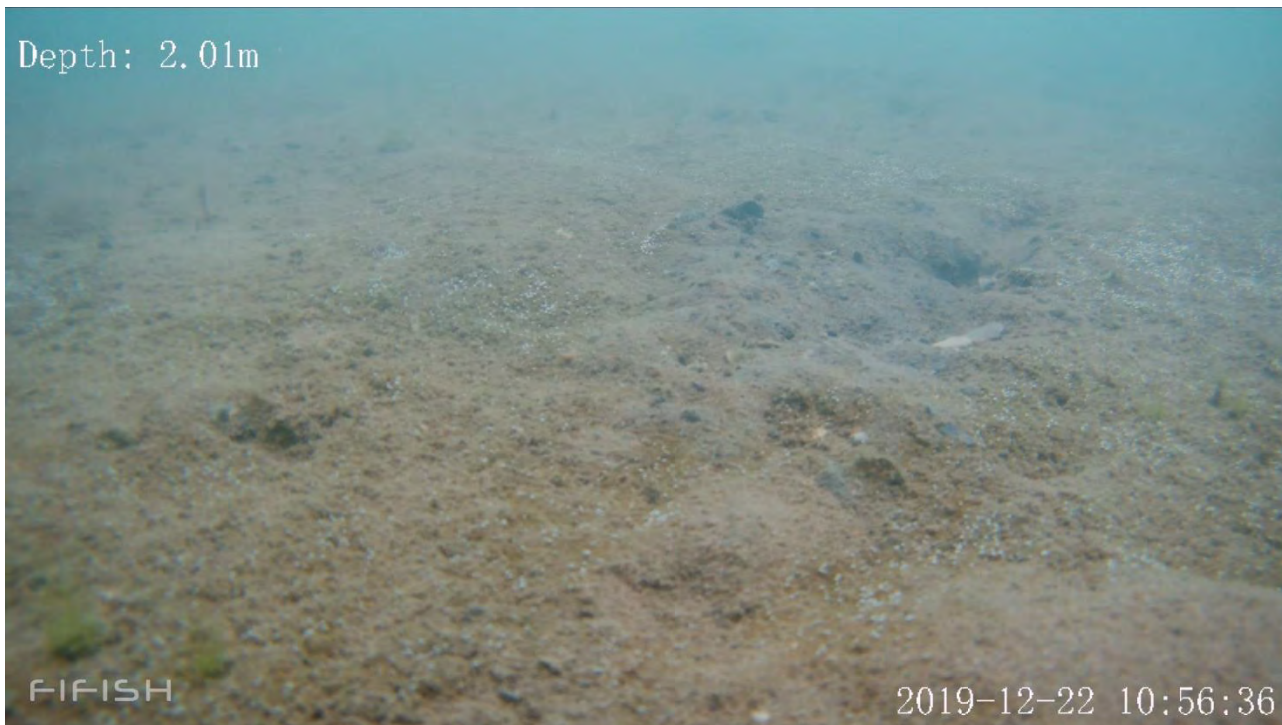


FIFISH

2019-12-22 10:46:40

Site: 125
UTM: 691993.862E, 8622321.295N (Zone 52)

Depth: 2.01m



FIFISH

2019-12-22 10:56:36

Site: 126
UTM: 692080.141E, 8622379.357N (Zone 52)

Depth: 2.49m



FIFISH

2019-12-22 11:01:36

Site: 127

UTM: 692135.352E, 8623786.447N (Zone 52)

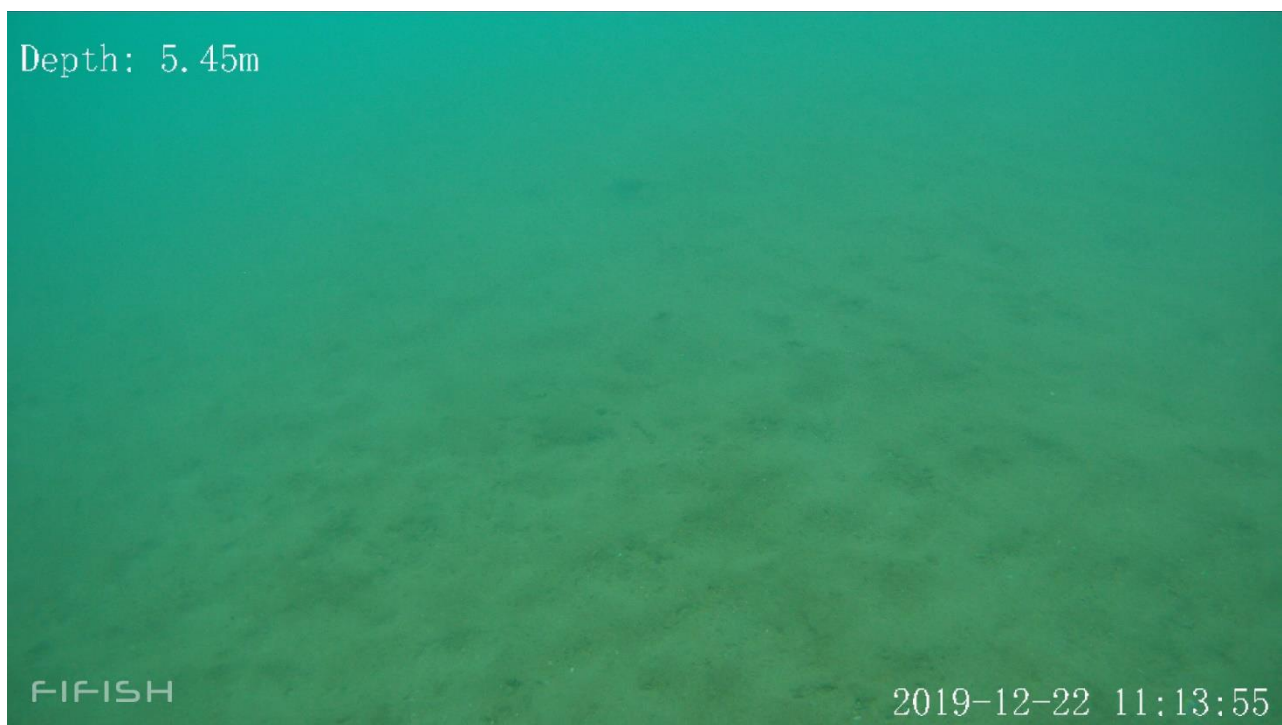
Depth: 1.88m



Site: 128

UTM: 692188.621E, 8623785.171N (Zone 52)

Depth: 5.45m



Site: 129
UTM: 692288.388E, 8623800.917N (Zone 52)

Depth: 10.11m

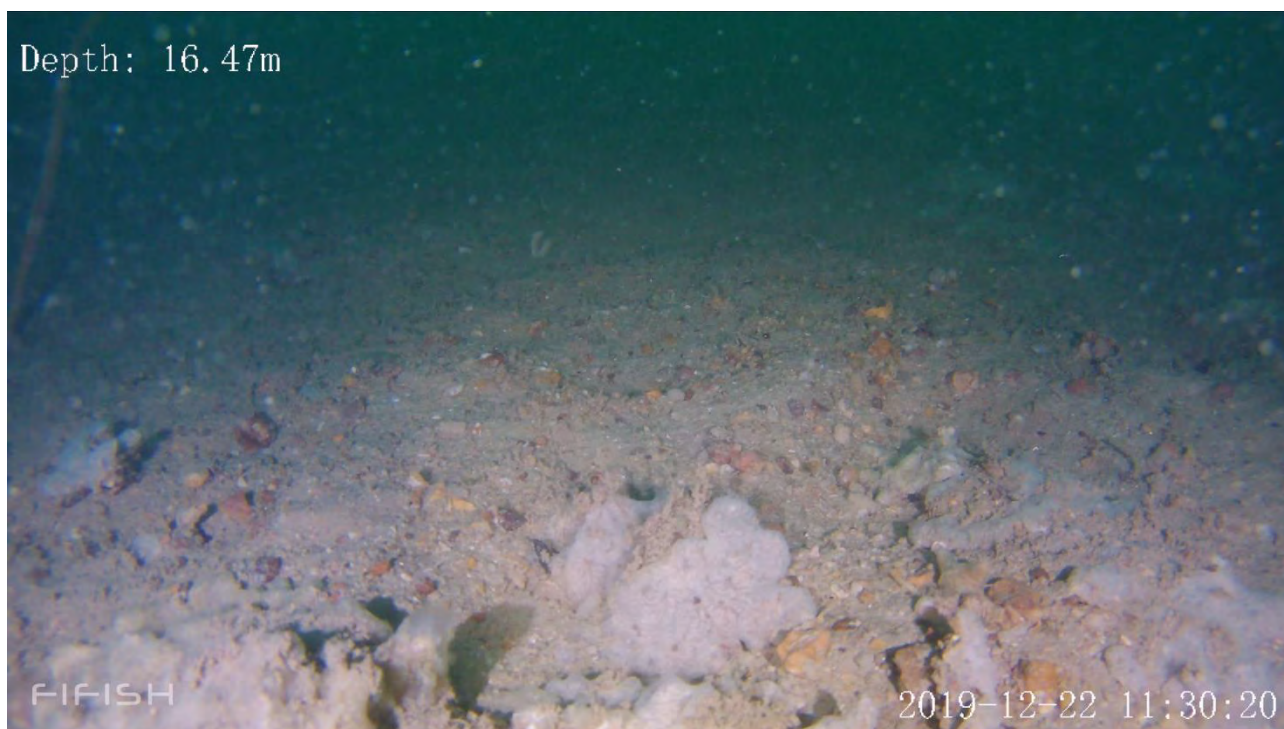


Site: 130
UTM: 692403.399E, 8623790.563N (Zone 52)

Depth: 13.04m



Site: 131
UTM: 692571.98E, 8623797.922N (Zone 52)



Site: 132
UTM: 692320.854E, 8624240.289N (Zone 52)



Site: 133
UTM: 692309.004E, 8624310.806N (Zone 52)

Depth: 11.73m



Site: 134
UTM: 692313.755E, 8624426.756N (Zone 52)

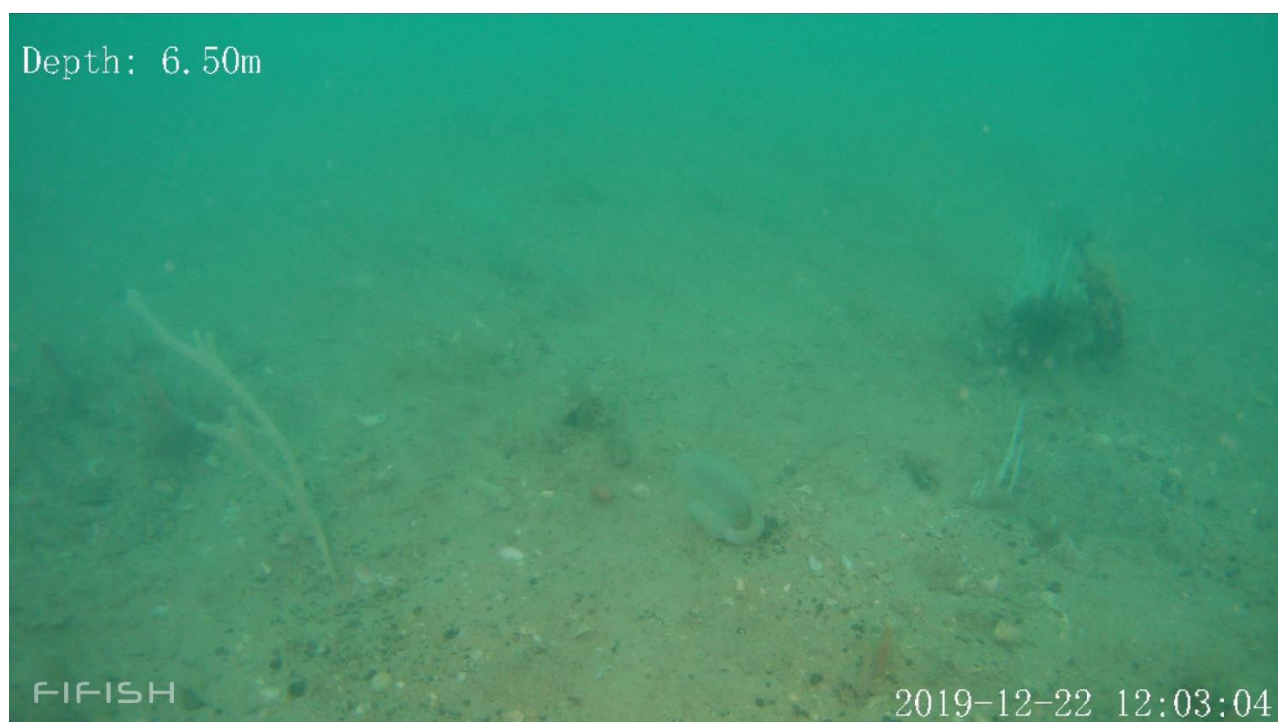
Depth: 3.54m



Site: 135
UTM: 692325.169E, 8624534.18N (Zone 52)



