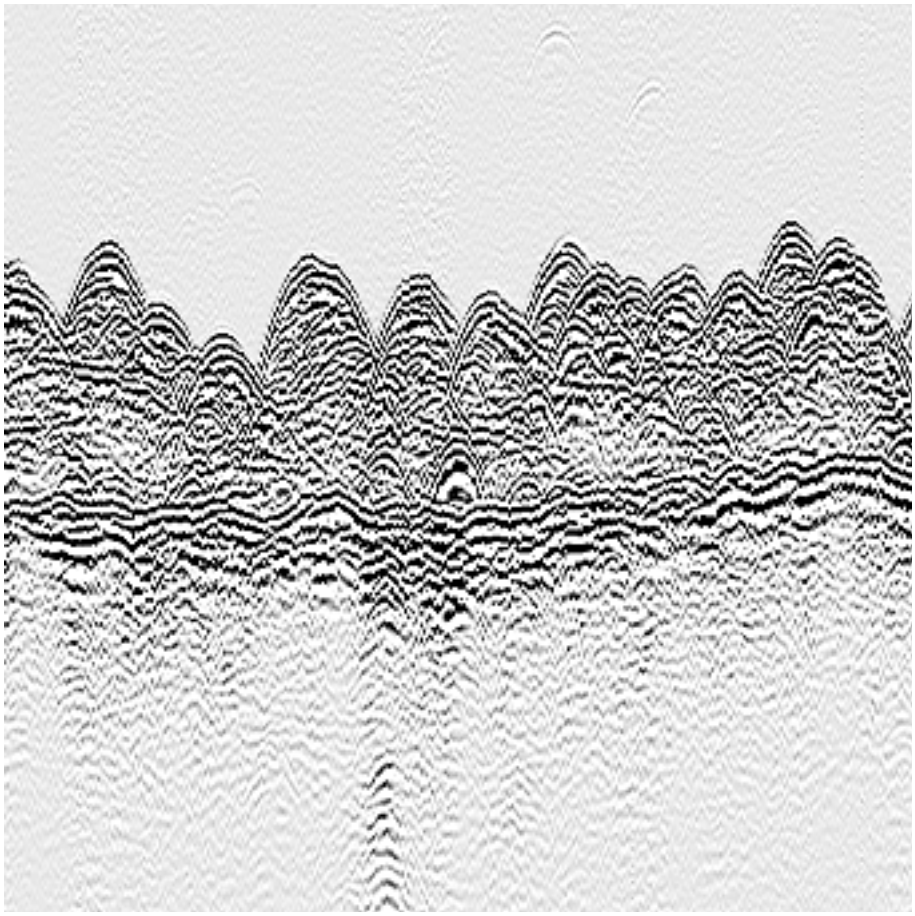
Goodwin Sands

Archaeological Review of Geophysical Data (2017) – Annex



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wessexarchaeology

Goodwin Sands

Archaeological Review of Geophysical Data (2017) - Annex

Prepared for:
Dover Harbour Board
DWDR Project Office
3 Waterloo Crescent
Dover
Kent
CT16 1LA

Prepared by:
Wessex Archaeology
Portway House
Old Sarum Park
Salisbury
SP46EB

www.wessexarch.co.uk

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V02					
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V03					
File:					
V04					
File:					
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* I = Internal Draft; E = External Draft; F = Final

Goodwin Sands

Archaeological Review of Geophysical Data (2017) - Annex

1 INTRODUCTION

1.1.1 Wessex Archaeology was commissioned by Dover Harbour Board to undertake an archaeological review of high resolution geophysical survey data obtained in support of a Marine Licence application for the proposed Goodwin Sands aggregate dredging scheme. The review will inform the dredging scheme design and support a Marine Licence application for the proposed aggregate dredging scheme. The proposed scheme would form a component of the Dover Western Dock Revival development, and would involve the removal of aggregate material from the seabed within the survey area.

1.1.2 Subsequent to the archaeological review (Wessex Archaeology 2017), a revised dredge area has been proposed by Dover Harbour Board (**Figure 1**). This report is an annex to the archaeological review and considers the location of the anomalies of archaeological potential within the revised dredge area. Additionally, this report provides a comparison between the archaeological interpretation and that provided to Dover Harbour Board by the survey contractor (Clinton Marine Survey 2017) within the proposed dredge area.

1.1.3 All methodological details and full archaeological results and recommendations for mitigation are presented in the archaeological review (Wessex Archaeology 2017) and are not repeated here.

2 POTENTIAL ARCHAEOLOGY

2.1.1 A total of 29 anomalies of archaeological potential have been identified within the revised proposed dredge area (**Figure 1** and **Appendix I**). These anomalies are discriminated as follows:

Table 1 Seabed anomalies of archaeological potential in the revised proposed dredge area

Archaeological Discrimination	Number of anomalies	Interpretation
A1	0	Anthropogenic origin of archaeological interest
A2	23	Uncertain origin of possible archaeological interest
A3	0	Historic record of possible archaeological interest with no corresponding geophysical anomaly
O2	6	Uncertain origin of possible archaeological interest but outside vertical footprint
Total	**29**	

2.1.2 These anomalies of potential archaeological interest have been classified by probable type, which can further aid in assigning archaeological potential and importance:

Table 2 Types of seabed anomalies identified in the revised proposed dredge area

Anomaly Classification	Total Number of Anomalies
Magnetic	16
SBP Contact	7
SBP Contact below vertical footprint (@2.5 m BSB)	6
Total	**29**

2.1.3 The 16 anomalies (for full list see **Appendix I**) classified as magnetic only anomalies were identified only within the marine magnetometer data. These anomalies have no associated surface expression seen on the sidescan sonar or multibeam echosounder data, and all have the potential to represent possible buried ferrous debris. The magnetic anomalies range in amplitude from 13 nT (**7029** and **7042**) up to 120 nT (**7093**).

2.1.4 The remaining seven anomalies (for full list see **Appendix I**) of A2 discrimination have been classified as sub-bottom profiler (SBP) contacts; sub-seabed reflectors with no corresponding sidescan sonar, multibeam echosounder or magnetometer anomalies. These anomalies have been identified within 2.5 m of the seabed surface, specified as the proposed dredge depth.

2.1.5 Six anomalies (for full list see **Appendix I**) have been discriminated as O2 – Uncertain origin of possible archaeological interest but located outside the vertical footprint of the revised dredge area (deeper than 2.5 m below the seabed), and were identified in the sub-bottom profiler data.

3 COMPARISON TO CLINTON SURVEY INTERPRETATION

3.1.1 In addition to the archaeological review of the geophysical data, Dover Harbour Board commissioned Clinton Marine Survey (Clinton) to produce a geophysical interpretation as part of the survey process. Within the revised dredge area, Clinton identified 33 geophysical anomalies.

