

Appendix D

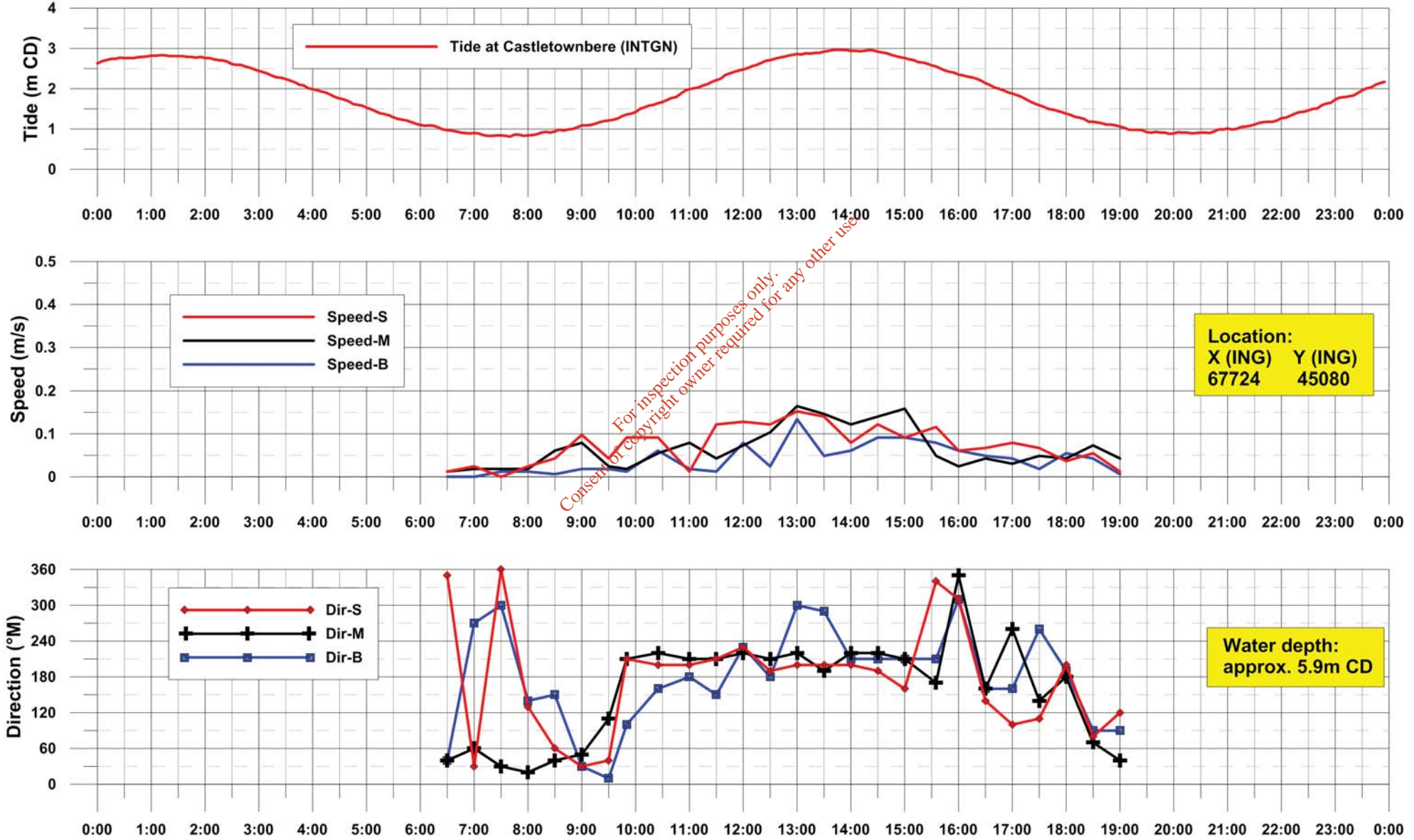
Drogue tracking survey

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UTAS Surveys for Arup & Irish Water

Castletownbere

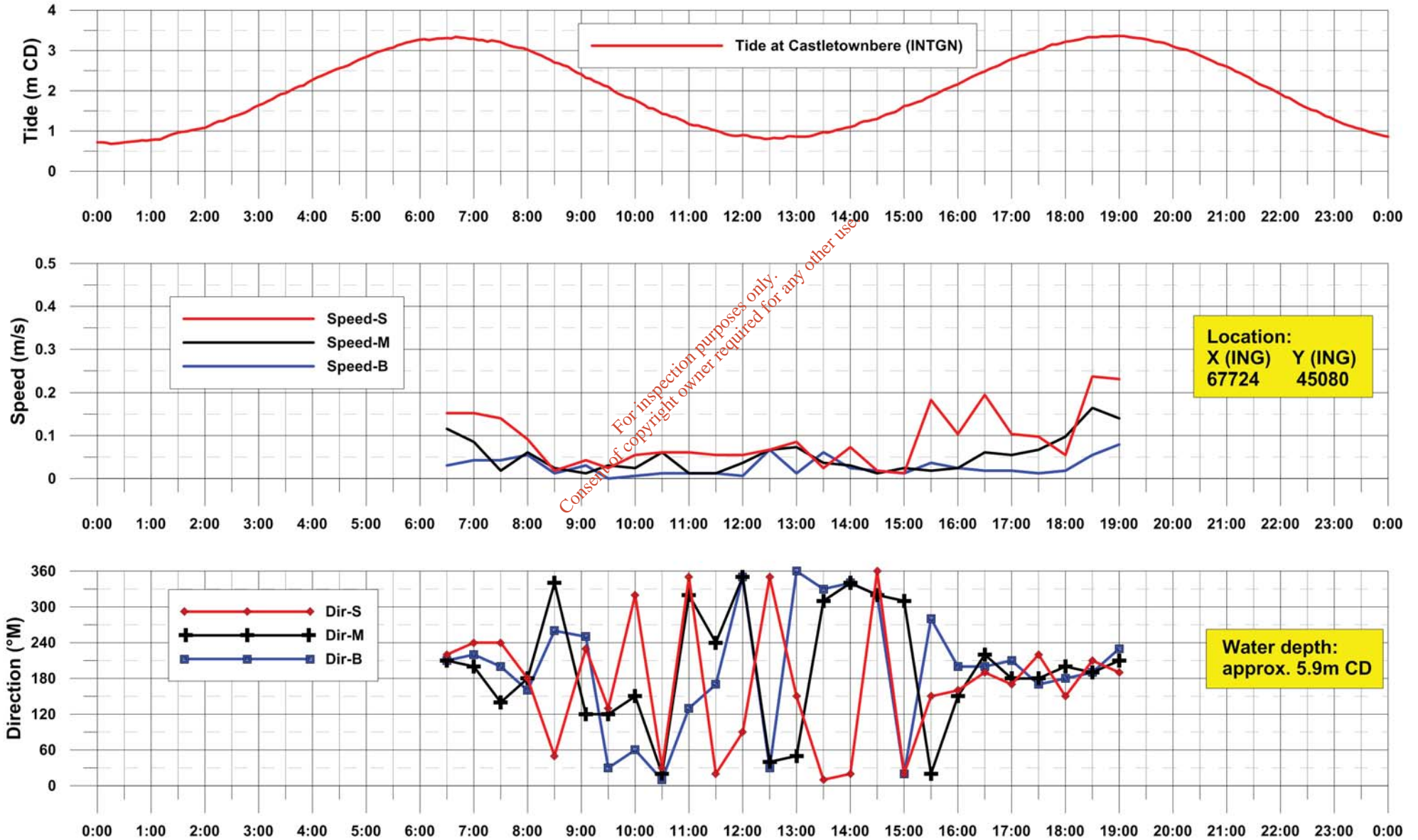
Fixed Station Current Speed and Direction - May 24th 2018



UTAS Surveys for Arup & Irish Water

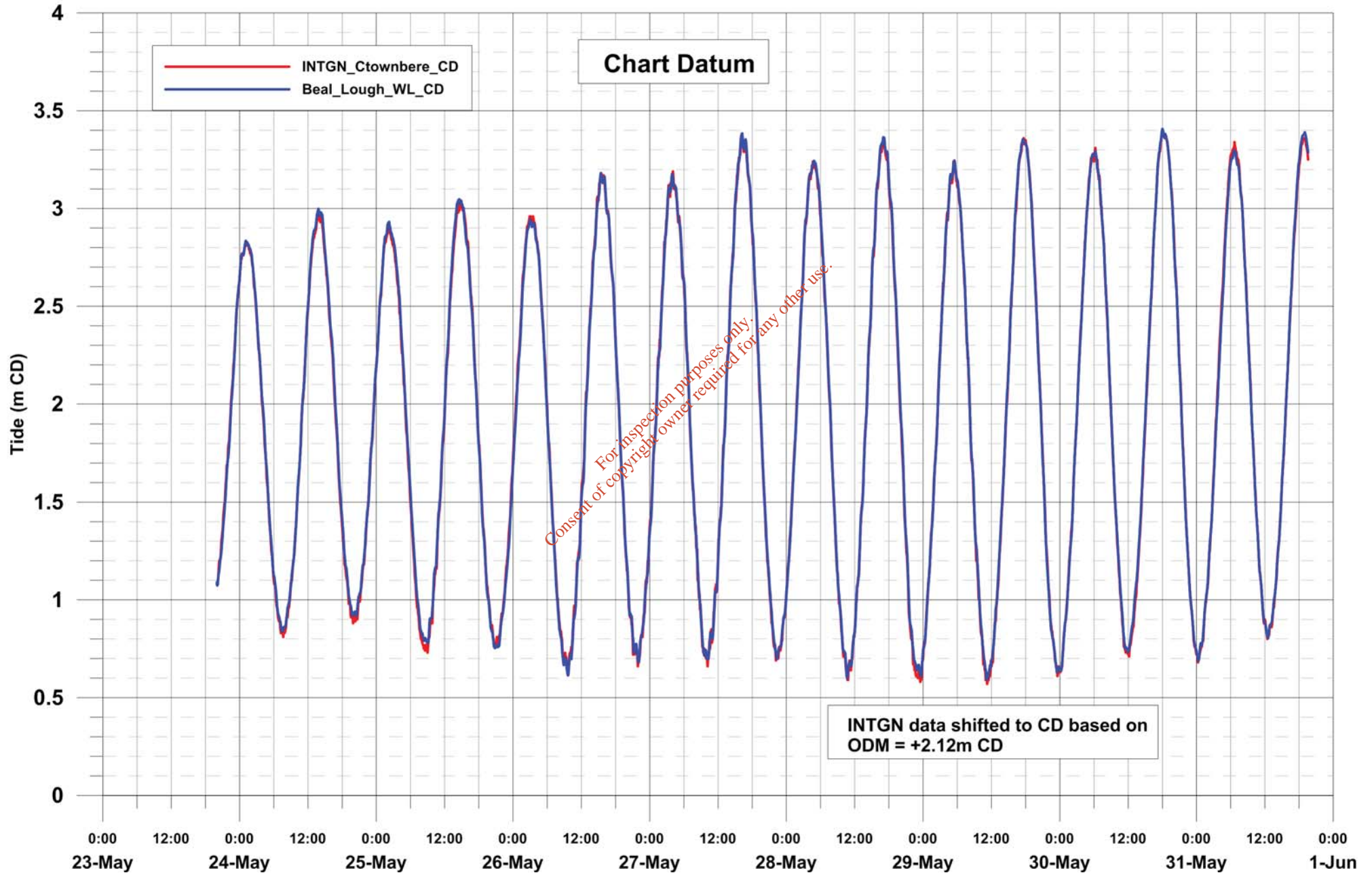
Castletownbere

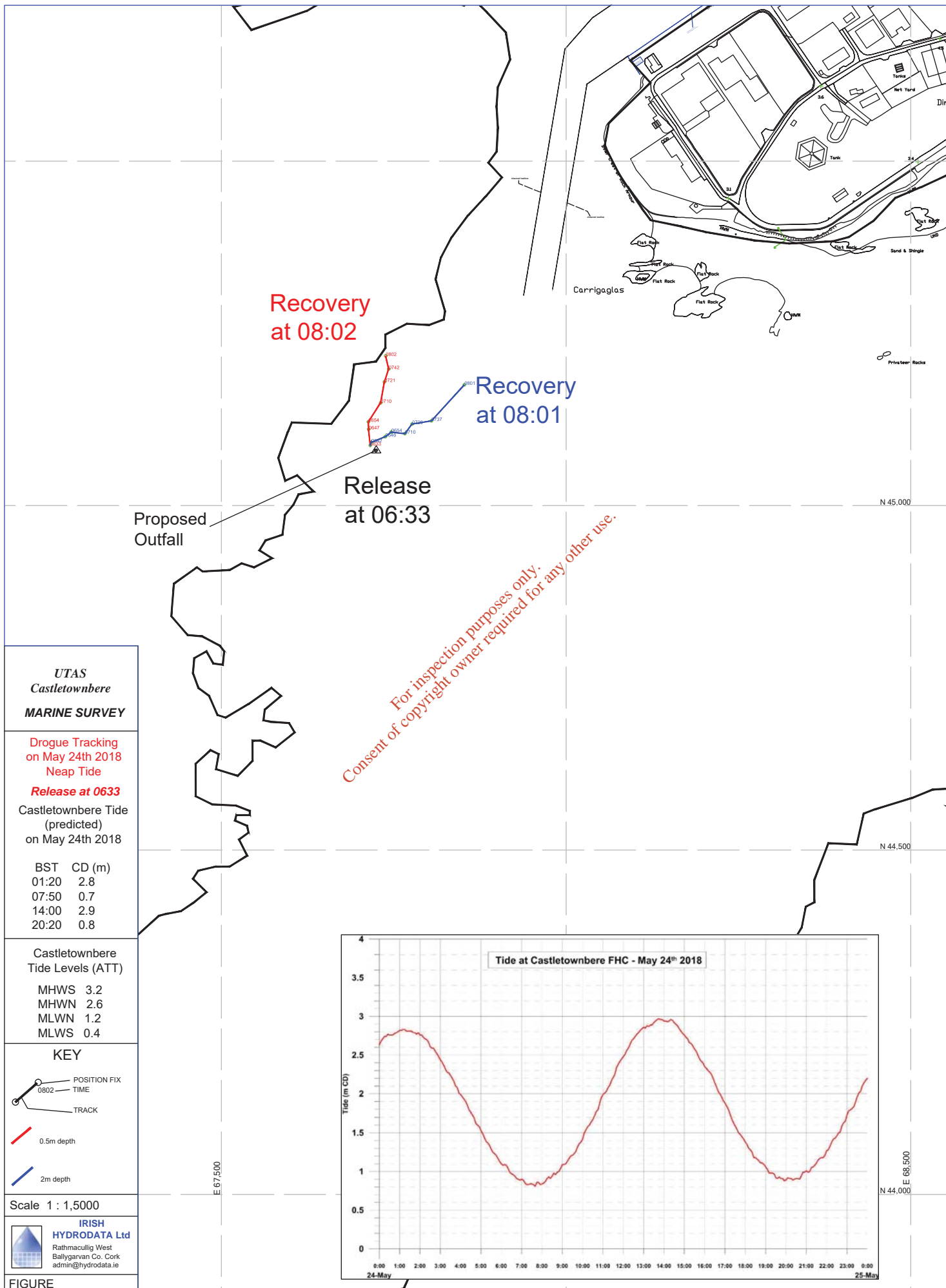
Fixed Station Current Speed and Direction - May 31st 2018



UTAS Surveys for Arup & Irish Water

Tide at Beal Lough Pier - May 23rd to 31st 2018





**UTAS
Castletownbere
MARINE SURVEY**

**Drogue Tracking
on May 24th 2018
Neap Tide**

Release at 0633

Castletownbere Tide
(predicted)
on May 24th 2018

BST	CD (m)
01:20	2.8
07:50	0.7
14:00	2.9
20:20	0.8

Castletownbere
Tide Levels (ATT)