Site: 136
UTM: 692012.016E, 8625080.768N (Zone 52)



Site: 137
UTM: 691831.072E, 8624931.874N (Zone 52)



Site: 138
UTM: 691719.019E, 8624813.317N (Zone 52)



Site: 139
UTM: 692107.45E, 8625260.468N (Zone 52)



Site: 140
UTM: 692215.275E, 8625095.643N (Zone 52)



Site: 141
UTM: 692381.799E, 8624874.373N (Zone 52)

Depth: 8.46m



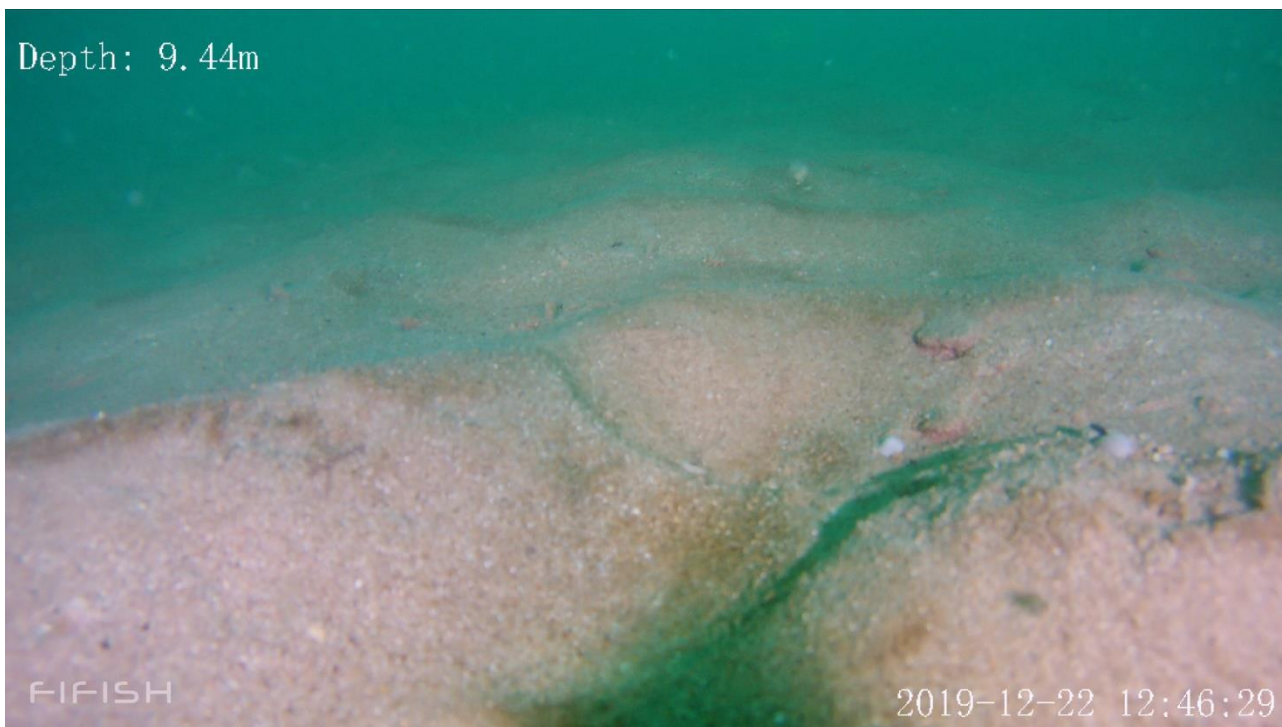
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UTM: 692524.541E, 8624729.968N (Zone 52)

Depth: 9.42m



Site: 143
UTM: 691952.801E, 8625633.226N (Zone 52)

Depth: 9.44m



FIFISH

2019-12-22 12:46:29

Site: 144
UTM: 691554.324E, 8625693.95N (Zone 52)

Depth: 4.98m



FIFISH

2019-12-22 12:53:16

Site: 145
UTM: 691160.131E, 8625664.289N (Zone 52)

Depth: 9.77m



FIFISH

2019-12-22 12:58:41

Site: 146
UTM: 690981.936E, 8625381.321N (Zone 52)

Depth: 4.18m



FIFISH

2019-12-22 13:05:16

Site: 147
UTM: 690922.919E, 8625171.137N (Zone 52)



Site:148
UTM: 692077.279E, 8624647.016N (Zone 52)



Site: 149
UTM: 692217.684E, 8624640.183N (Zone 52)

Depth: 2.42m



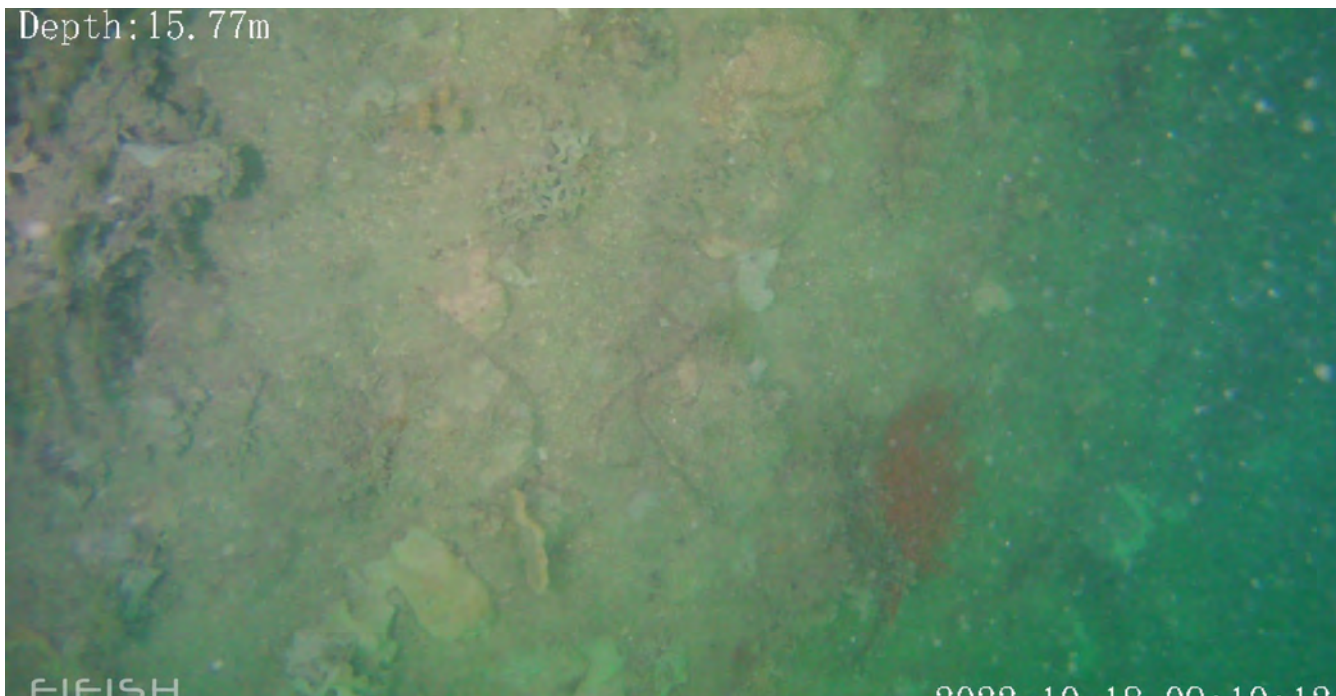
FIFISH

2019-12-22 13:21:10

Site: 1B

UTM: 692244.291E, 8625444.423N (Zone 52)

Depth: 15.77m



Site: 2B

UTM: 692292.883E, 8625446.663N (Zone 52)

Depth: 14.69m



Site: 3B

UTM: 692341.475E, 8625448.903N (Zone 52)

Depth: 15.71m



Site: 4B

UTM: 692343.715E, 8625400.31N (Zone 52)

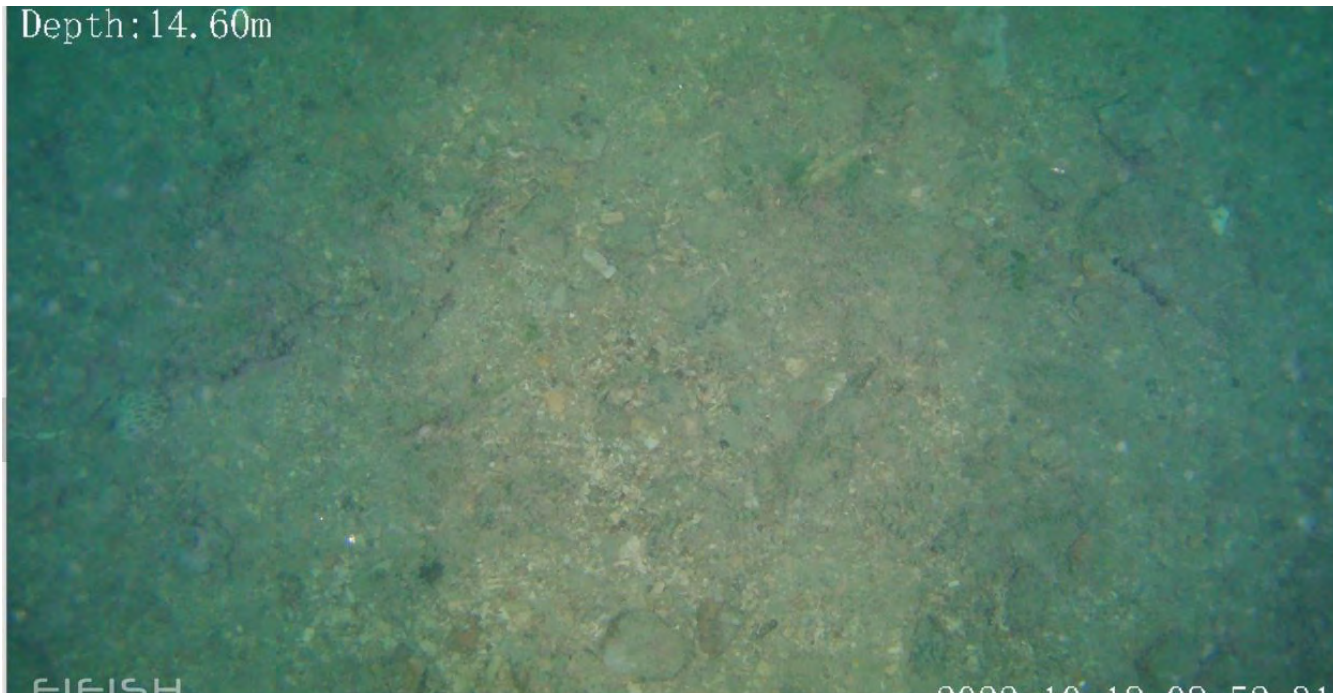
Depth: 14.63m



Site: 5B

UTM: 692295.123E, 8625398.07N (Zone 52)