3.1.2 Clinton were not commissioned to address the archaeology, rather to interpret the geophysical data and identify the locations of geophysical anomalies. This resulted in an interpretation that included anomalies both of geological and anthropogenic material.

3.1.3 Of the 33 geophysical anomalies identified by Clinton within the revised proposed dredge area, 16 magnetic anomalies were coincident with 15 magnetic anomalies of archaeological potential. The associated Clinton reference number and a brief description of any differences in interpretation are provided in **Appendix I**.

3.1.4 Archaeological anomaly **7036** was interpreted as representing a single potential archaeological feature on the seafloor and is associated with two Clinton anomalies (2017009-2565 and 2575). Anomaly **7036** is situated within 5 m of 2017009-2575.

3.1.5 Anomalies **7038** and **7039** are situated closely together (16 m). Clinton interpreted the magnetic signature as a single magnetic anomaly (2017009-2421, within close proximity of **7038**) but Wessex Archaeology, based on individual profile data, considered that there was enough evidence for there to be an additional closely associated magnetic anomaly (**7039**).

3.1.6 The remaining 13 anomalies of archaeological potential, identified within the sub-bottom profiler data were not selected by Clinton.

3.1.7 Clinton selected a further 17 anomalies within the revised dredge area that were not discriminated as having archaeological potential. The geophysical data at these locations has been revisited and an assessment made with regards to archaeological potential (**Appendix II**). It is considered that none of these 17 geophysical anomalies are likely to have archaeological potential.

4 CONCLUSIONS

4.1.1 A total of 29 anomalies of archaeological potential have been identified within the revised proposed dredge area from this most recent geophysical assessment.

4.1.2 None of the 29 anomalies identified within the area have been discriminated as A1 - Anthropogenic origin of archaeological interest. Based on the geophysical data there is not enough clear evidence to define any of the anomalies as definite archaeology. Further assessment (visual or recovery) would be required to ascertain the true nature of these anomalies.

4.1.3 Twenty-three anomalies were classified as A2 - Uncertain origin of possible archaeological interest. No AEZs are recommended for these anomalies but avoidance is recommended. Further investigation or mitigation would be required to ascertain the true nature of A2 anomalies in situations where avoidance is not possible.

4.1.4 Six anomalies have been discriminated as O2 – Uncertain origin of possible archaeological interest but outside the vertical footprint of the proposed works. As these anomalies have been identified at depths exceeding 2.5 m below seabed, and as the maximum dredge depth will not exceed 1.95 m, then no impact will occur.

4.1.5 It is recommended that a protocol for reporting finds of archaeological potential should be established prior to any dredging works. If any objects or palaeoenvironmental material of possible archaeological interest are recovered during dredging operations in the revised dredge area, then they should be reported using the established protocol.

4.1.6 Of the anomalies identified as having archaeological potential, 16 could be directly associated with Clinton anomalies. There were positional discrepancies, with differences in positions up to 12 m. The difference is likely due to differing processing workflows and selection of the magnetic signature within the processed data, particularly affecting those anomalies with larger magnetic signatures.

4.1.7 A further 17 anomalies identified by Clinton are discriminated as having no archaeological potential. Differences in interpretation are due to the differing remit, data processing workflows and interpretation workflow.

4.1.8 Clinton interpreted geophysical anomalies regardless of their nature (geological and anthropogenic), whereas the role of the archaeologist is to discriminate those that are anthropogenic with archaeological potential. In 15 instances, anomalies identified by Clinton were discriminated as geological or natural features (edges of sandwaves, ripples, etc.).

4.1.9 One anomaly could not be found on re-assessment and one was considered to be a second instance of an anomaly already classified as archaeological.

5 REFERENCES

Clinton Marine Survey AB 2017 *Survey Report: Goodwin Sands Magnetometer Survey.* Enskededalen, unpubl rep 2017009-DHB-CMS-GoodwinSands-SurveyRep Revision 0

Wessex Archaeology 2017 *Goodwin Sands: Archaeological Review of Geophysical Data (2017).* Salisbury, unpubl rep 111511.02

APPENDIX I: SEABED ANOMALIES OF POSSIBLE ARCHAEOLOGICAL POTENTIAL

WA ID	Class-ification	Easting	Northing	Arch. Discrim-ination	Length (m)	Width (m)	Height (m)	Magnetic Amplitude (nT)	Depth below Seabed (m TWTT @1600 m/s)	Description	Clinton reference	Comment
7028	Magnetic	395959	5675483	A2	-	-	-	64	-	Magnetic anomaly observed over several lines. No SSS or MBES contact and interpreted as possible buried ferrous material or a natural feature.	2017009-2800	Magnetic anomaly situated 2.1 m from WA location
7029	Magnetic	396919	5675425	A2	-	-	-	13	-	Magnetic anomaly observed on one line in an area of increased magnetic response. No SSS or MBES contact and interpreted as possibly buried ferrous material or a natural feature.	2017009-2774	Magnetic anomaly situated 2.8 m from WA location
7031	Magnetic	395823	5675066	A2	-	-	-	23	-	Magnetic anomaly observed over several lines. No SSS or MBES contact and interpreted as possible buried ferrous material or a natural feature.	2017009-2689	Magnetic anomaly situated 12.2 m from WA location. Difference in location due to picking different part of magnetic signal
7033	Magnetic	395626	5675015	A2	-	-	-	80	-	Magnetic anomaly observed over several lines. No SSS or MBES contact and interpreted as possible buried ferrous material.	2017009- 2576	Magnetic anomaly situated 1.8 m from WA location
7036	Magnetic	395551	5674792	A2	-	-	-	72	-	Magnetic anomaly observed over several lines. No SSS or MBES contact and interpreted as possible buried ferrous material.	2017009-2565 and 2575	Two magnetic anomalies picked. WA interpreted as a single magnetic anomaly and position is within 5 m of 2017009-2575

