MEASURE THE DIFFERENCE!

Marine Survey Report

Hywind Offshore Windfarm

ST13828

Geophysical Survey
Peterhead, Scotland
July-August 2013

MMT Doc. No: 101462-STO-MMT-SUR-REP-ST13828
Statoil Doc. No: ST13828-Hywind OW

Client Review
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1. INTRODUCTION

1.1. General

Purpose of Document

This report together with charts and GIS database provides information of the survey performance and presents the geophysical results from the Hywind Offshore Windfarm survey.

The report aims to provide information and an overview of the bathymetrical and geological conditions along the export cable corridor and the Hywind Windfarm site area, based on interpretations of the obtained geophysical data. The report summarise the conditions along the surveyed corridor and site area with regards to; bathymetry, geology, and other seabed features, e.g. obstacles, wrecks, manmade objects and magnetic anomalies, detected during the survey. All obtained data from the different instruments used are correlated and the knowledge from this is combined with background information to give the results credibility.

MMT have conformed to the Statoil provided formats regarding the content of the report and the deliverables, as specified in the governing document, Statoil TR 2234 and TR1007.

1.2. Definitions and Abbreviations

BGS	British Geology Service
CAD	Computer-aided design
CUBE	Combined Uncertainty and Bathymetry Estimator
DCC	Distance Cross Course
DPR	Daily Progress Report
DTM	Digital terrain model
EPSG	European Petroleum Survey Group
GAPS	Global Acoustic Positioning System
GIS	Geographic information system
GLONASS	Global Orbiting Navigation Satellite System; Russia
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
HDD	Hard Disk Drive
HIRA	Hazard Identification and Risk Assessment
HSE	Health Safety Environment
ITRF	International Terrestrial Reference Frame
KP	Kilometre Post
LAT	Lowest Astronomical Tide (vertical datum)
MAG	Magnetometer
MBES	Multibeam Echo Sounder
MMT	Marin Mätteknik
MRU	Motion Reference Unit
M/V	Motor Vessel
nT	nanotesla
POS MV	Position and Orientation System for Marine Vessels
POS Pac	Position and Orientation System Package
PPS	Pulse Per Second
QA	Quality Assurance
QC	Quality Control
QINSy	Quality Integrated Navigation System
RMS	Root Mean Square
RPL	Route Position List

RTK	Real Time Kinematics
SBET	Smoothed Best Estimated Trajectory
SBP	Sub bottom profiler
SOW	Scope of Work
SIS	Seafloor Information System
SP	Sparker
SSS	Side Scan Sonar
SVP	Sound Velocity Probe
TPU	Total propagated uncertainty
USBL	Ultra Short Base Line
UTC	Coordinated Universal Time
UTM	Universal Transverse Mercator

1.3. References

Table 1 Reference documents

Document Number	Title	Author
101462-STO-MMT-HSE-PRO-HIRA	HIRA	MMT
101462-STO-MMT-QAC-PRO-PMQAPLAN	Project Manual and QA Plan	MMT
101462-STO-MMT-HSE-PRO-HSEPLAN	HSE Plan	MMT
101462-STO-MMT-MAC-REP-FRANKLIN	Mobilisation and Calibration Report M/V Franklin	MMT
101462-STO-MMT-MAC-REP-PING	Mobilisation and Calibration Report M/V Ping	MMT
101462-STO-MMT-SUR-REP-BENTHICR	Benthic Survey Report	MMT
ST13828 WP	Hywind Offshore Windfarm- Offshore Seabed survey	Statoil
TR2234	Data format specification for external inspection of offshore pipelines	Statoil
TR1063	Geographical Information Data Formats	Statoil
TR1007	Specification for seabed surveys, inspection and documentation	Statoil
-	Survey Frame Agreements Survey and reporting clarifications 2013 Rev05	Statoil

1.4. Revision Record Sheet

Table 2 Revision record sheet.

Document Revision	Issue Date	Issue Purpose	Updated/Modified Sections
03	2013-10-29	For client review	According to Client comment sheet
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2. SURVEY DESCRIPTION

2.1. Scope of Work

MMT was contracted by Statoil to undertake a geophysical and benthic survey for the Hywind Offshore Windfarm – Seabed and sub-seabed mapping of development site and export cable corridor.

The scope of work included seabed and sub-seabed survey of the Hywind Offshore Windfarm development site and the export cable corridor. The main aims with the survey were to:

- Acquire and interpret high quality seabed and sub-seabed data for project planning and execution, including shallow geology, bathymetry, seabed sediment distribution and detection of seabed features and seabed obstructions.
- Detect possible occurrence of benthic habitats and species of known conservation importance.
- Improve the geological understanding of the shallow stratigraphy and sediment properties in the turbine site and export corridor to facilitate the planning and execution of turbine foundation installation and cable routing, installation and protection.
- Detection of three cables.

2.2. Survey Area

The Hywind Offshore Windfarm site is located on the east coast of Scotland at the Buchan Deep site, approximately 25 km east of Peterhead (Figure 1). The development will consist of five floating wind turbines, anchored to the seafloor each with connection to an export cable.

The survey area is divided in two main parts; the turbine site area with accompanied construction and anchoring areas and the export cable corridor.

The development area is approximately 60 square km but is limited by the Forties pipeline exclusion zone (2000 m wide) running in a NE-SW direction (Figure 1). The export cable corridor is 25 to 30 km long and 500 m wide, with a planned landfall in the Peterhead area. The turbine site area has water depths in the range of 110 to130 m.

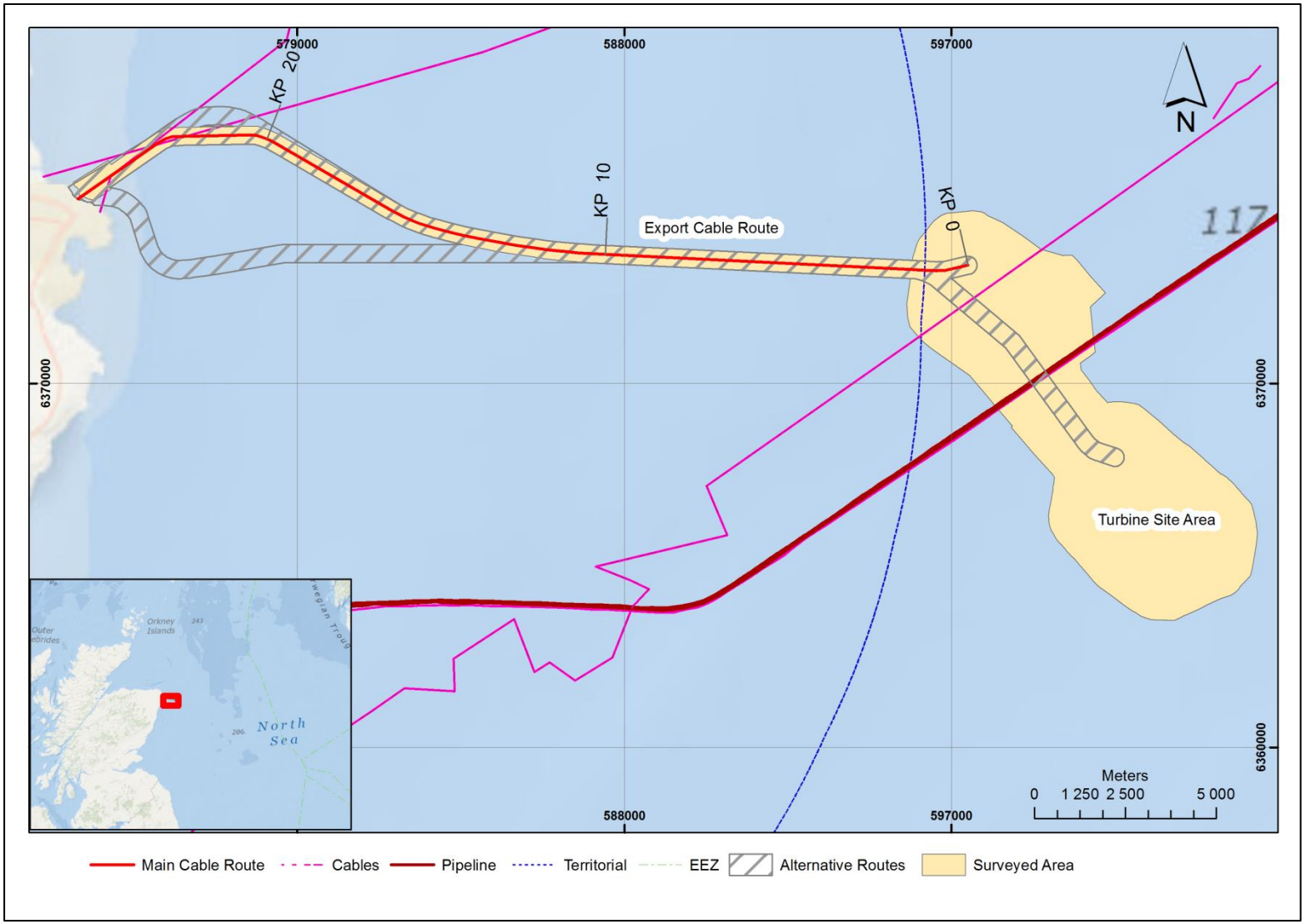


Figure 1 Overview of the Hywind Offshore Windfarm survey area and alternative routes

2.3. Performed Work

The marine survey consisted of a geophysical survey task, including determination of seabed sediment distribution, shallow geology, bathymetry, detection of seabed features, e.g. obstacles, wrecks manmade targets and magnetic anomalies and a benthic survey task, including determination of the occurrence of benthic habitats and species of known conservation importance.

The details of the survey performance and results from the benthic survey are provided in a separate benthic survey report, 101462-STO-MMT-SUR-REP-BENTHICR.

Geophysical Survey

A full coverage of the seabed within the construction site and cable route corridor required narrow line spacing due to the shallow water depths and the acquisition of adequate magnetometer data. All instruments were run simultaneously. Data was continuously checked and infills were made where necessary.

Export Cable Route Corridor

The survey work in the cable route corridor included multibeam echo sounder (MBES), magnetometer (MAG), side scan sonar (SSS) and chirp (SBP). A minimum of 3 m sub bottom penetration was required along the cable route corridor. Due to indication of bedrock in chirp data it was decided to run Sparker on a few extra lines in order to get a better understanding of the sub-bottom conditions.

The Export Cable Route survey consisted of 11 survey lines with 50 m line spacing. Crosslines were run every second kilometre.

Main route Alternative 1 (North) and Alternative 2 (South) were not surveyed.

The cable route corridor area was extended to the north with two crosslines to scout for optional cable routes.

A nearshore survey was conducted in the landfall area of the cable route corridor. The survey line spacing was approximately 30 m and was run with MBES, MAG, SSS and chirp (SBP).

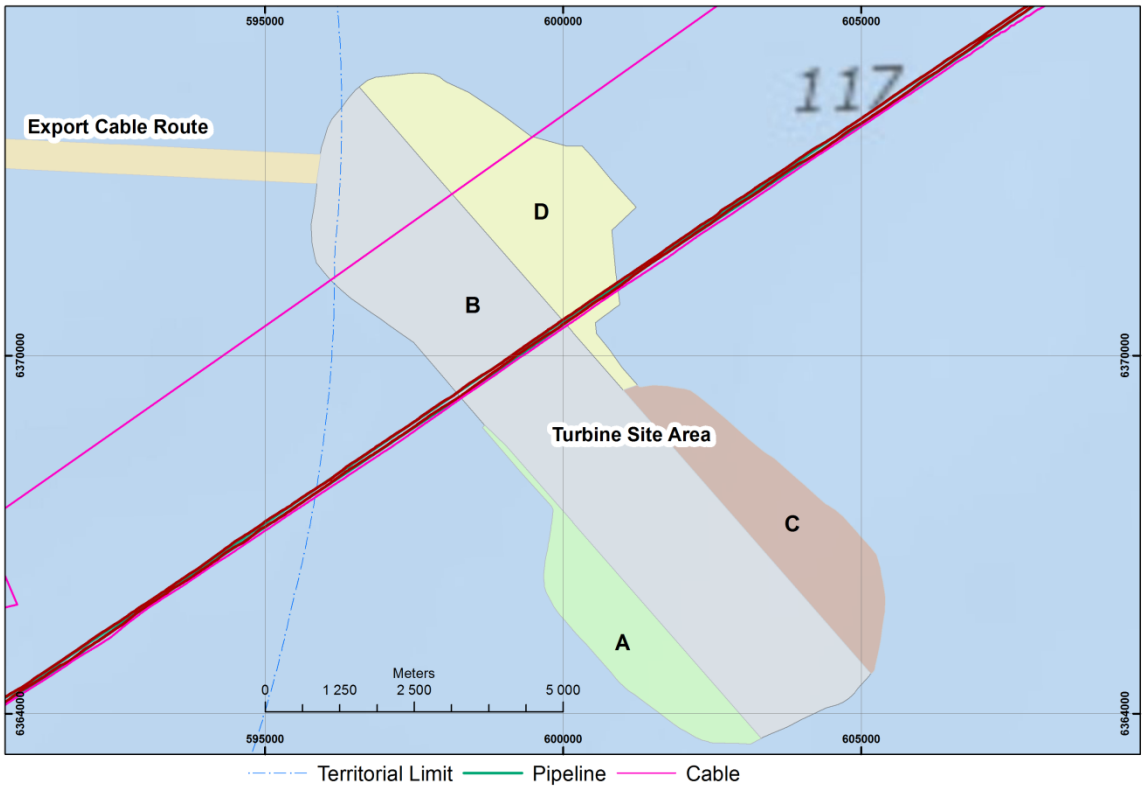


Figure 2 Turbine Site Area divided into Block A, B, C and D.

Turbine Site Area

The survey work in the turbine site area included MBES, MAG, SSS, chirp and sparker (SBP). A minimum of 30 m sub bottom profiling penetration was required at turbine site.

The survey lines were spaced at 50 m interval in NW-SE orientation throughout the turbine site area. Perpendicular cross lines were surveyed with 100 meters line spacing. The turbine site area was divided into four blocks; A, B, C and D to be enable intermediate reporting (Figure 2).

To monitor and control the position of, and the towing height above seabed, the magnetometer was individually positioned and equipped with altimeter. Due to currents, wind and waves it was difficult at times to maintain accurate altitude and line-spacing. When the magnetometer was flying more than 5 m vertically above the seabed for a longer distance than 50 m in length the line was re-run.

During the survey operation Block D was extended towards east with approximately one kilometre in survey length. The southern cable route alternative was decided not to be surveyed, Figure 2.

Inspection of one side scan target with drop camera was added to the scope of work.

2.3.1. Data Processing

Side scan sonar

The SSS files were processed using the SonarWiz5 software. Coverage of the SSS data was checked by two geologists on board. Positioning was quality controlled (QC) by comparing and cross correlation against the bathymetry data. Track lines were exported as shape files.

Wrecks, man-made hazards and boulders >1 m on fine sediments were logged as contacts, cables and pipelines were digitized.

Individual SSS stripe images as well as mosaics of the seabed surface were exported from SonarWiz5 and imported into AutoCAD were the seabed sediments and seabed features were digitized and mapped.

Sub bottom profiler

Chirp and sparker files were imported and processed using the SMT Kingdom software. The interpretation was digitized. The processed bathymetric data was also imported to SMT Kingdom in XYZ format and converted to time. The bathymetric surface is used as a reference surface, i.e. seabed to the seismic profiles and as the top layer for interpretations.

Gridded surfaces were made from the interpretations using primarily flex gridding. Isochrons were made from the gridded surfaces; the isochrons was then converted into isopachs once the velocity function was employed.

Magnetometer

The magnetometer txt files were processed in the SonarWiz5 software. Each magnetometer file was analysed separately for anomalies. The magnetometer data was controlled in regards to line keeping and a correlation to the SSS data was made. Large magnetic trends were visible in the SonarWiz map window, e.g. outcropping sediment and crossing magnetic cables and pipe lines.

Bathymetry

The MBES data was acquired using a Kongsberg EM710 MBES and the Seafloor Information System software (SIS). Position and motion data was recorded using an Applanix Position and Orientation System for Marine Vessels (POS MV) and processed in Pos Pac software. Bathymetry and positioning data was combined in Caris, where the data was processed and its quality checked. Fledermaus software was used to clean the data and produce grids and bathymetry deliverables.