Depth: 14.60m



Site: 6B

UTM: 692246.53E, 8625395.83N (Zone 52)

Depth: 15.28m



Site: 7B

UTM: 692248.77E, 8625347.238N (Zone 52)

Depth: 15.65m



FIFISH

2022-10-18 08:44:00

Site: 8B

UTM: 692297.363E, 8625349.478N (Zone 52)

Depth: 14.64m



FIFISH

2022-10-18 08:30:14

Site: 9B

UTM:692345.955E, 8625351.718N (Zone 52)

Depth: 14.00m



Site: 10B

UTM: 692348.195E, 8625303.126N (Zone 52)

Depth: 13.02m



Site: 11B

UTM: 692299.603E, 8625300.886N (Zone 52)

Depth: 14.16m



Site: 12B

UTM: 692251.011E, 8625298.645N (Zone 52)

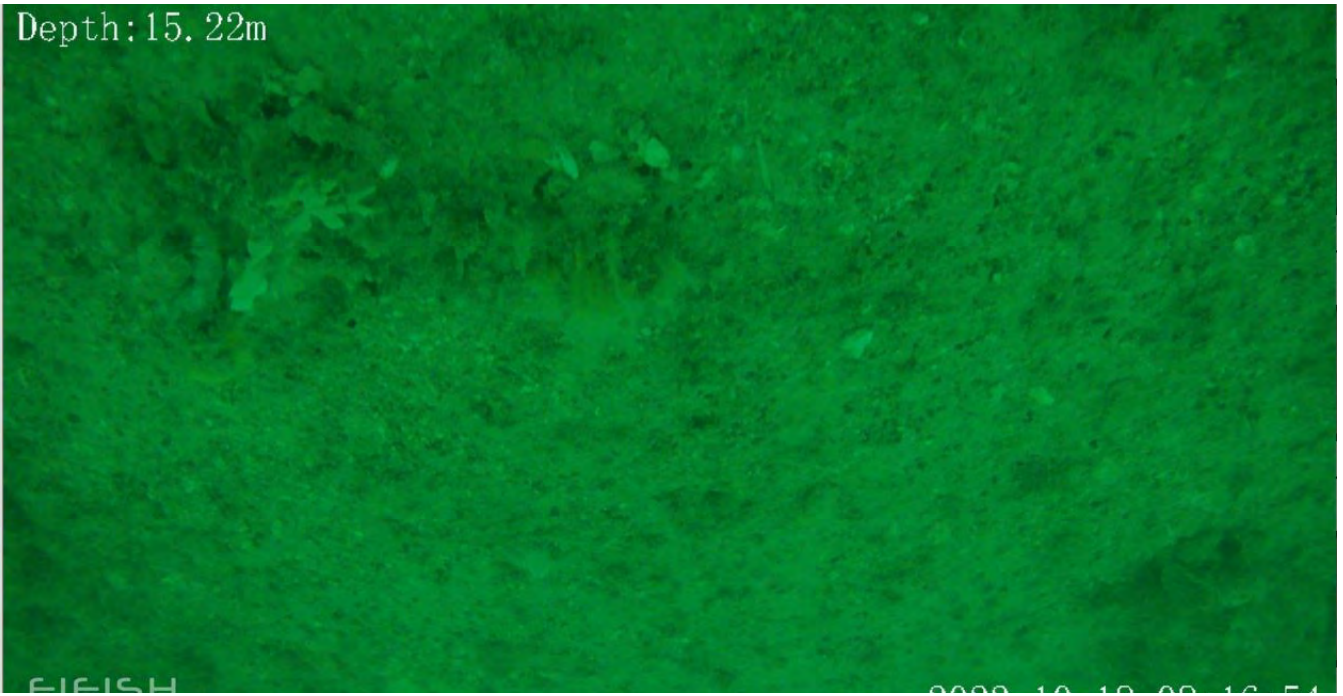
Depth: 15.47m



Site: 13B

UTM: 692253.251E, 8625250.053N (Zone 52)

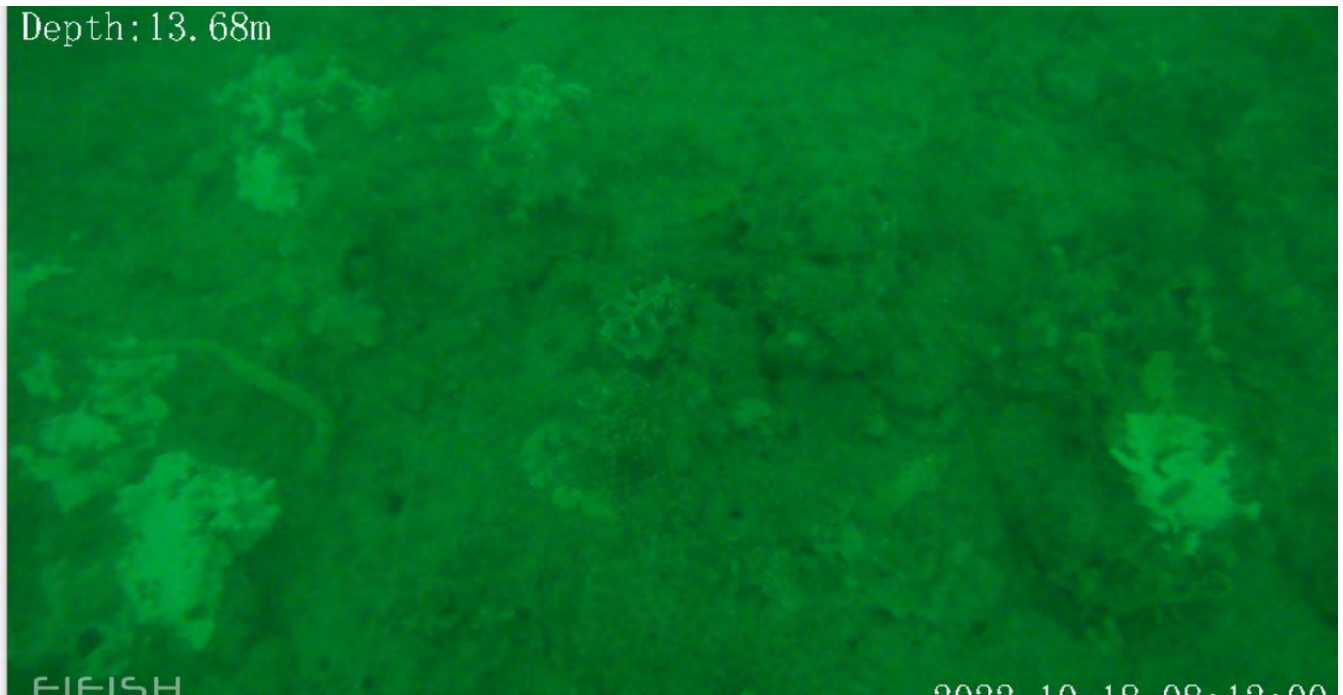
Depth: 15.22m



Site: 14B

UTM: 692301.843E, 8625252.293N (Zone 52)

Depth: 13.68m



Site: 15B

UTM: 692350.436 E, 8625254.533N (Zone 52)

Depth: 13.00m



Site: 16B

UTM: 692352.676E, 8625205.941N (Zone 52)

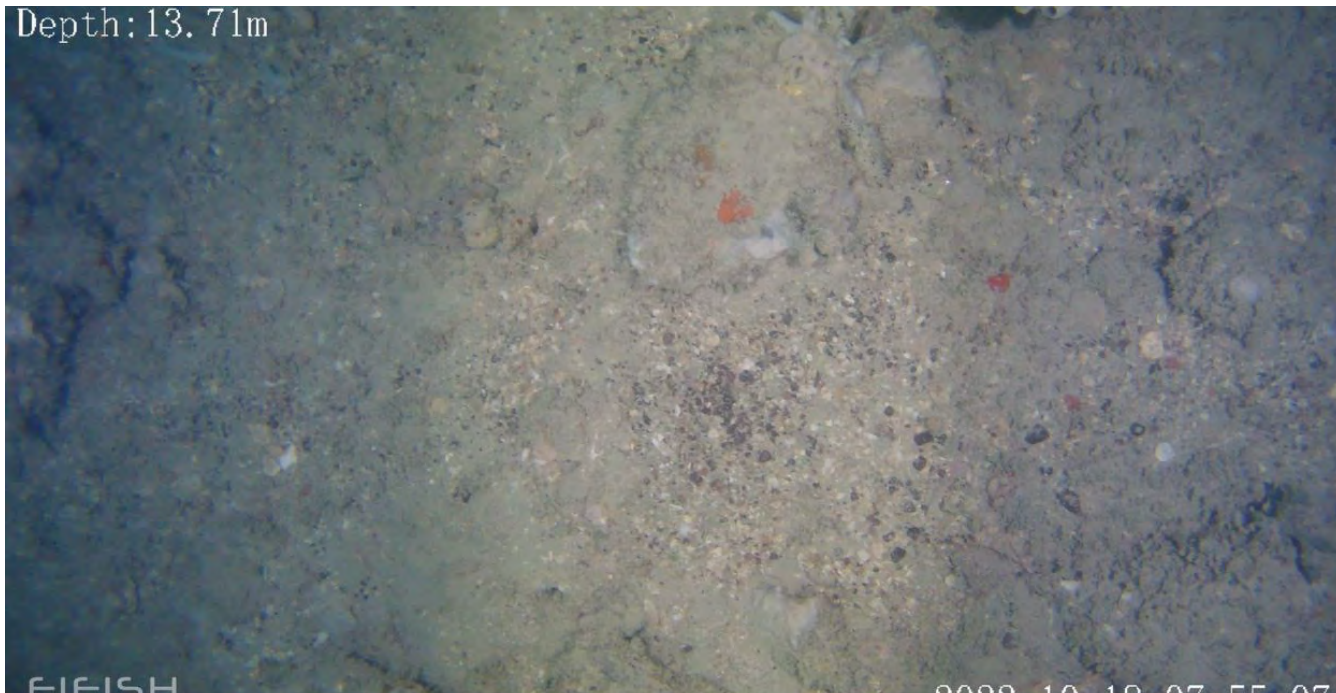
Depth: 13.55m



Site: 17B

UTM: 692304.083E, 8625203.701N (Zone 52)

Depth: 13.71m



Site: 18B

UTM: 692306.324E, 8625155.108 N (Zone 52)