WA ID	Class-ification	Easting	Northing	Arch. Discrim-ination	Length (m)	Width (m)	Height (m)	Magnetic Amplitude (nT)	Depth below Seabed (m TWTT @1600 m/s)	Description	Clinton reference	Comment
7037	Magnetic	395773	5674512	A2	-	-	-	87	-	Broad magnetic anomaly observed over several lines. Possibly natural but very compact. No SSS or MBES contact and interpreted as possible buried ferrous material.	2017009-2442	Magnetic anomaly situated 5.2 m from WA location
7038	Magnetic	395468	5674444	A2	-	-	-	91	-	Magnetic positive monopole observed on two lines, associated but separate from 7039. No SSS or MBES contact and interpreted as possible buried ferrous material.	2017009-2421	Magnetic anomaly situated 7.9 m from WA location
7039	Magnetic	395475	5674435	A2	-	-	-	76	-	Magnetic positive monopole observed on two lines, associated but separate from 7038. No SSS or MBES contact and interpreted as possible buried ferrous material.	-	7038 and 7039 are situated closely together (16 m). Clinton interpreted as a single anomaly but WA, based on individual profile data, considered enough evidence for there to be an additional closely associated anomaly
7040	Magnetic	395131	5673665	A2	-	-	-	22	-	Sharp magnetic anomaly spread over several lines. No SSS or MBES contact and interpreted as possible buried ferrous material.	2017009-2247	Magnetic anomaly situated 6.8 m from WA location
7041	Magnetic	394881	5672858	A2	-	-	-	59	-	Broad dipole observed on multiple lines. Could be natural but very compact rounded halo. No SSS or MBES contact and	2017009-1918	Magnetic anomaly situated 6.8 m from WA location

WA ID	Class-ification	Easting	Northing	Arch. Discrim-ination	Length (m)	Width (m)	Height (m)	Magnetic Amplitude (nT)	Depth below Seabed (m TWTT @1600 m/s)	Description	Clinton reference	Comment
										interpreted as possible buried ferrous material.		
7042	Magnetic	394792	5672392	A2	-	-	-	13	-	Broad magnetic anomaly observed over several lines. Possibly natural but compact anomaly. No SSS or MBES contact and interpreted as possible buried ferrous material.	2017009-1649	Magnetic anomaly situated 7.7 m from WA location
7043	Magnetic	394699	5672392	A2	-	-	-	31	-	Sharp dipole split over two lines. No SSS or MBES contact and interpreted as possible buried ferrous material or a natural feature.	2017009-1645	Magnetic anomaly situated 2.2 m from WA location
7044	Magnetic	394547	5672247	A2	-	-	-	18	-	Sharp magnetic anomaly observed on only one line. No SSS or MBES contact and interpreted as possibly buried ferrous material.	2017009-1594	Magnetic anomaly situated 3.5 m from WA location
7045	Magnetic	394610	5672178	A2	-	-	-	19	-	Sharp magnetic anomaly observed over several lines. No SSS or MBES contact and interpreted as possibly buried ferrous material.	2017009-1555	Magnetic anomaly situated 3.5 m from WA location
7046	Magnetic	394494	5671755	A2	-	-	-	29	-	Sharp dipole observed over multiple lines with a large halo. No SSS or MBES contact and interpreted as possibly buried ferrous material.	2017009-1438	Magnetic anomaly situated 4.6 m from WA location
7093	Magnetic	395228	5674288	A2	-	-	-	120	-	Magnetic anomaly observed over multiple lines. No SSS or MBES contact and interpreted as possible buried ferrous material.	2017009-2394	Magnetic anomaly situated 2.6 m from WA location

WA ID	Class-ification	Easting	Northing	Arch. Discrim-ination	Length (m)	Width (m)	Height (m)	Magnetic Amplitude (nT)	Depth below Seabed (m TWTT @1600 m/s)	Description	Clinton reference	Comment
7302	SBP Contact	396099	5675666	A2	6.2	-	-	-	1.1	Small strong straight reflector observed below the seabed surface. No associated seabed feature. Interpreted as possible buried non-ferrous debris.	-	
7308	SBP Contact	396039	5674942	A2	2	-	-	-	0.4	Small very strong reflector observed just below the seabed surface. No associated seabed feature. Interpreted as possible buried non-ferrous debris.	-	
7309	SBP Contact	395664	5674539	A2	4.2	-	-	-	0.3	Small strong reflector observed just below the seabed surface. No associated seabed feature. Interpreted as possible buried non-ferrous debris.	-	
7311	SBP Contact	395794	5674423	O2	3.9	-	-	-	4.3	Strong reflector with hyperbole observed well below the seabed surface and identified on two separate lines. Possible long feature, one of three with 7314 and 7315. No associated seabed feature. Interpreted as possible buried non-ferrous debris. This feature is located below the 2.5 m limit given to dredging, but kept as is located within the Study Area boundary.	-	
7313	SBP Contact	395731	5674385	O2	2.2	-	-	-	4.3	Small strong reflector with associated large hyperbole observed well below the seabed surface. Possibly relates to 7315. No associated seabed feature. Interpreted as possible buried non-ferrous debris. This	-	

WA ID	Class-ification	Easting	Northing	Arch. Discrim-ination	Length (m)	Width (m)	Height (m)	Magnetic Amplitude (nT)	Depth below Seabed (m TWTT @1600 m/s)	Description	Clinton reference	Comment
										feature is located below the 2.5 m limit given to dredging, but kept as is located within the Study Area boundary.		
7314	SBP Contact	395786	5674381	O2	14.7	-	-	-	4.1	Observed as a strong reflector with large hyperbole on two lines far apart so possibly a long feature, one of three with 7311 and 7315. No associated seabed feature. Interpreted as possible buried non-ferrous debris. This feature is located below the 2.5 m limit given to dredging, but kept as is located within the Study Area boundary.	-	
7315	SBP Contact	395778	5674368	O2	21.3	-	-	-	3.2	Observed as a strong reflector with large hyperbole on three lines far apart so possibly a long feature, one of three with 7311 and 7314. Possibly connected to 7313. No associated seabed feature. Interpreted as possible buried non-ferrous debris. This feature is located below the 2.5 m limit given to dredging, but kept as is located within the Study Area boundary.	-	

WA ID	Class-ification	Easting	Northing	Arch. Discrim-ination	Length (m)	Width (m)	Height (m)	Magnetic Amplitude (nT)	Depth below Seabed (m TWTT @1600 m/s)	Description	Clinton reference	Comment
7316	SBP Contact	395749	5674358	O2	1.7	-	-	-	3.1	Strong reflector with strong hyperbole observed well below the seabed surface. No associated seabed feature. Interpreted as possible buried non-ferrous debris. This feature is located below the 2.5 m limit given to dredging, but kept as is located within the Study Area boundary.	-	
7317	SBP Contact	395675	5674332	O2	1.4	-	-	-	3.3	Strong reflector with large hyperbole observed well below the seabed surface. No associated seabed feature. Interpreted as possible buried non-ferrous debris. This feature is located below the 2.5 m limit given to dredging, but kept as is located within the Study Area boundary.	-	
7318	SBP Contact	395506	5674162	A2	7.2	-	-	-	1.1	Small straight strong reflector, which appears to interrupt the natural geology, observed below the seabed surface. No associated seabed feature. Interpreted as possible buried non-ferrous debris.	-	
7322	SBP Contact	395020	5672905	A2	2.8	-	-	-	0.9	Small strong reflector observed below the seabed surface at he base of sand wave. No associated seabed feature. Interpreted as possible buried non-ferrous debris.	-	