2.4. Survey Parameters

2.4.1. Geodetic Datum and Grid Coordinate System

International Terrestrial Reference Frame (ITRF) is a global datum used primarily by the scientific community and is realised by a large network of fiducial, i.e. fundamental trust, sites around the globe. ITRF sites are typically continuously operating GPS stations, Very Long Baseline Interferometry and Satellite Laser ranging stations. The ITRF is defined by the coordinates and velocities of the stations at a specified reference epoch. ITRF sites are located on different tectonic plates which move at up 10 cm per year with respect to each other. As a consequence, the velocity for each ITRF site with respect to a stable earth enables ITRF coordinates to be computed for any specified epoch. Because ITRF coordinates are constantly changing, ITRF is referred to as a dynamic datum. The latest realisation of ITRF is ITRF2008. WGS84 is a global

datum used by the United States' Global Positioning System. The datum is currently defined by the coordinates and velocities of 18 GPS tracking stations. The latest realisation of WGS84 is WGS84 "1150" where 1150 refers to the GPS week of realisation. WGS84 is now coincident with the latest realisation of ITRF at the 10 cm level.

This means that ITRF coordinates are also expressed in WGS84 at 10 cm level however since the data acquired is in the ITRF 2008 datum all reporting and charting should properly reference to this datum unless otherwise agreed with the client

Table 3 Geodetic parameters

Datum parameters ITRF2008	
Spheroid	GRS 80
Semi Major Axis	6378137.000m
Semi Minor Axis	6356752.314m
Inverse Flattening	1/298.25722
Eccentricity Squared:	0.0066943801

Table 4 Projection Parameters

Projection Parameters	
EPSG Code	32630
Projection	WGS84
Zone	UTM zone 30N
Central Meridian	-3° 00' 00''
Latitude origin	0º
False Northing	0 m
False Easting	500 000 m
Central Scale Factor	0.9996
Units	Metres

2.4.2. Vertical Datum

Global Navigation Satellite System (GNSS) tide is used to correct the bathymetry data to the defined vertical datum, i.e. lowest astronomical tide (LAT). The GNSS-tide is obtained by post-processing GNSS-data collected by an Applanix PosMV 320 system. The GNSS-data is post-processed in the software POSPac MMS. Both the POS MV and POSPac MMS are developed by Applanix. The output from POSPac is ellipsoidal heights with accuracies of 5 cm Root Mean Square (RMS) and are corrected for motion and referenced to the MBES reference point. By incorporating the DTU10 model into the process the heights will be referenced to LAT. The DTU10 model is developed by the Danish National Space Center and has accuracy within a decimetre. Comparisons with the closest water-level station will be done to ensure that the data is levelled correctly.

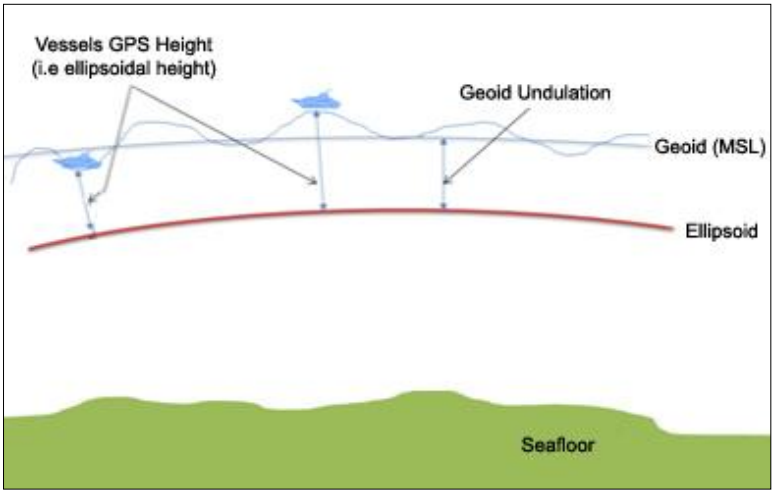


Figure 3 Overview of the tide methodology

This tidal reduction methodology encompasses all vertical movement of the vessel, including tidal effect and vessel movement due to waves and currents. The short variations in height are identified as heave and the long variations as tide.

This methodology is very robust since it is not limited by the filter settings defined online and provides very good results in complicated mixed wave and swell patterns. The vessel navigation is exported into a post processed format, Smoothed Best Estimated Trajectory (SBET) that is then applied onto the MBES-data.

The methodology has proven to be very accurate as it accounts for any changes in height caused by changes in atmospheric pressure, storm surge, squat, loading or any other effect not accounted for in a tidal prediction.

2.4.3. Time Datum

Coordinated Universal Time (UTC) will be used on all survey systems on board the vessel. The synchronisation of the vessel's onboard system is governed by the Pulse Per Second (PPS) issued by the primary positioning system. All displays, overlays and logbooks will be annotated in UTC. The Daily Progress Report (DPR) will refer to UTC.

2.4.4. KP Protocol

Kilometre Post (KP) 0.000 for the Export Cable Route is located in the turbine site. KP values increase towards shore. KP's has been calculated based upon the relevant UTM mapping projection zone and is at all times related to the route.

3. SUMMARY OF RESULTS

The water depth in the surveyed area reaches between 1 and 98 m LAT in the Export Cable Route and 97 to 188 m LAT in the Turbine Site Area. The deepest part is located in the middle of the Turbine Site Area. Mega ripples are common features. They cover the seabed between KP 0 and KP 5 in the Export Cable Route and throughout the Turbine Site Area. Between KP 5 and KP 25 the seabed is relatively flat with occasional mega ripples. Bedrock and boulders are present from KP 20.4 to the cable landing point. The slope in the Export Cable Route is typically less than 1 degree, but can increase to max 15.6 degree in the bedrock and till, i.e. close to shore and the landfall.

The surficial geology in the survey area is dominated by sand and gravel. Bedrock and till are outcropping near the landfall. Boulders are frequently found where till is close to the seabed surface. Trawl marks are a common feature along the Export Cable Route. Large parts of the Export Cable Route and almost all of the Turbine Site Area are covered by ripples and mega ripples. Biogenic substrate is present in extensive areas in the Turbine Site Area often in combination with boulders and/or hard substrate.

The shallow geology is described by five stratigraphical units. Unit 1 is present as a thin layer or veneer over most of the surveyed area. It is also present in some infills. Unit 2 (Forth Formation) is present throughout the area, reaching it greatest thickness in the beginning of the cable route, i.e. eastern section offshore, and the northern part of the Turbine Site Area. Unit 2 is thinning out towards west. Unit 3 (Wee Bankie Formation) is also present underlying Unit 2 in the whole area. It is present at seabed surface between KP 20.8 and KP 24.9. Unit 4, probably Coal Pit Formation, is only detectable in the Turbine Site Area. Unit 5 (Bedrock) is visible in the sub-bottom data from KP 13.6 in the Export Cable Route corridor. Bedrock is outcropping from KP 25.3. No acoustic basement was penetrated in the upper 30 m in the Turbine Site Area.

In the Export Cable Route two inactive telecom cables were identified by magnetometer anomalies as well as one possible cable. In the Turbine Site Area the pipelines from Forties to Cruden Bay where identified in the magnetometer and side scan sonar records. Two additional cables and one possible cable were identified by magnetometer anomalies in the Turbine Site Area. Most of the SSS targets were interpreted to be boulders, 93% in the Export Cable Route and 85% in the Turbine Site Area. The remaining targets are either debris, man-made hazards or unidentified.

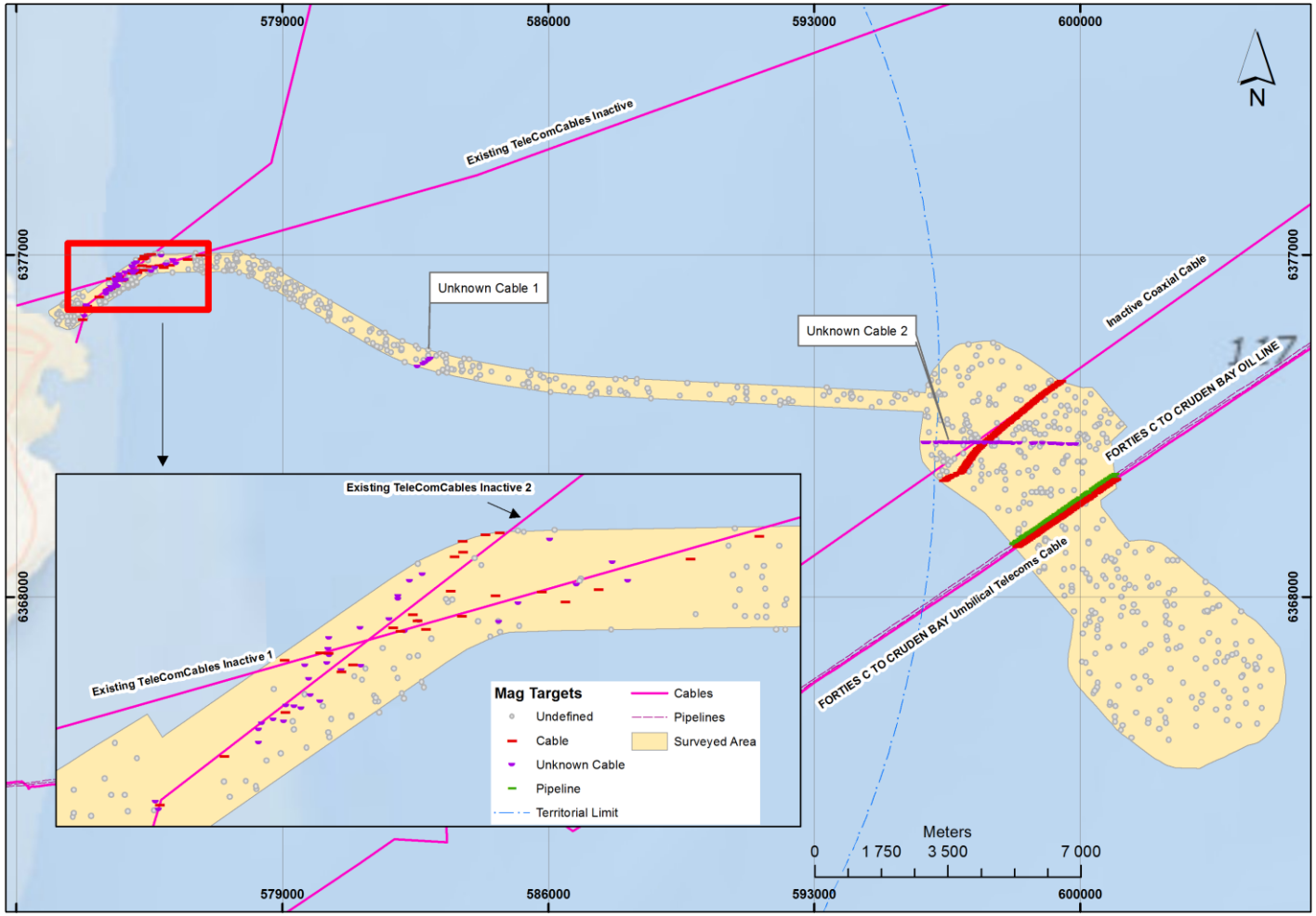


Figure 4 Overview of cables, pipelines and possible cables identified with magnetometer anomalies.

4. DETAILED RESULT

Seabead Classification

The surficial sediment classification is based on SSS data and the general analysis of the acoustic reflectivity (Table 5). This was compared to and complemented by British Geological Survey (BGS) literature and maps. No geotechnical data was available; therefore all classifications are to be considered as general.

The class SAND and GRAVEL comprises sediment with varying amounts of sand and gravel with clay and silt expected to be present as minor components. Without quantitative analyses no subdivision was attempted.

Biological samples and drop camera images indicate that a portion of the areas with higher acoustic reflectivity, i.e. frequent boulder areas in the Turbine Site Area, are related to biological substrate, for example Sabellaria reefs. For details see separate benthic survey report, 101462-STO-MMT-SUR-REP-BENTHICR.

Table 5 Surficial sediment classification

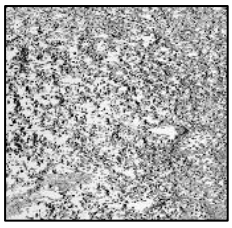
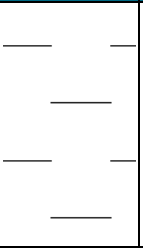
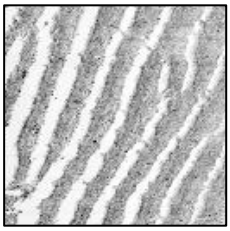
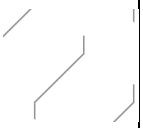
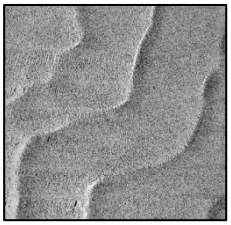
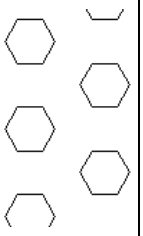
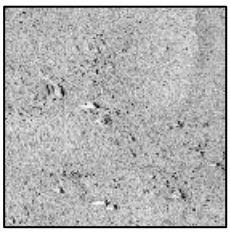
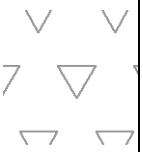
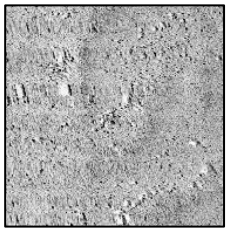
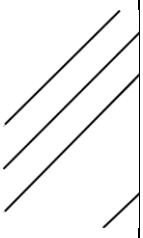
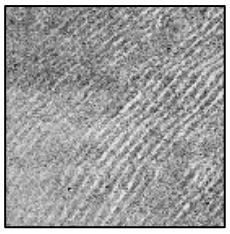
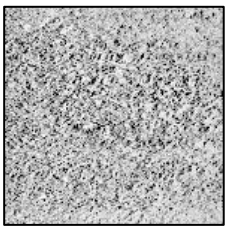
Chart Colour	SSS Image	Acoustic Description	Lithological Interpretation
		Low to medium acoustic reflectivity. Slightly grainy, grainy to coarse texture.	SAND and GRAVEL
		Medium to high acoustic reflectivity. Grainy to coarse texture and point source reflectors with acoustic shadows.	TILL
		High acoustic reflectivity.	BEDROCK

Table 6 Seabed feature classification

Chart Pattern	SSS Image	Seabed Feature
		Ripples Wavelength <5 m (image 20x30 m)
		Mega Ripples Wavelength >5 m (image 50x50 m)
		Scattered Boulders Approximately 1 to 5 boulders per 100 m^2 (image 20x30 m)
		Frequent Boulders Approximately 5 to 50 boulders per 100 m^2 (image 25x35 m)
		Trawl marks (image 20x40 m)
		Biogenic substrate

Shallow Geology Units

Classification of the shallow geological units, stratigraphy and lithology is based on BGS literature and maps (Table 7), since no geotechnical data was available.

The uppermost layer of the shallow geology, Unit 1, is Recent to Holocene sand and gravel. It is present as a veneer to thin layer on the seabed in most parts of the surveyed area. It can also be present as infills in small pockets along the Export Cable Route or channels incised in Unit 2 in the southwest of the Turbine Site Area. Unit 2, the Forth Formation, is present below the surficial sand and gravel or at seabed in places. The Forth Formation was deposited during the Late Weichselian to Holocene and comprises clay to gravelly sand. It appears often acoustically transparent in the sub-bottom data with point source reflectors and areas with higher acoustic resonance. The Forth Formation generally rests unconformable on the Wee Bankie Formation, Unit 3. This sandy and gravelly till was deposited during the Late Weichselian and appears with complicated internal reflectors and point source reflectors in the sub-bottom profiles. Unit 3 thins out towards the west and pinches out on seabed near the coast. In the Turbine Site Area Unit 4, possibly the Coal Pit Formation, is present below the Wee Bankie Formation. Acoustic basement was not reached in the sub-bottom sparker data. In the Export Cable Route corridor acoustic basement, i.e. Bedrock - Unit 5 was reached from KP 13.6 towards land and present at or near seabed in the nearshore area.