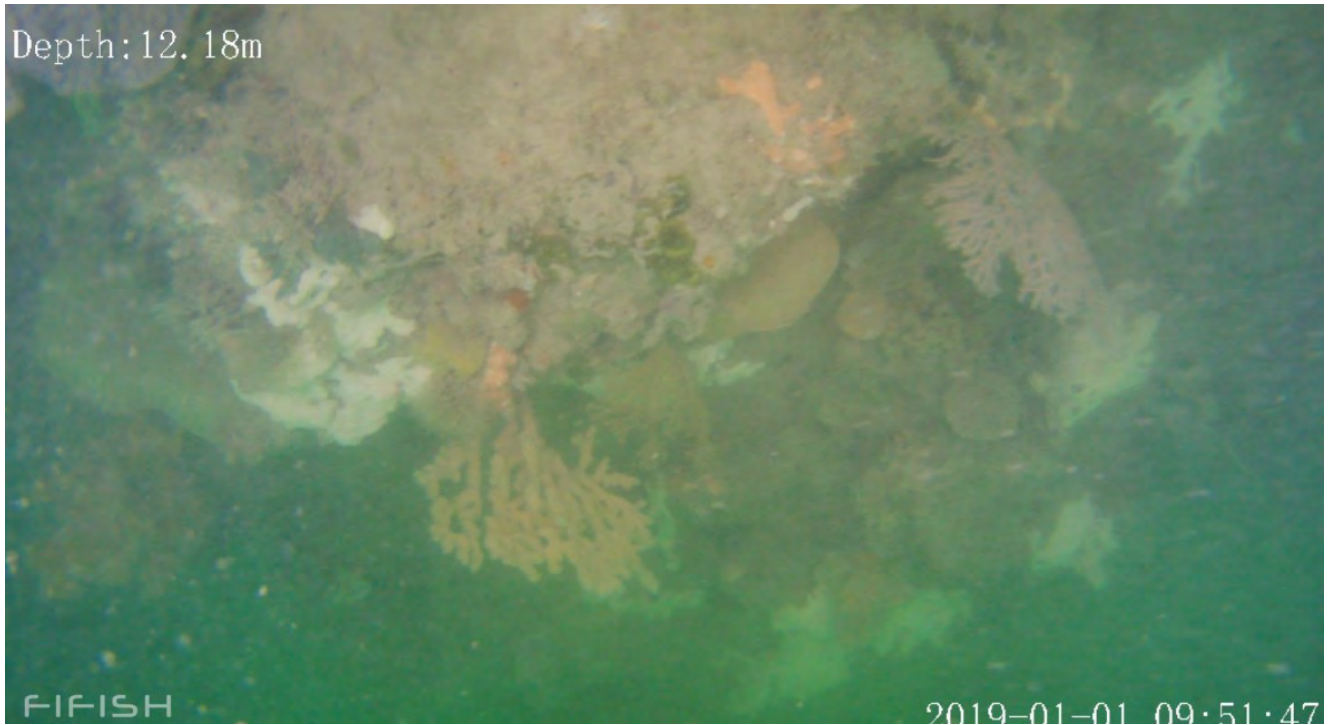
Depth: 14.16m



Site: 19B

UTM: 692354.916E, 8625157.349N (Zone 52)

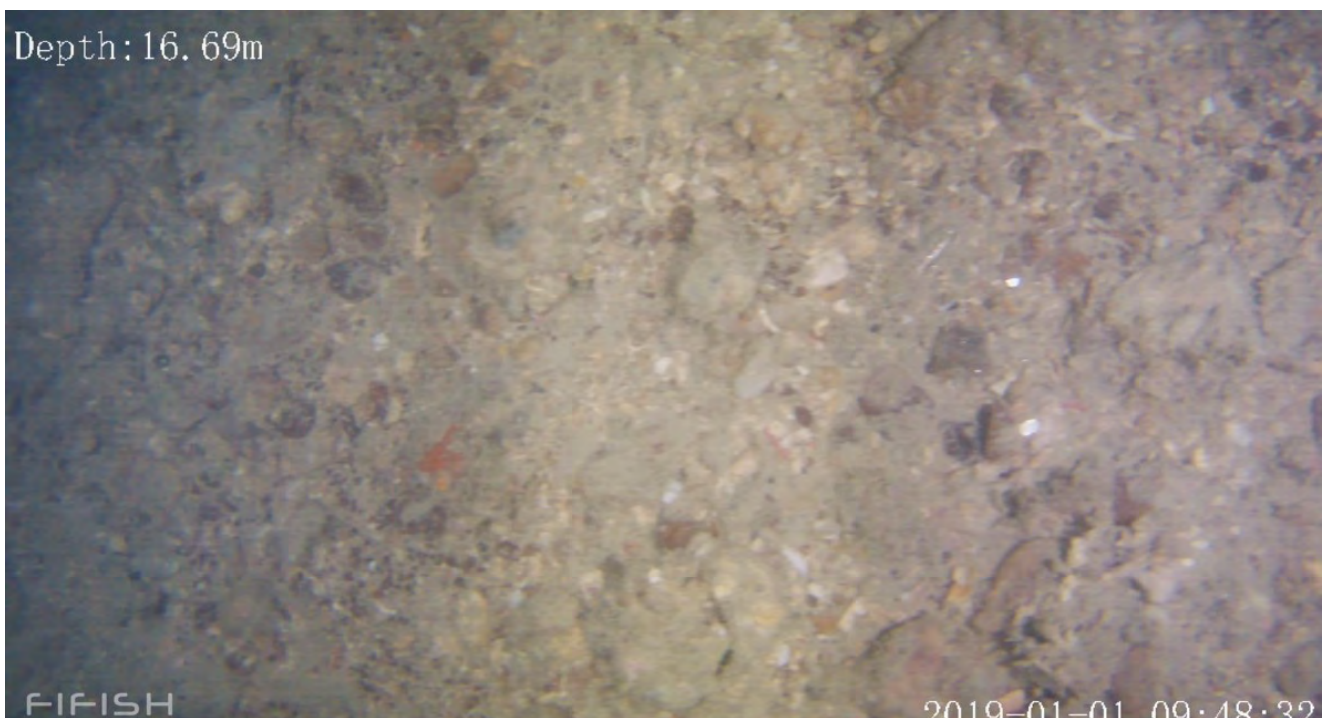
Depth: 12.18m



Site: 20B

UTM: 692403.508E, 8625159.589N (Zone 52)

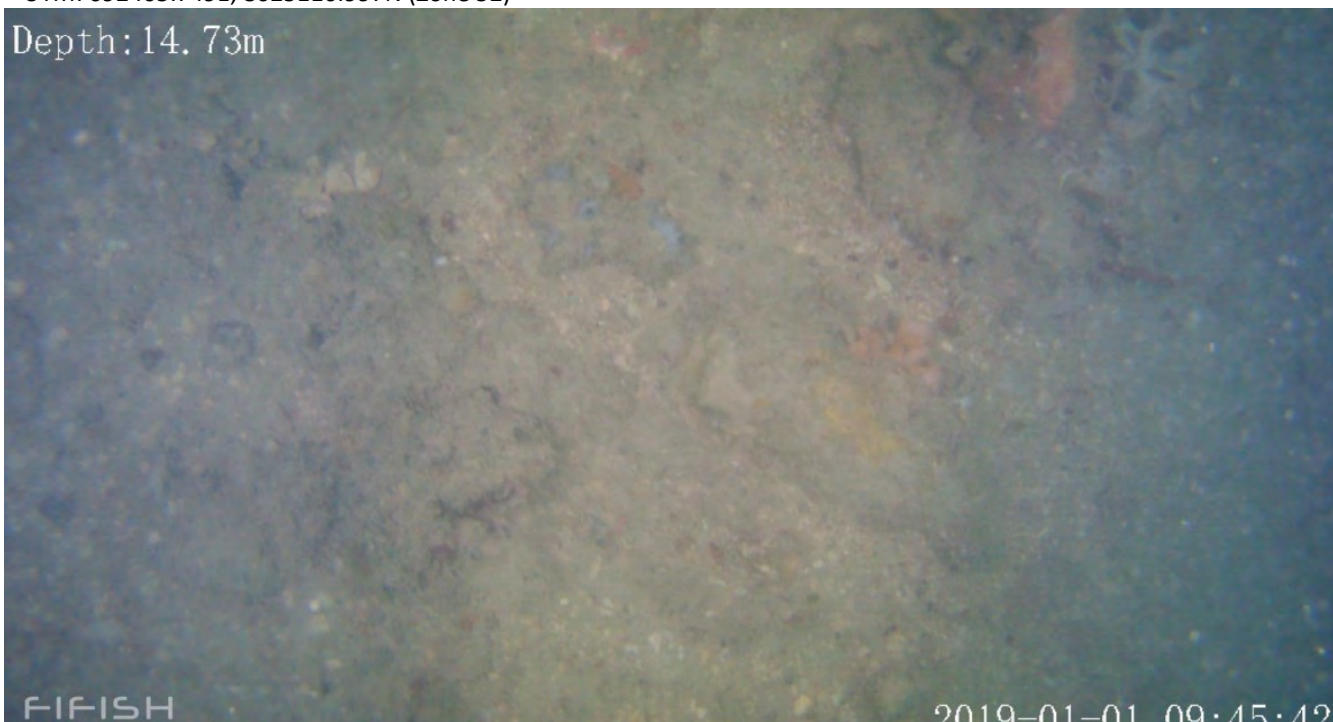
Depth: 16.69m



Site: 21B

UTM: 692405.749E, 8625110.997N (Zone 52)

Depth: 14.73m



FIFISH

2019-01-01 09:45:42

Site: 22B

UTM: 692357.156E, 8625108.756N (Zone 52)

Depth: 10.62m



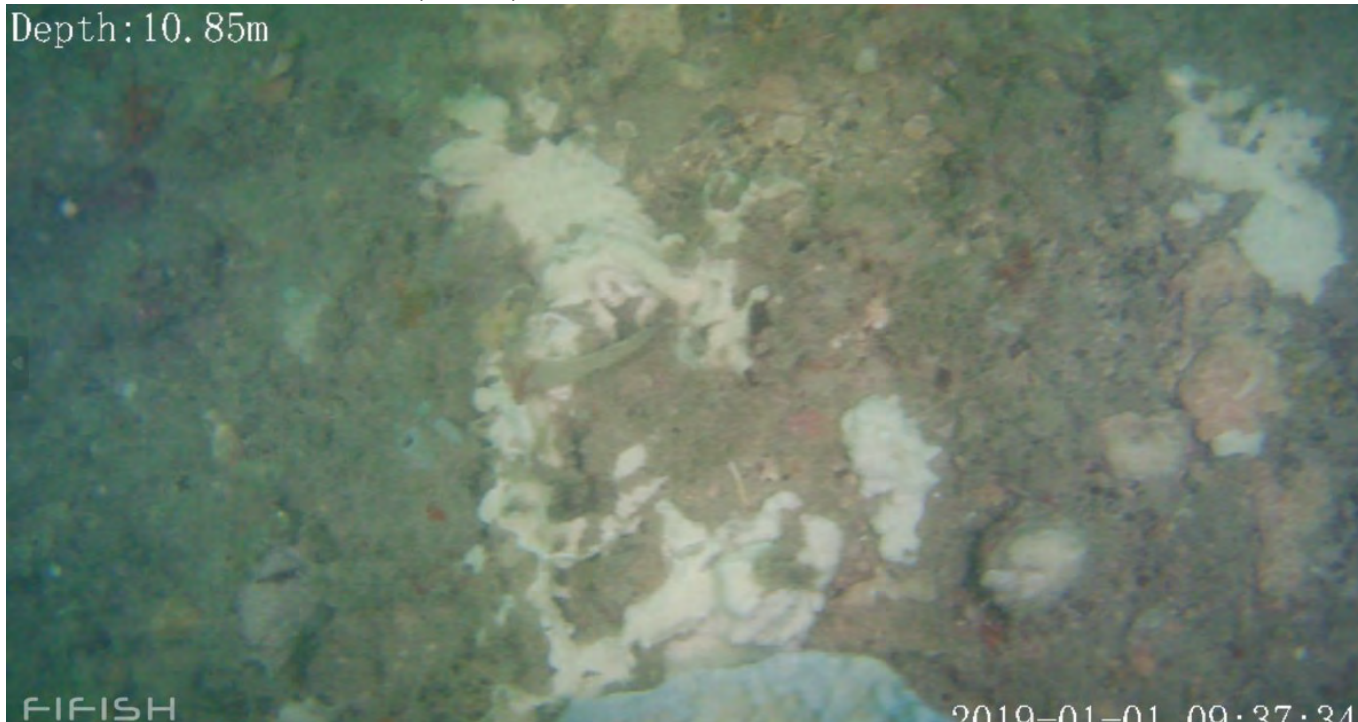
FIFISH

2019-01-01 09:41:09

Site: 23B

UTM: 692359.397E, 8625060.164N (Zone 52)