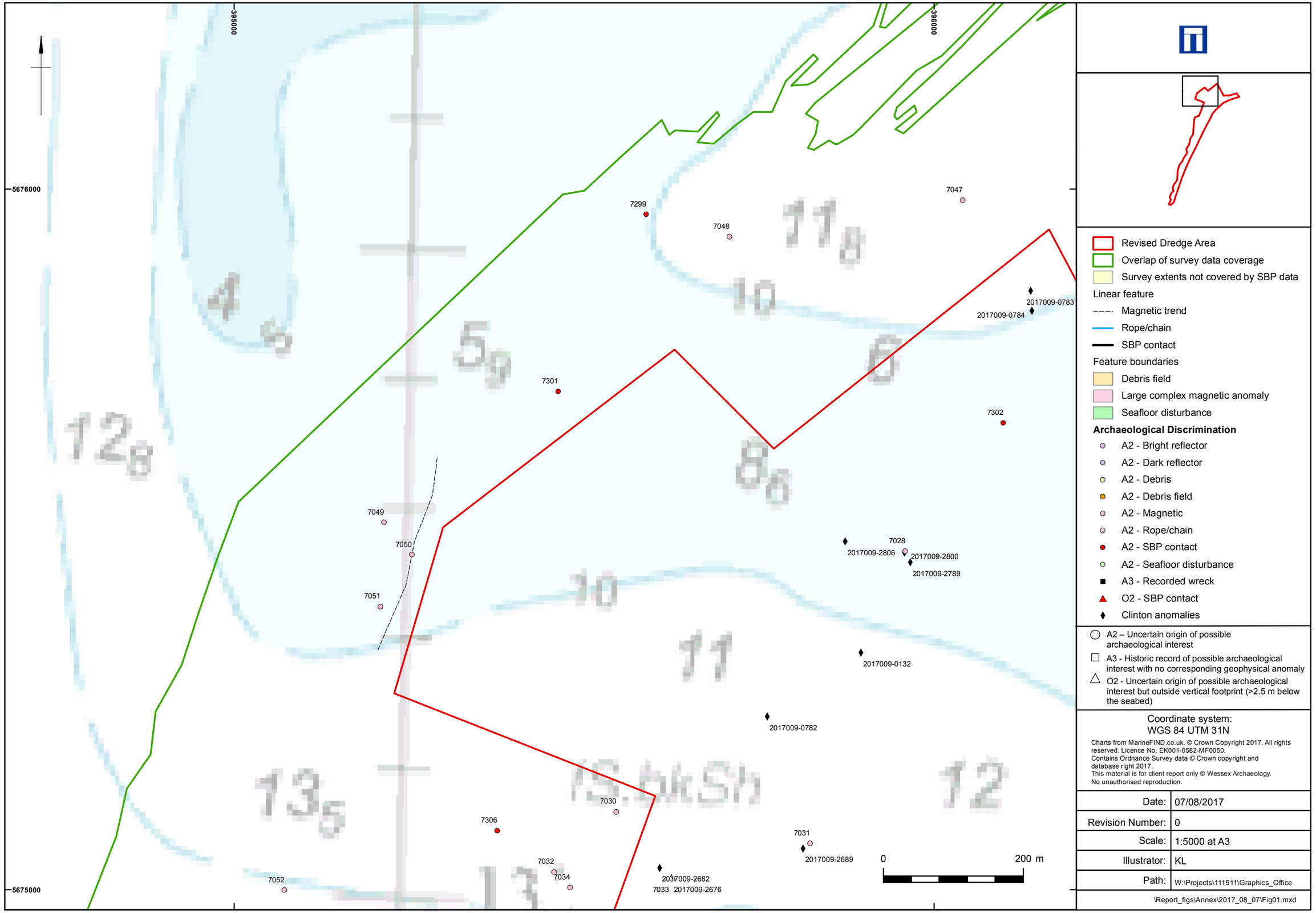
WA ID	Class-ification	Easting	Northing	Arch. Discrim-ination	Length (m)	Width (m)	Height (m)	Magnetic Amplitude (nT)	Depth below Seabed (m TWTT @1600 m/s)	Description	Clinton reference	Comment
7325	SBP Contact	394617	5671862	A2	7	-	-	-	1.5	Small strong reflector observed below the seabed sediments. No associated seabed feature. Interpreted as possible buried non-ferrous debris.	-	
7327	SBP Contact	394432	5671336	A2	1.9	-	-	-	0.2	Small strong reflector observed just below the seabed surface. No associated seabed feature. Interpreted as possible buried non-ferrous debris.	-	

Notes:
1. All coordinates are in WGS84 UTM Zone 31N
2. Positions for features without MBES or magnetometer observations are considered accurate to within approximately ±10 m
3. Positions for magnetometer only anomalies are considered accurate to within approximately ± 5 m

APPENDIX II: GEOPHYSICAL ANOMALIES NOT DISCRIMINATED AS POSSIBLE ARCHAEOLOGICAL POTENTIAL

Name	Instrument	Easting	Northing	Depth	Width	Length	Height	nT/m	Clinton Comment	WA interpretation
2017009-0132	SBP	395895.31	5675338.42		N/A	N/A	N/A			No seabed anomaly observed in SSS data at this position
2017009-0639	SSS	394573.10	5671929.58		0.28	35.57	0.00		linear, rope	Interpreted as natural feature
2017009-0782	SSS	395761.81	5675247.10		0.30	1.60	0.51			Interpreted as natural feature
2017009-0783	SSS	396138.11	5675854.96		0.30	0.90	0.08			Interpreted as natural feature
2017009-0784	SSS	396139.55	5675826.34		0.20	1.10	0.04			Interpreted as natural feature
2017009-0789	SSS	396878.43	5675311.03		0.30	3.00	N/A		Linear, rope	Interpreted as natural feature
2017009-0794	SSS	395186.30	5673401.53		0.40	36.20	N/A		Linear, rope	Interpreted as natural feature
2017009-0795	SSS	395193.28	5673388.80		2.40	3.60	N/A		Linear, rope	Interpreted as natural feature
2017009-1425	MAG	394428.00	5671700.00		N/A	N/A	N/A	3.39	A small object or geology	Small anomaly (3 nT) and interpreted as background geology
2017009-1795	MAG	394719.50	5672692.00		N/A	N/A	N/A	3.90	Probably an object or geology	Based on size (5.9 nT), form and background magnetic levels this is considered to represent natural/geological material
2017009-1820	MAG	394728.50	5672719.50		N/A	N/A	N/A	2.11	Probably an object or geology	Based on size (4.1 nT), form and background magnetic levels this is considered to represent natural/geological material
2017009-2026	MAG	394919.00	5673068.50		N/A	N/A	N/A	2.10	Probably an object or geology	Very small anomaly (3.9 nT) interpreted as either natural or towfish cable movement
2017009-2455	MAG	395759.00	5674540.00		N/A	N/A	N/A	2.09	A very small object or geology	Anomaly (15.9 nT) interpreted as probable geology
2017009-2495	MAG	395475.50	5674666.50		N/A	N/A	N/A	4.54	Most likely an object	Anomaly (9.4 nT) situated within palaeochannel feature. Based on form interpreted as geological in nature
2017009-2682	MAG	395608.00	5675031.50		N/A	N/A	N/A	4.02	Possibly an object, might be geology	small anomaly (13 nT) interpreted as probable