Table 7 Shallow geology units

Unit	Interpreted Stratigraphy	Lithology* and acoustic description	BGS Correlation**
Unit 1	Holocene	Veneer of surficial Recent to Holocene sand and gravel and pockets of sediment.	Holocene
Unit 2	Late Weichselian to Holocene	Varies from muds and silty muds to sands and gravelly sands. Acoustically transparent, but with internal point sources and patches of higher acoustic resonance.	Forth Formation
Unit 3	Late Weichselian	Sandy and gravelly till. Medium acoustic resonance with complicated internal reflectors and occasional point source reflectors.	Wee Bankie Formation
Unit 4	Saalian to Weichselian	Sandy silty clay and interlaminated clay and fine-grained silty sand. Medium acoustic resonance and internal somtimes parallel reflectors.	Coal Pit Formation
Unit 5	Silurian	Bedrock	Pre-Quaternary

* Lithological descriptions from BGS online and published sources.
** Interpreted stratigraphy and lithology correlated to BGS Units

4.1. Export Cable Route Corridor

4.1.1. Bathymetry

Seabed characteristics between KP 0.0 to KP 5.0 comprise mega ripples with heights up to 0.5 m (Figure 6). The remaining part of the Export Cable Route, up to KP 25.0, consists mainly of a generally flat seafloor with occasional mega ripples. Rocky outcrops and boulders have been identified in this part of the route corridor, the latter from KP 20.4 and onwards. The seabed within the remaining part of the Export Cable Route, i.e. from KP 25.4 and onwards, consists of an extensive area with Bedrock (Figure 8). Water depths along the Export Cable Route range between 1 m above LAT in the nearshore area, i.e. cable landing point, and 98 m offshore.

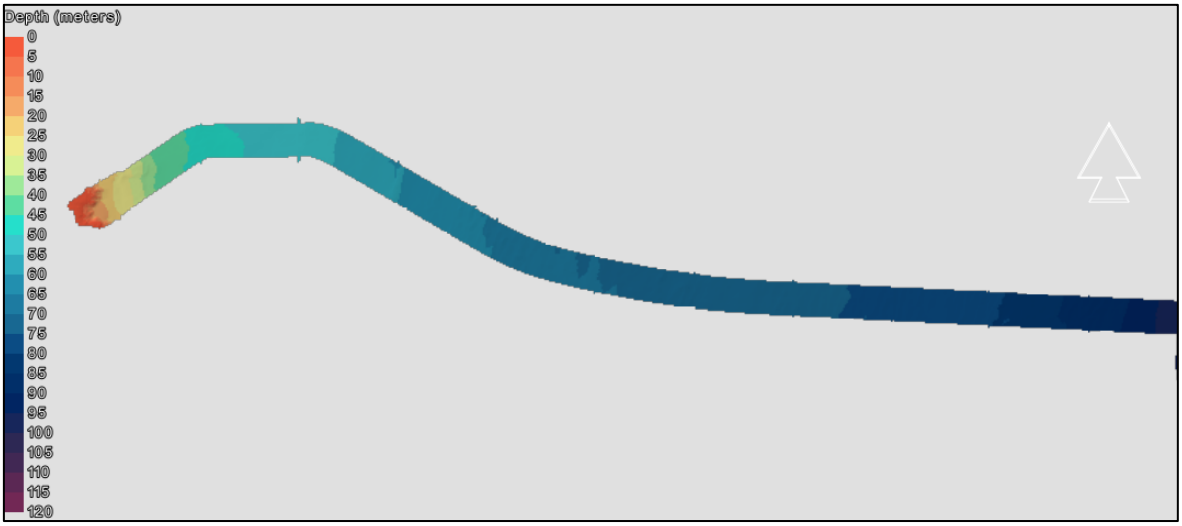
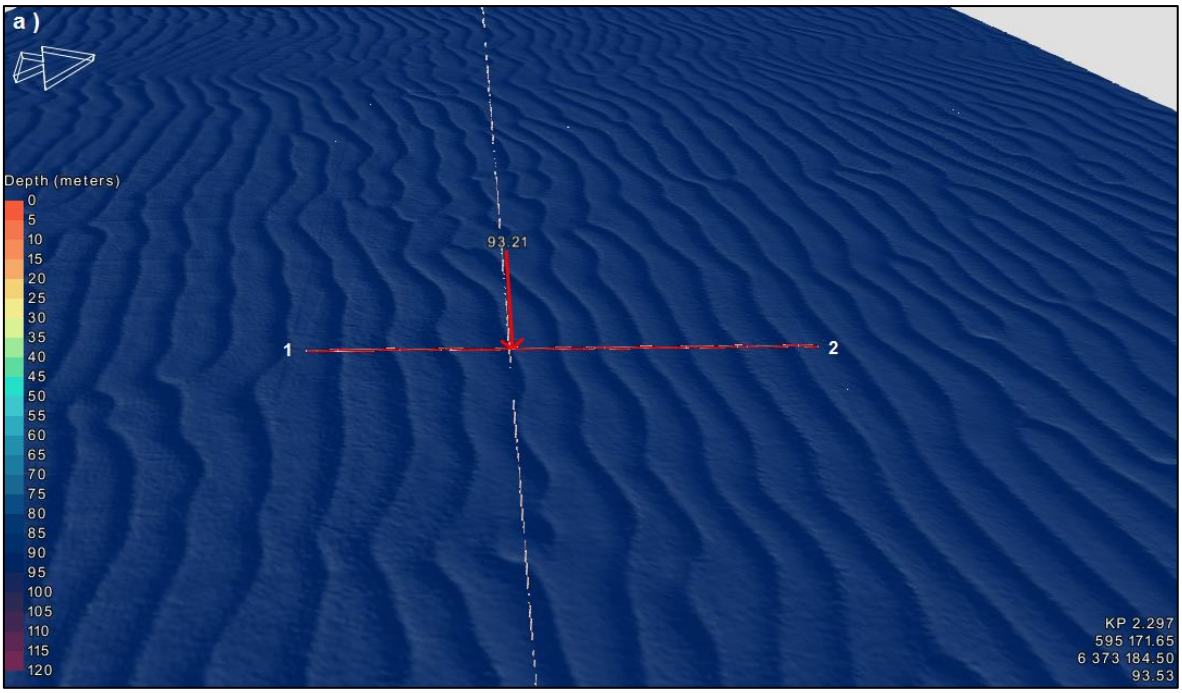


Figure 5 Overview of bathymetry along the Export Cable Route.



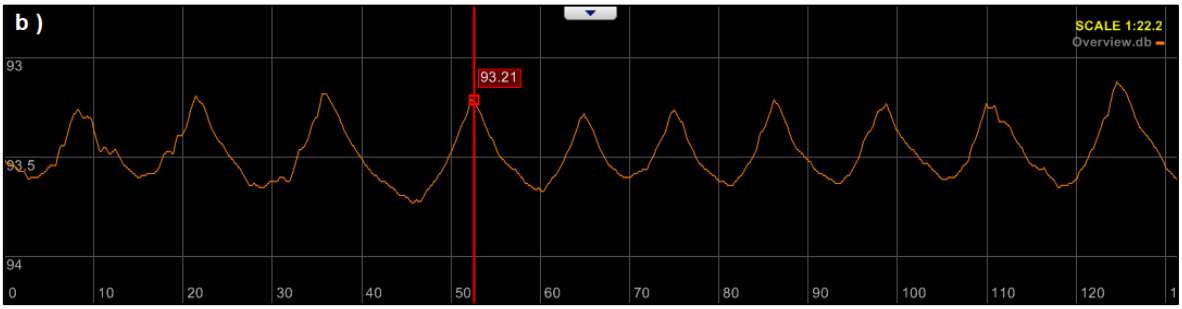


Figure 6 Typical seabed features between KP 0.0 and KP 5.0, i.e. mega ripples. a) Perspective view (heading 280˚, pitch 56˚) and b) seabed profile across 0.5 m high mega ripples (red line between 1 and 2 in a)).

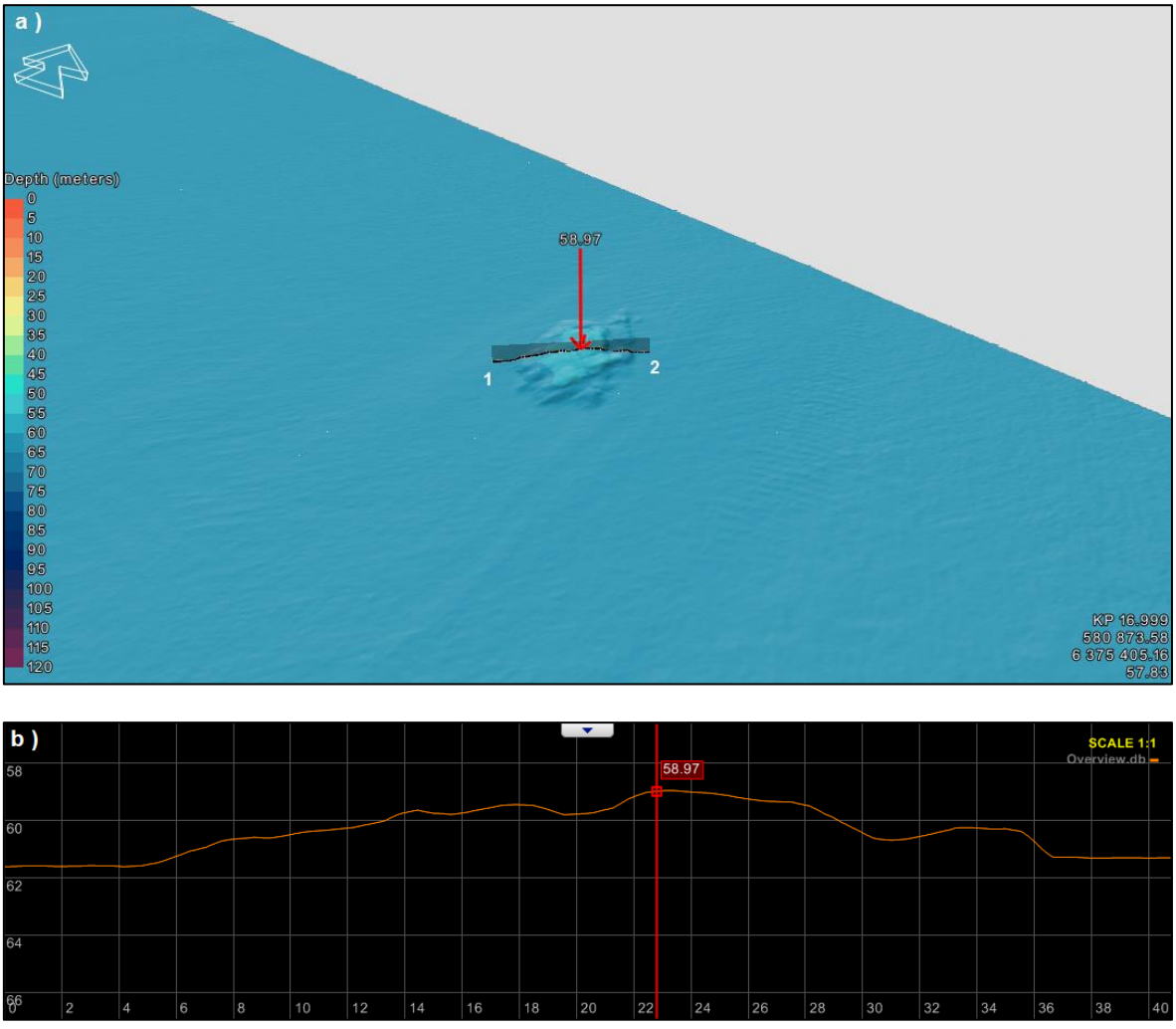


Figure 7 Isolated bedrock outcrop approximately 180 m northeast of route at KP 17. a) Perspective view (heading 337˚, pitch 60˚) and b) seabed profile across the 3 m high bedrock outcrop (black line between 1 and 2 in a)).

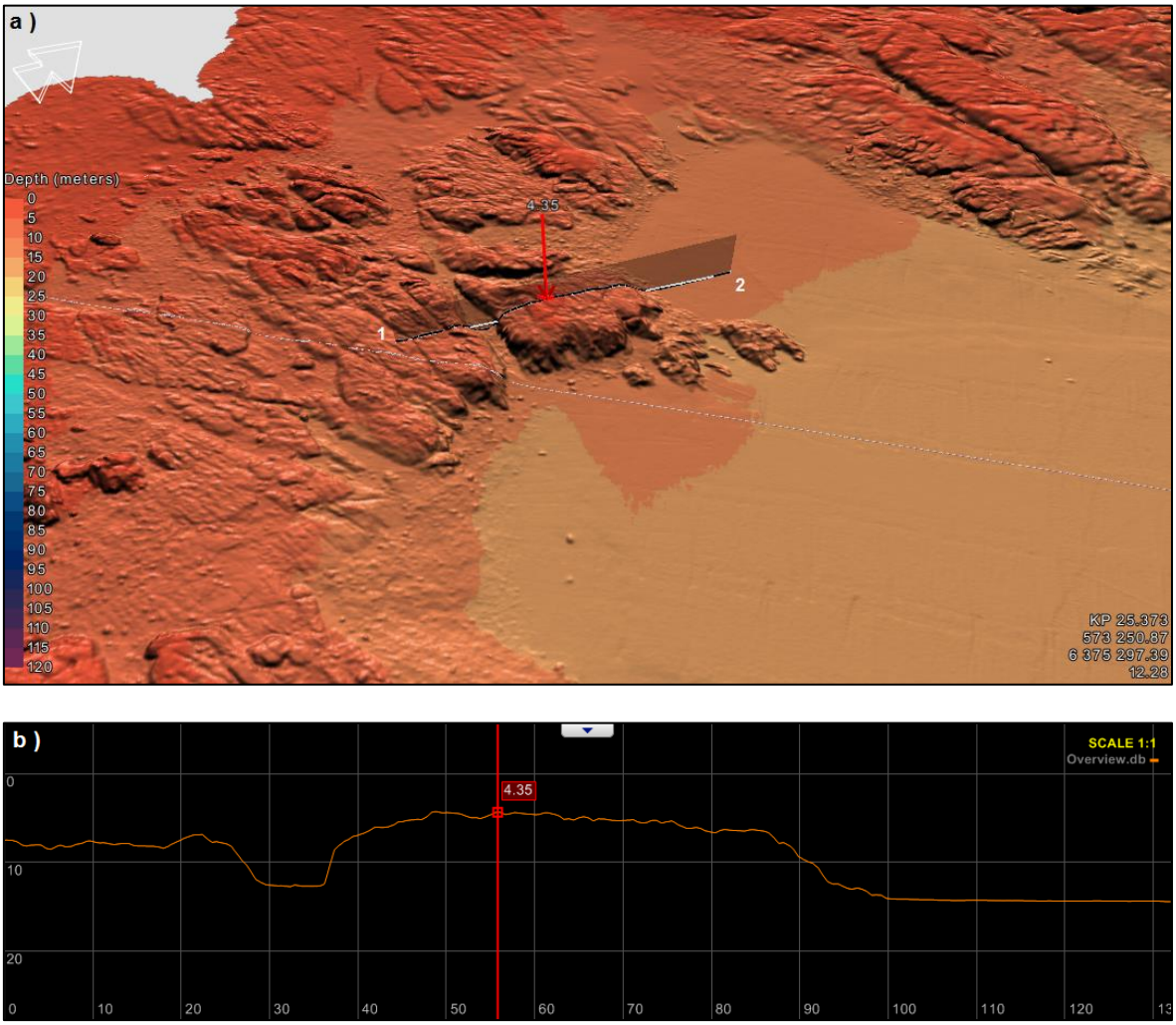


Figure 8 Bedrock outcrop in the nearshore area of the Export Cable Route corridor. The example is from approximately KP 25.0.
a) Perspective view (heading 314˚, pitch 41˚) and b) seabed profile across bedrock in the nearshore area (black line between 1 and 2 in a).

4.1.2. Surficial Geology

The main surficial sediment components along the Export Cable Route are sand and gravel. Till and bedrock are present in the western part, at the landfall near Peterhead. Without geotechnical data a further division into clayey/silty/gravelly sand or sandy gravel was not attempted. The most common seabed features along the cable route are ripples, mega ripples, trawl marks and boulders (scattered and frequent).

SAND and GRAVEL is present from KP 0 to KP 23.59. A thin surficial SAND and GRAVEL layer is also present between the TILL and BEDROCK areas from KP 23.88 to KP 23.94, KP 24.41 to KP 24.62 and KP 24.90 to KP 25.37. TILL is found at seabed surface between KP 23.59 and KP 24.90 (Figure 9) covered by SAND and GRAVEL in the prior described intervals and BEDROCK is outcropping from KP 25.37 to the end of the surveyed area.