MHWS	3.2
MHWN	2.6
MLWN	1.2
MLWS	0.4

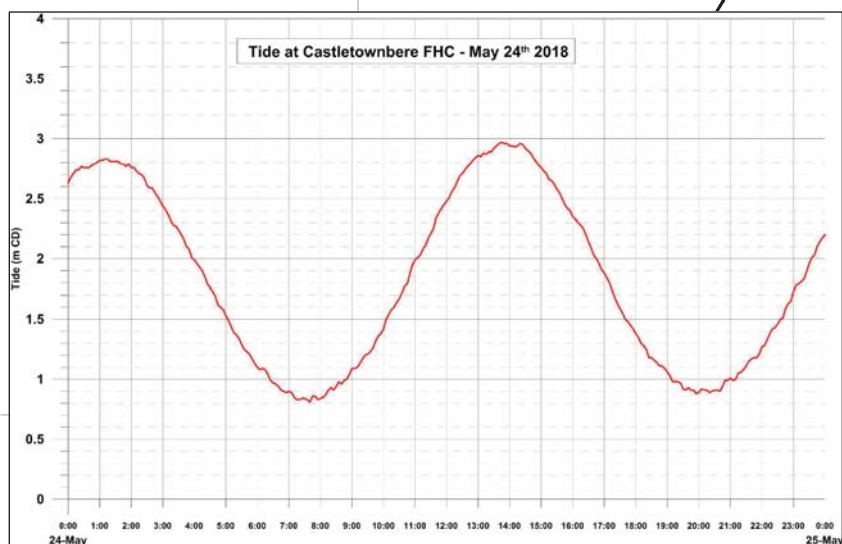
KEY

- POSITION FIX TIME
- TRACK
- 0.5m depth
- 2m depth

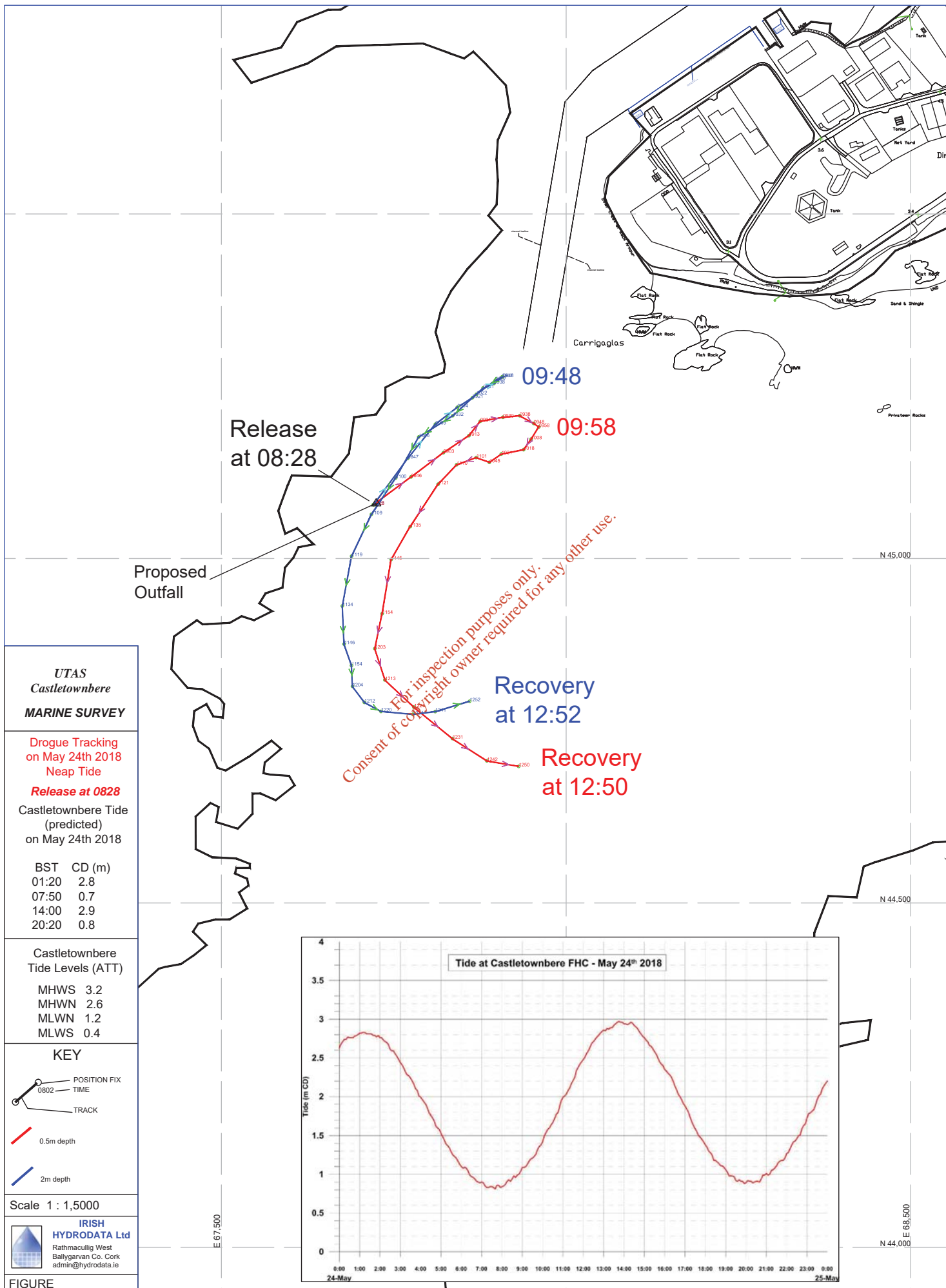
Scale 1 : 1,5000

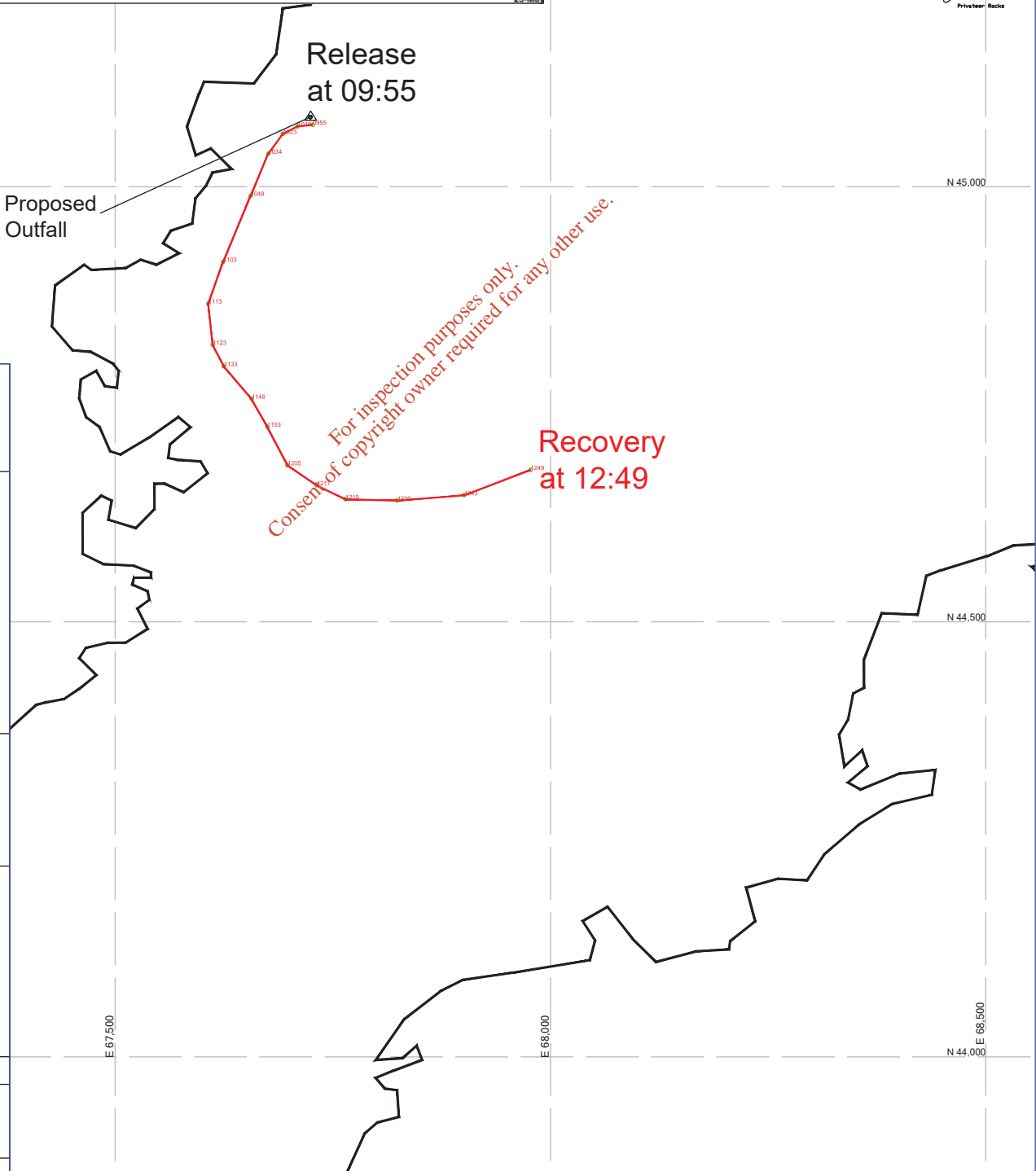
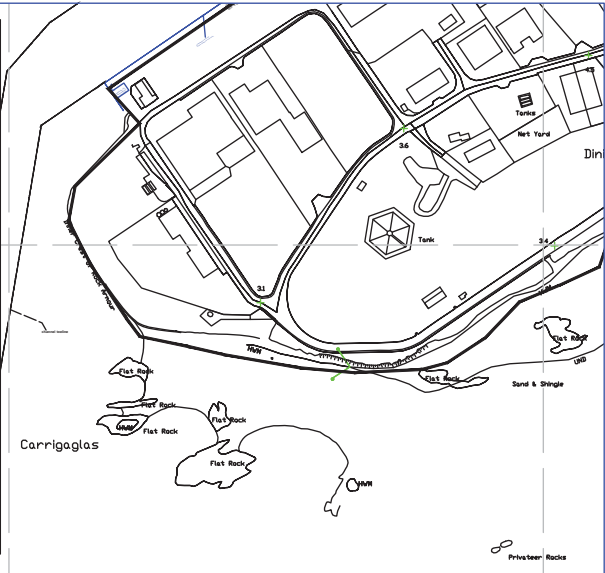
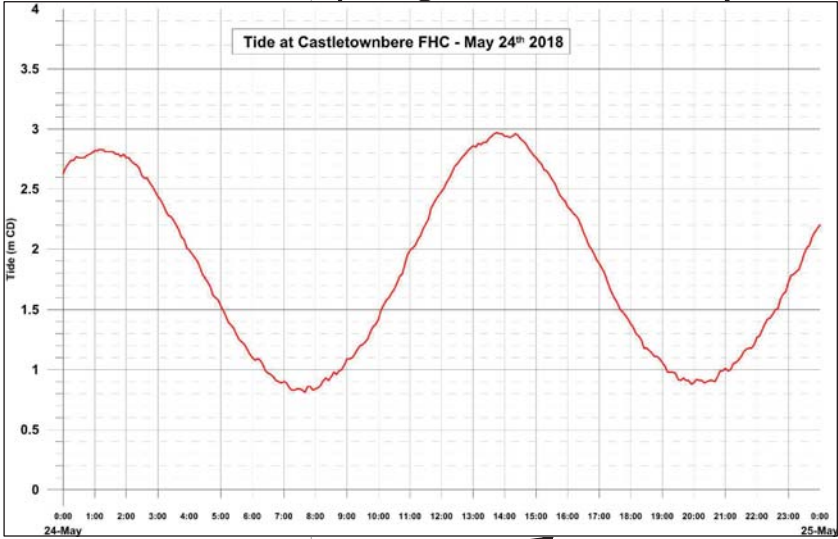


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FIGURE





**UTAS
Castletownbere
MARINE SURVEY**

Drogue Tracking
on May 24th 2018
Neap Tide

Release at 0955

Castletownbere Tide
(predicted)
on May 24th 2018

BST	CD (m)
01:20	2.8
07:50	0.7
14:00	2.9
20:20	0.8

Castletownbere
Tide Levels (ATT)

MHWS	3.2
MHWN	2.6
MLWN	1.2
MLWS	0.4

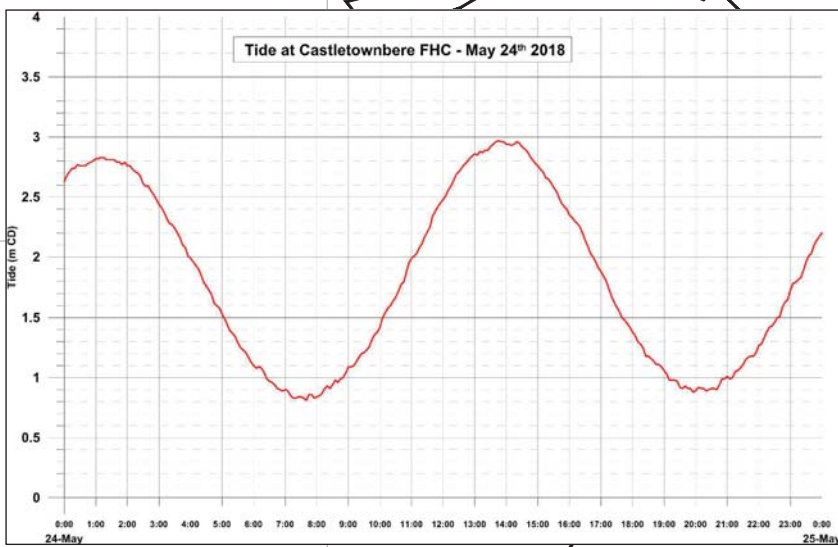
KEY

- POSITION FIX TIME
- TRACK
- 0.5m depth
- 2m depth

Scale 1 : 1,5000

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FIGURE



Release at 12:56

Proposed Outfall

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Recovery at 15:09

Recovery at 14:49

**UTAS
Castletownbere
MARINE SURVEY**

Drogue Tracking on May 24th 2018
Neap Tide

Release at 1256

Castletownbere Tide (predicted) on May 24th 2018

BST	CD (m)
01:20	2.8
07:50	0.7
14:00	2.9
20:20	0.8

Castletownbere Tide Levels (ATT)