Name	Instrument	Easting	Northing	Depth	Width	Length	Height	nT/m	Clinton Comment	WA interpretation
										geology
2017009-2789	MAG	395966.00	5675467.50		N/A	N/A	N/A	3.96	Most likely an object or geology, might be related to 2800	Situated 17 m SE of 2017009-2800 (7028). Based on profile data considered to be same anomaly.
2017009-2806	MAG	395873.00	5675497.00		N/A	N/A	N/A	3.86	Most likely an object or geology	small anomaly (13 nT) interpreted as probable geology based on size and form



Revised Dredge Area
Overlap of survey data coverage
Survey extents not covered by SBP data

Linear feature
- Magnetic trend
- Rope/chain
- SBP contact

Feature boundaries
- Debris field
- Large complex magnetic anomaly
- Seafloor disturbance

Archaeological Discrimination
- A2 - Bright reflector
- A2 - Dark reflector
- A2 - Debris
- A2 - Debris field
- A2 - Magnetic
- A2 - Rope/chain
- A2 - SBP contact
- A2 - Seafloor disturbance
- A3 - Recorded wreck
- O2 - SBP contact
- Clinton anomalies

A2 – Uncertain origin of possible archaeological interest

A3 - Historic record of possible archaeological interest with no corresponding geophysical anomaly

O2 - Uncertain origin of possible archaeological interest but outside vertical footprint (>2.5 m below the seabed)

Coordinate system:
WGS 84 UTM 31N

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Anomalies of archaeological potential in comparison with Clinton anomalies within the revised dredge area

Figure 1a

396000
397000
5676000
7047
2017009-0783
2017009-0784
7300
7302
7303
7304
7305
7028
2017009-2800
2017009-2789
7029
2017009-2774
2017009-0789
0
200 m

Revised Dredge Area
Overlap of survey data coverage
Survey extents not covered by SBP data
Linear feature
Magnetic trend
Rope/chain
SBP contact
Feature boundaries
Debris field
Large complex magnetic anomaly
Seafloor disturbance
Archaeological Discrimination
A2 - Bright reflector
A2 - Dark reflector
A2 - Debris
A2 - Debris field
A2 - Magnetic
A2 - Rope/chain
A2 - SBP contact
A2 - Seafloor disturbance
A3 - Recorded wreck
O2 - SBP contact
Clinton anomalies

A2 – Uncertain origin of possible archaeological interest
A3 - Historic record of possible archaeological interest with no corresponding geophysical anomaly
O2 - Uncertain origin of possible archaeological interest but outside vertical footprint (>2.5 m below the seabed)

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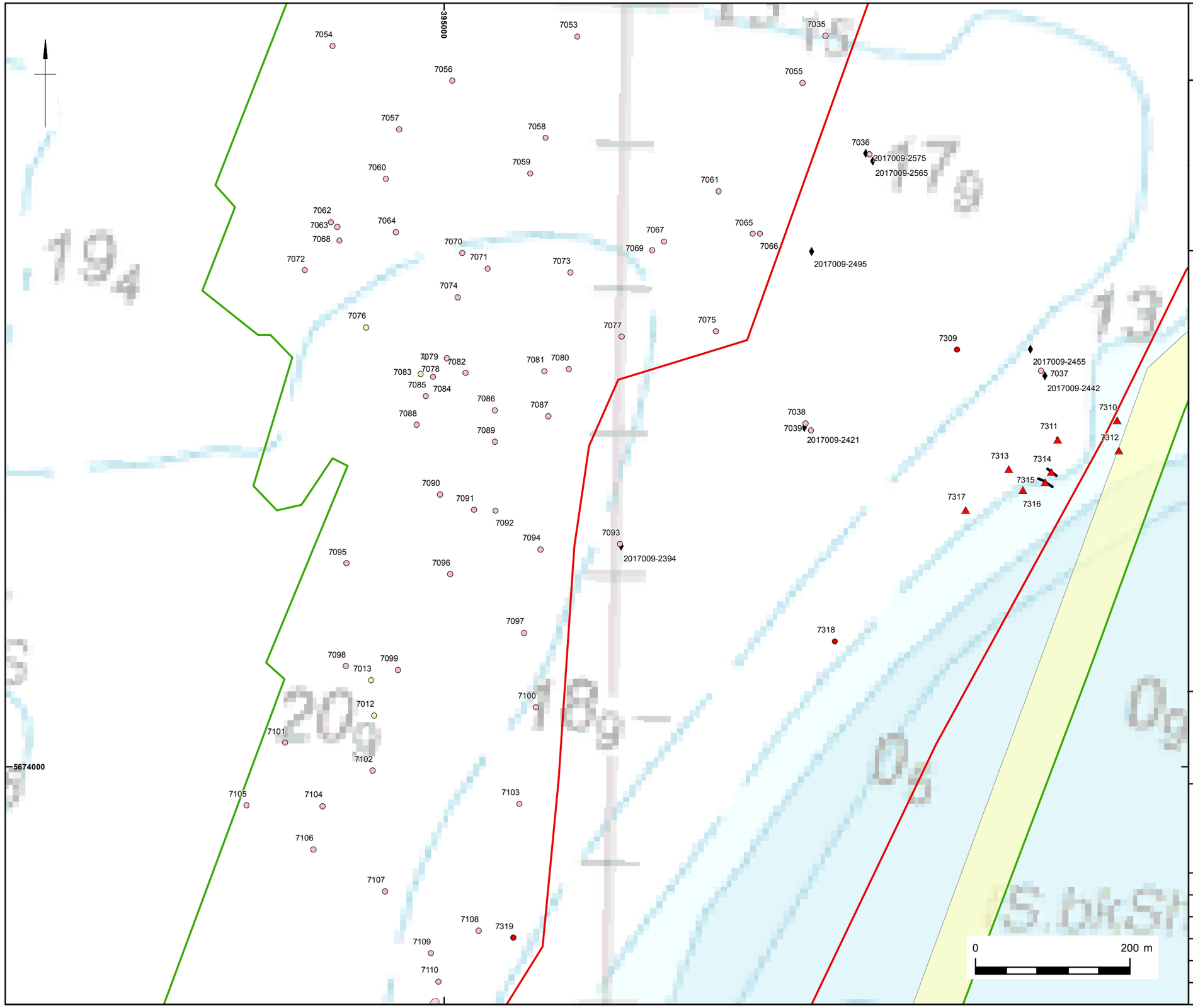
Anomalies of archaeological potential in comparison with Clinton anomalies within the revised dredge area