Mega ripples are present from KP 0 to KP 5.27. Between KP 5.27 and KP 16.40 trawl marks (Figure 10) and small ripples are the common features. This area is also intersected by several bands of more distinct ripples. The seabed is then more or less featureless until KP 18.26 where more scattered boulders are present and ripples become more pronounced again at KP 18.57.

One outcrop of BEDROCK is present about 180 m north of the Export Cable Route (Figure 7). An area of frequent boulders is present from KP 20.30 to KP 23.45. A possible explanation for the larger amount of boulder in this area is the close proximity of a till unit to the seabed surface before this TILL is found outcropping from around KP 23.59. A thin surficial layer of SAND and GRAVEL with ripples is found before, between and after the TILL outcroppings as specified in the paragraph above.

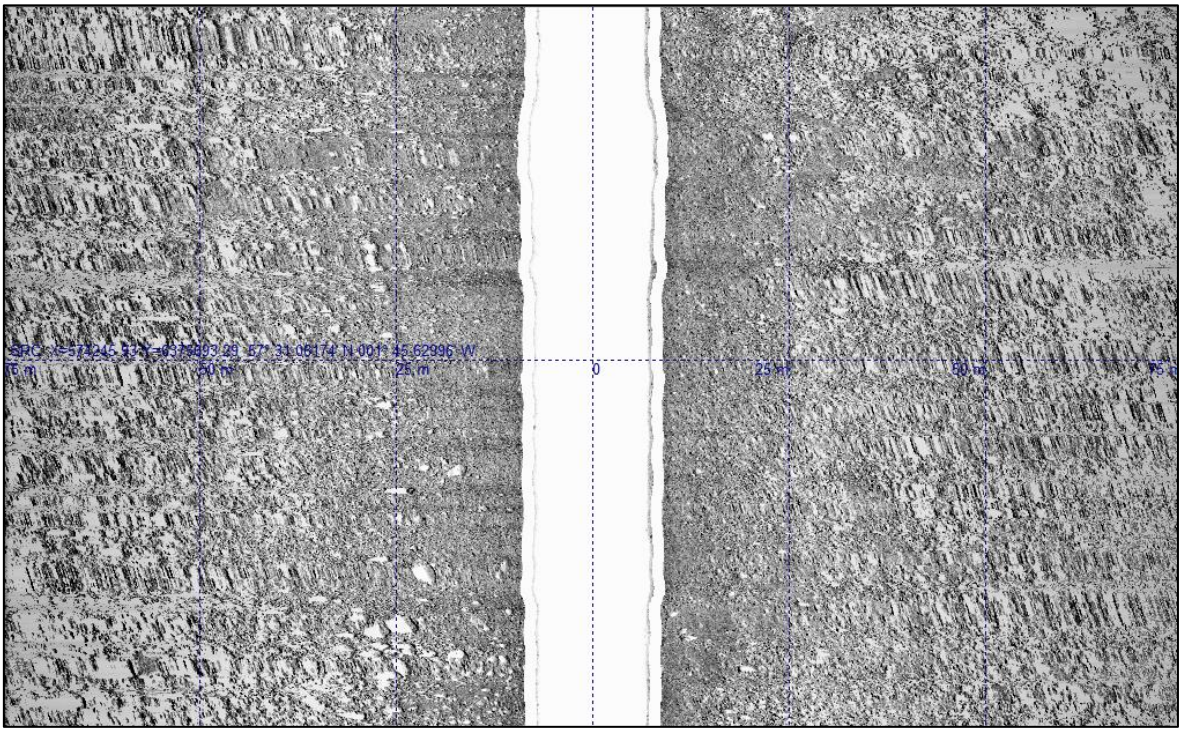


Figure 9 SSS example image of Till.
Image from the Export Cable Route, file: M_P200.509, approximately at KP 24.33.

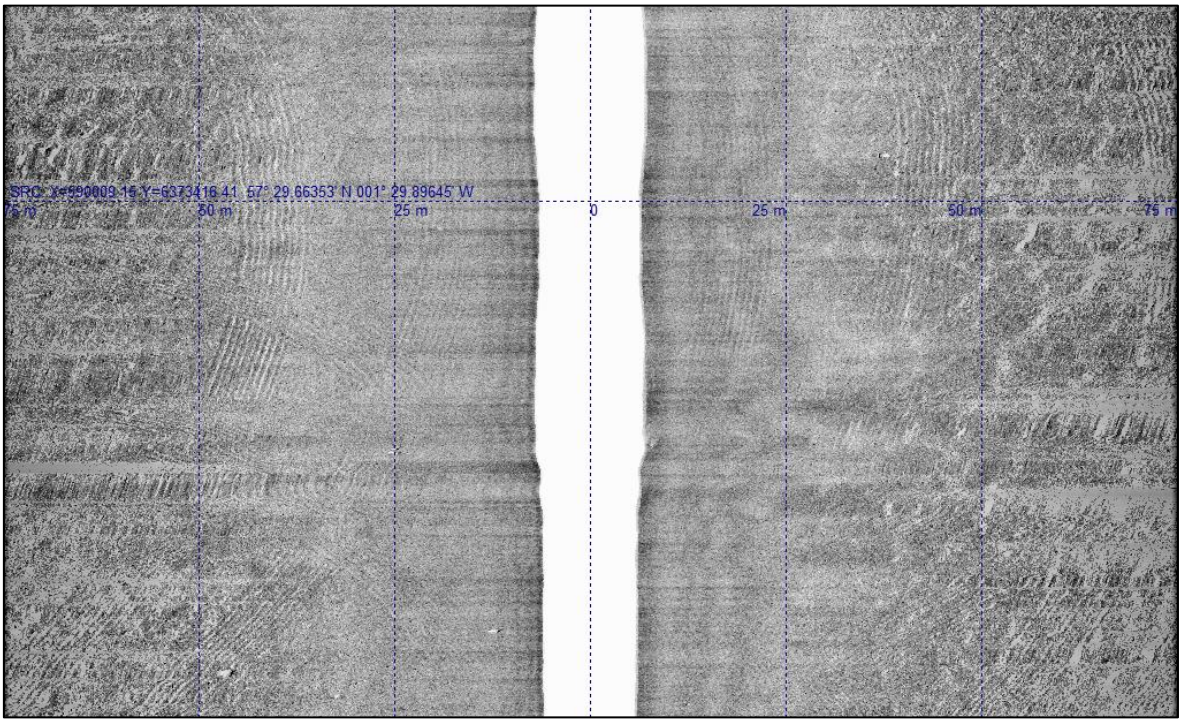


Figure 10 SSS example image Trawl marks.
Image from the Export Cable Route, file: M_C.444, approximately at KP 7.05.

4.1.3. Shallow Geology

The shallow geology along the Export Cable Route shows the Forth Formation (Unit 2) overlying the Wee Bankie Formation (Unit 3) and both units thinning out towards the west and pinching out. Recent and Holocene sand and gravel (Unit 1) appear as a thin layer or veneer over most of the area and is also present as pocket infills in Unit 2. Bedrock (Unit 5) is present in the sub-bottom data half way into the route at 10 m below seabed to outcropping at landfall.

From the start of the Export Cable Route at KP 0 to KP 13.60 a sequence of Unit 2 and 3 is present in the sub-bottom data (Figure 11). Some sediment pockets filled with Unit 1 are present on top of Unit 2. Unit 2 is slowly thinning out towards the west. The thickness decreases from around 5 to 15 m between KP 0 to KP 5.6 to approximately 2 to 8 m between KP 5.6 to KP 13.6. The top of Unit 3 is uneven.

From KP 13.60 the sub-bottom penetration reached acoustic basement, i.e. Unit 5. The bedrock is overlain by Unit 3 and Unit 2 at seabed. Pockets in Unit 2 at seabed are infilled by sediments of Unit 1. Unit 2 is approximately 2 to 4 m thick and pinches out at KP 20.83; Unit 3 varies in thickness from 1 to 10 m. Between KP 13.60 and KP 20.83 Unit 5 is at least 4 m below seabed surface.

From KP 20.83 Unit 3 is present at seabed surface (Figure 12). Unit 3 thickness over Unit 5 ranges from 3 to 10 m until KP 21.93 and decreases to less than 3 m between KP 21.93 and KP 24.92. An area where Unit 1 is overlying Unit 3 is found between KP 24.6 and KP 24.8.

A layer of about 1 m sand (Unit 1) is present on top of the bedrock between KP 24.92 and KP 25.37 before the bedrock outcrops from KP 25.37 to the end of the surveyed route.

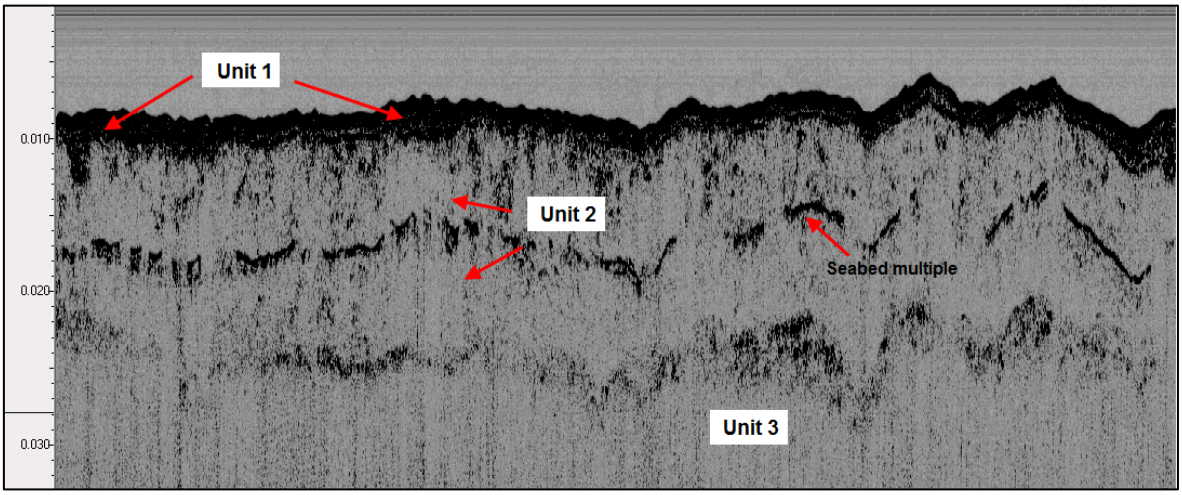


Figure 11 Example image showing chirp data from the Export Cable Route
The image shows KP 2.39 to KP 3.13.
Sediment sequence of Unit 1, Unit 2 and Unit 3.
File CH_M_C.347, coordinates: 594338, 6373211 (left) to 595227, 6373166 (right).

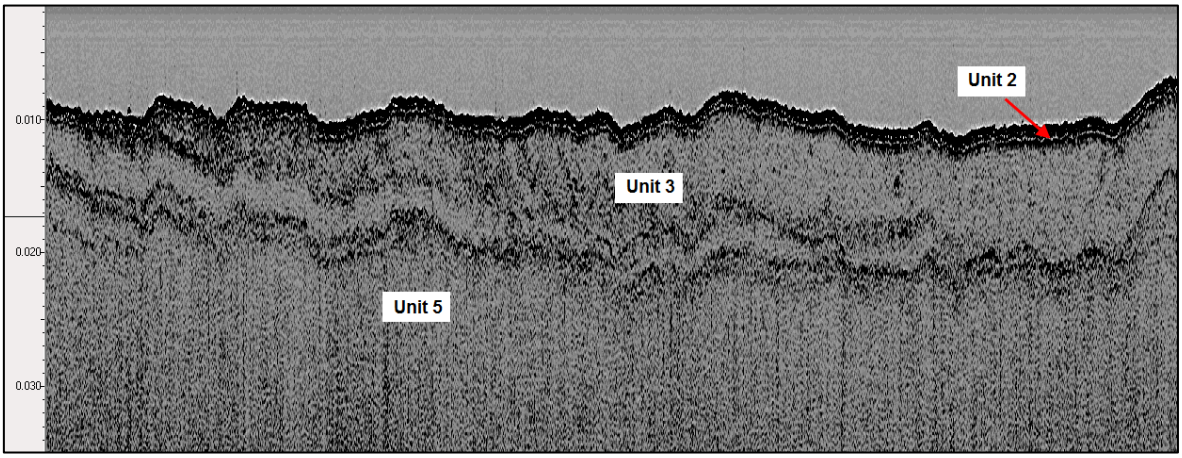


Figure 12 Exampel image showing chirp data from the Export Cable Route,
The image shows KP 20.61 to KP 21.76.
Sediment sequence of Unit 2 and outcropping Unit 3 overlying Unit 5.
File CH_M_C.350, coordinates: 576421, 6376797 (left) to 577573, 6376832 (right).

4.1.4. Isopachs and Isochrones

The main reflectors/horizons were used to create the isopach and isochrone surfaces in Kingdom Suite software. This was performed on both Chirp and Sparker data. Isopachs and isochrones are presented as contour lines in GIS database. Isopach and contour lines on acoustic basement/bedrock are also presented in separate isopach charts.

In the Export Cable Route corridor isochrones and isopachs for Horizon 2 and 5 were created. Horizon 2 is interpreted to be the Base of Forth Formation and Horizon 5 is interpreted as the acoustic basement/bedrock. Horizon 5 is detectable in the sub bottom data in the western part of the route corridor, from KP 13.6 to landfall.

Note that there are uncertainties in the interpolation as minor bedrock variation may not have been detected if they are situated between the survey lines.

4.1.5. Magnetic Anomalies

A total of 409 magnetic anomalies were detected during the geophysical survey of the Main Cable corridor. Of these 409 anomalies 73 are related to the two inactive TeleCom cables that cross the route between KP 21.2 and KP 25.1, Figure 4. These two cables can be correlated to the background data. There are 4 magnetic anomalies aligned around KP 14.7 that could indicate a possible cable (unknown cable 1), Figure 4. This possible cable was not possible to identify since it is not visible in the SSS or MBES records. The remaining anomalies are randomly scattered throughout the entire route.

For a complete list of the magnetic anomalies see Appendix E.

4.1.6. Targets and other Features

Side Scan Sonar Targets

A total of 389 SSS targets were detected within the survey corridor. Of these, 364 have been classified as boulders or seabed features, 5 targets as bedrock outcrops, and 20 as debris or man-made hazards.

Most of the targets are scattered within the survey corridor, but between KP 1.2 to KP 2.6 and KP 20.4 to KP 25.7, the concentration of targets is lower compared to the rest of the corridor. The lower target number between KP 20.4 and KP 25.7 is because just larger targets were picked within the outcropping Till.

Of all the SSS targets identified in the Export Cable Route corridor, 13 were associated to magnetic anomalies.

All SSS targets are displayed in the charts. A complete list of the SSS targets for the Export Cable Route is found in Appendix E. All targets have been divided into categories according to observation classification in TR2234.

Cables and Pipelines

Based on the magnetic anomalies two cables and one possible cable could be identified crossing the Export Cable Route. The two cables between KP 21.2 and KP 25.1 could be correlated to the two inactive TeleCom cables, while the third possible cable (unknown cable 1) at KP 14.7 remains unknown, Figure 4. None of the cables could be identified in the SSS, SBP or MBES data.

There were no pipelines in the main cable corridor.

4.2. Turbine Site Area

4.2.1. Bathymetry

Seabed characteristics in the northern and southern part of the turbine site area comprise of approximately 0.5 m high mega ripples (Figure 15) and ripples superimposed on 1 to 3 m high sand waves (Figure 14). The central part of the area is generally flatter, but mega ripples are present over the entire area. The Forties C to Cruden Bay pipeline crosses the area in a NE-SW direction (Figure 2). Water depths are ranging between 97 and 118 m LAT; the deepest areas are found in the central part of the turbine site area (Figure 13).