MHWS	3.2
MHWN	2.6
MLWN	1.2
MLWS	0.4

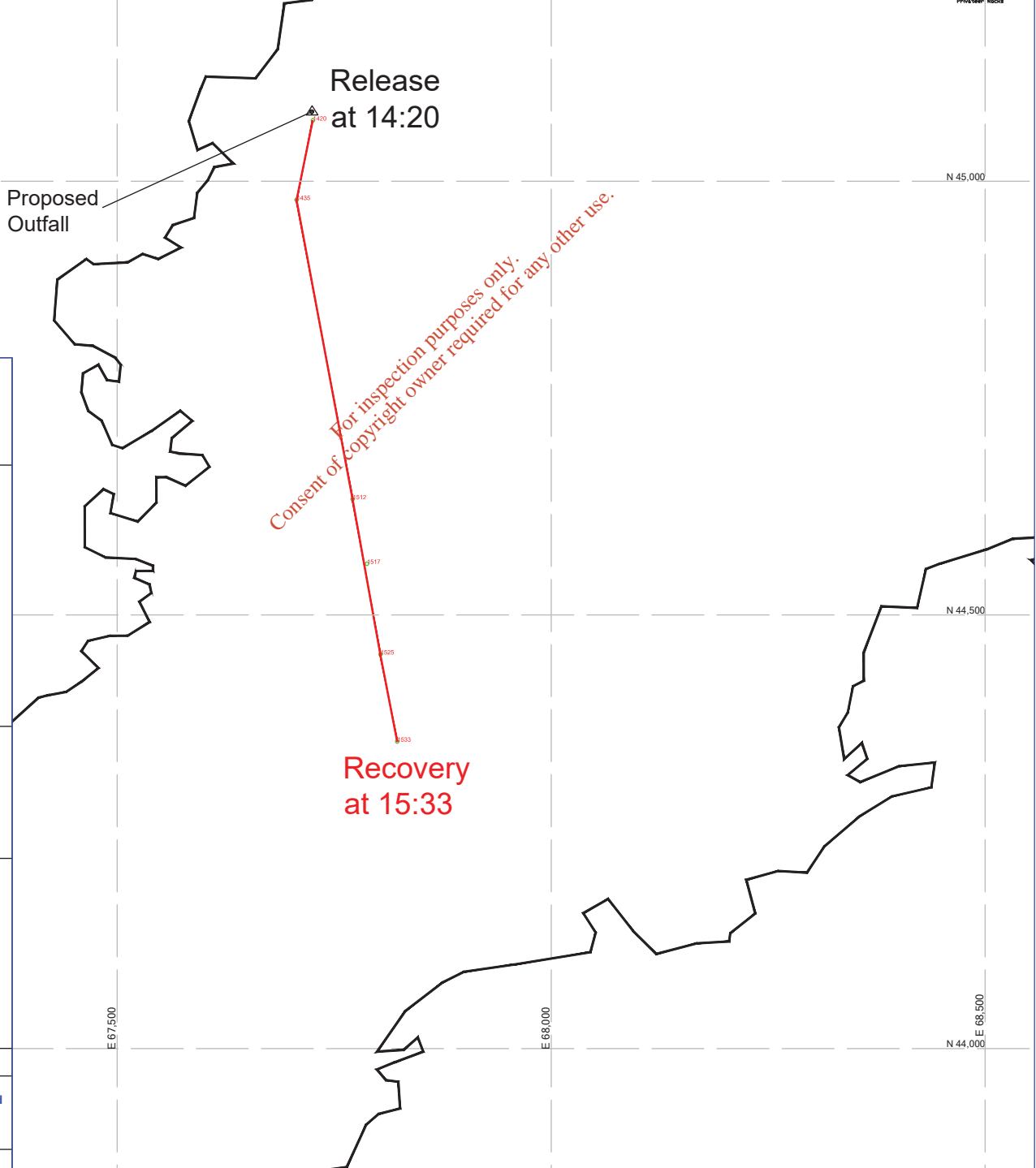
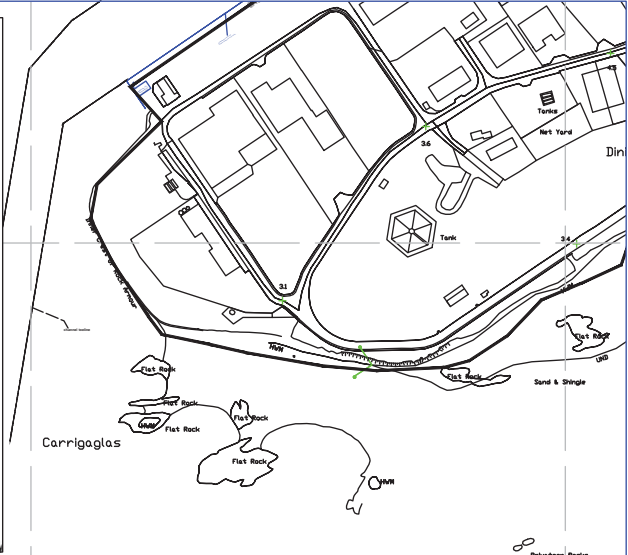
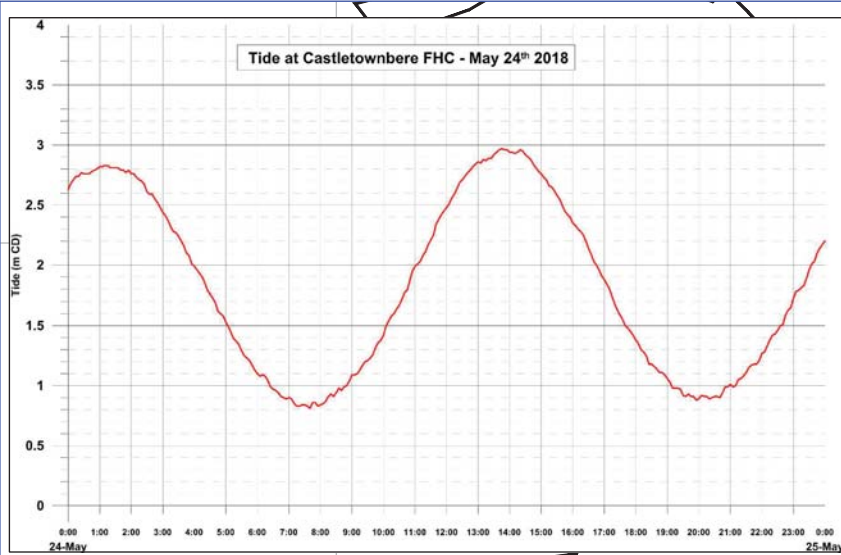
KEY

- POSITION FIX TIME
- TRACK
- 0.5m depth
- 2m depth

Scale 1 : 1,5000

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FIGURE



**UTAS
Castletownbere
MARINE SURVEY**

Drogue Tracking
on May 24th 2018
Neap Tide

Release at 1420

Castletownbere Tide
(predicted)
on May 24th 2018

BST	CD (m)
01:20	2.8
07:50	0.7
14:00	2.9
20:20	0.8

Castletownbere
Tide Levels (ATT)

MHWS	3.2
MHWN	2.6
MLWN	1.2
MLWS	0.4

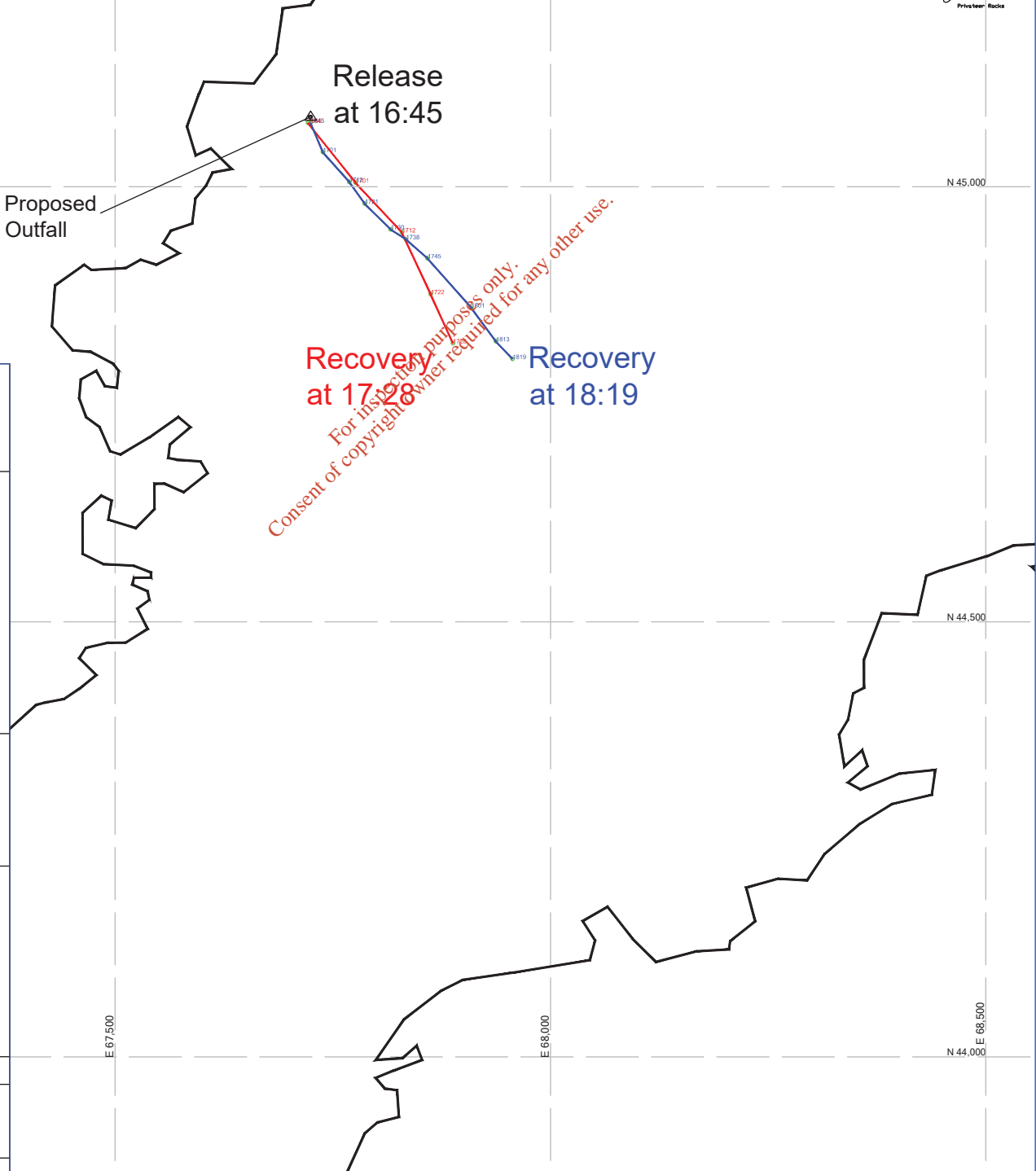
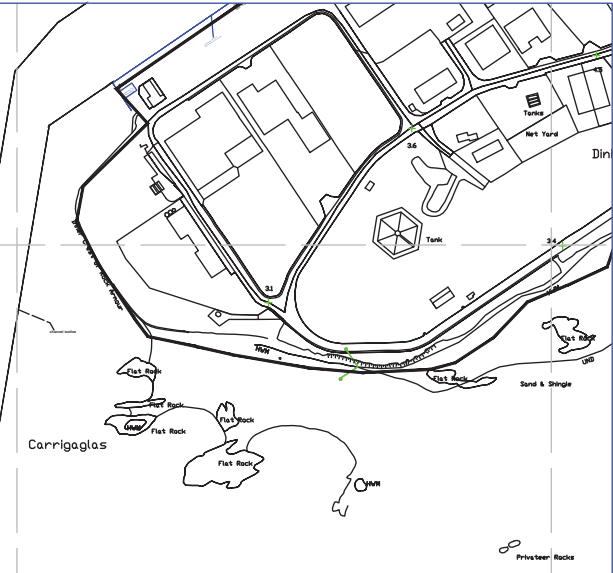
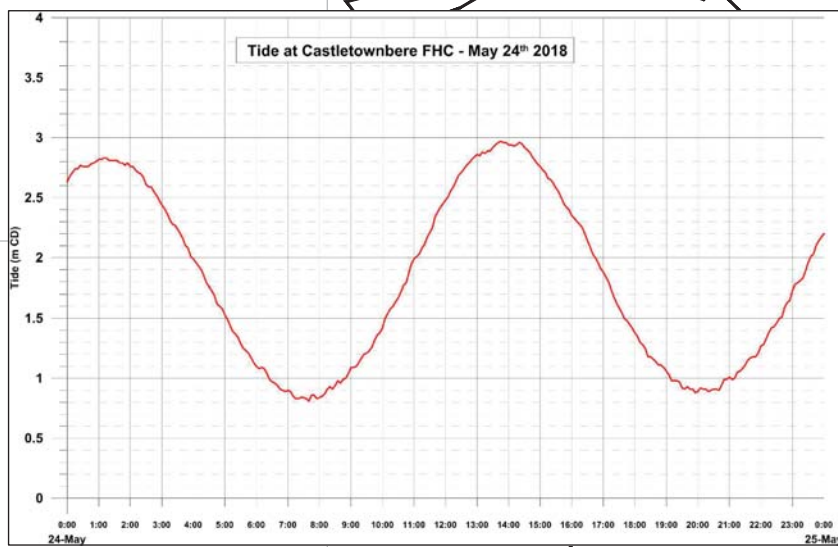
KEY

- POSITION FIX TIME
- TRACK
- 0.5m depth
- 2m depth

Scale 1 : 1,5000

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FIGURE



Release at 16:45

Proposed Outfall

Recovery at 17:28

Recovery at 18:19

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**UTAS
Castletownbere
MARINE SURVEY**

Drogue Tracking on May 24th 2018
Neap Tide

Release at 1645

Castletownbere Tide (predicted) on May 24th 2018

BST	CD (m)
01:20	2.8
07:50	0.7
14:00	2.9
20:20	0.8

Castletownbere Tide Levels (ATT)

MHWS	3.2
MHWN	2.6
MLWN	1.2
MLWS	0.4

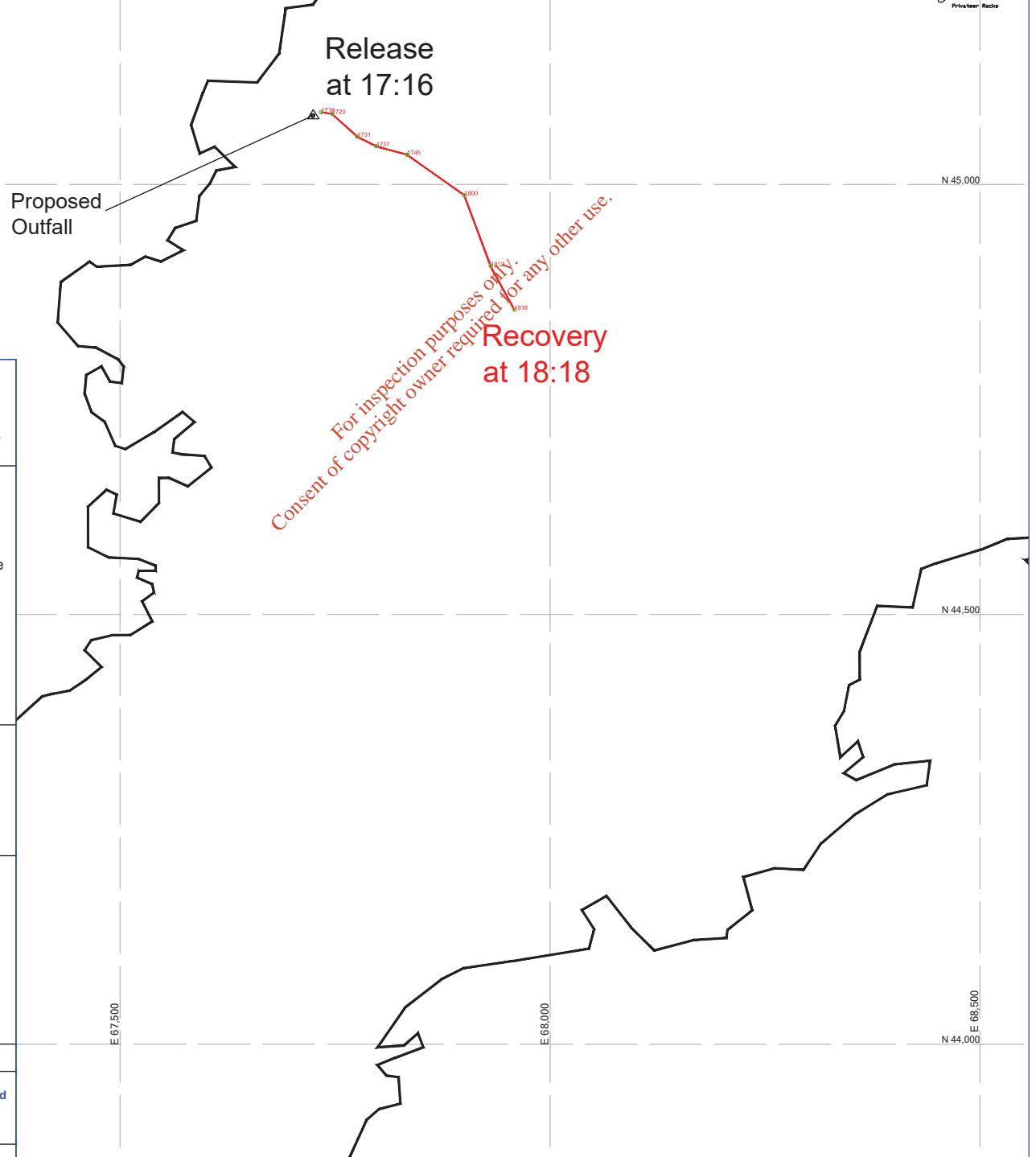
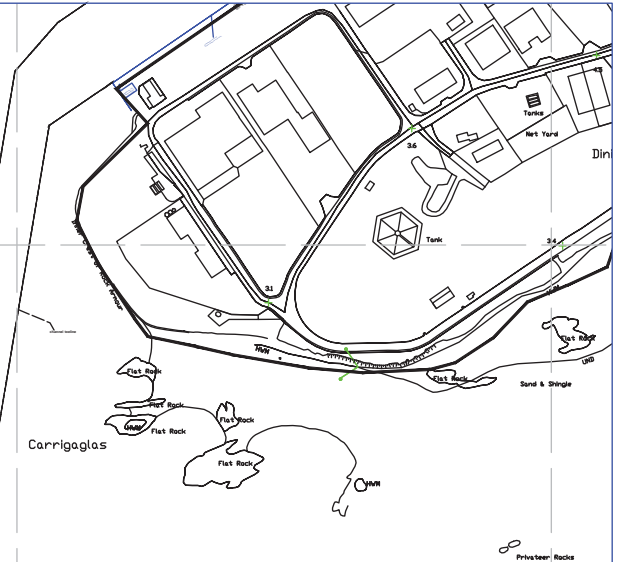
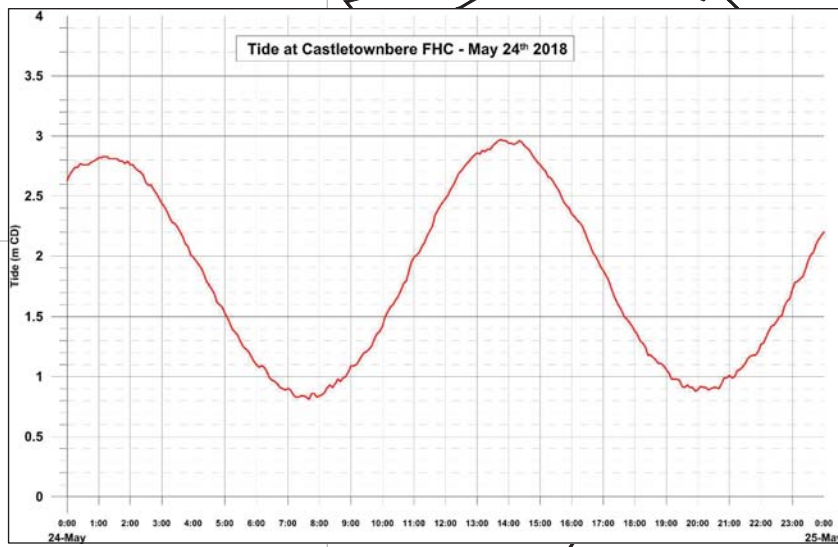
KEY