Figure 1b



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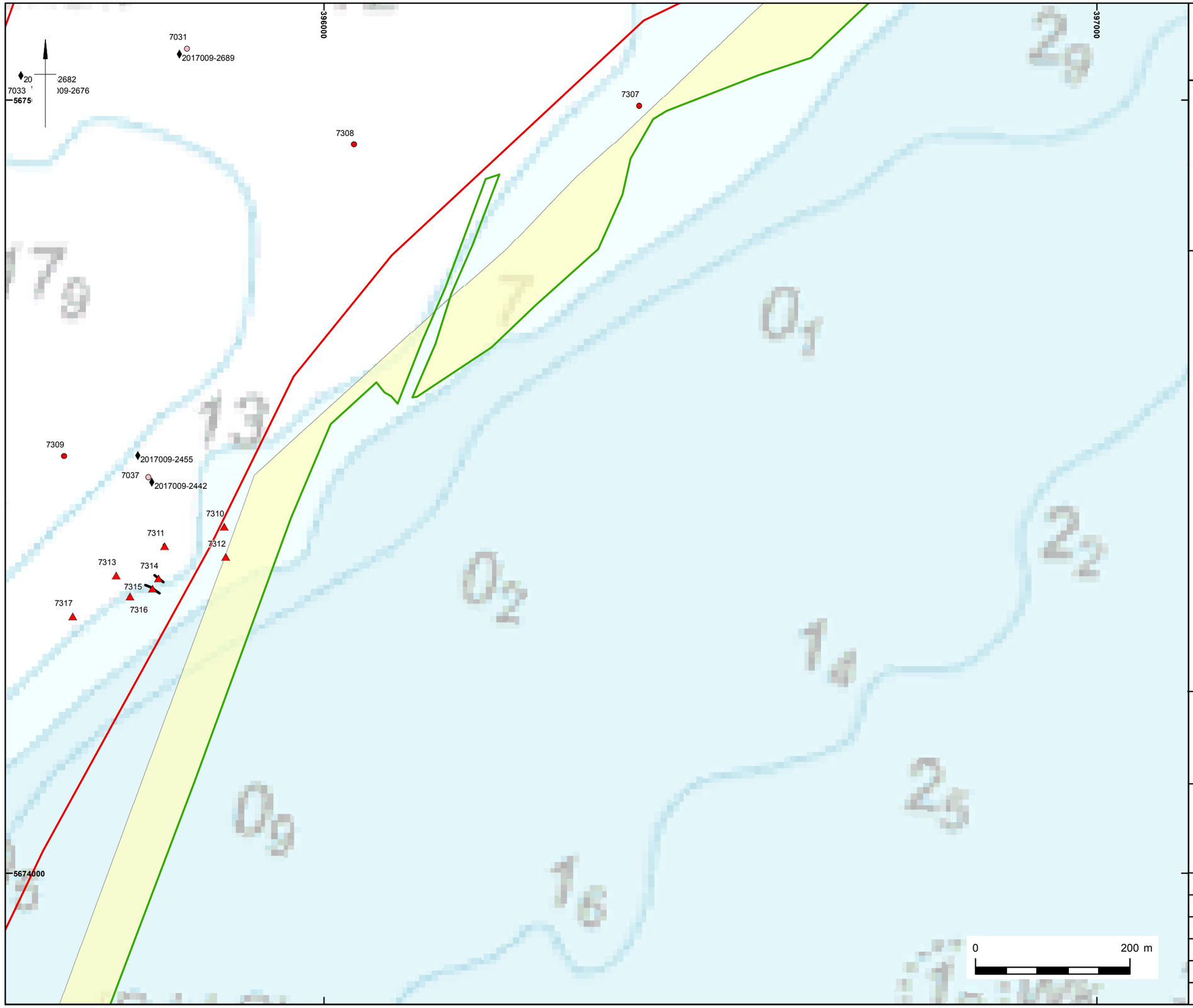
Anomalies of archaeological potential in comparison with Clinton anomalies within the revised dredge area

Figure 1c



Revised Dredge Area
Overlap of survey data coverage
Survey extents not covered by SBP data

Linear feature
Magnetic trend
Rope/chain
SBP contact

Feature boundaries
Debris field
Large complex magnetic anomaly
Seafloor disturbance

Archaeological Discrimination
A2 - Bright reflector
A2 - Dark reflector
A2 - Debris
A2 - Debris field
A2 - Magnetic
A2 - Rope/chain
A2 - SBP contact
A2 - Seafloor disturbance
A3 - Recorded wreck
O2 - SBP contact
Clinton anomalies

A2 – Uncertain origin of possible archaeological interest
A3 - Historic record of possible archaeological interest with no corresponding geophysical anomaly
O2 - Uncertain origin of possible archaeological interest but outside vertical footprint (>2.5 m below the seabed)