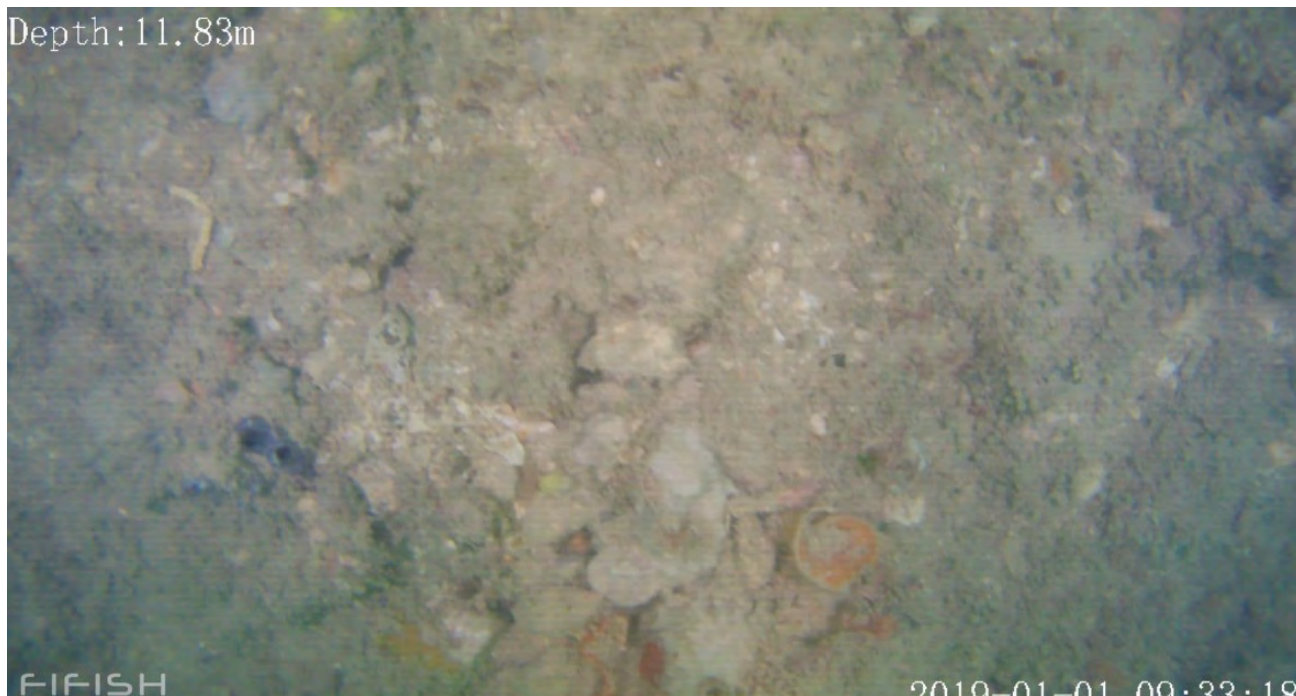
Depth: 10.85m



Site: 24B

UTM: 692407.989E, 8625062.405N (Zone 52)

Depth: 11.83m



Site: 25B

UTM: 692456.581E, 8625064.645N (Zone 52)

Depth: 12.29m



Site: 26B

UTM: 692458.822E, 8625016.053N (Zone 52)

Depth: 12.48m



Site: 27B

UTM: 692410.23E, 8625013.812N (Zone 52)

Depth: 10.33m



Site: 28B

UTM: 692361.637E, 8625011.572N (Zone 52)

Depth: 10.49m



Site: 29B

UTM: 692363.878E, 8624962.979N (Zone 52)

Depth: 9.91m



Site: 30B

UTM: 692412.47E, 8624965.22N (Zone 52)

Depth: 11.35m



Site: 31B

UTM: 692461.063E, 8624967.461N (Zone 52)

Depth: 15.55m



Site: 32B

UTM: 692509.655E, 8624969.701N (Zone 52)

Depth: 15.70m



Site: 33B

UTM: 692511.895E, 8624921.109N (Zone 52)

Depth: 18.32m



Site: 34B

UTM: 692463.303E, 8624918.869N (Zone 52)

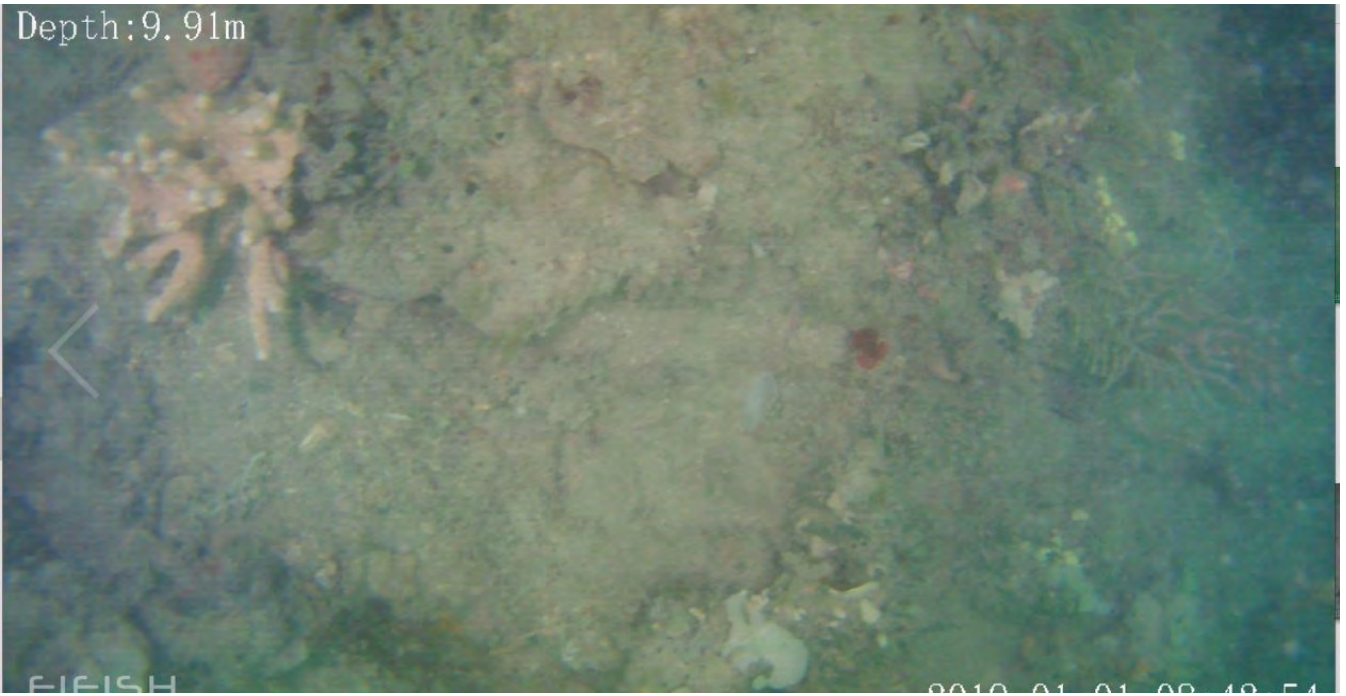
Depth: 15.61m



Site: 35B

UTM: 692414.711E, 8624916.628N (Zone 52)

Depth: 9.91m



Site: 36B

UTM: 692366.119E, 8624914.387N (Zone 52)

Depth: 10.58m



Site: 37B

UTM: 692416.952E, 8624868.036N (Zone 52)

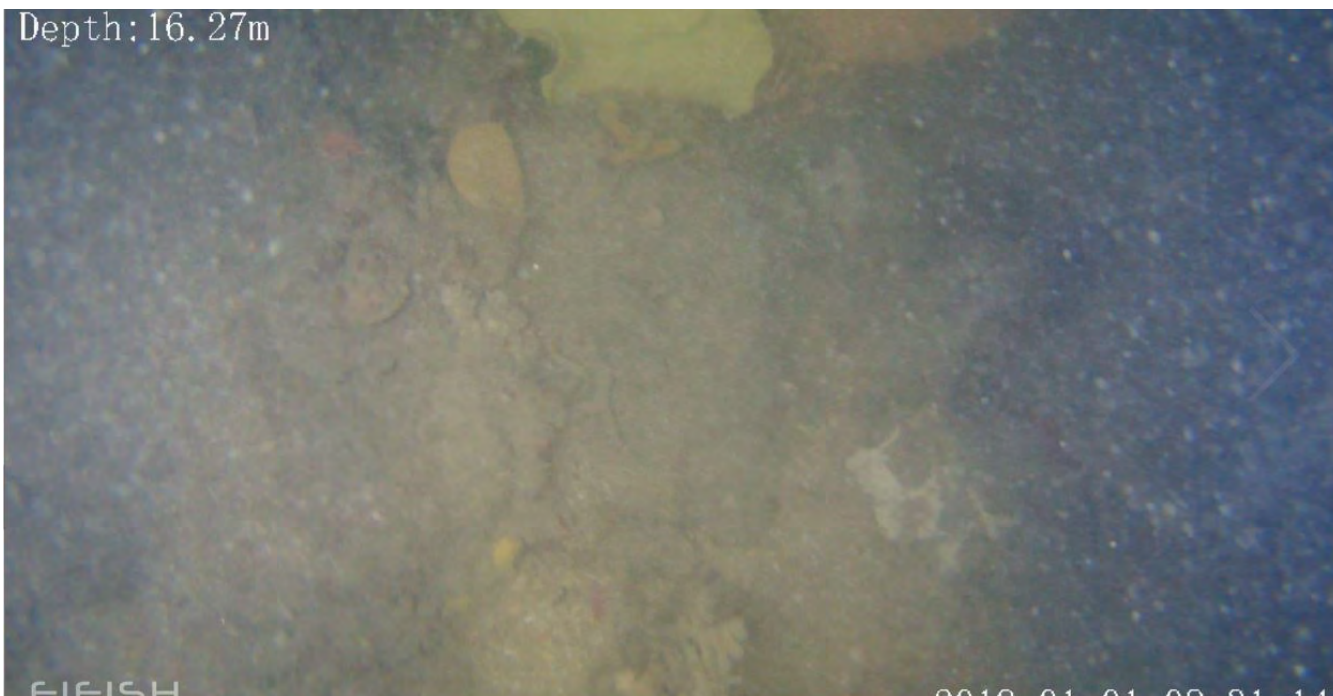
Depth: 10.06m



Site: 38B

UTM: 692465.544E, 8624870.276N (Zone 52)

Depth: 16.27m



Site: 39B

UTM: 692514.136E, 8624872.517N (Zone 52)

Depth: 15.38m



Site: 40B

UTM: 692516.377E, 8624823.925N (Zone 52)

Depth: 16.02m



Site: 41B

UTM: 692467.785E, 8624821.684N (Zone 52)