- POSITION FIX TIME
- TRACK
- 0.5m depth
- 2m depth

Scale 1 : 1,5000

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FIGURE



**UTAS
Castletownbere
MARINE SURVEY**

Drogue Tracking
on May 24th 2018
Neap Tide

Release at 1716

Castletownbere Tide
(predicted)
on May 24th 2018

BST	CD (m)
01:20	2.8
07:50	0.7
14:00	2.9
20:20	0.8

Castletownbere
Tide Levels (ATT)

MHWS	3.2
MHWN	2.6
MLWN	1.2
MLWS	0.4

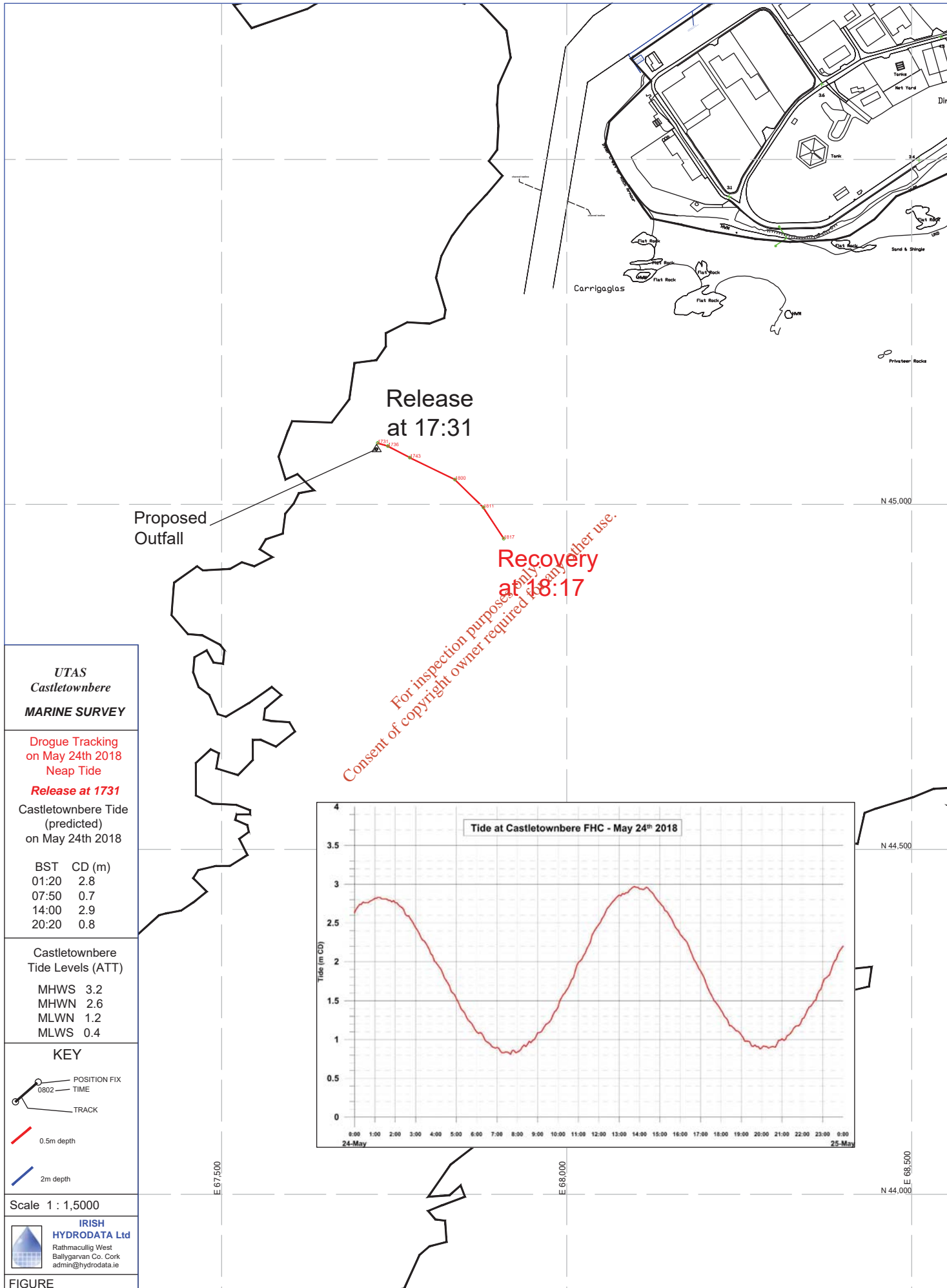
KEY

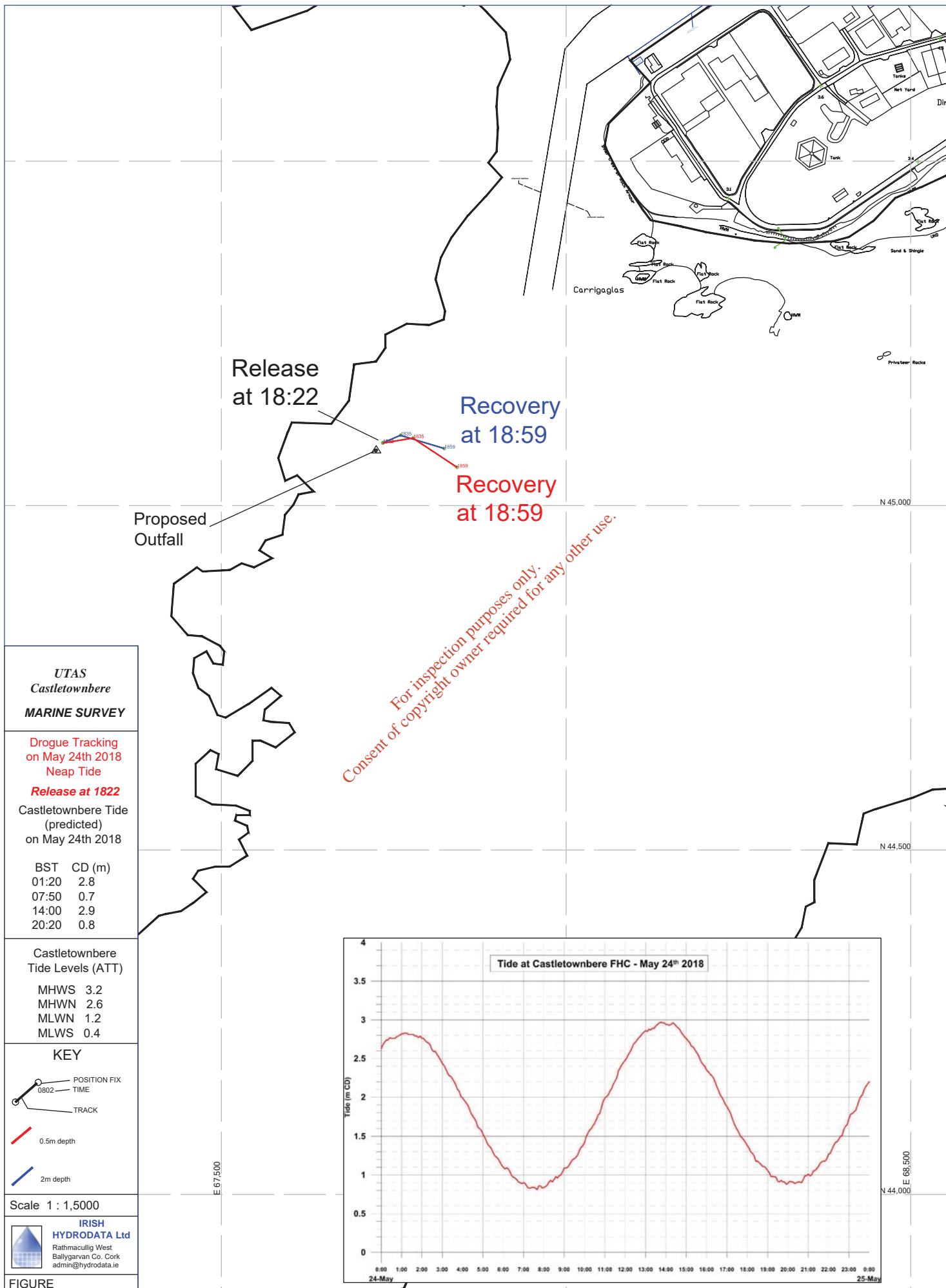
- POSITION FIX TIME
- TRACK
- 0.5m depth
- 2m depth

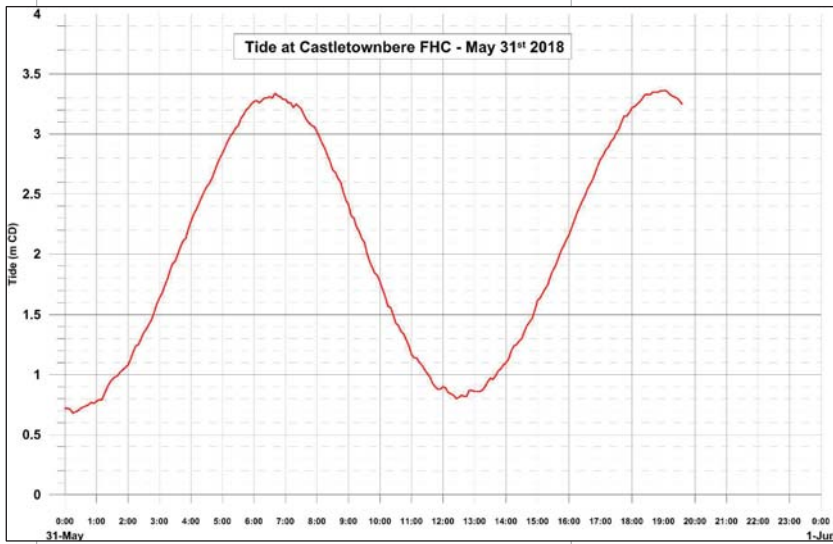
Scale 1 : 1,5000

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FIGURE







Release at 06:31

Proposed Outfall

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UTAS
Castletownbere
MARINE SURVEY

Drogue Tracking
on May 31st 2018
Spring Tide

Release at 0631

Castletownbere Tide
(predicted)
on May 31st 2018

BST	CD (m)
00:20	0.6
06:50	3.2
12:40	0.7
19:00	3.2

Castletownbere Tide Levels (ATT)