Coordinate system:
WGS 84 UTM 31N

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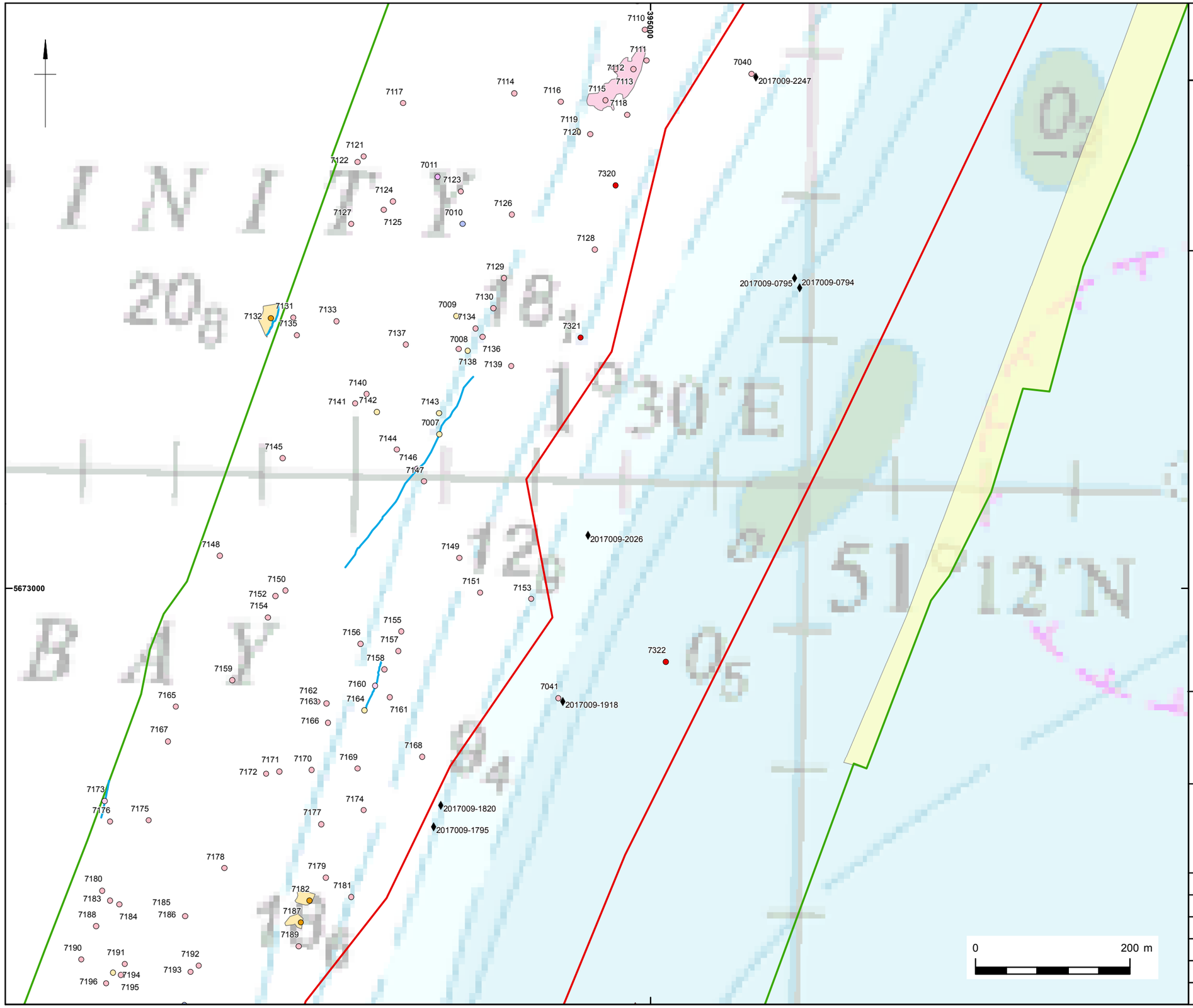
Anomalies of archaeological potential in comparison with Clinton anomalies within the revised dredge area

Figure 1d



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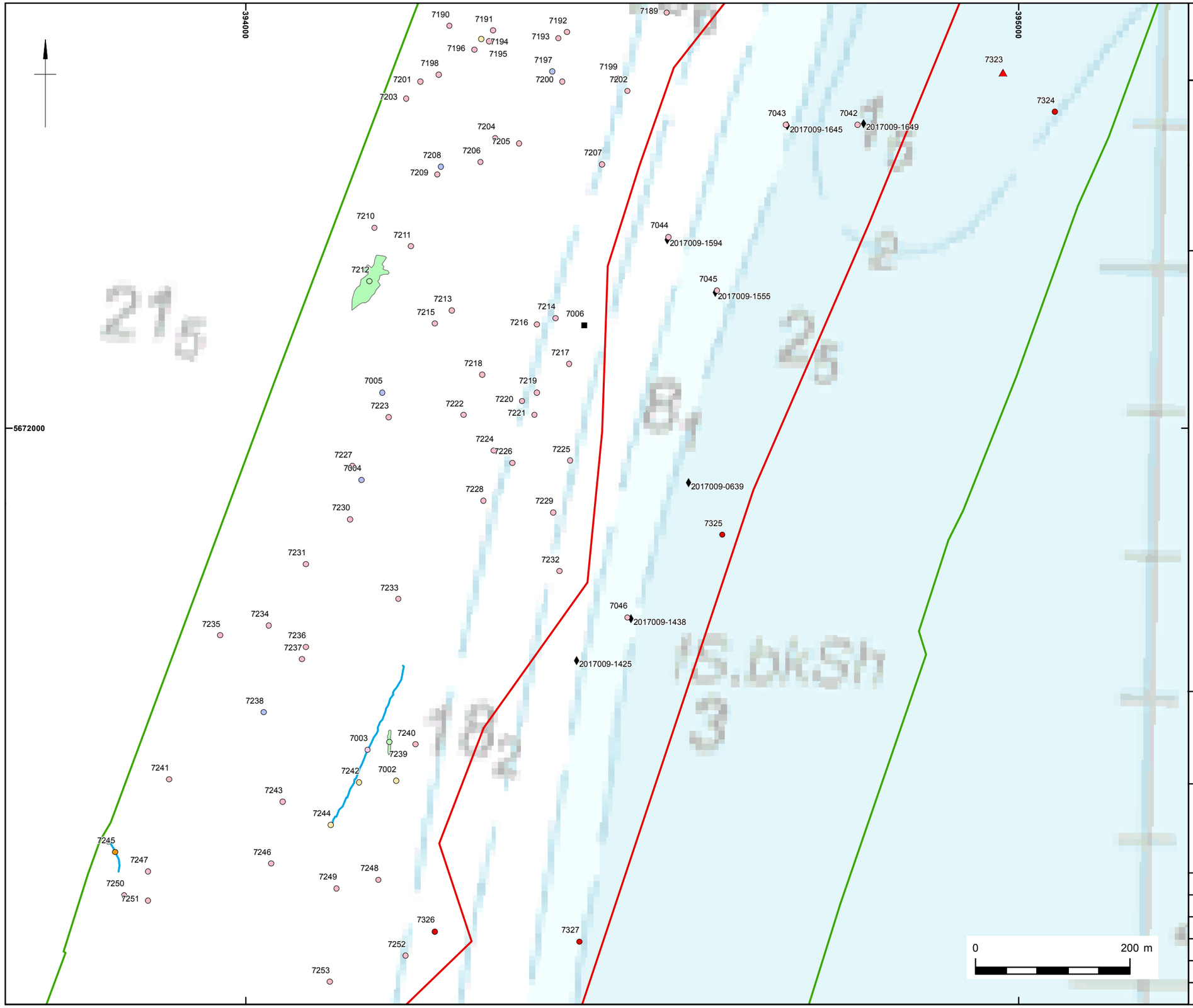
Anomalies of archaeological potential in comparison with Clinton anomalies within the revised dredge area