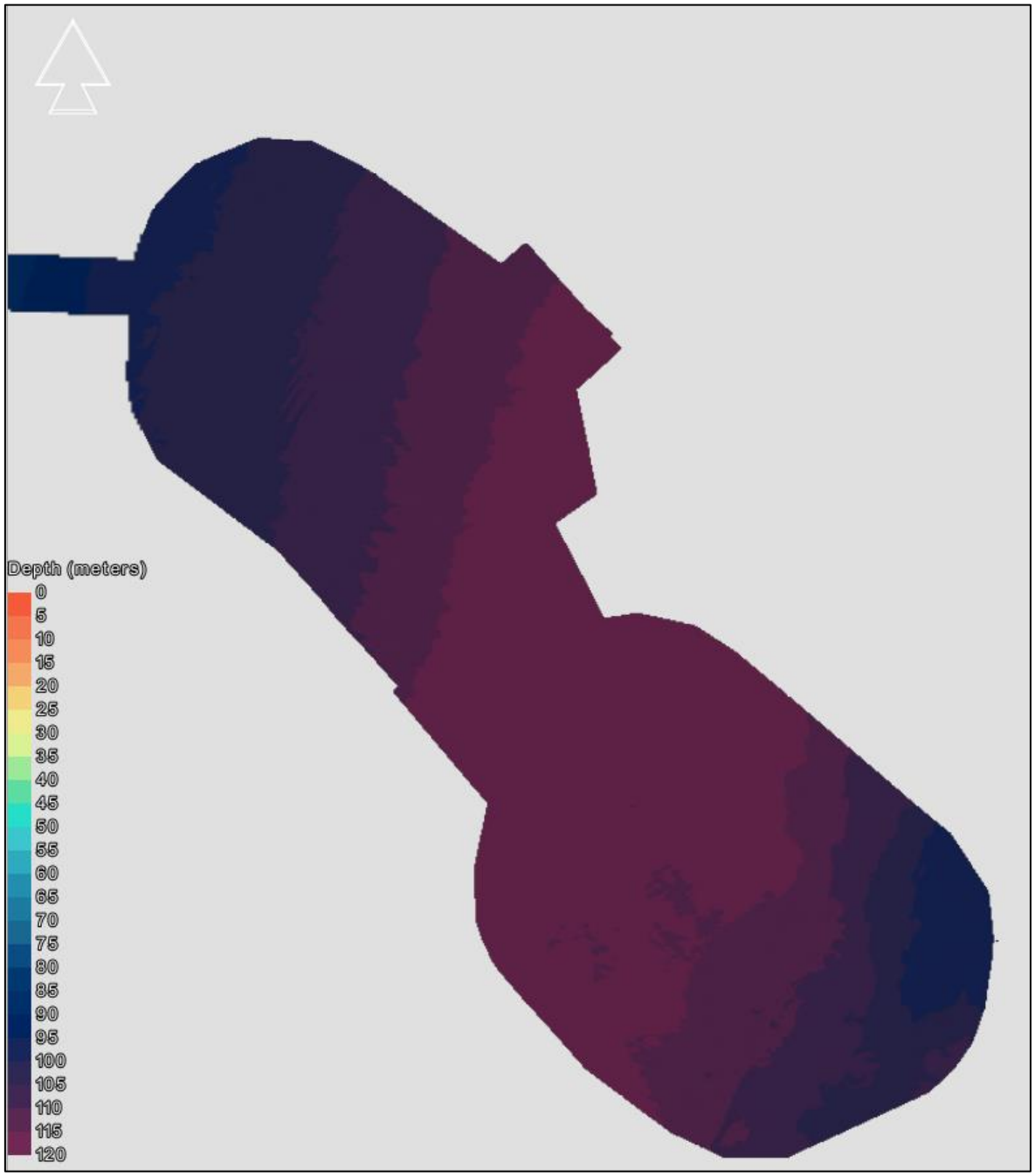


Figure 13 Overview of bathymetry in the turbine site area.

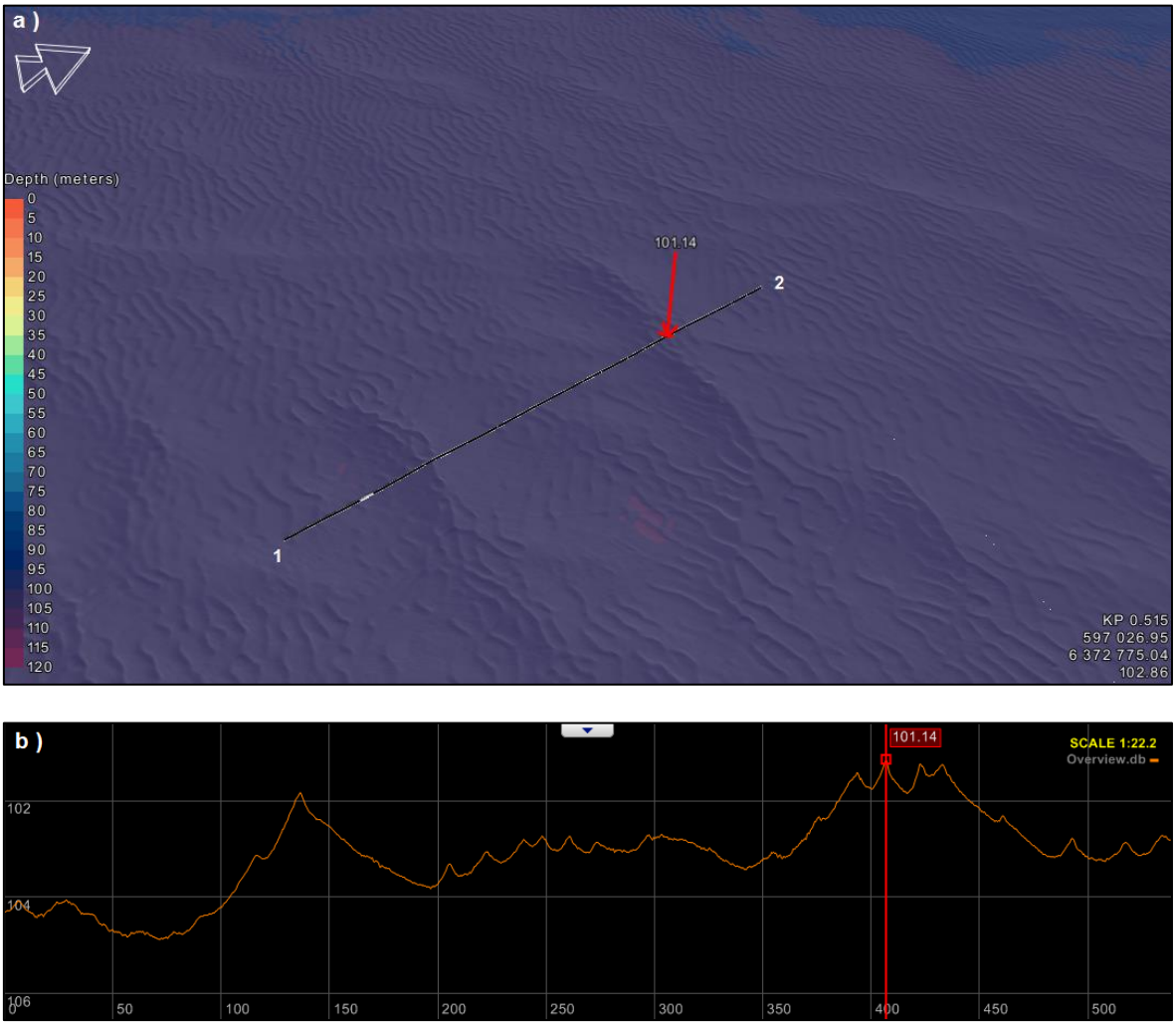


Figure 14 Typical seabed features in the turbine site area (597078E, 6372718N). a) Perspective view (heading 293˚, pitch 44˚) and b) seabed profile across the crest of two adjacent sand waves (height approximately 2 m) with superimposed mega ripples (black line 1 to 2 in a)).

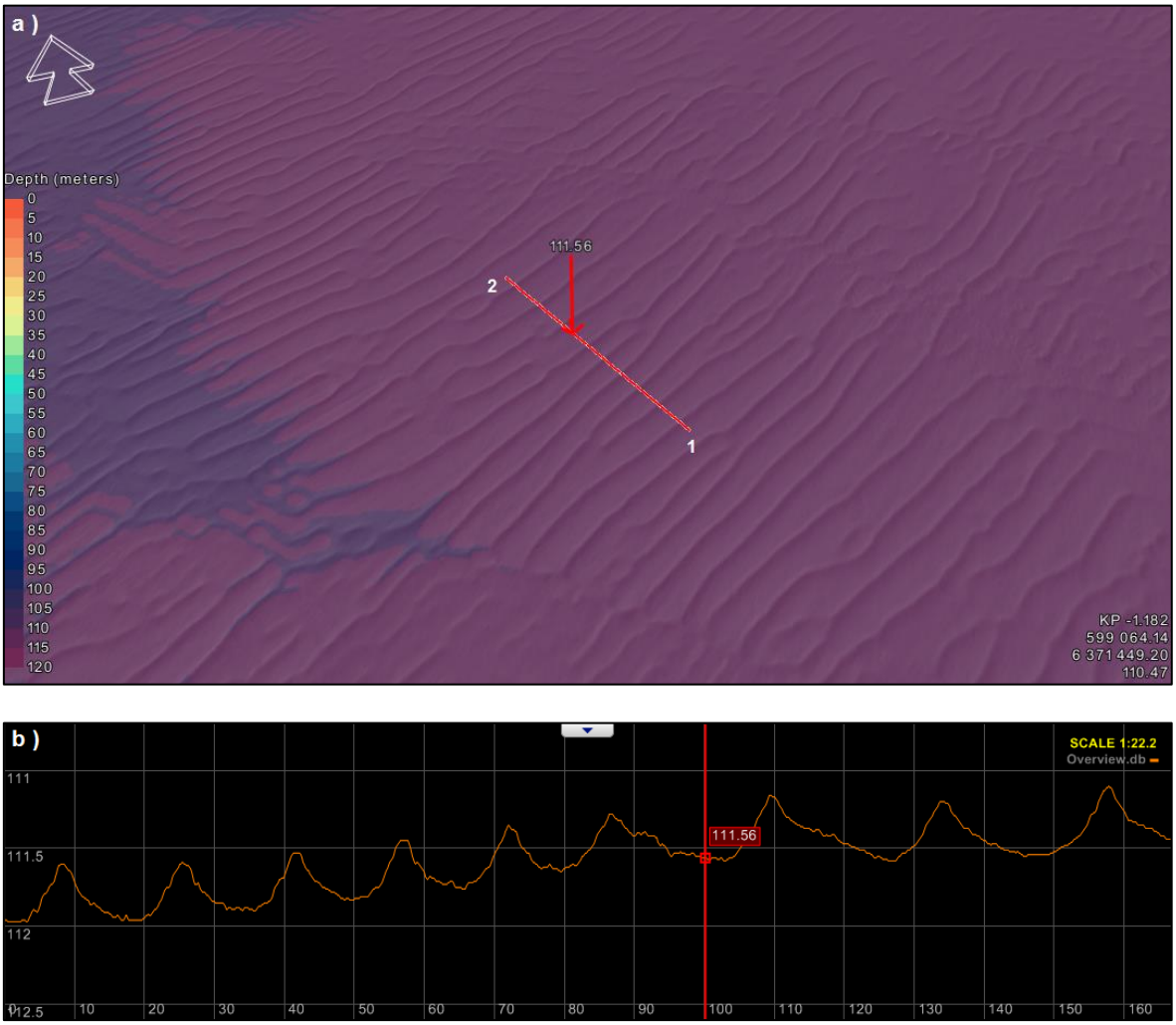


Figure 15 Typical seabed feature, mega ripples, in the Turbine Site Area
Image location: 599062E, 6371451N.
a) Perspective view (heading 13˚, pitch 39˚) and b) seabed profile across 0.5 m high mega ripples (red line 1 to2 in a)).

4.2.2. Surficial Geology

The main surficial sediment components in the turbine site area are SAND and GRAVEL. Without geotechnical data a further division into clayey/silty/gravelly sand or sandy gravel was not attempted. Common seabed features are boulders (scattered and frequent) in combination with biogenic substrate.

Based on surficial geology features the Turbine Site Area can be divided into two parts: a north-western and a south-eastern part.

The north-western part is shown to comprise mainly SAND and GRAVEL with mega ripples (Figure 16). In its south central area are scattered and frequent boulders present.

The south-eastern part also shows SAND and GRAVEL with mega ripples as the most common surficial features, but depending on the amount of boulders with biogenic substrate (mainly Sabellaria) this area can be further divided into three sections. These are the western, middle and eastern sections roughly orientated in a north-southerly direction.

The western section is characterised by frequent boulder sized objects with biological substrate (Figure 17).

The middle section is mainly composed of SAND and GRAVEL with mega ripples.

The SAND and GRAVEL with mega ripples in the eastern section is intersected by numerous fields of frequent boulder sized objects with biogenic substrate and coarse material without ripples (Figure 18).

In general, all areas with scattered and frequent boulder sized objects and higher coarse material content are also associated with biogenic substrate, in some particular areas Sabellaria reefs (see separate biological report, 101462-STO-MMT-SUR-REP-BENTHICR).

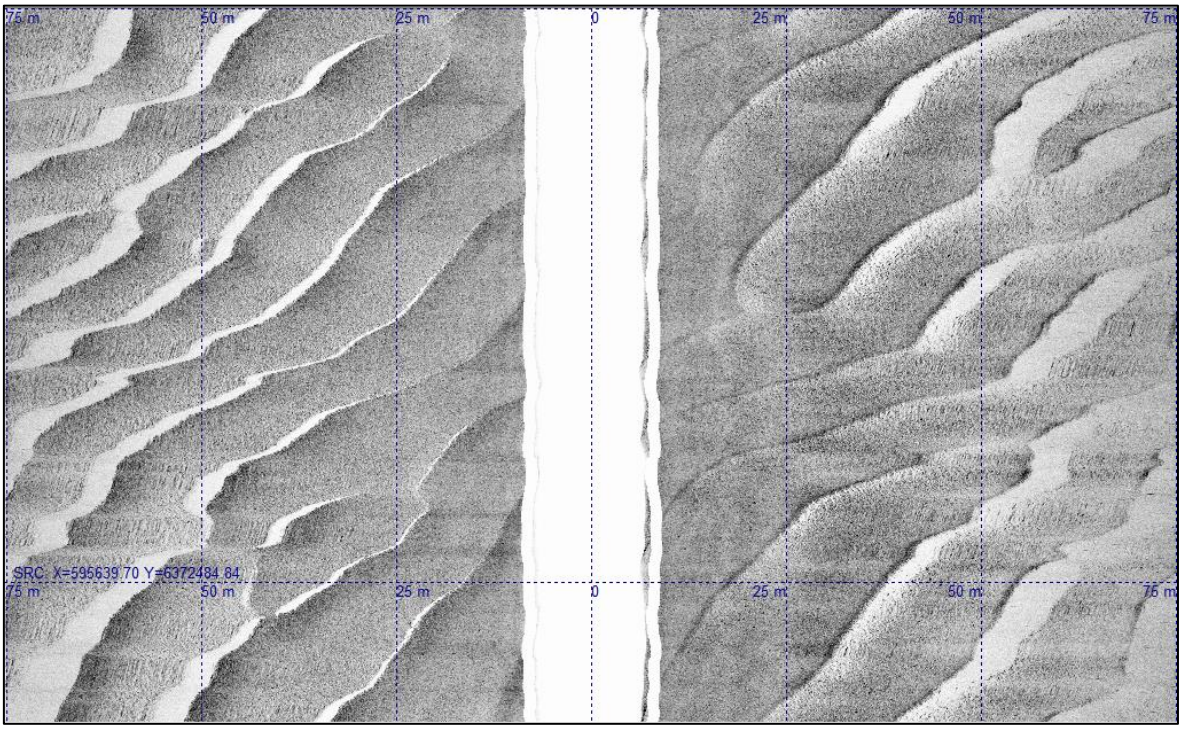


Figure 16 SSS example image mega ripples
Image from Turbine Site Area B, file: TB1200.188, coordinates: 595605.64, 6372524.17 (image mid-point).