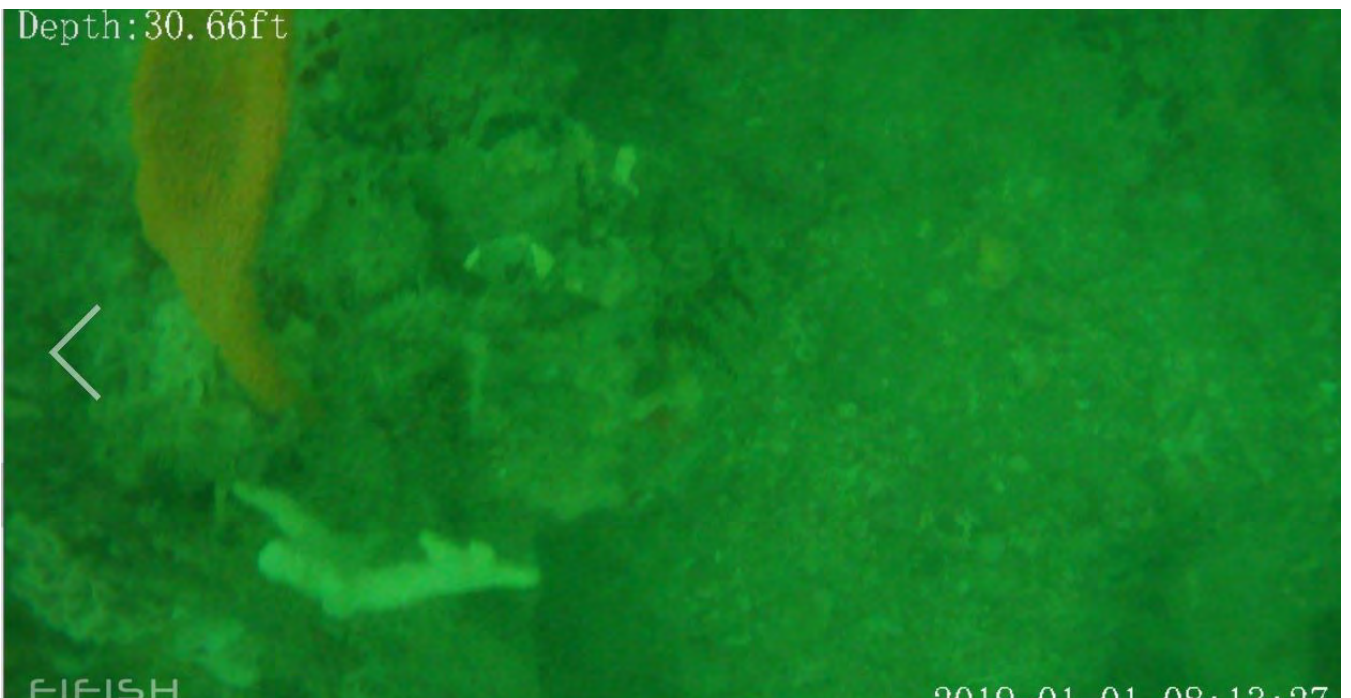
Depth: 10.22m



Site: 42B

UTM: 692470.026E, 8624773.092N (Zone 52)

Depth: 30.66ft



Site: 43B

UTM: 692518.618E, 8624775.333N (Zone 52)

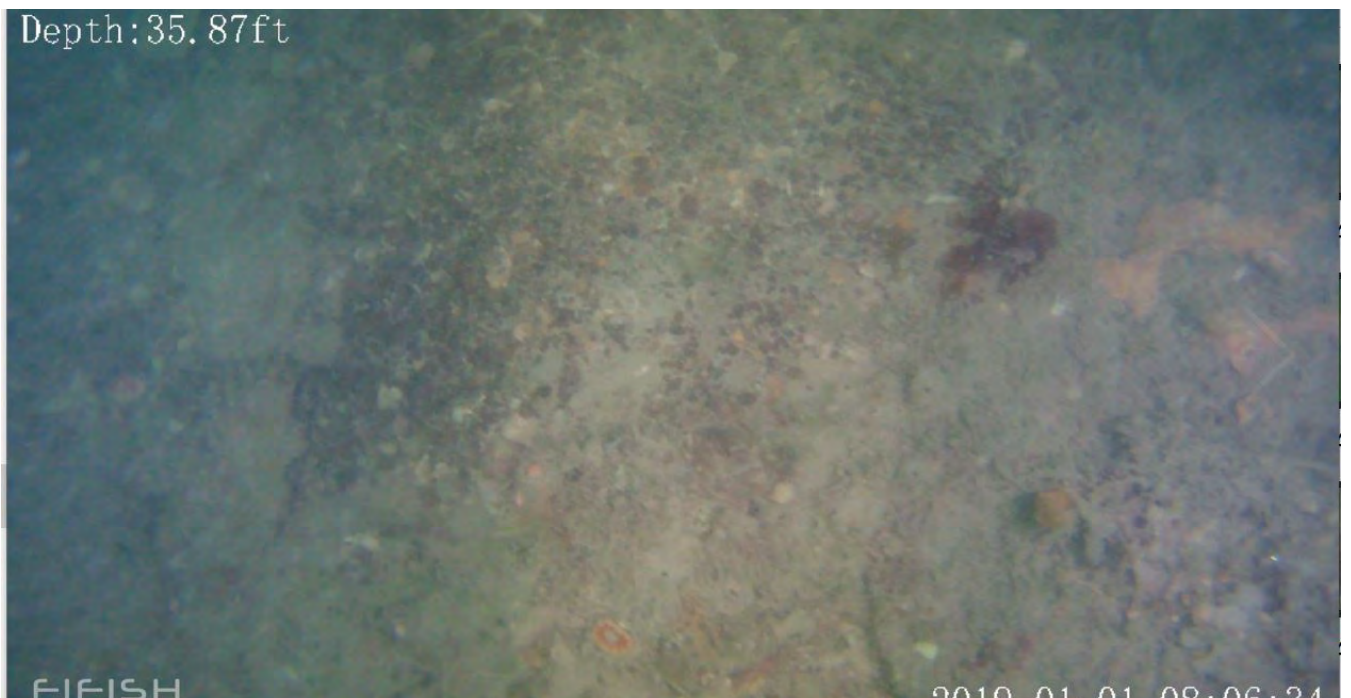
Depth: 50.26ft



Site: 44B

UTM: 692520.859E, 8624726.741N (Zone 52)

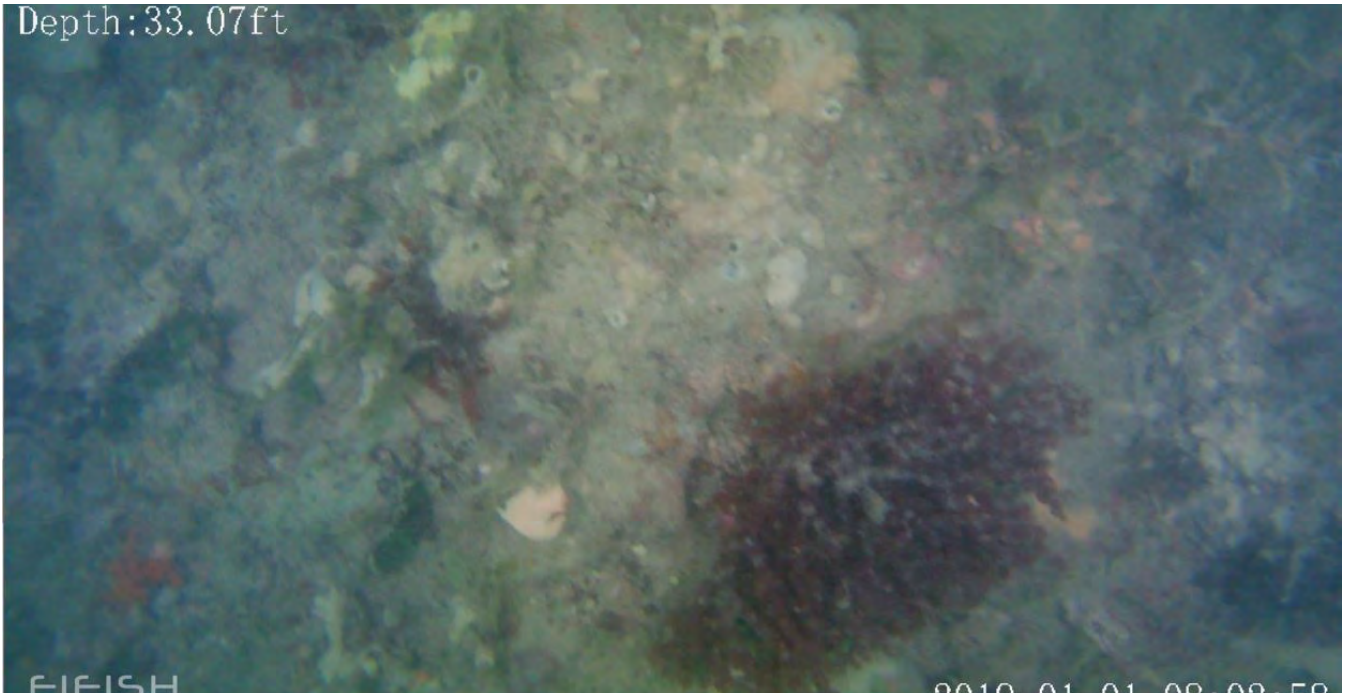
Depth: 35.87ft



Site: 45B

UTM: 692523.1E, 8624678.149N (Zone 52)

Depth: 33.07ft



Site: 1X

UTM: 692386.918E, 8625444.784N (Zone 52)

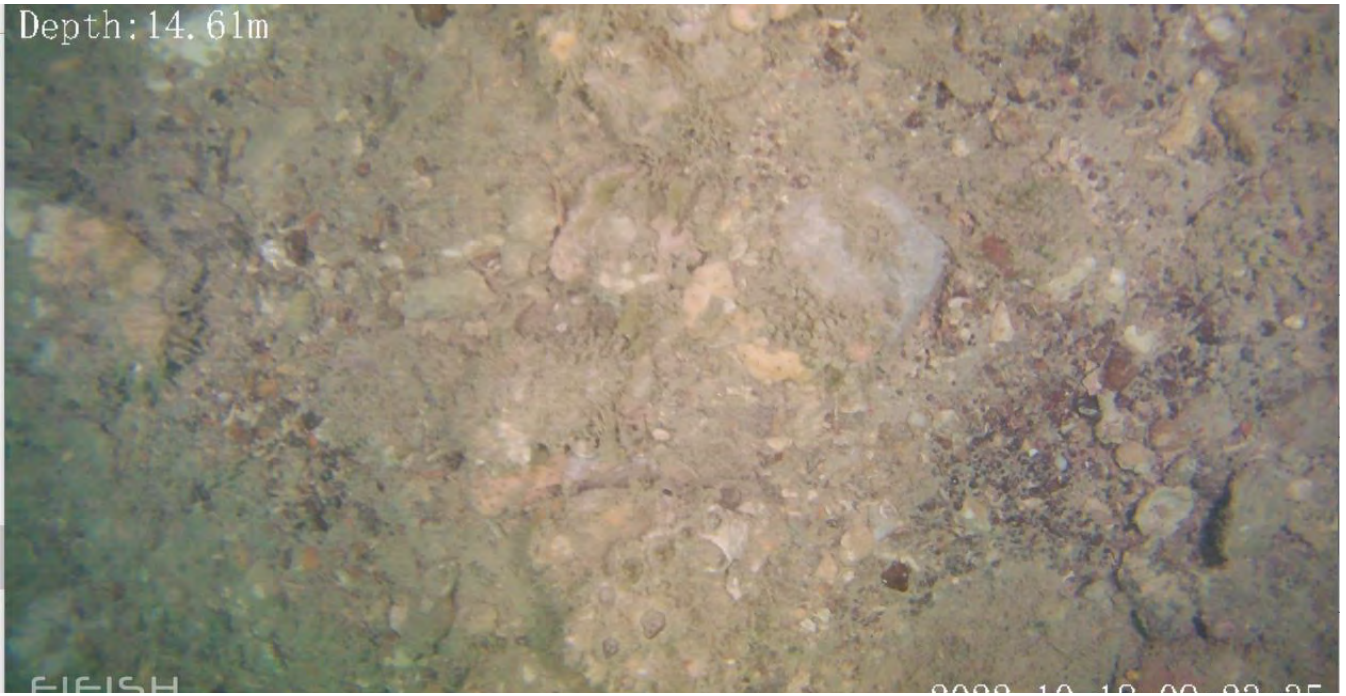
Depth: 15.81m



Site: 2X

UTM: 692395.714E. 8625404.774N (Zone 52)