MHWS	3.2
MHWN	2.6
MLWN	1.2
MLWS	0.4

KEY

- POSITION FIX TIME
- TRACK
- 0.5m depth
- 2m depth

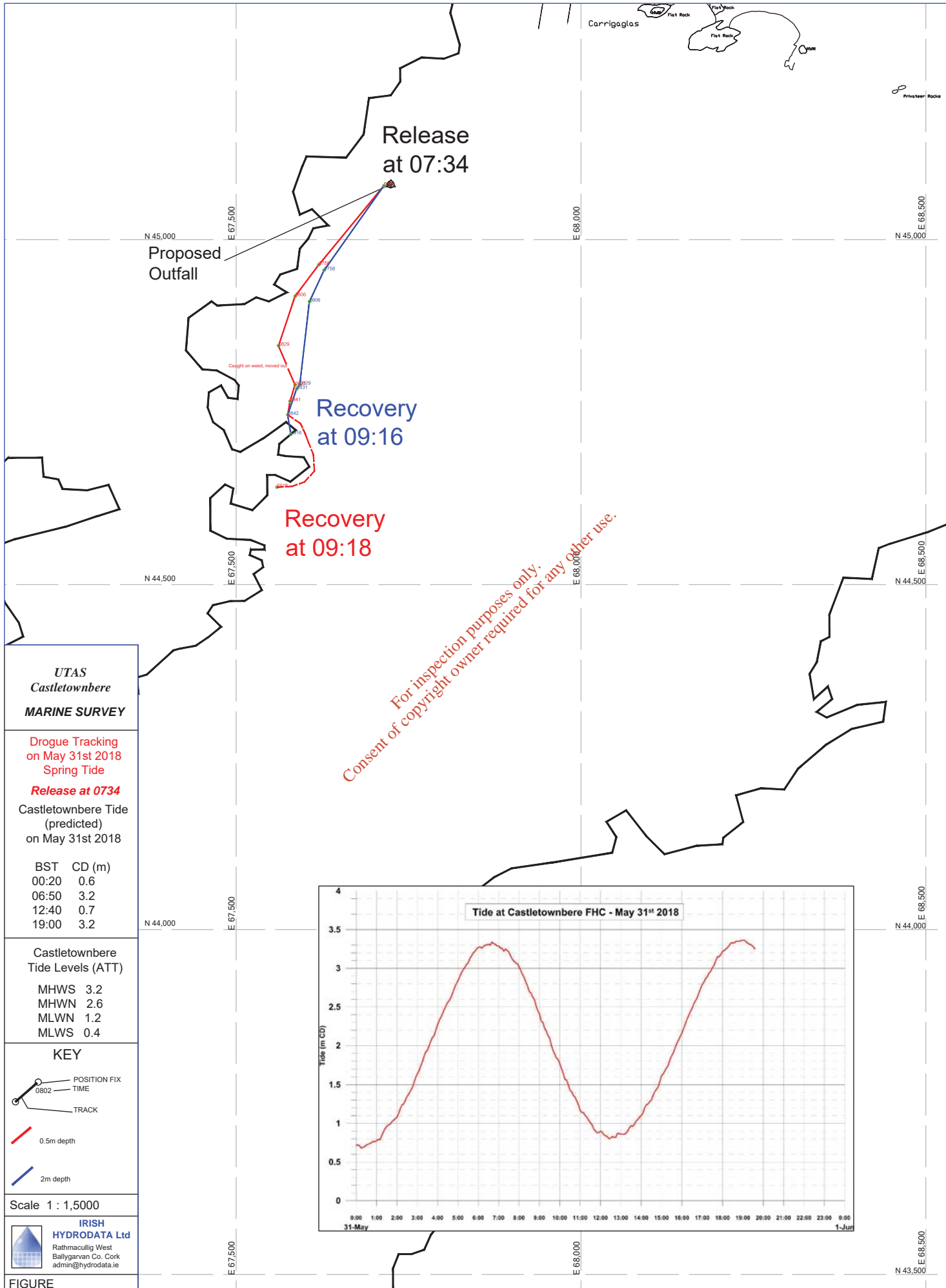
Scale 1 : 1,5000

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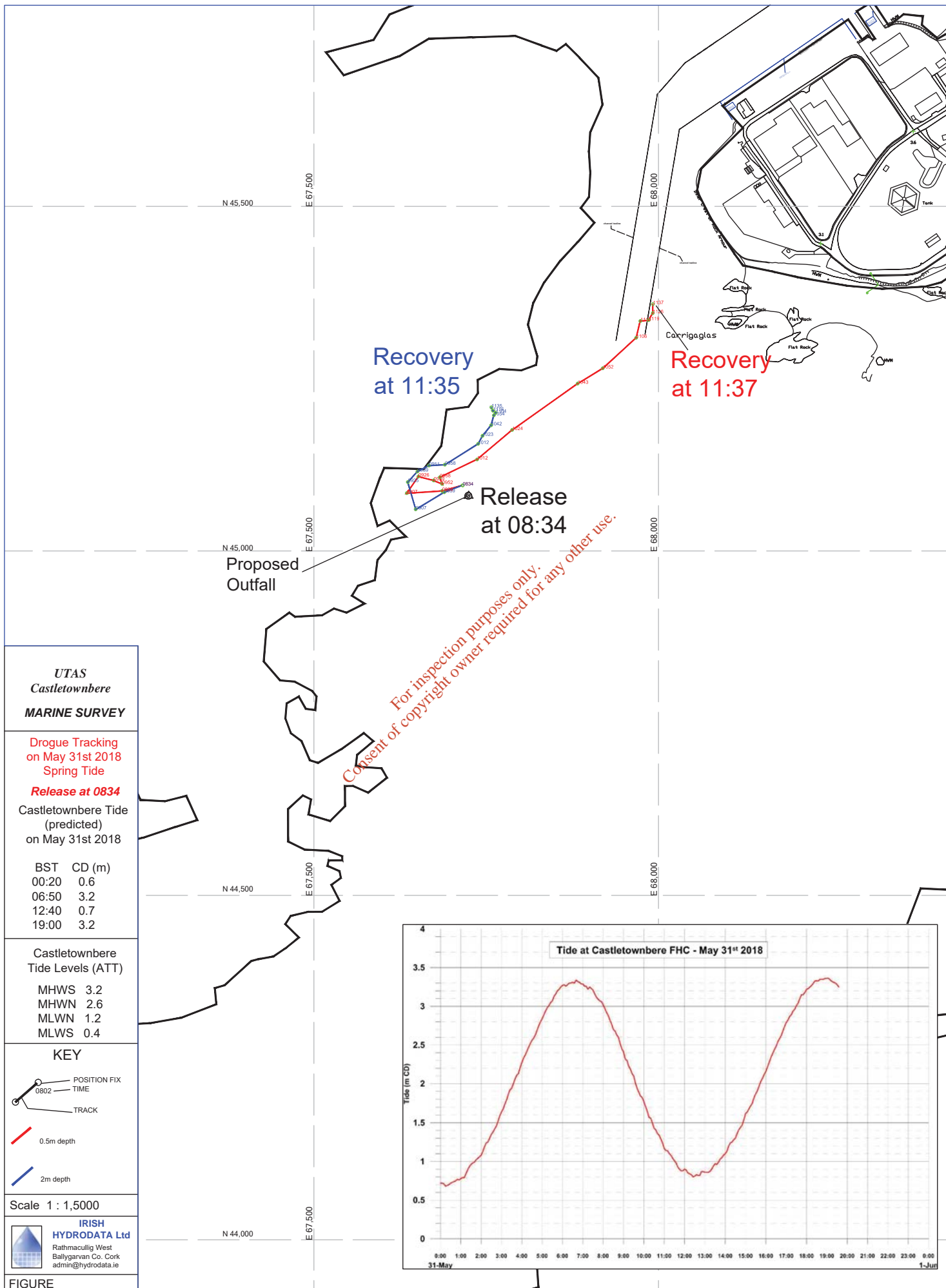
Recovery at 08:24

Recovery at 08:22

FIGURE



FIGURE



**UTAS
Castletownbere
MARINE SURVEY**

**Drogue Tracking
on May 31st 2018
Spring Tide**

Release at 0834

Castletownbere Tide
(predicted)
on May 31st 2018

BST	CD (m)
00:20	0.6
06:50	3.2
12:40	0.7
19:00	3.2

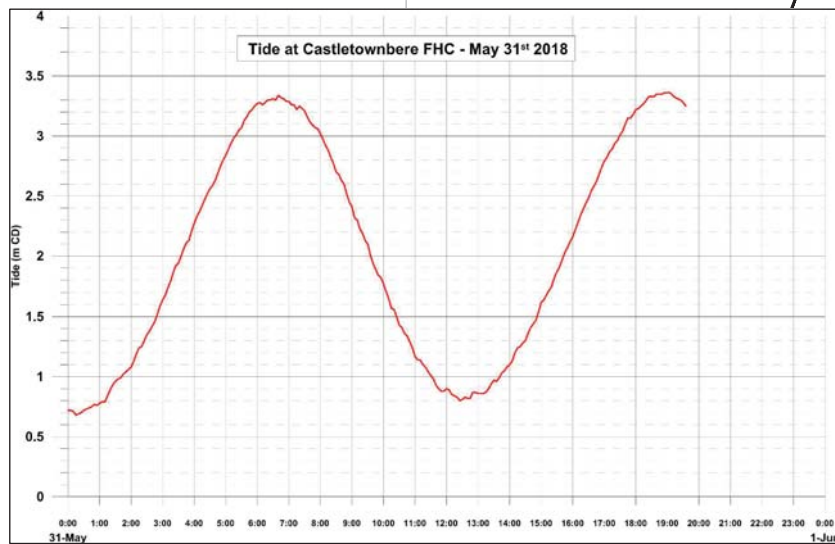
Castletownbere
Tide Levels (ATT)

MHWS	3.2
MHWN	2.6
MLWN	1.2
MLWS	0.4

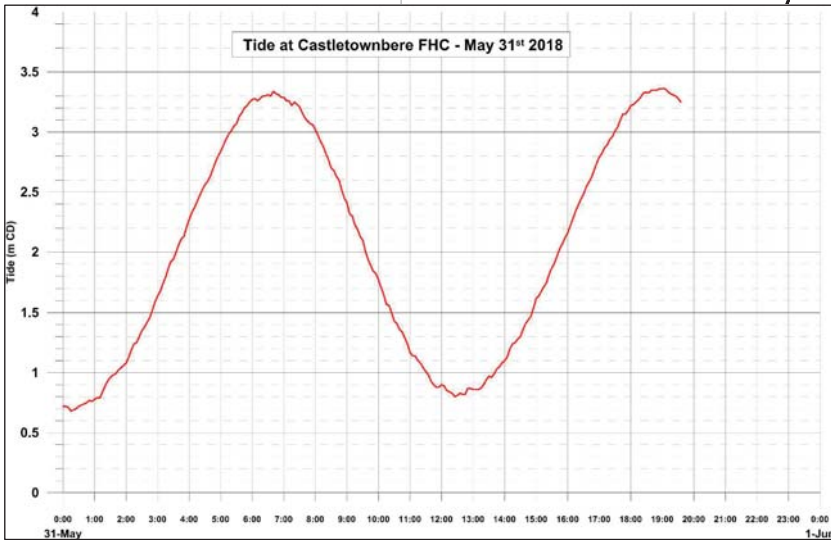
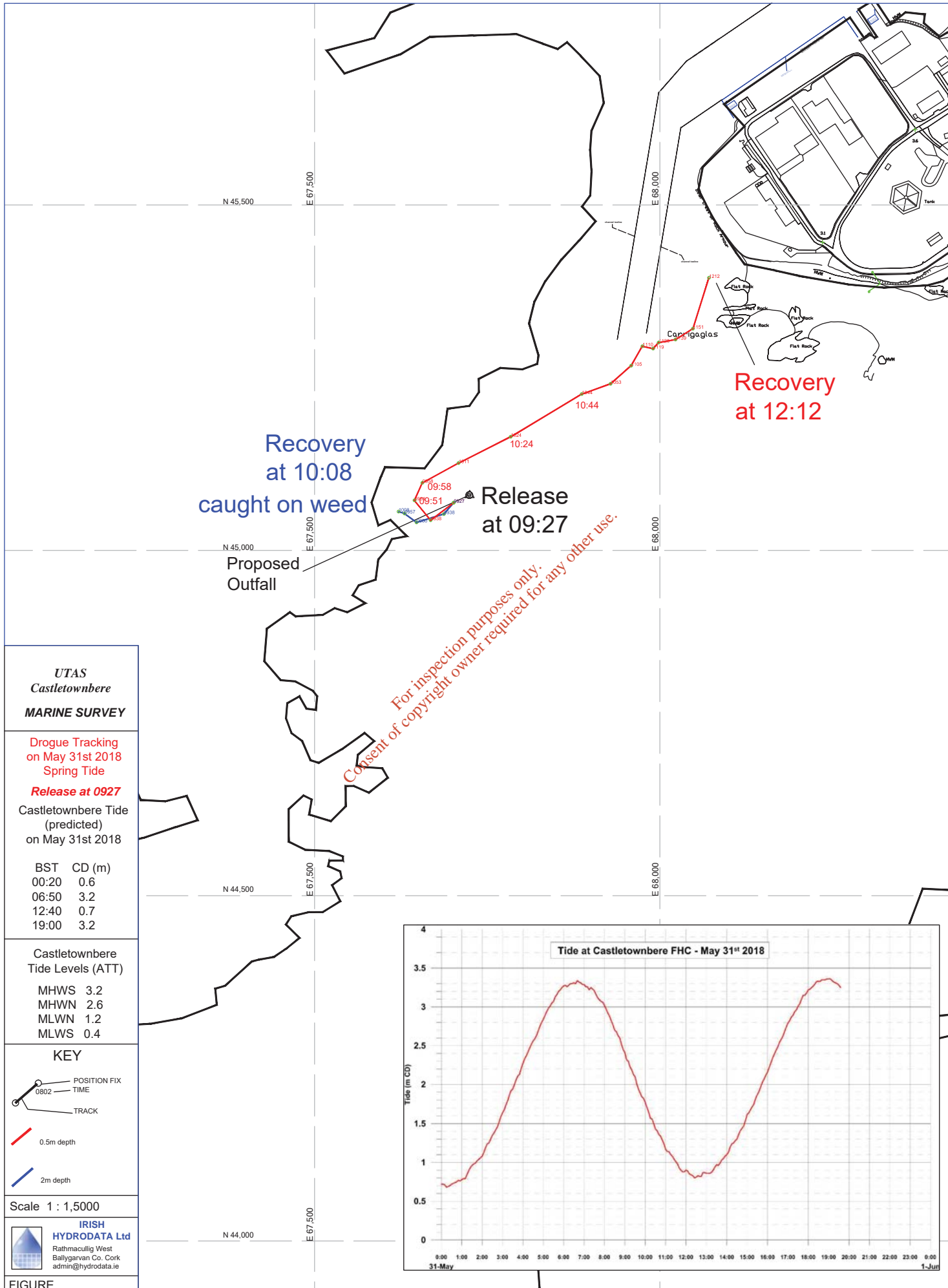
KEY

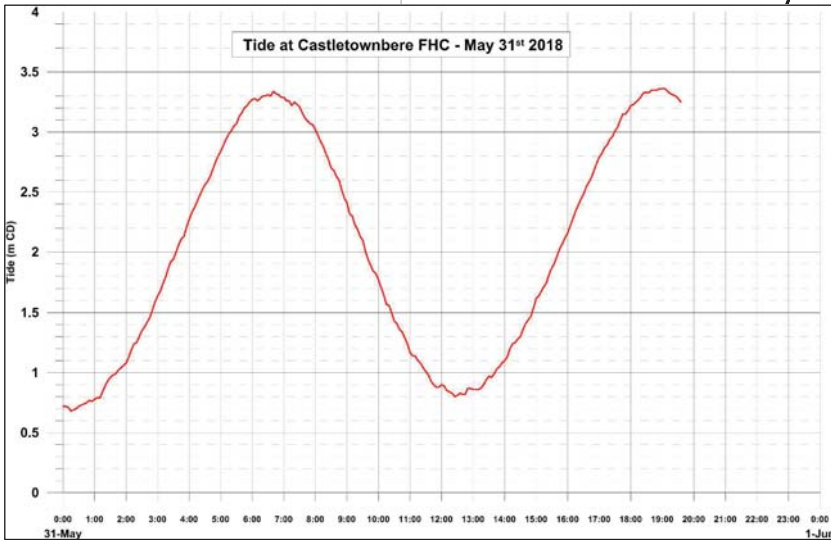
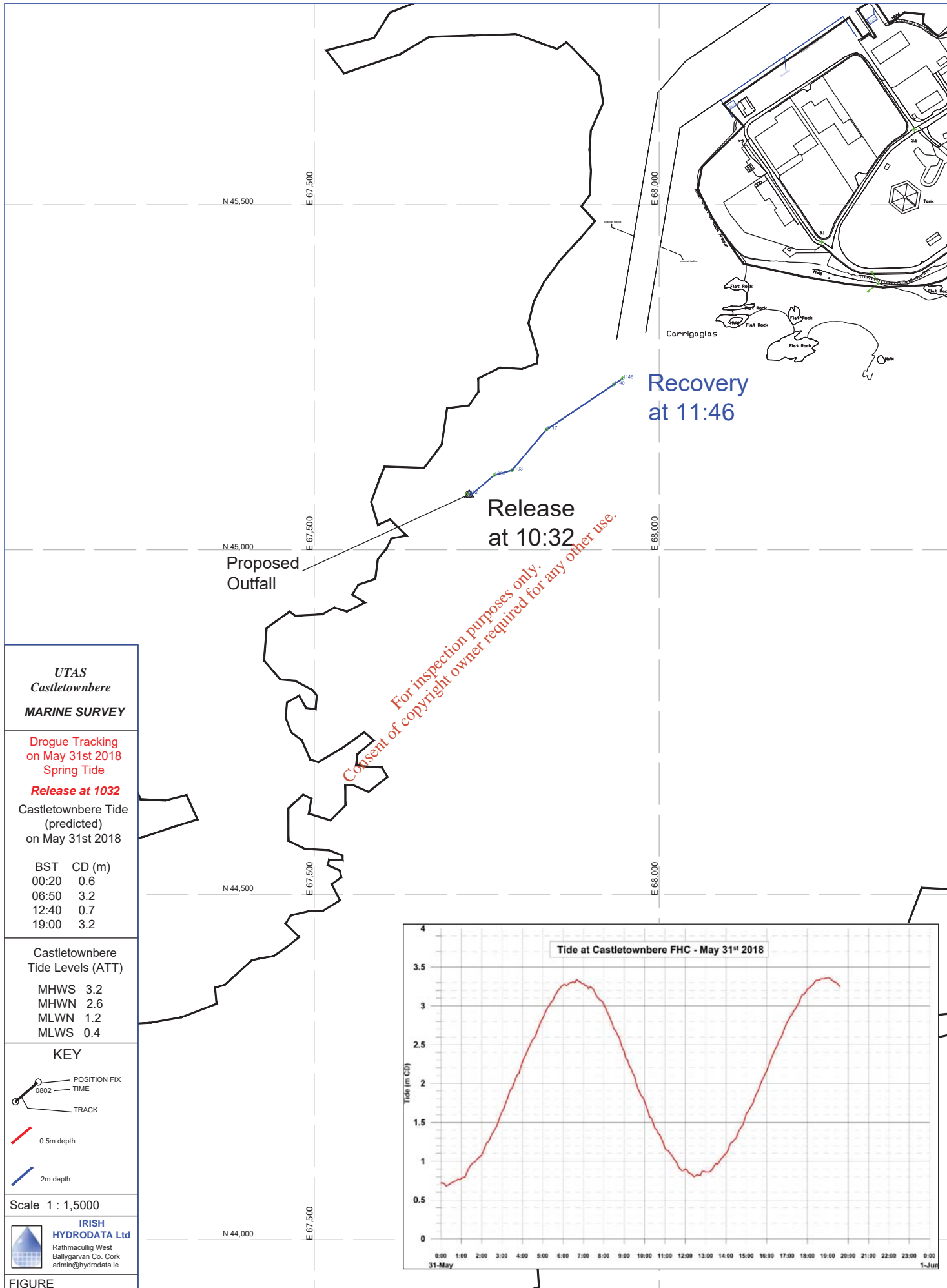
- POSITION FIX TIME
- TRACK
- 0.5m depth
- 2m depth