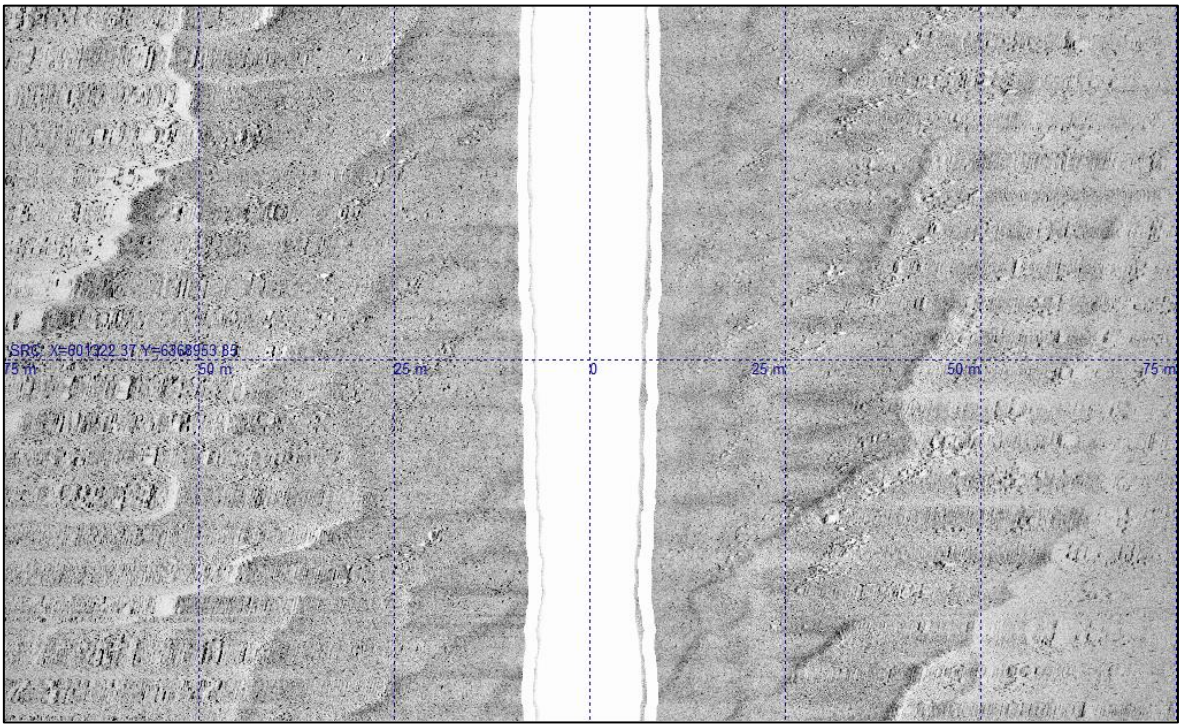


Figure 17 SSS example image frequent boulders with biogenic substrate.
Image from Turbine Site Area B, file: TB3150.289, coordinates 601322.53, 6368953.65 (image mid-point).

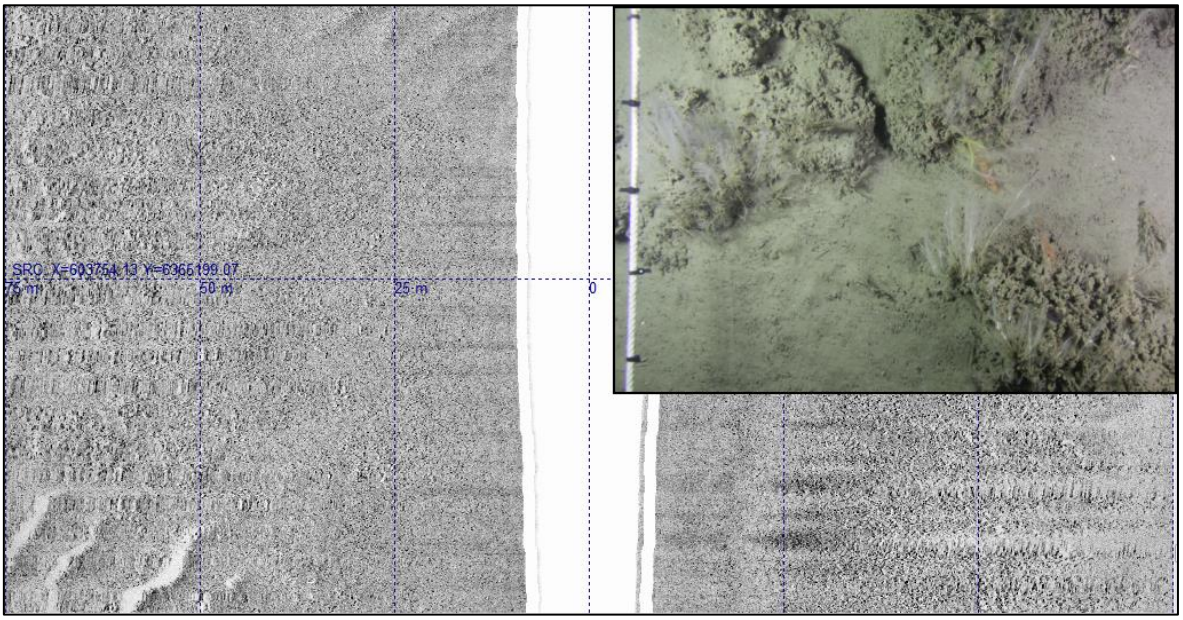


Figure 18 SSS example image and bio statistical photo of Sabellaria reef.
Images are taken from side scan file TB2500.126 and bio statistical photo S19_020 around coordinates 603781, 6365176

4.2.3. Shallow Geology

The sub-bottom data in the Turbine Site Area show a sequence from the seabed surface of Units 2, 3 and 4. A thin layer or veneer of recent sand and gravel belonging to Unit 1 is expected on the seabed, but cannot be identified by a distinct reflector in the data. In the SBP profiles presented in the charts Unit 2 is usually between 2 and-7 m thick The unit is thinning out from around middle of the Turbine Site Area (600714 E, 6368052N) towards the south-east with thickness up to 4 m. Unit 3 is present as an up to 20 thick sediment layer. It is thinner, approximately down to 6 m, in the middle of the Turbine Site Area (between 599134E, 6369859N and 600714E, 6368052N). An internal reflector interpreted of being the top of a basin infill within Unit 3 (Wee Bankie Formation) is present between the middle and south-east of the Turbine Site Area (600714E, 6368052N and 603544E, 6364817N) (Figure 19). The base of Unit 4 or acoustic basement was not reached.

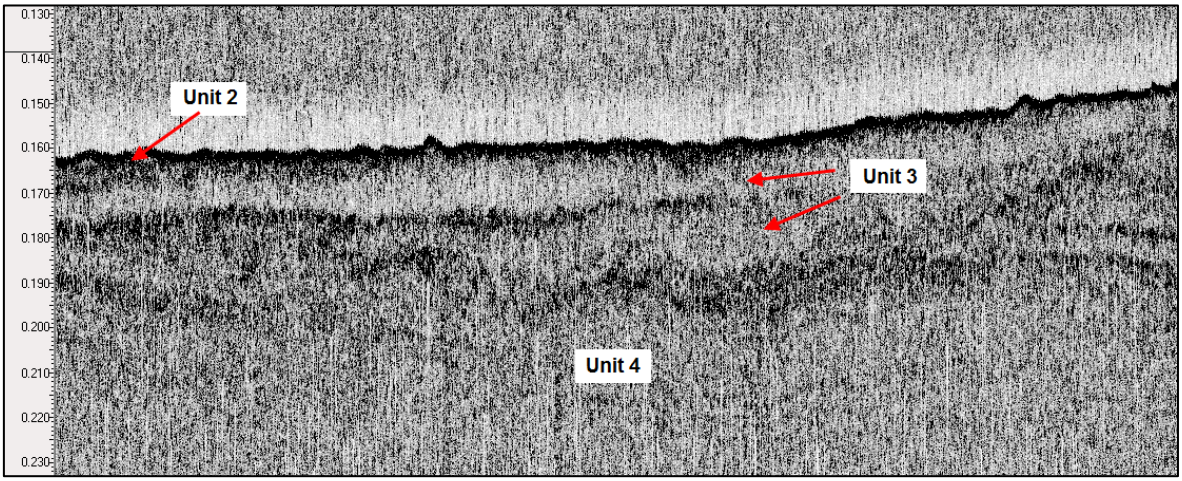


Figure 19 Exampel image showing sparker data from Turbine Site Area B.
Sediment sequence in the Turbine Site Area with a basin infill within Unit 3.
File SP_TB2100.080, coordinates: 600150 ,6368768 (left) to 603827, 6364563 (right).

4.2.4. Isopachs and Isochrones

The main reflectors/horizons were used to create the isopach and isochrone surfaces in Kingdom Suite software. This was performed on both Chirp and Sparker data. Isopachs and isochrones are presented as contour lines in GIS database.

In the turbine site area isopachs and isochrones for Horizon 2 and 4 were created. Horizon 2 is interpreted to be the base of the Forth Formation and Horizon 4 is interpreted as base of the Wee Bankie Formation.

Note that there are uncertainties in the interpolation as minor bedrock variation may not have been detected if they are situated between the survey lines. Hence these areas are detected within the surficial geology.

4.2.5. Magnetic Anomalies

A total of 736 magnetic anomalies were detected during the geophysical survey of the Turbine Site Area. Of these 139 were linked to the Forties C to Cruden Bay pipelines, 204 anomalies were related to cables from the backgroud data and one possible cable (unknown cable 2), 41 magnetic anomalies were associated to SSS targets. The remaining 352 anomalies are scattered throughout the Turbine Site Area and do not show any trends or correlations.

For a complete list of the magnetic anomalies in the Turbine Site Area see Appendix E.

4.2.6. Targets and other Features

Side Scan Sonar Targets

A total of 1302 SSS targets were detected in the Turbine Site Area. Of these 1102 targets were interpreted as boulders, 78 as debris and 117 were unidentified. The pipline, visible in the SSS data, is represented by 5 targets. For working purposes was the Turbine Site Area was divided into four areas: A, B, C and D. A summary of the targets for each area is shown in Table 8.

Table 8 SSS targets in the Turbine Site Area

Area	Turbine A	Turbine B	Turbine C	Turbine D	Total Turbine
Debris	9	65	4	-	78
Seabed Features	39	725	157	181	1102
Unidentified	8	85	24	-	117
Pipeline	-	5	-	-	5
Total	56	880	185	181	1302

Of the SSS targets identified in the Turbine Site Area, 41 were associated to magnetic anomalies.

All SSS targets are displayed in the charts. A complete list of the SSS targets for the Turbine Site Area divided by block A, B, C and D are found in Appendix E. All targets have been divided into categories according to observation classification in TR2234.

One target was inspected with the drop camera. A large boulder was found at site.

Cables and Pipelines

With the help of background data provided by the client it was possible to associate and identify all of the cables and pipelines by different methods. A possible cable, unknown cable 2, was detected by a linear trend in the magnetometer anomalies.

There are 140 magnetic anomalies linked to the two oil pipelines which run between Forties C to Cruden Bay, 36 and 32 inches in diameter according to background data. Both are visible in the sparker and chirp records, but only one is visible in the SSS and MBES data. They run parallel to each other and cross the middle of the Turbine Site Area in a NE-SW direction.

214 magnetic anomalies were associated to two cables that cross the Turbine Area and one possible cable (Figure 20).

- The first cable is assumed to be the umbilical telecom cable from Forties C to Cruden Bay. It was only detected by the magnetometer data, the magnetic values range from 40 to 873 nT.

- The second cable which crosses the area in a NE-SW direction was detected by a linear arrangement of magnetic anomalies in the north part of the Turbine Area. This cables position differs from the given background data (Inactive coaxial cable) by about 350 m in its western part. For identification purposes this cable was named Existing Telecom Cable Inactive in the target listings. This cable was only identified by the magnetometer data and the magnetic anomalies range from 4 to 218 nT.

- The possible cable, unknown cable 2, is represented by linear arrangement of magnetic anomalies that crosses the northern section of the Turbine Area in a E-W direction. No

corresponding feature is provided by the background data. The values of the magnetic anomalies ranges from 2 to 24 nT, with two exceptions of 51 and 75 nT.

For further infromation regarding the linear feature see First Hand Report, Appendix C.

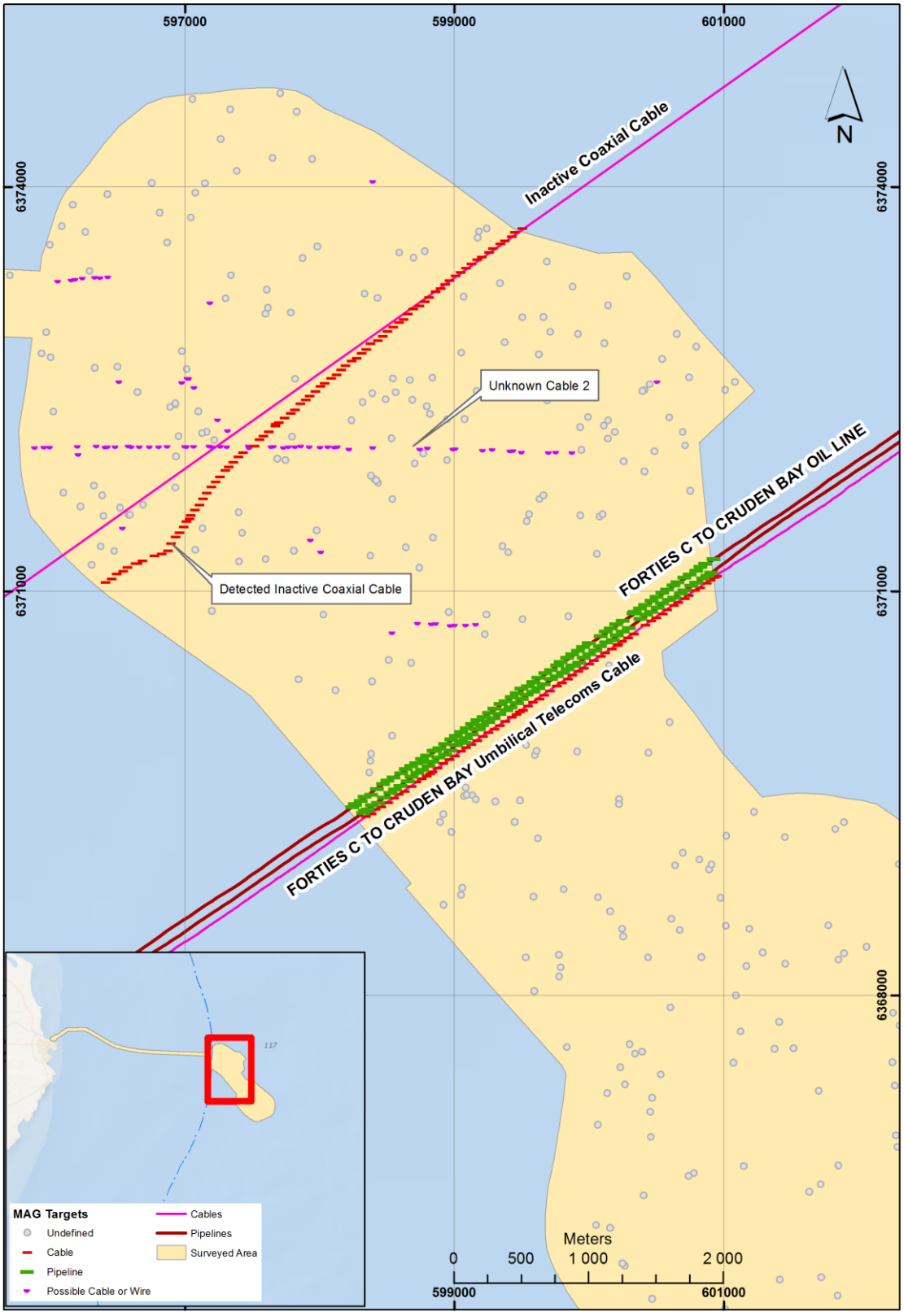


Figure 20 Cables and pipelines in the Turbine Site Area.

Other Features

A linear trend was detected in the magnetometer data near KP 1.0 to KP 1.4 of the main route in the northern part of the Turbine Site Area. This feature was not in th SSS, SBP or MBES records.

Detected linear feature trends are presented in the Turbine Site Area charts.

5. ROUTE DETAILS

Details for the surficial and shallow geology along the Export Cable Route are presented in Table 9 and Table 10 with KP annotation of geological intervals. Seabed profile and slope details are presented in Figure 21.

Some details of relevance for engineering and route planning are:

- mobile sediments along most of the route evident through ripples and mega ripples
- Bedrock is situated close to seabed surface (less than 3 m) at around KP 17.2 and from KP 21.9 until outcropping at KP 25.3
- Bedrock was found outcropping about 180 m from the centre line at around KP 18.5
- Till with boulders and coarse sediment is present at seabed surface between KP 20.8 and KP 24.9
- Till is close to the seabed (less than 3 m) between KP 13.0 and KP 20.8

Seabed Profile and Slope

The seabed slope along the offshore part of the Export Cable Route is generally less than 1 degree. On the bedrock from KP 24 and onwards towards the cable landing point seabed slopes are approximately 1 to 2 degrees, with a maximum of 15.6 degrees (Figure 21).