Figure 1e



Revised Dredge Area
Overlap of survey data coverage
Survey extents not covered by SBP data

Linear feature
- Magnetic trend
- Rope/chain
- SBP contact

Feature boundaries
- Debris field
- Large complex magnetic anomaly
- Seafloor disturbance

Archaeological Discrimination
- A2 - Bright reflector
- A2 - Dark reflector
- A2 - Debris
- A2 - Debris field
- A2 - Magnetic
- A2 - Rope/chain
- A2 - SBP contact
- A2 - Seafloor disturbance
- A3 - Recorded wreck
- O2 - SBP contact
- Clinton anomalies

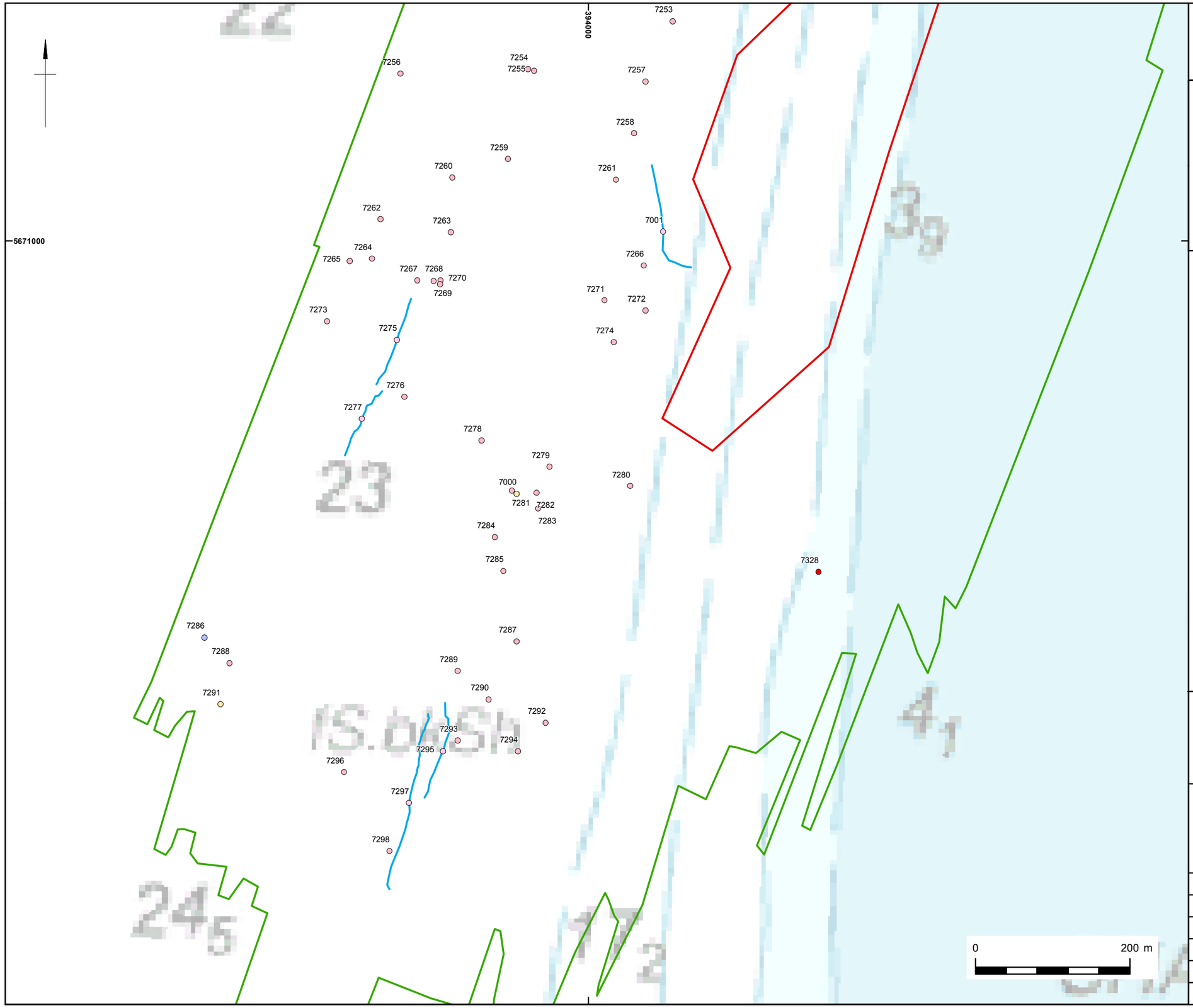
- A2 – Uncertain origin of possible archaeological interest
- A3 - Historic record of possible archaeological interest with no corresponding geophysical anomaly
- O2 - Uncertain origin of possible archaeological interest but outside vertical footprint (>2.5 m below the seabed)

Coordinate system:
WGS 84 UTM 31N

Date:	07/08/2017
Revision Number:	0
Scale:	1:5000 at A3
Illustrator:	KL
Path:	W:\Projects\111511\Graphics_Office
	\Report_figs\Annex\2017_08_07\Fig01.mxd

Anomalies of archaeological potential in comparison with Clinton anomalies within the revised dredge area

Figure 1f



Revised Dredge Area
Overlap of survey data coverage
Survey extents not covered by SBP data

Linear feature
- Magnetic trend
- Rope/chain
- SBP contact

Feature boundaries
- Debris field
- Large complex magnetic anomaly
- Seafloor disturbance

Archaeological Discrimination
- A2 - Bright reflector
- A2 - Dark reflector
- A2 - Debris
- A2 - Debris field
- A2 - Magnetic
- A2 - Rope/chain
- A2 - SBP contact
- A2 - Seafloor disturbance
- A3 - Recorded wreck
- O2 - SBP contact
- Clinton anomalies

○ A2 – Uncertain origin of possible archaeological interest
□ A3 - Historic record of possible archaeological interest with no corresponding geophysical anomaly
△ O2 - Uncertain origin of possible archaeological interest but outside vertical footprint (>2.5 m below the seabed)

Coordinate system:
WGS 84 UTM 31N

Date:	07/08/2017
Revision Number:	0
Scale:	1:5000 at A3
Illustrator:	KL
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Anomalies of archaeological potential in comparison with Clinton anomalies within the revised dredge area

Figure 1g

Wessex Archaeology Ltd registered office Portway House, Old Sarum Park, Salisbury, Wiltshire SP4 6EB
Tel: 01722 326867 Fax: 01722 337562 info@wessexarch.co.uk www.wessexarch.co.uk

FS 606559