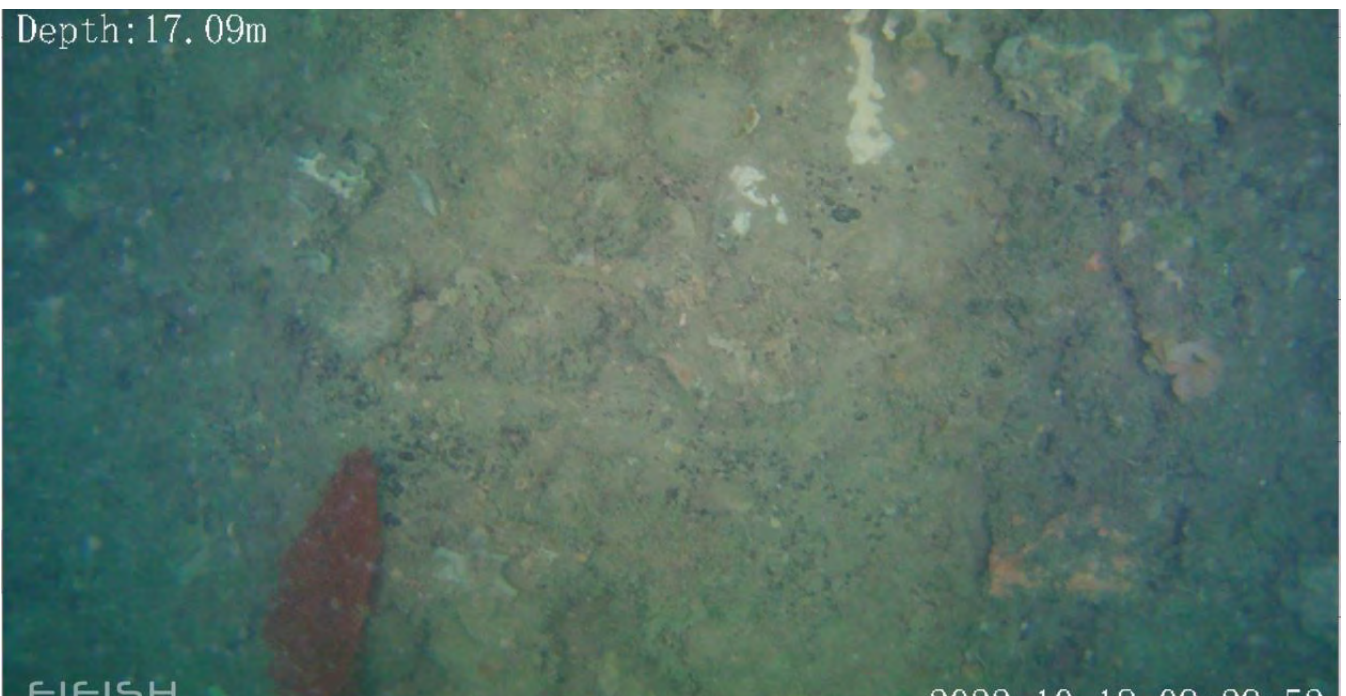
Depth: 14.61m



Site: 3X

UTM: 692395.346E. 8625349.459N (Zone 52)

Depth: 17.09m



Site: 4X

UTM: 692394.998E, 8625297.217N (Zone 52)

Depth: 15.13m



Site: 5X

UTM: 692394.733E, 8625257.268N (Zone 52)

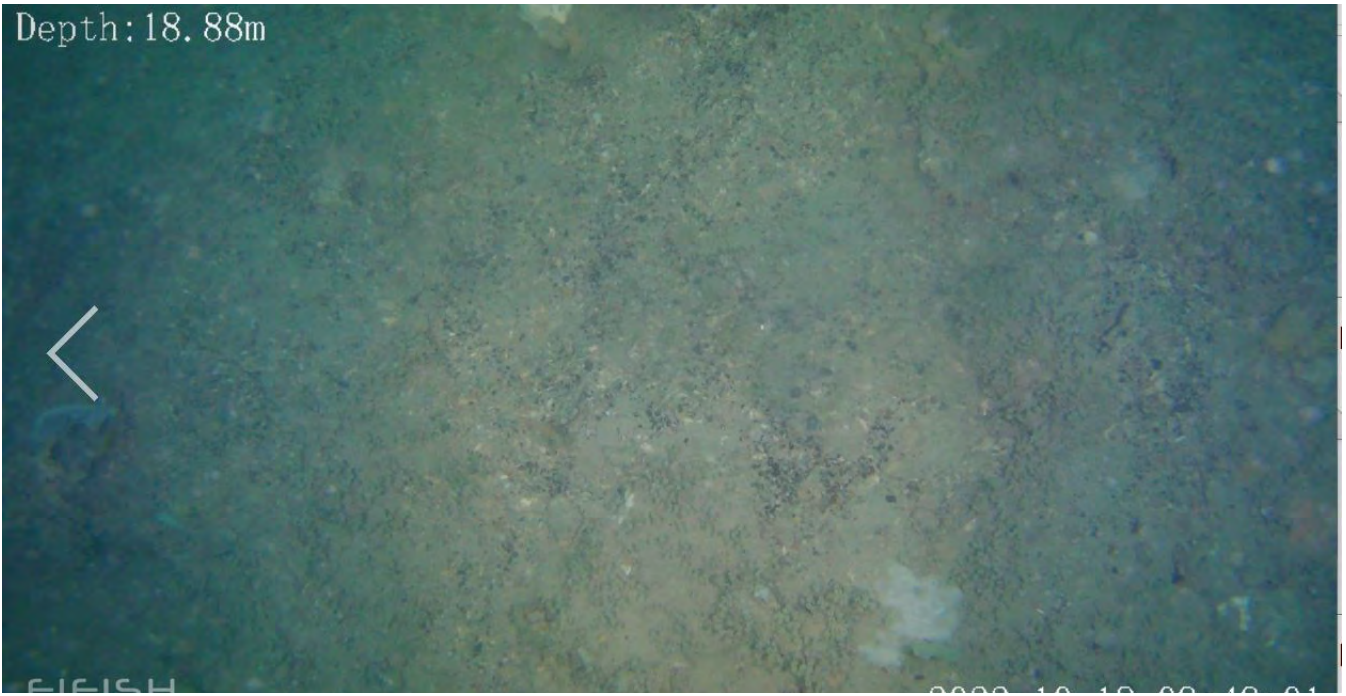
Depth: 17.03m



Site: 6X

UTM: 692406.466E, 8625204.946N (Zone 52)

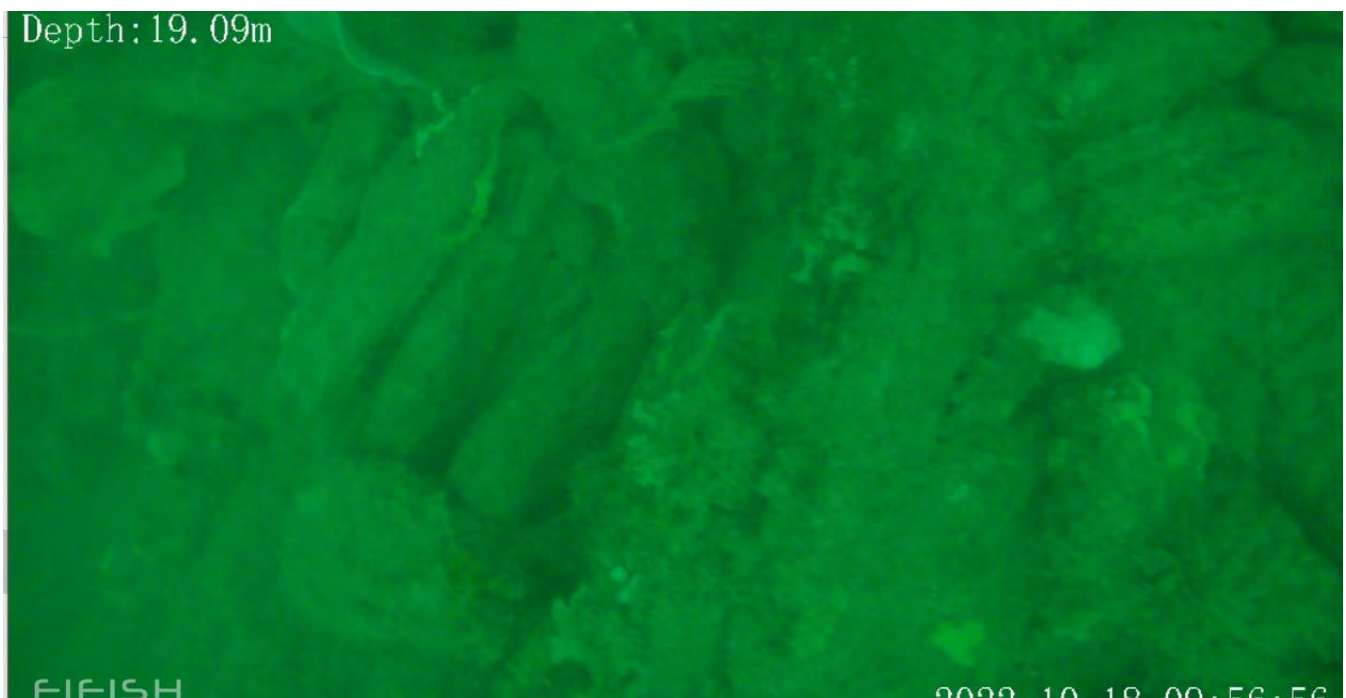
Depth: 18.88m



Site: 7X

UTM: 692457.546E, 8625164.654N (Zone 52)

Depth: 19.09m



Site: 8X

UTM: 692460.218E, 8625112.392N (Zone 52)