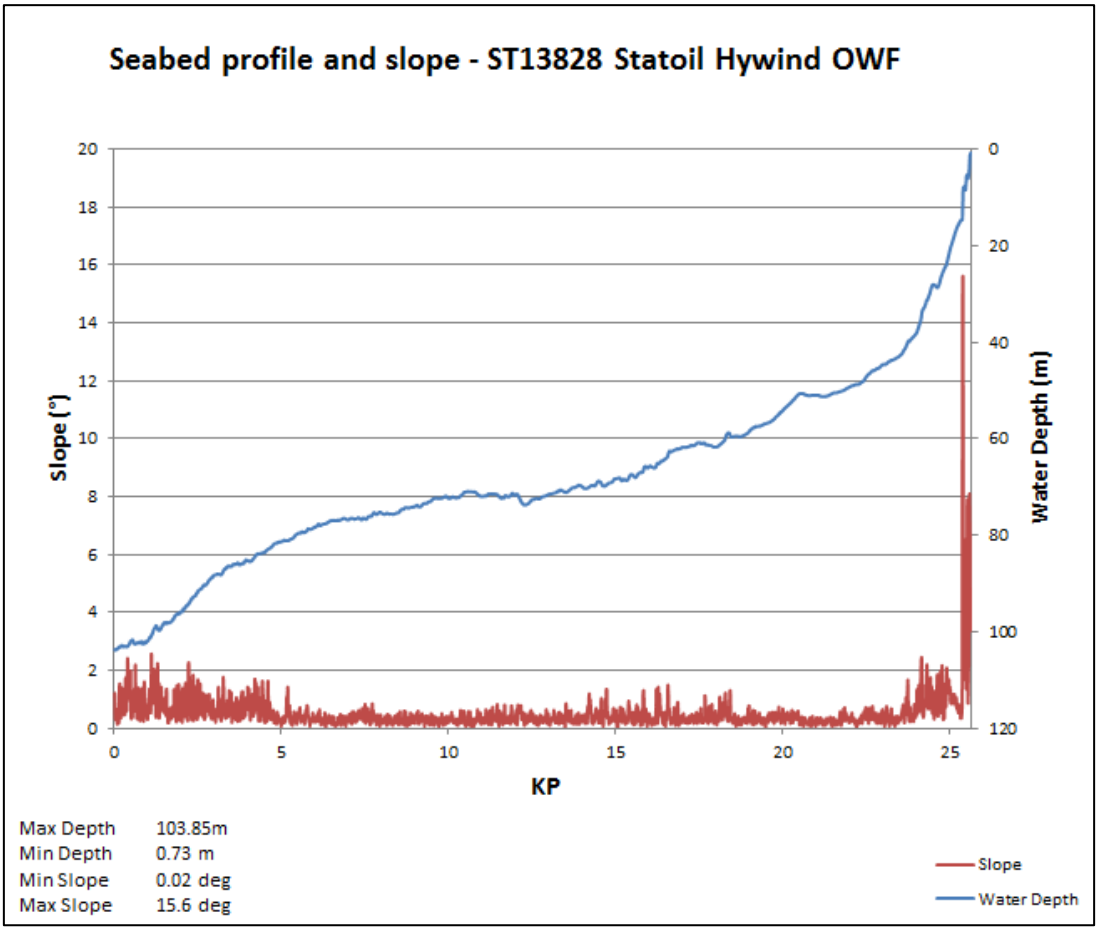


Figure 21 Seabed profile and slope along the Export Cable Route.

Surficial Geology

Table 9 Export Cable Route details surficial geology

KP Start	KP End	Geological Description	Seabed feature
0	4.851	SAND and GRAVEL	Mega ripples
4.851	5.133		-
5.133	5.278		Mega ripples
5.278	5.496		Trawl marks
5.496	5.562		Ripples
5.562	6.540		Trawl marks
6.540	6.601		Ripples
6.601	6.651		Trawl marks
6.651	6.858		Ripples
6.858	12.260		Trawl marks
12.260	12.308		Ripples
12.308	13.012		Trawl marks
13.012	13.042		Ripples
13.042	14.144		Trawl marks
14.144	14.276		Ripples
14.276	14.449		Trawl marks
14.449	14.542		Ripples
14.542	14.663		Trawl marks
14.663	14.758		Ripples
14.758	15.595		Trawl marks
15.595	15.669		Ripples
15.669	16.173		Trawl marks
16.173	16.360		Ripples
16.360	16.399		Trawl marks
16.399	18.269		-
18.269	18.570		Scattered Boulders
18.570	20.301		Ripples
20.301	23.455		Frequent Boulders
23.455	23.594		Ripples
23.594	23.879	TILL	-
23.879	23.941	SAND and GRAVEL	Ripples
23.941	24.410	TILL	-
24.410	24.623	SAND and GRAVEL	Mega ripples
24.623	24.905	TILL	-
24.905	24.965	SAND and GRAVEL	Mega ripples
24.965	25.376		-
25.376	25.638	BEDROCK	-

Shallow Geology

Table 10 Export Cable Route details shallow geology

KP Start	KP End	Geological Description
0	13.60	Unit 2 (Forth Formation) overlying Unit 3 (Wee Bankie Formation). Some pocket infills with Unit 1 (recent sediment). Unit 2 is slowly thinning out towards the west and shows thickness of 5-15 m from KP 0 to KP 5.6 and 2-8 m from KP 5.6 to KP 13.6
13.60	20.83	Unit 2 overlying Unit 3 draped over Unit 5 (Bedrock). Unit 2 is approximately 2-4 m thick, Unit 3 shows highly variable thickness with 1-10 m. Pocket infills with Unit 1 occur.
20.83	21.93	Unit 3 at seabed with a thickness of 3-10 m. Unit 3 is draped over Unit 5.
21.93	24.92	Unit 3 at seabed with a thickness of <3 m. Unit 3 is draped over Unit 5, patch of Unit 1 between KP 24.6 an KP 24.8
24.92	25.37	<1 m Unit 1 (sand) over Unit 5.
25.37	24.64	Unit 5 (Bedrock) at seabed.

6. INSTRUMENTS

Below is a summary of vessel instrumentation used during the geophysical survey performed from offshore vessel M/V Franklin (Table 11) and nearshore vessel M/V Ping (Table 12).

Table 11 Vessel instrumentation M/V Franklin

Instrument	Name
Navigational System	QINSy
Positioning System	Primary: POS MV 320 with C-Nav RTG, IALA DGPS corrections and RTK option Secondary: Fugro Starpack
Underwater Positioning	USBL IXSEA GAPS
Heading System	Applanix POS MV 320
Motion System	Applanix POS MV 320
Multibeam Echo Sounder	Kongsberg EM 710
Side Scan Sonar	Edgetech 4200/2000
Sub-Bottom Profiler	Edgetech 512i Geospark 200
Magnetometer	Geometrics G882

Table 12 Vessel instrumentation M/V Ping

Instrument	Name
Navigational System	QINSy
Positioning System	Primary: POS MV 320 with C-Nav RTG, IALA DGPS corrections and RTK option Secondary: Crescent Hemisphere With IALA DGPS corrections
Underwater Positioning	USBL IXSEA GAPS
Heading System	Applanix POS MV 320
Motion System	Applanix POS MV 320
Multibeam Echo Sounder	Kongsberg EM 3002
Side Scan Sonar	Edgetech 4200/2000
Sub-Bottom Profiler	Edgetech DW 106 1
Magnetometer	Geometrics G882

6.1. Navigation and Positioning

6.1.1. Navigational System

MMT survey operations are conducted with QINSy navigational system for optimal handling of positioning data and interfacing with all instruments to the main survey computer.

During a survey the assigned surveyor was responsible for the control of the positioning. The QINSy navigational system continuously monitors the integrity of the position systems. At all times, any deviations due to e.g. loss of position or outliers will result in an automatic warning and is documented by the surveyor. Corrective action was conducted when abnormalities in excess of

the quality criteria are encountered. Error estimates from the two independent GNSS systems was available online for monitoring.

The system logs and displays the vessel, towed equipment and underwater vehicles. The system co-ordinates can be transformed between different geodetic systems and transforms the co-ordinates for the geophysical data. The system keeps track of all offsets and integrates all navigational and positioning equipment (Figure 22). During the survey both the primary and the secondary system is monitored and recorded.

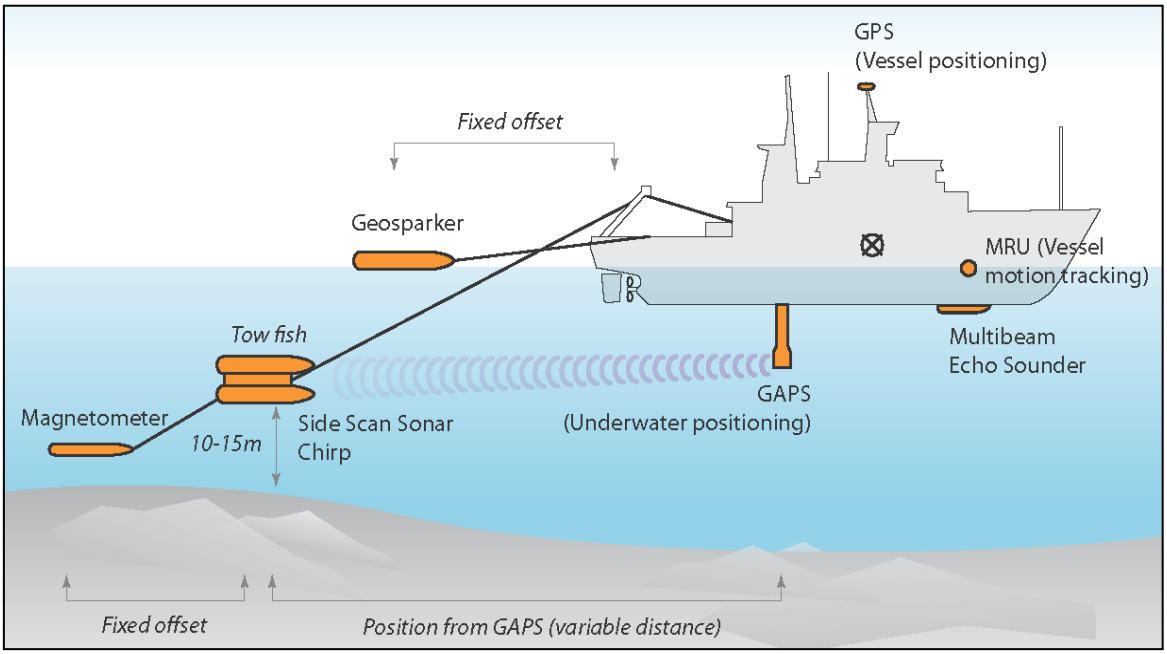


Figure 22 Simplified image of the vessel M/V Franklin and the equipment used.

The post-processing staff performs comparison of recorded data. Any deviations outside the defined accuracies are controlled and documented. The hydrographer or offshore manager was notified and comments are made in the daily report. If there was an error, the incorrect section was resurveyed.

6.1.2. Positioning System

A land surveyor surveyed the vessel in dry dock. Internal reference points are marked and entered in our 3-dimensional CAD drawing for each of the vessels. Points along the keel and on the upper deck are surveyed so the pitch and roll angles of the vessel in water can be monitored. This ensures that the internal coordinates are rotated correctly and that the system was orthogonal around the normal vessel altitude when afloat. All antennas, transducers and motion reference units are positioned in this orthogonal coordinate system with accuracy better than 0.002 m.

GPS data was collected from the Applanix PosMV system with three different methods to ensure the quality of the position data:

- CNAV (RTG)
- Fugro Starpack (back-up system)
- POSPac post-processed positioning.

The results from the collected data sets from the primary and secondary system were reviewed and plotted for illustration. Comparisons of the two sets were presented and deviations calculated to ensure that the results are within the specified accuracies. This procedure was performed at the start and end of the survey.

6.1.3. Underwater Positioning

IXSEA GAPS USBL was used to position all underwater equipment with a very high accuracy. The 0.2 % positioning accuracy of GAPS includes the integrated heading, pitch and roll sensor measurements, unlike other USBL systems which normally quote only acoustic accuracy. The maximum slant range is 4000 m.

6.1.4. Time Synchronisation

UTC was used on all survey systems on board the vessel. All systems were synchronised to this time reference system. The synchronisation of the vessel's onboard system is governed by the Pulse Per Second (PPS) and the time tag provided in the ZDA-message which are both sent from the primary positioning system. Synchronisation was checked by the QPS QINSy navigational software. The system alerted if the clock times were unsynchronised. The assigned surveyor was responsible for monitoring the alarms.

6.2. Hull-mounted Multibeam Echo Sounder

By using a Kongsberg EM710 and EM3002D high-resolution bathymetric data was collected. The maximum coverage of the beams is 5-8 times the water depth.

The multibeam coverage was monitored on-line during all survey work. The MBES transducer(s) was permanently hull-mounted on the keel of the vessel(s). The Motion Reference Unit (MRU) lever arms were surveyed with high accuracy. The data was recorded using the Kongsberg SiS software.

All raw Applanix POS MV data was also recorded online on a separate computer to allow for post-processing of the inertial position and attitude data.

6.2.1. Multibeam Echo Sounder – Kongsberg EM710

The Kongsberg EM710 MBES used onboard M/V Franklin collected high-resolution bathymetric data. The MBES has 256 beams, which are used to create additional virtual beams, and 800 soundings were used in total. This high number of soundings was made possible with the dual swath option providing 2 separate sounding profiles per ping.

6.2.2. Multibeam Echo Sounder – Kongsberg EM3002D

Kongsberg EM3002D MBES was used in the shallow water survey on vessel M/V Ping. The EM 3002 system uses three frequencies in the 300 kHz band. This is an ideal frequency for shallow water applications, as the high frequency ensures narrow beams with small physical dimensions as well as allows for a high maximum range capability and robustness under conditions with high contents of particles in the water.

6.3. Sound Velocity

Acoustic ray paths are a function of the water density, salinity and temperature through which they pass and uncertainties in these qualities will lead to significant errors. Further, the properties of the water column are largely unpredictable and vary both spatially and temporally. To ensure that the overall depth measurement accuracies are preserved, sound velocity (SV) observations must be observed with sufficient frequency, density and accuracy to preserve the required precision.

Sound Velocity Profiles (SVP) were measured using Valeport SVP SVX2 at regular intervals when needed, to maintain correct depth measurements. The frequency of SVP casts depended on actual hydrographical conditions, but a minimum of 2 per 24 hours were collected.

The senior surveyor on watch was responsible for continuously monitoring the data, deciding the number of SVPs to be taken. All gathered sound velocity records were documented and stored with relevant time and positioning stamp. A Valeport Mini SVS was fitted on the transducers on M/V Franklin and hull mounted at the EM3002D on M/V Ping for continuous sound velocity recordings. A Valeport Mini SVS was also launched over the side of M/V Ping.

6.4. Backscatter Data

High-resolution geo-referenced MBES backscatter data was collected to provide a determination of the nature of the seabed. The backscatter data collected was full time series backscatter, enabling high resolution mosaics and accurate decibel values.

The backscatter data was processed using FMGT. This software takes the raw MBES data and corrects the backscatter signal for power, gain, incidence angle, ensonified area, spherical spreading and a number of other factors that influence the returned intensity. To create the mosaic imagery different techniques are applied including feathering and anti-aliasing.

6.5. Side Scan Sonar

The SSS images were used for mapping the with regards to geological classification and detection of seabed features and obstacles. An Edgetech 4200 (300/600 kHz) SSS was used during the project on both the offshore and shallow water survey vessel. The SSS was used to detect and position obstacles and structures on the seafloor as well as geological conditions.

The settings were adjusted to give the best coverage in the water depths and seabed conditions at hand. These adjustments were agreed with the client representative.

6.6. Sub-bottom Profiler

The Chirp SBP Edgetech 512i was used in the offshore survey operation. This instrument was operated to focus on the uppermost geological stratigraphy of the seabed, 10 m. In addition to the towfish-mounted Chirp system a GeoSparker 200 was used offshore to achieve an enchased penetration in sediments with coarse material. The nearshore vessel was equipped with Chirp SBP Edgetech DW 106 1.