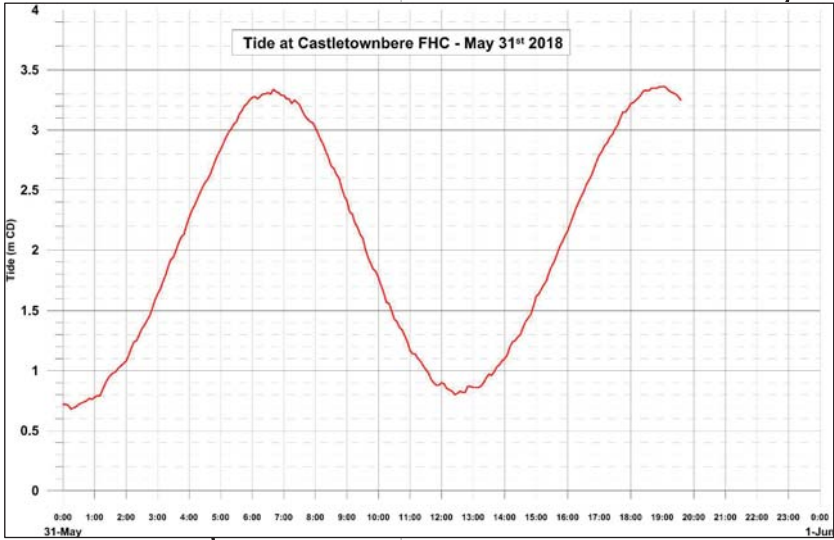
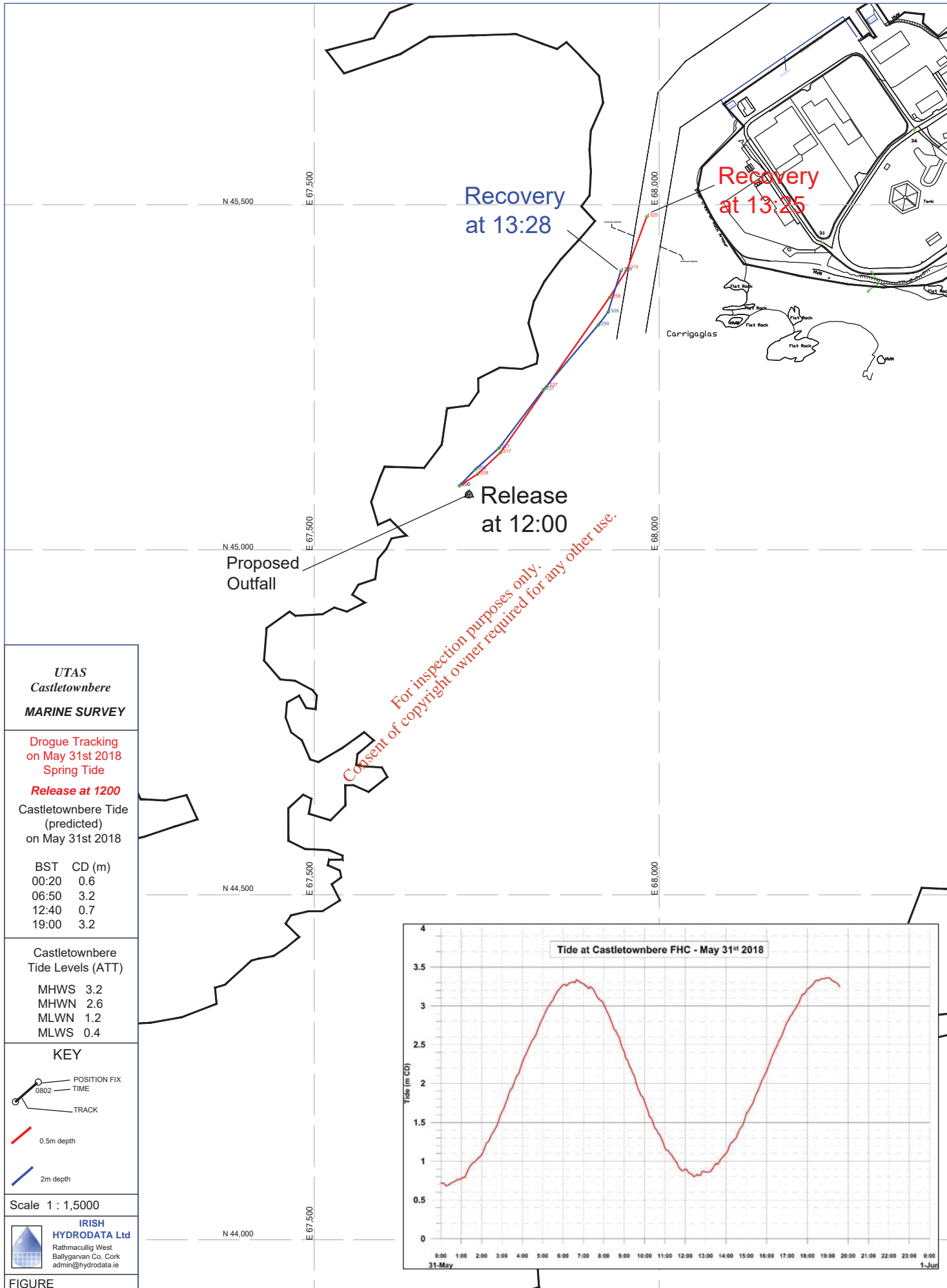
Scale 1 : 1,5000

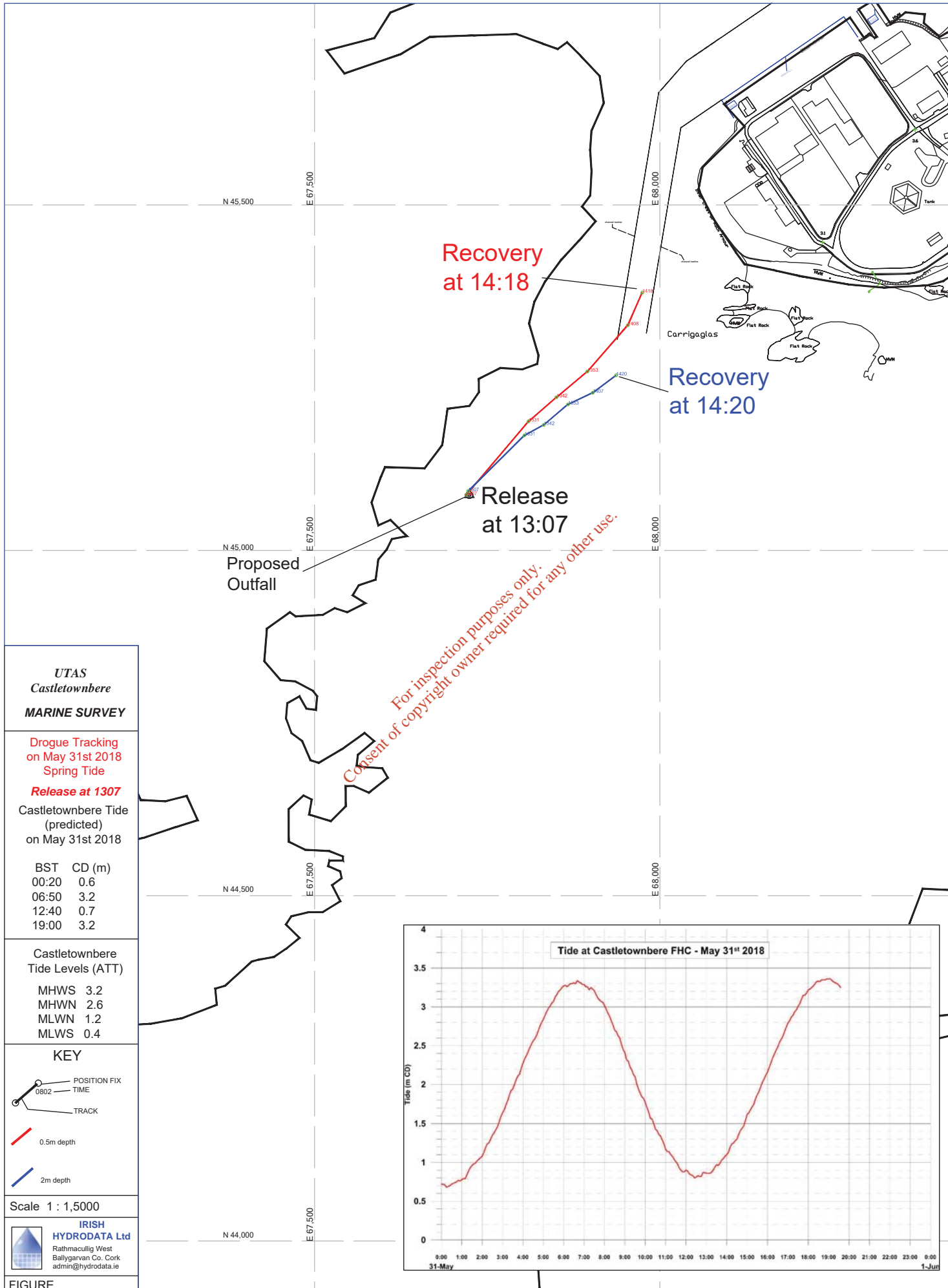


FIGURE









**UTAS
Castletownbere
MARINE SURVEY**

**Drogue Tracking
on May 31st 2018
Spring Tide**

Release at 1307

Castletownbere Tide
(predicted)
on May 31st 2018

BST	CD (m)
00:20	0.6
06:50	3.2
12:40	0.7
19:00	3.2

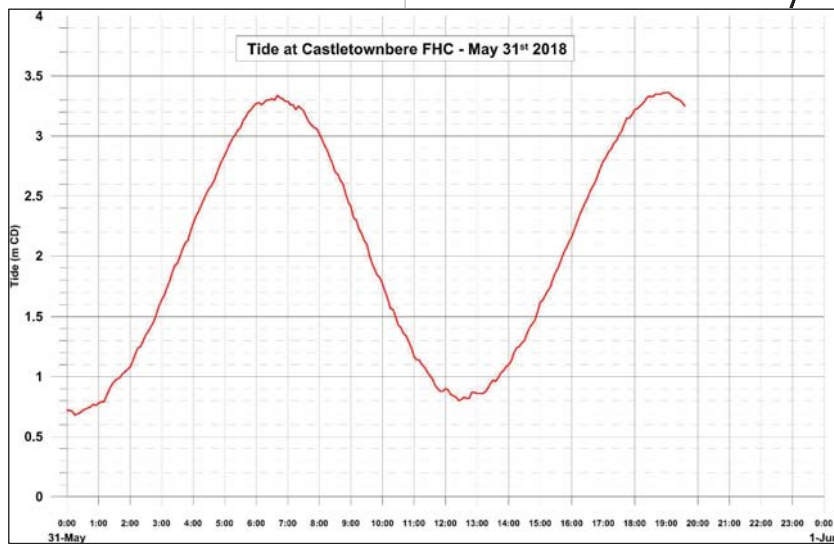
Castletownbere
Tide Levels (ATT)