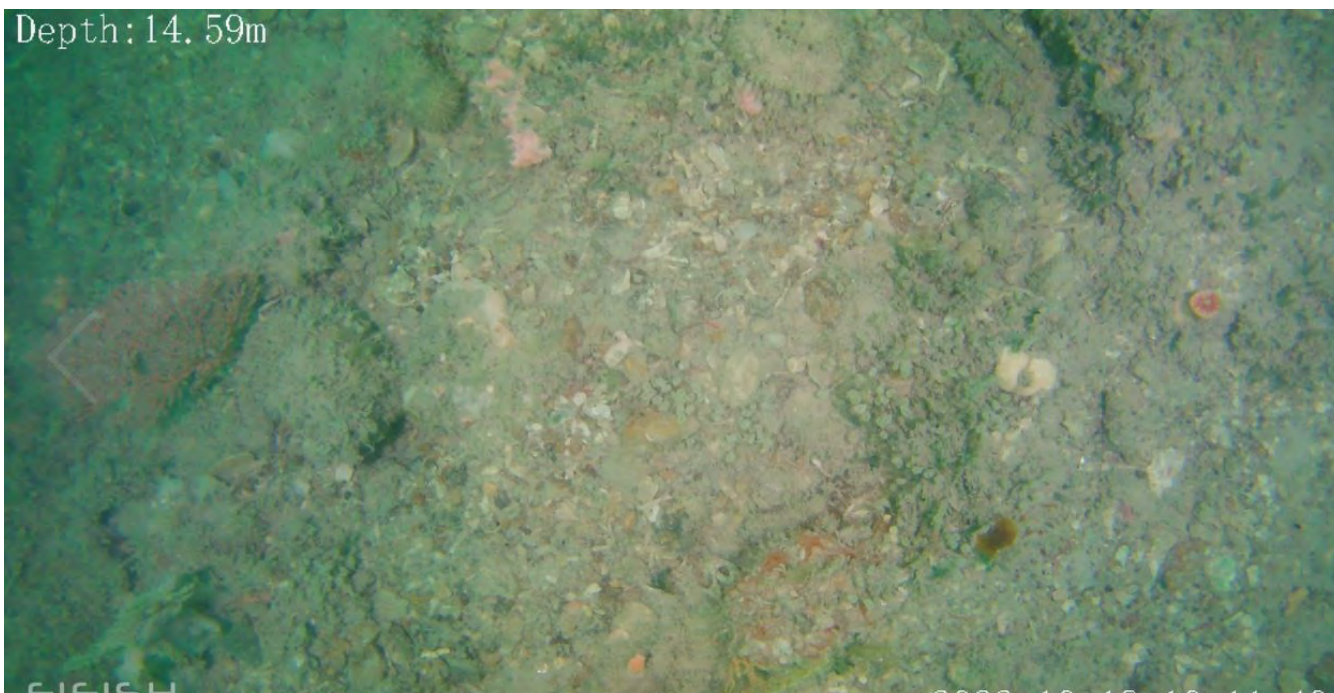
Depth: 14.92m



Site: 9X

UTM: 692505.195E, 8625062.922N (Zone 52)

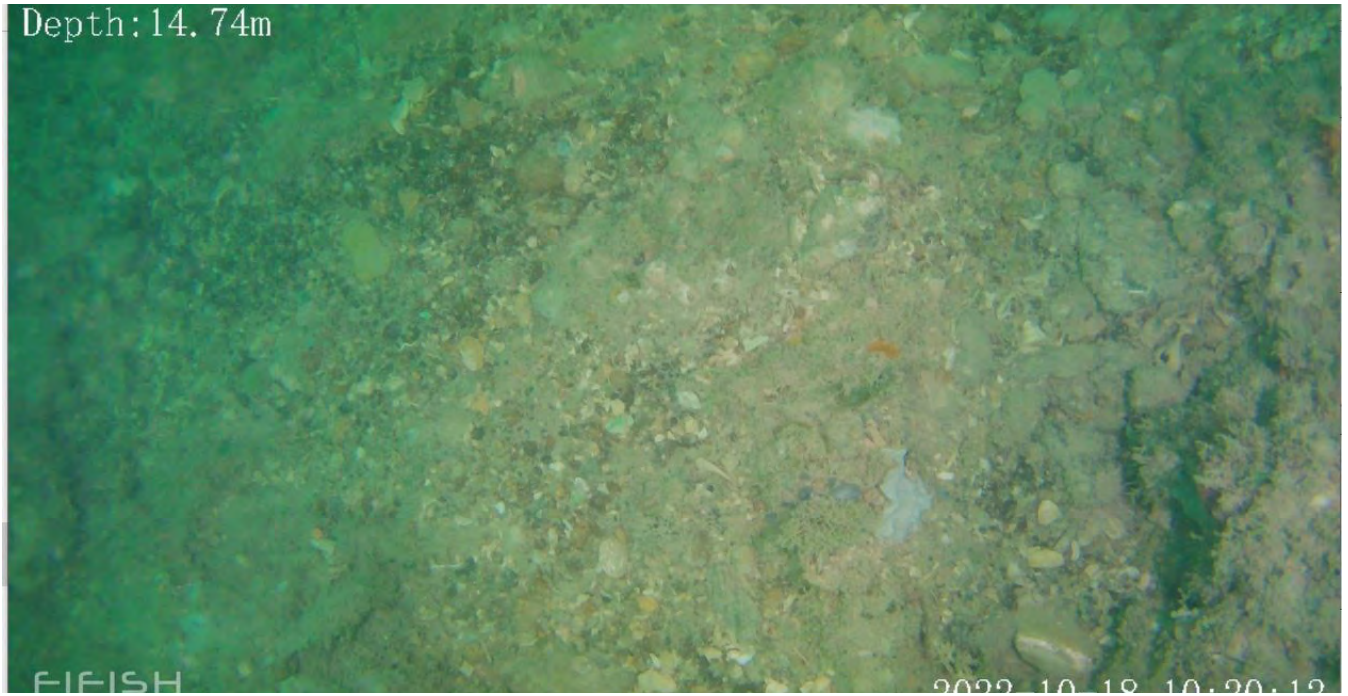
Depth: 14.59m



Site: 10X

UTM: 692507.929E, 8625019.879N (Zone 52)

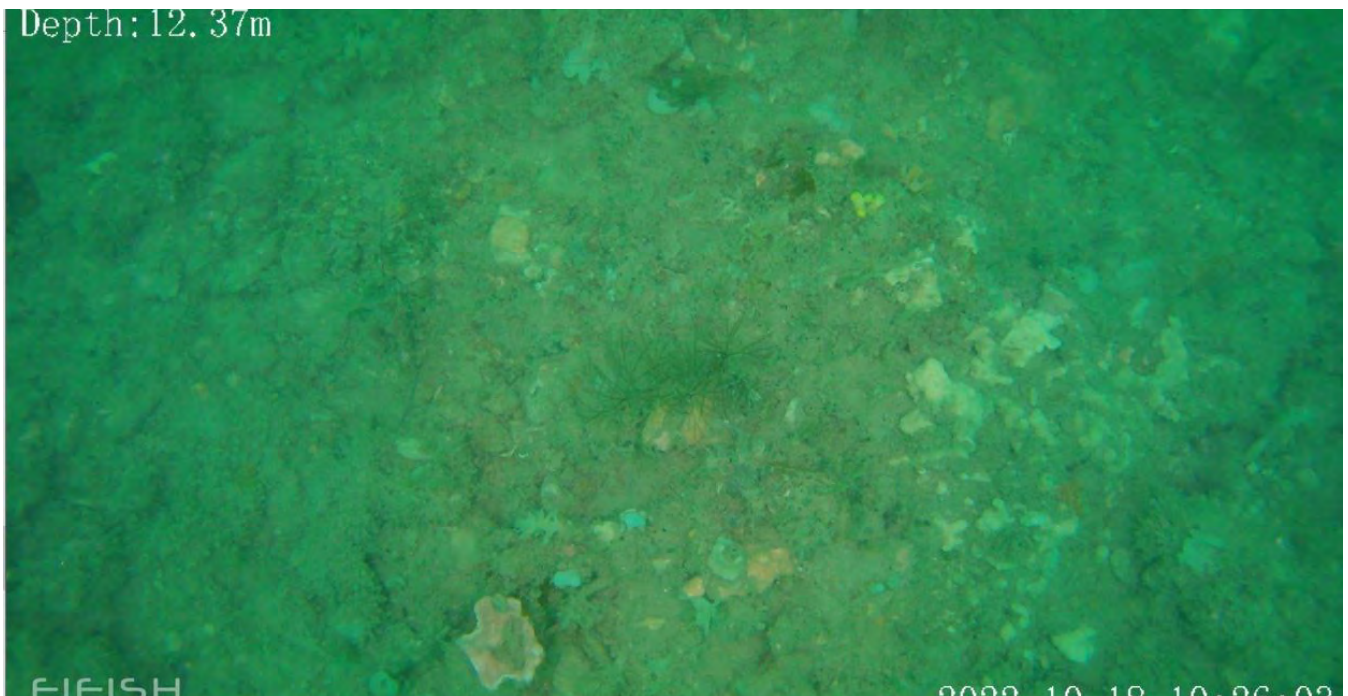
Depth: 14.74m



Site: 11X

UTM: 692558.947E, 8624970.369N (Zone 52)

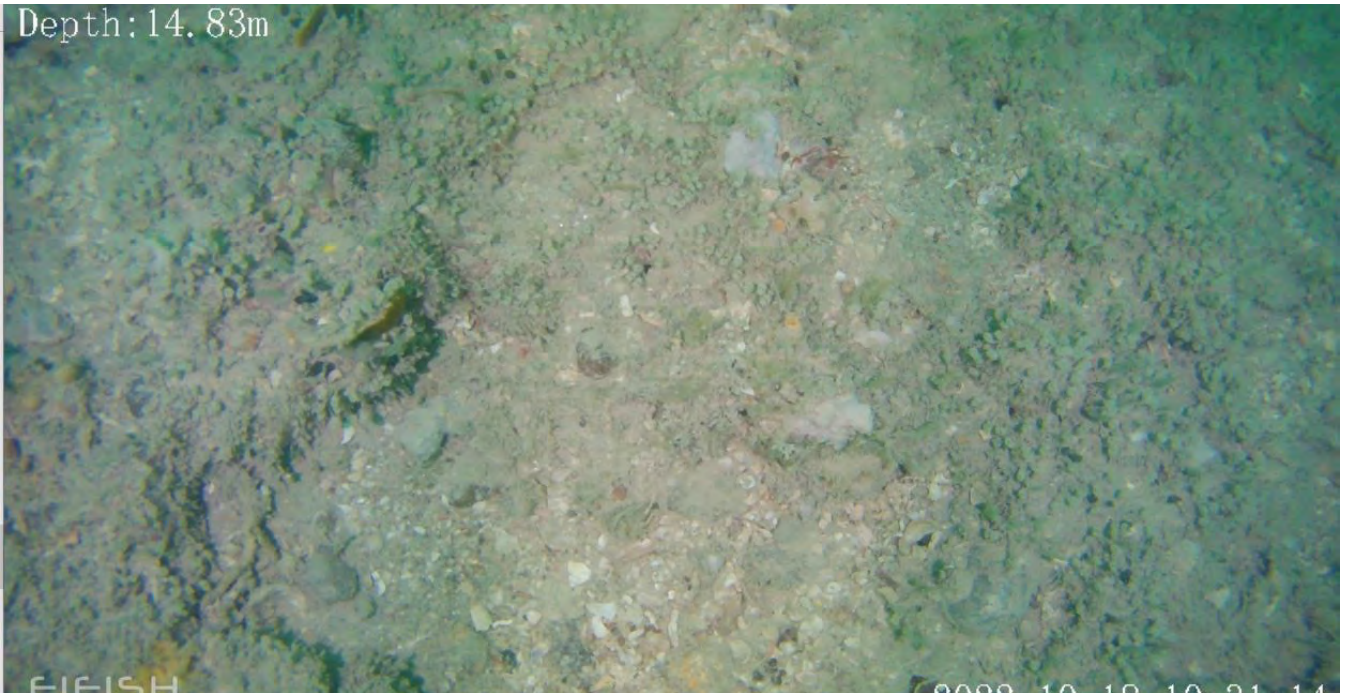
Depth: 12.37m



Site: 12X

UTM: 692555.578E, 8624918.147N (Zone 52)

Depth: 14.83m



Site: 13X

UTM: 692240.152E, 8624821.904N (Zone 52)

Depth: 15.17m