MHWS	3.2
MHWN	2.6
MLWN	1.2
MLWS	0.4

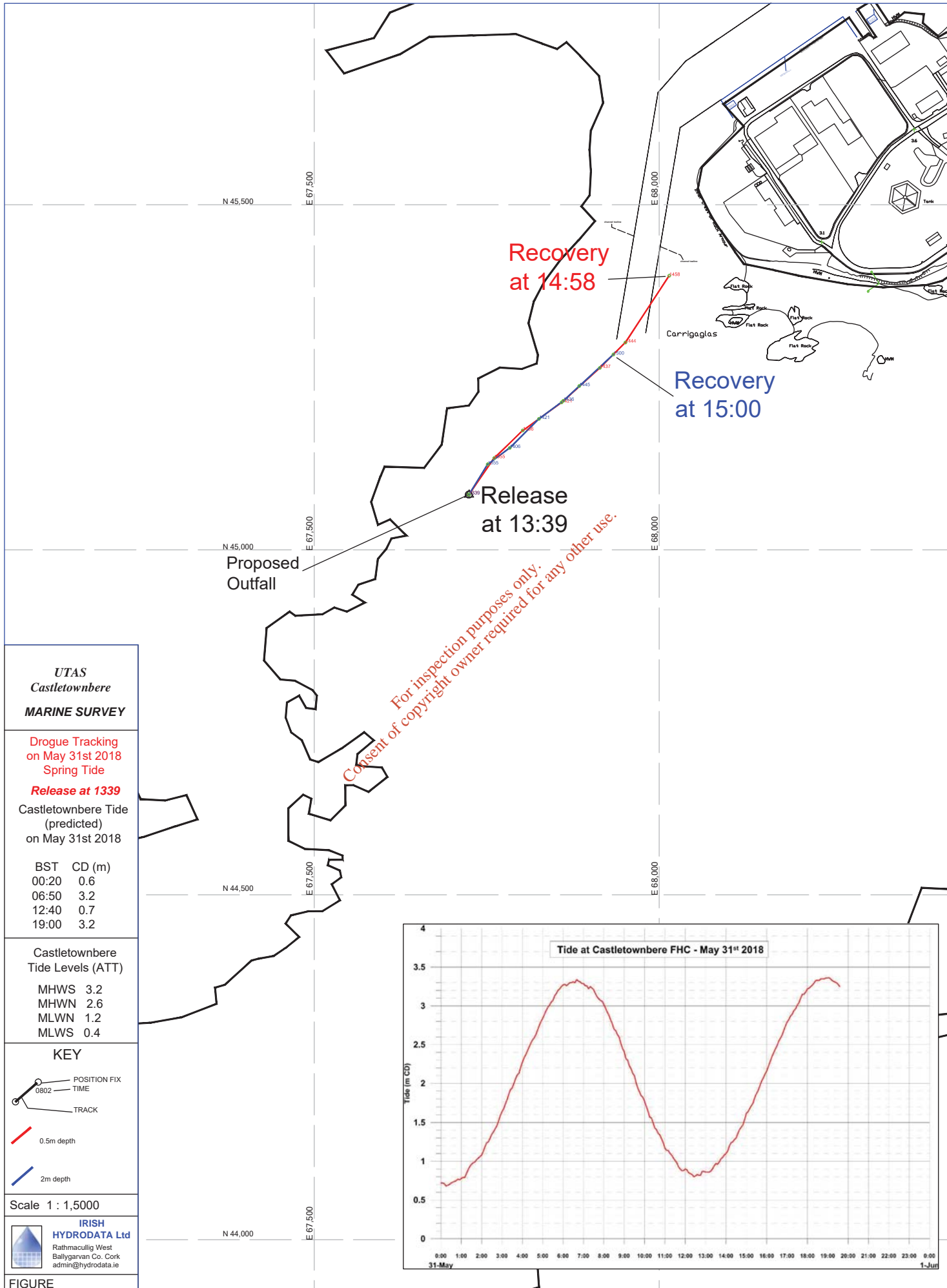
KEY

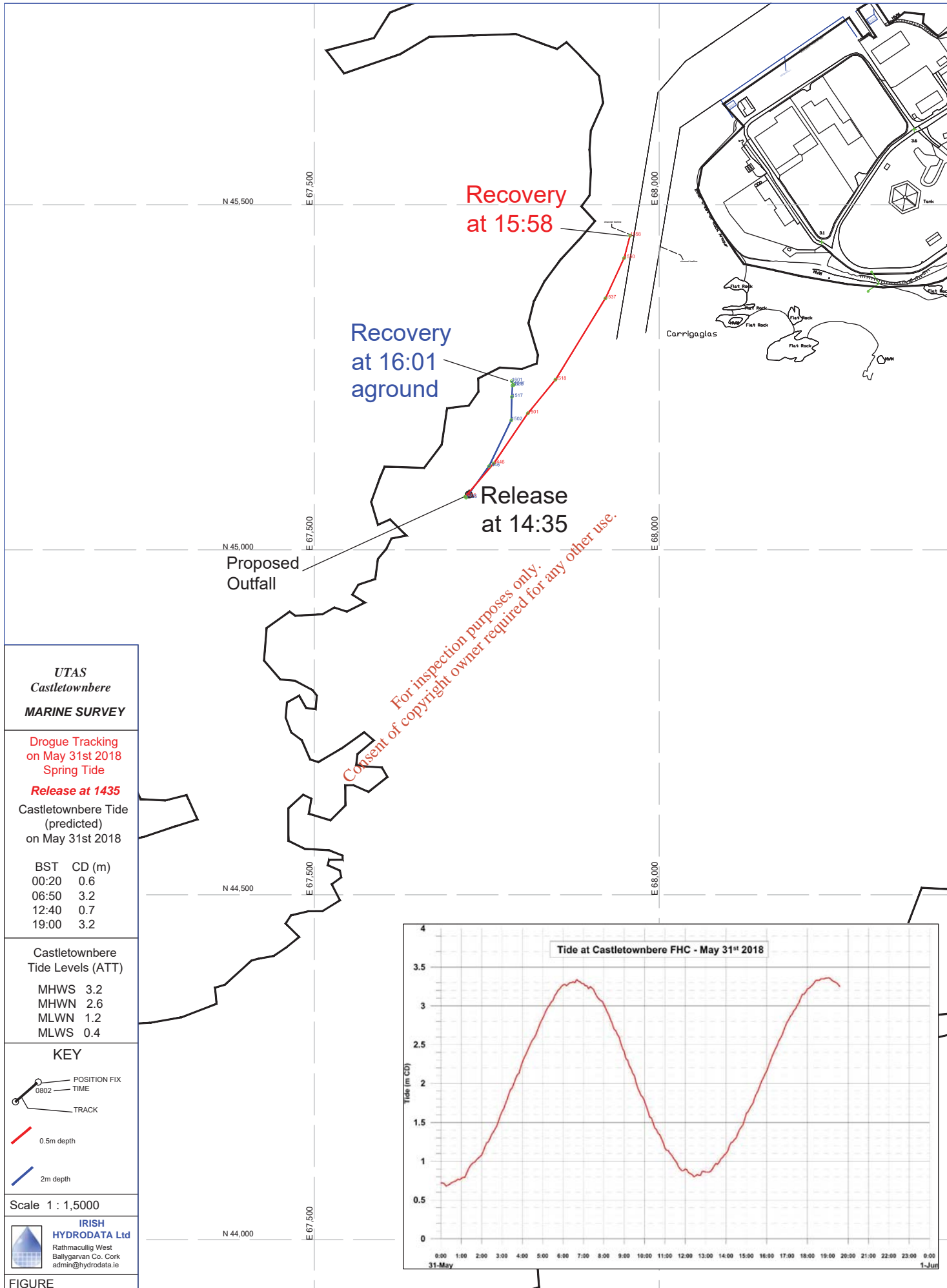
- POSITION FIX TIME
- TRACK
- 0.5m depth
- 2m depth

Scale 1 : 1,5000

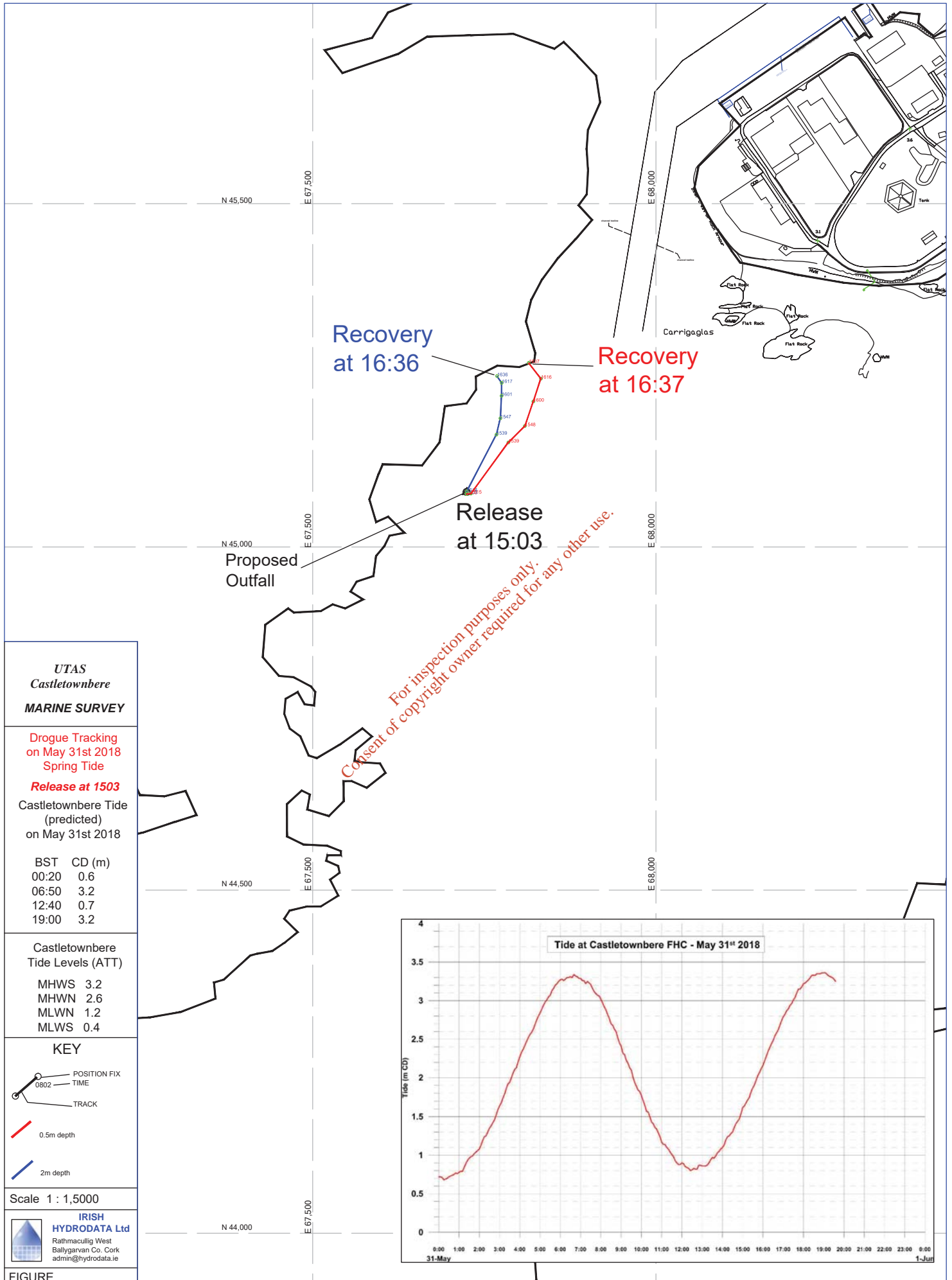


FIGURE





FIGURE



**UTAS
Castletownbere
MARINE SURVEY**

**Drogue Tracking
on May 31st 2018
Spring Tide**

Release at 1503

Castletownbere Tide
(predicted)
on May 31st 2018

BST	CD (m)
00:20	0.6
06:50	3.2
12:40	0.7
19:00	3.2

Castletownbere
Tide Levels (ATT)

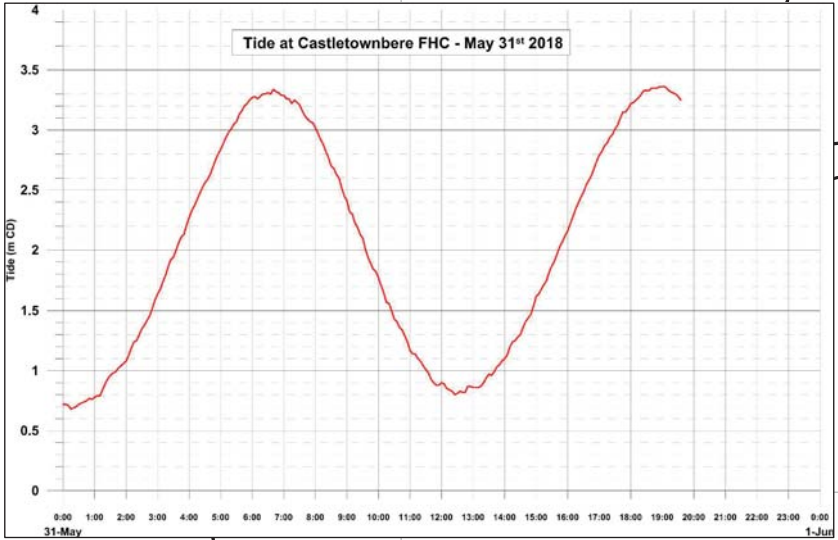
MHWS	3.2
MHWN	2.6
MLWN	1.2
MLWS	0.4

KEY

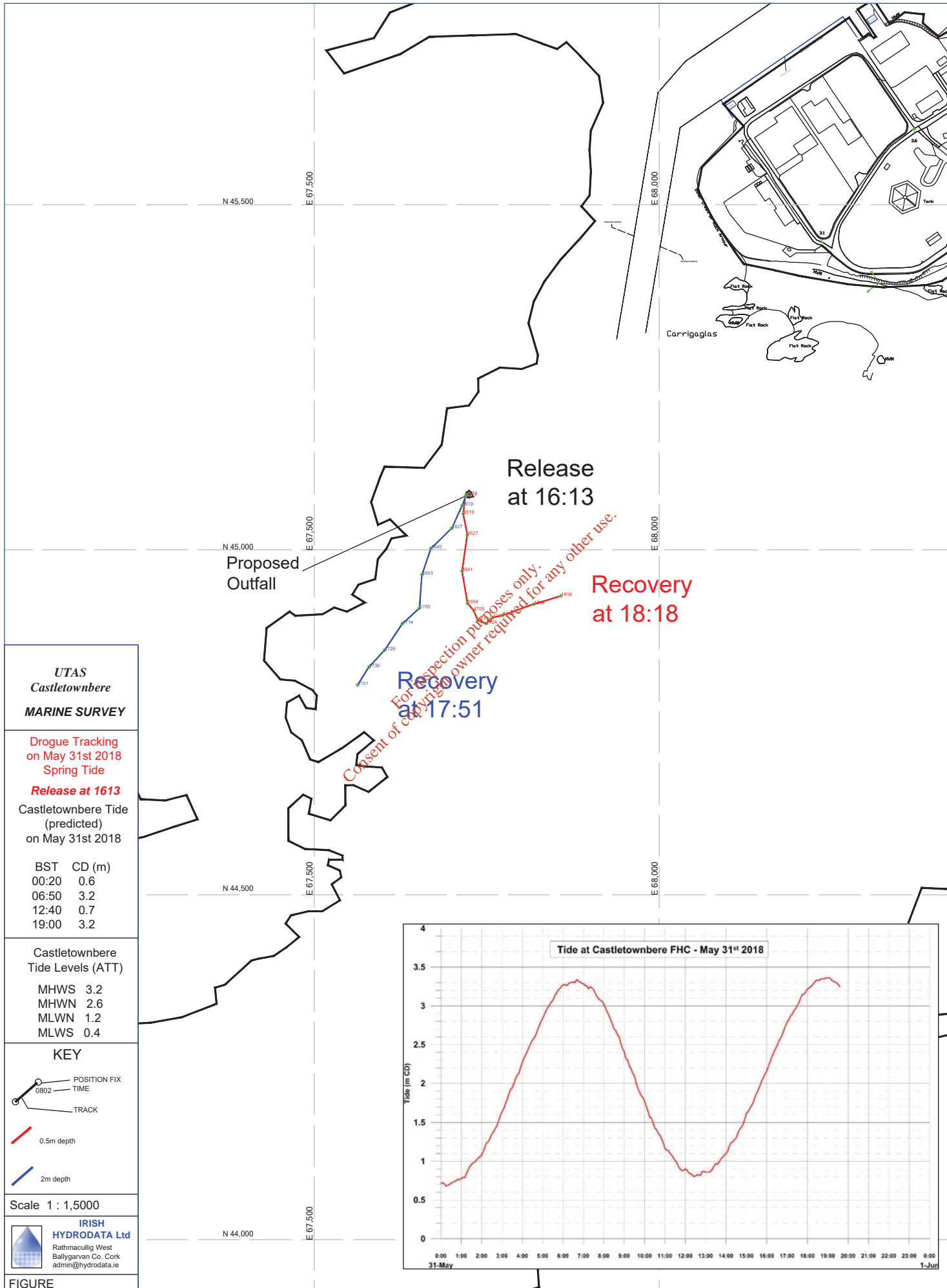
- POSITION FIX TIME
- TRACK
- 0.5m depth
- 2m depth

Scale 1 : 1,5000

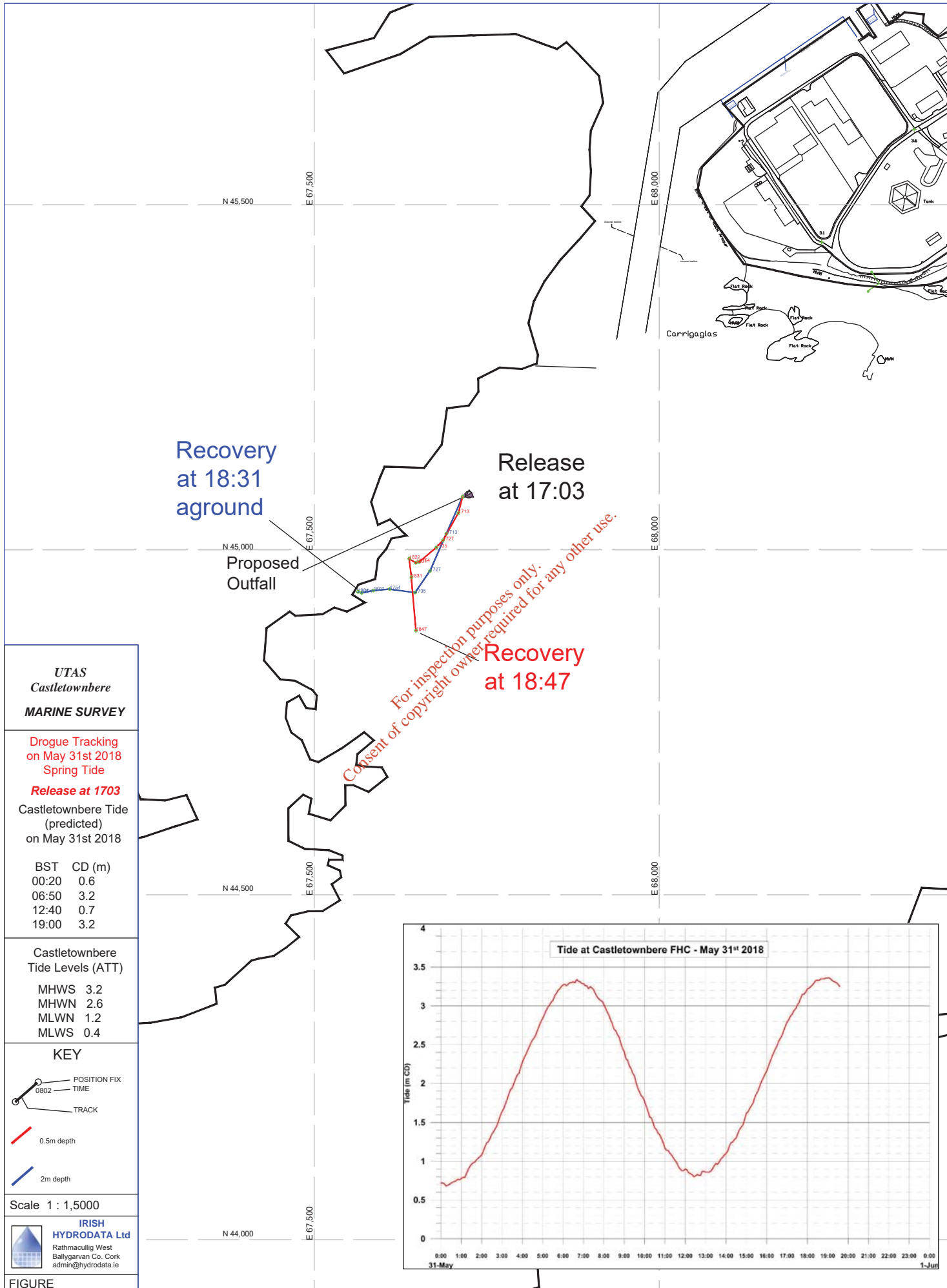
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FIGURE



FIGURE



**UTAS
Castletownbere
MARINE SURVEY**

**Drogue Tracking
on May 31st 2018
Spring Tide**

Release at 1703

Castletownbere Tide
(predicted)
on May 31st 2018

BST	CD (m)
00:20	0.6
06:50	3.2
12:40	0.7
19:00	3.2

Castletownbere
Tide Levels (ATT)

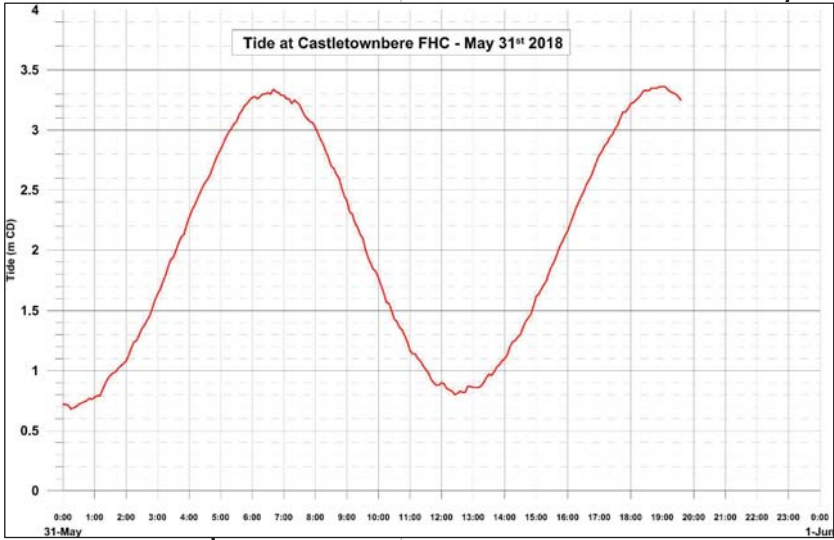
MHWS	3.2
MHWN	2.6
MLWN	1.2
MLWS	0.4

KEY

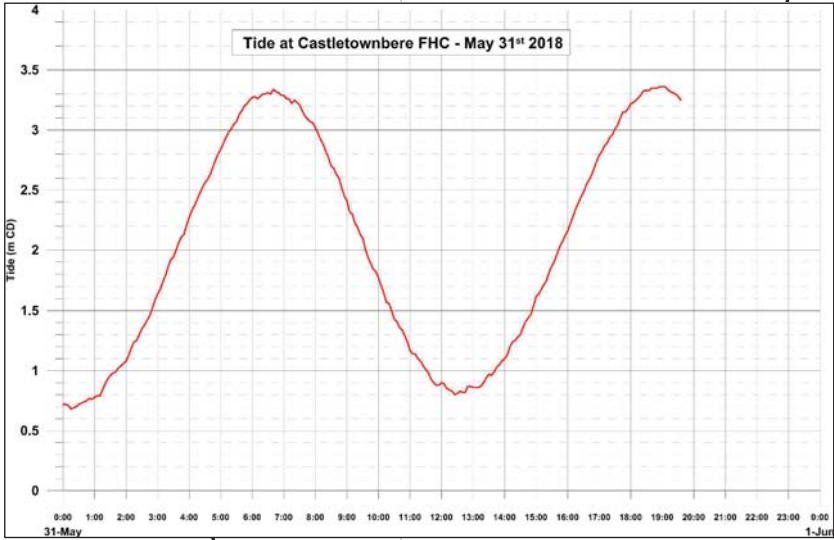
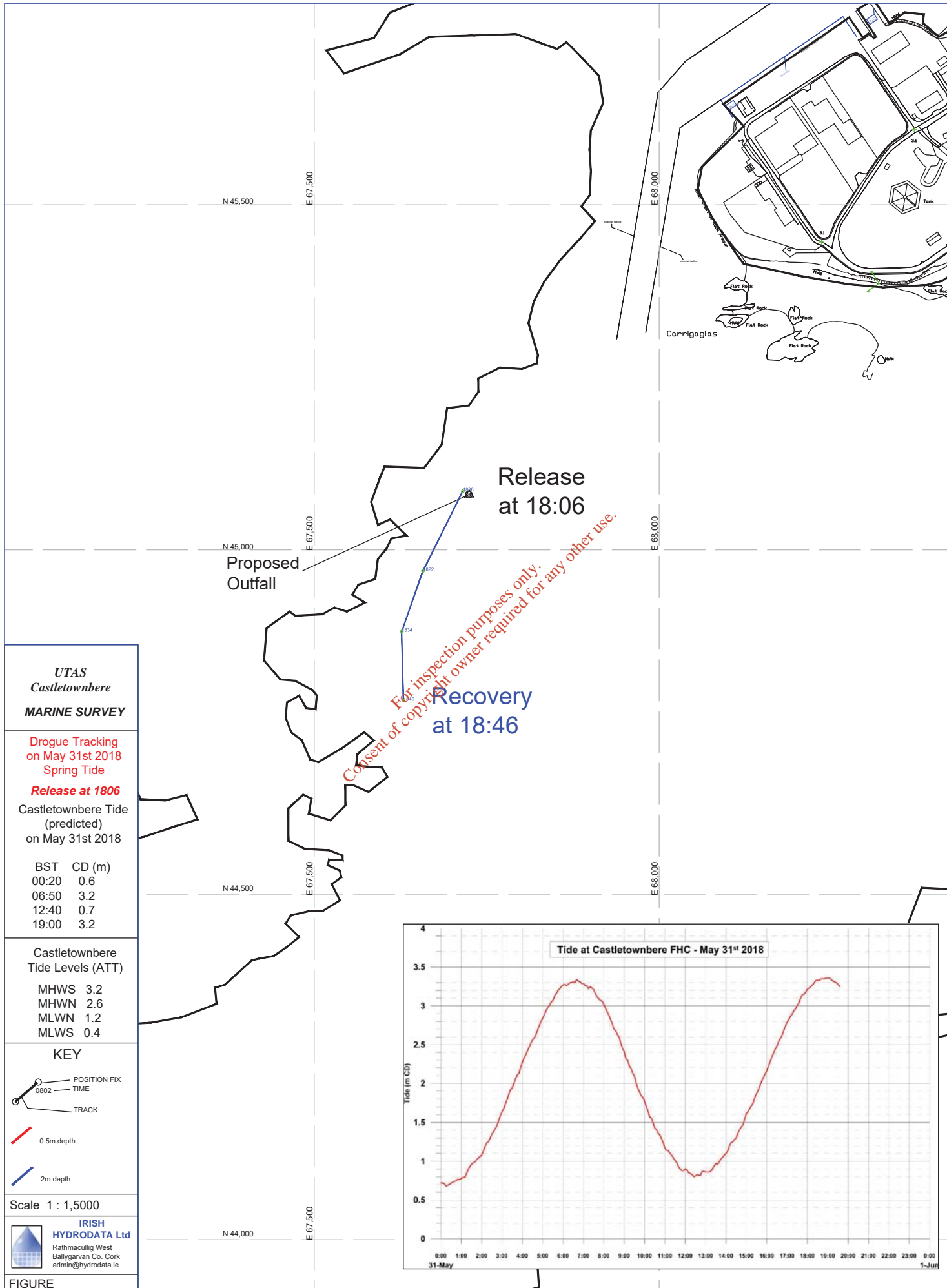
- POSITION FIX TIME
- TRACK
- 0.5m depth
- 2m depth

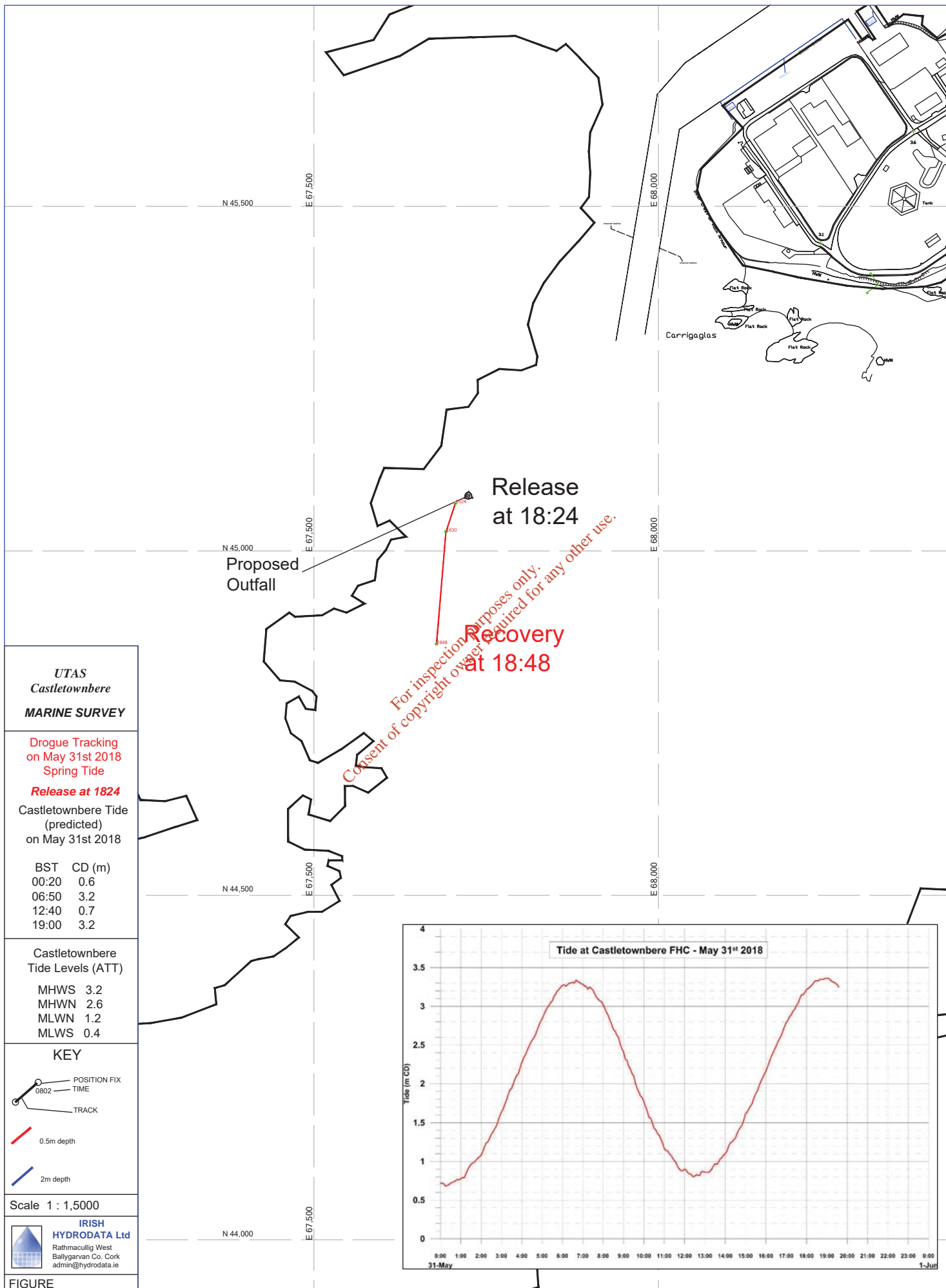
Scale 1 : 1,5000

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FIGURE





**UTAS
Castletownbere
MARINE SURVEY**

**Drogue Tracking
on May 31st 2018
Spring Tide**

Release at 1824

Castletownbere Tide
(predicted)
on May 31st 2018

BST	CD (m)
00:20	0.6
06:50	3.2
12:40	0.7
19:00	3.2

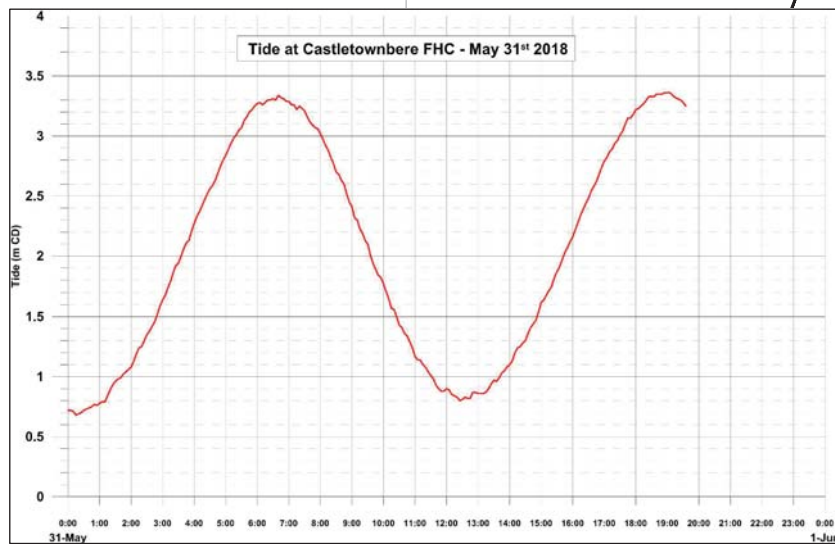
Castletownbere
Tide Levels (ATT)

MHWS	3.2
MHWN	2.6
MLWN	1.2
MLWS	0.4

KEY

- POSITION FIX TIME
- TRACK
- 0.5m depth
- 2m depth

Scale 1 : 1,5000



FIGURE