6.7. Magnetometer

A Geometrics G-882 magnetometer was used on all survey lines. The system was “piggy-backed” on the SSS/SBP tow-fish during the offshore survey, allowing a magnetometer survey operation relatively close to the seabed surface. The magnetometer was towed behind the vessel during the shallow water survey.

7. SURVEY OPERATIONS

7.1. Performance

The mobilisation and calibration test for M/V Franklin were performed the 6th of August, 2013 and for M/V Ping the 21th of August 2013.

The survey operation was conducted by M/V Franklin in water depths greater than 12 m and M/V Ping in water depths below 12 m. The nearshore and offshore survey was conducted simultaneously to ensure sufficient overlap of datasets. The offshore survey vessel M/V Franklin operated 24 hours and the nearshore vessel M/V Ping 12 hours a day.

The survey tasks were performed as summarised in Table 13 and Table 14.

Table 13 Survey tasks M/V Franklin

Date	Tasks Description
2013-07-28	Mobilisation. Azimut repairs in Hirtshals.
2013-08-04	Transit to Survey Area outside Peterhead
2013-08-06-2013-08-07	Calibration tests outside Peterhead
2013-08-07-2013-08-20	Geophysical survey in Turbine Site Area.
2013-08-20-3013-08-26	Geophysical survey in Export Cable Route corridor.
2013-08-27-2013-08-30	Geophysical survey Cross lines Turbine Site Area
2013-08-23	Benthic scope mobilization and acceptance test.
2013-08-23-2013-09-01	Benthic Survey
2013-08-30	Target inspection with drop camera
2013-09-01	Demobilisation

Table 14 Survey tasks M/V Ping

Date	Task Description
2013-08-19	Mobilisation in Peterhead Harbour
2013-08-20-2013-08-21	Calibration tests (SSS, Chirp and MBES)
2013-08-22	Geophysical survey (SSS, Chirp and MBES)
2013-08-24	Calibration test (MAG)
2013-08-24	Magnetometer survey
2013-08-25-2013-08-26	Benthic Survey
2013-08-27	Demobilisation

7.2. Data Quality

In order to achieve the contracted data quality and resolution survey speed was kept at around 3 to 3.5 knots with M/V Franklin and 2 to 3 knots with M/V Ping.

Due to strong tidal currents, wind and waves it was at times difficult to maintain precise line-keeping. The vessel was steered in such a way that the towed equipment was positioned as close to the planned survey line as possible. The quality of the bathymetrical, geophysical and magnetometer data recorded was, however, good, and suitable for the purposes defined in the project scope.

The density requirements for the bathymetrical data are within specifications, but vary slightly from place to place as a result from vessel manoeuvring due to the strong currents.

The SSS data quality was generally good and full coverage was obtained. However, the SSS data suffered from artefacts from motion. But this did not preclude effective interpretation.

The SBP records were occasionally affected by hive artefacts. Though the SBP data was generally good and specified penetration was achieved.

The magnetometer data acquired during the offshore and nearshore surveys was of good quality. During the nearshore operation it was difficult to keep the magnetometer at an altitude less than 5 m due to swell. In correspondence with the client representative onboard M/V Franklin it was agreed to keep the magnetometer at approximately 7 m altitude to keep the equipment safe in bedrock areas during the nearshore survey.

8. DATA INDEX

8.1. Digital Report Delivery

The following deliveries accompany Revision 02 of this report for Client Review:

- Report (.docx)
- Charts (.pdf)

HDD

- Report (.docx, .pdf)
- Survey Meta Data (.xlsx)
- Charts (.pdf)
- GIS database (.gdb)
- RPL (.xlsx)
- SSS (.png, .pgw)
- CH (.tif)
- SP (.tif)
- DTM (.xyz)
- Soundings (Cleaned and Corrected) (.xyz)
- Shaded relief (.tif)
- Target Listings (.xlsx)

8.2. Chart Index

Table 15 Chart Index

Drawing Name	Start KP	End KP	Scale
101462-STO-MMT-SUR-DWG-ALIGN001	0.000	2.413	H: 1:2500 V: 1:200
101462-STO-MMT-SUR-DWG-ALIGN002	2.382	4.882	H: 1:2500 V: 1:200
101462-STO-MMT-SUR-DWG-ALIGN003	4.864	7.364	H: 1:2500 V: 1:200
101462-STO-MMT-SUR-DWG-ALIGN004	7.343	9.843	H: 1:2500 V: 1:200
101462-STO-MMT-SUR-DWG-ALIGN005	9.820	12.322	H: 1:2500 V: 1:200
101462-STO-MMT-SUR-DWG-ALIGN006	12.281	14.782	H: 1:2500 V: 1:200
101462-STO-MMT-SUR-DWG-ALIGN007	14.703	17.213	H: 1:2500 V: 1:200
101462-STO-MMT-SUR-DWG-ALIGN008	17.189	19.689	H: 1:2500 V: 1:200
101462-STO-MMT-SUR-DWG-ALIGN009	19.565	22.117	H: 1:2500 V: 1:200

Drawing Name	Start KP	End KP	Scale
101462-STO-MMT-SUR-DWG-ALIGN010	21.423	24.019	H: 1:2500 V: 1:200
101462-STO-MMT-SUR-DWG-ALIGN011	23.421	25.739	H: 1:2500 V: 1:200
101462-STO-MMT-SUR-DWG-IOSP0001	12.281	19.689	H: 1:2500
101462-STO-MMT-SUR-DWG-IOSP0002	19.565	25.739	H: 1:2500
101462-STO-MMT-SUR-DWG-BATHY001	-	-	H: 1:5000
101462-STO-MMT-SUR-DWG-BATHY002	-	-	H: 1:5000
101462-STO-MMT-SUR-DWG-BATHY003	-	-	H: 1:5000
101462-STO-MMT-SUR-DWG-BATHY004	-	-	H: 1:5000
101462-STO-MMT-SUR-DWG-GEO00001	-	-	H: 1:5000
101462-STO-MMT-SUR-DWG-GEO00002	-	-	H: 1:5000
101462-STO-MMT-SUR-DWG-GEO00003	-	-	H: 1:5000
101462-STO-MMT-SUR-DWG-GEO00004	-	-	H: 1:5000
101462-STO-MMT-SUR-DWG-PROFTB01	0.000	7.300	H: 1:2500 V: 1:200
101462-STO-MMT-SUR-DWG-PROFTB02	7.200	12.515	H: 1:2500 V: 1:200
101462-STO-MMT-SUR-DWG-PROFTX01	0.000	3.995	H: 1:2500 V: 1:200
101462-STO-MMT-SUR-DWG-OVERV001	-	-	H: 1:50000

8.3. Target Listing Index

Table 16 Target Listing Index

Area	Target listing File
Export Cable Route	ST13822_MainRoute_TargetListing_SSS
Export Cable Route	ST13828_MainRoute_TargetListing_MAG
Turbine Site Area A	ST13828_Turbine_A_TargetListing_SSS
Turbine Site Area B	ST13828_Turbine_B_TargetListing_SSS
Turbine Site Area C	ST13828_Turbine_C_TargetListing_SSS
Turbine Site Area D	ST13828_Turbine_D_TargetListing_SSS
Turbine Site Area	ST13828_Turbine_ABCD_TargetListing_MAG

APPENDIX A
SURVEY METADATA

Survey metadata is delivered as a separate Excel file.

APPENDIX B

RPL MAIN CABLE ROUTE

Route Plan List

Statoil
Statoil ST No: ST13828
WGS 84 UTM 30N
Course presented as Grid course

RPL list.									
No	Latitude	Longitude	Easting	Northing	Course	Grid	Acc Grid	True	Acc True
(AC)	DDMM.mmm	DDMM.mmm	(m)	(m)	(º)	Length (m)	Length (m)	Length (m)	Length (m)
0	57°29.478' N	001°22.455' W	597449.91	6373243.6			0		0
					257.3	629		629.1	
1	57°29.412' N	001°23.073' W	596836.24	6373105.8			629		629.1
					267.4	252		252.1	
2	57°29.409' N	001°23.325' W	596584.48	6373094.2			881		881.2
					272.8	524.8		525	
3	57°29.429' N	001°23.849' W	596060.31	6373120			1405.8		1406.2
					272.8	118.6		118.7	
4	57°29.434' N	001°23.967' W	595941.82	6373125.8			1524.4		1524.9
					272.8	8852.9		8855.6	
5	57°29.775' N	001°32.805' W	587099.55	6373560.2			10377.4		10380.4
					274.6	216.8		216.9	
6	57°29.787' N	001°33.021' W	586883.42	6373577.5			10594.2		10597.3
					273.8	159.1		159.2	
7	57°29.794' N	001°33.180' W	586724.67	6373588.1			10753.3		10756.5
					274.9	371.8		371.9	
8	57°29.816' N	001°33.550' W	586354.25	6373619.8			11125.1		11128.4
					275.2	229.4		229.4	
9	57°29.830' N	001°33.778' W	586125.83	6373640.7			11354.4		11357.8
					276.3	287.5		287.6	
10	57°29.850' N	001°34.063' W	585840.08	6373672.5			11641.9		11645.4
					278.8	347.2		347.3	
11	57°29.883' N	001°34.405' W	585497	6373725.7			11989.1		11992.7
					277.7	454.8		454.9	
12	57°29.921' N	001°34.855' W	585046.33	6373786.8			12443.9		12447.6
					279.6	519.8		519.9	
13	57°29.973' N	001°35.366' W	584533.92	6373873.8			12963.7		12967.5
					280.9	614.4		614.6	
14	57°30.043' N	001°35.967' W	583930.66	6373990.3			13578.1		13582.1
					281.6	367.4		367.5	
15	57°30.087' N	001°36.326' W	583570.83	6374064.3			13945.4		13949.6
					283.1	467.2		467.4	
16	57°30.149' N	001°36.779' W	583115.75	6374170.2			14412.7		14417
					285.3	313.7		313.8	
17	57°30.196' N	001°37.081' W	582813.06	6374252.7			14726.4		14730.8
					286.2	247.3		247.4	
18	57°30.236' N	001°37.317' W	582575.53	6374321.6			14973.7		14978.2
					289.2	210.6		210.7	
19	57°30.276' N	001°37.515' W	582376.68	6374391			15184.3		15188.9
					290.7	219.2		219.2	
20	57°30.320' N	001°37.718' W	582171.71	6374468.6			15403.5		15408.1
					293.1	258.5		258.6	
21	57°30.377' N	001°37.954' W	581933.95	6374570.1			15662		15666.7
					297	167.9		168	
22	57°30.420' N	001°38.102' W	581784.36	6374646.4			15829.9		15834.7
					296.7	184.6		184.6	
23	57°30.466' N	001°38.266' W	581619.4	6374729.2			16014.5		16019.4
					300.2	3513.3		3514.4	
24	57°31.450' N	001°41.273' W	578581.84	6376494.5			19527.8		19533.8
					299.9	302.3		302.3	
25	57°31.534' N	001°41.532' W	578319.9	6376645.4			19830.1		19836.1
					294.8	170.5		170.5	

RPL list.									
No	Latitude	Longitude	Easting	Northing	Course	Grid	Acc Grid	True	Acc True
(AC)	DDMM.mmm	DDMM.mmm	(m)	(m)	(º)	Length (m)	Length (m)	Length (m)	Length (m)
26	57°31.574' N	001°41.686' W	578165.12	6376716.8			20000.5		20006.6
					288.9	146.8		146.9	
27	57°31.601' N	001°41.824' W	578026.21	6376764.4			20147.4		20153.5
					289	134.3		134.3	
28	57°31.626' N	001°41.950' W	577899.21	6376808.1			20281.7		20287.9
					276.9	108.5		108.6	
29	57°31.634' N	001°42.058' W	577791.46	6376821.2			20390.2		20396.4
					269	1976.4		1977.1	
30	57°31.635' N	001°44.038' W	575815.34	6376787			22366.6		22373.5
					267.9	94.9		94.9	
31	57°31.635' N	001°44.133' W	575720.52	6376783.5			22461.5		22468.4
					268.5	133.8		133.9	
32	57°31.634' N	001°44.267' W	575586.75	6376780			22595.3		22602.3
					262.6	26.9		26.9	
33	57°31.632' N	001°44.294' W	575560.09	6376776.6			22622.2		22629.2
					258.1	56.3		56.3	
34	57°31.627' N	001°44.349' W	575505.06	6376764.9			22678.5		22685.5
					252.2	54.3		54.3	
35	57°31.618' N	001°44.401' W	575453.4	6376748.3			22732.7		22739.7
					247.6	75.8		75.8	
36	57°31.603' N	001°44.472' W	575383.35	6376719.4			22808.5		22815.5
					244.8	126.1		126.1	
37	57°31.576' N	001°44.587' W	575269.25	6376665.7			22934.6		22941.7
					237.7	142.7		142.7	
38	57°31.536' N	001°44.709' W	575148.6	6376589.5			23077.3		23084.4
					235.2	2661.3		2662.2	
39	57°30.739' N	001°46.926' W	572962.87	6375071.3			25738.6		25746.6

APPENDIX C

FIRST HAND REPORTS

First Hand Report - FRANKLIN

To: Stein Ryfetten, Statoil Representative	Date: 04.08.2013
Copy: Helena Strömberg, MMT Project Manager	FHR001 ST13828 Preliminary Positioning test results
From: Erik Lindström, Offshore Manager Franklin	Company Ref: ST13828

Introduction:

As part of the acceptance tests, Static and dynamic positioning and attitude tests were carried out by Parker Maritime onboard M/V Franklin at Hirtshals 3rd to 4th of August 2013. The results of these tests are summarized below

1.1. Static Tests, Hirtshals 2013-08-03—04

Whith the vessel alongside Hirtshals, position, heading roll and pitch were logged for both primary and secondary systems and compared to the reference position provide by Parkers instruments. After 5 hours of logging, the vessel was turned to the opposite heading, and the tests were repeated.

An adjustment of the offset on the primary positioning system was made between the tests.

1.1.1. Positioning, Static (PosMV+CNav vs Starpack XP/HP)

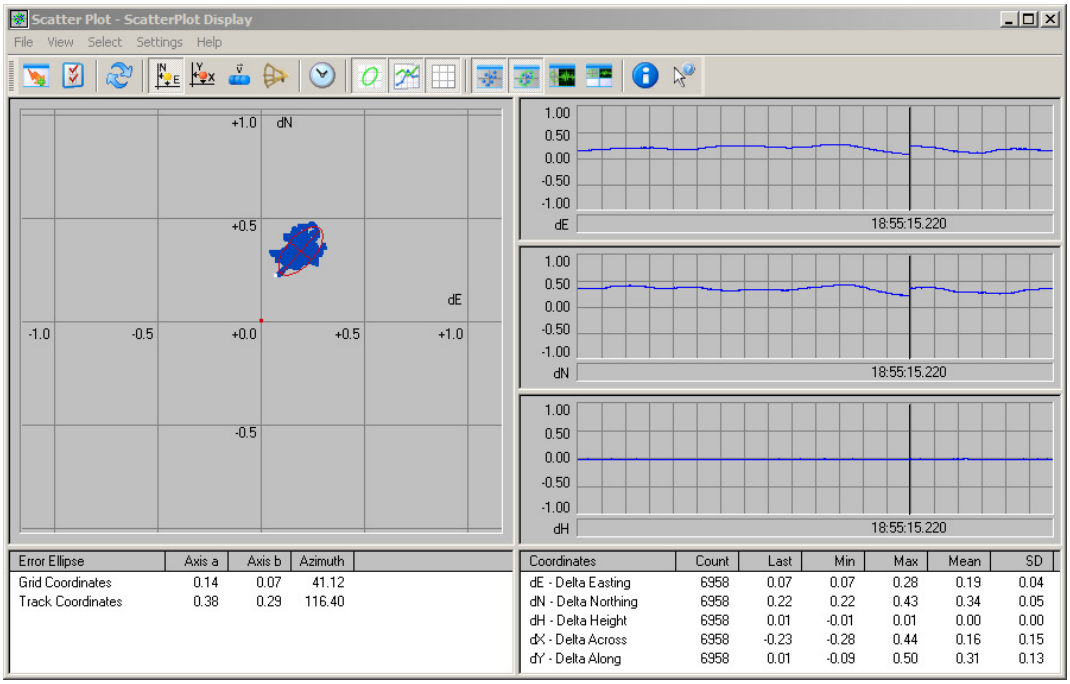


Figure 1, Static test 1

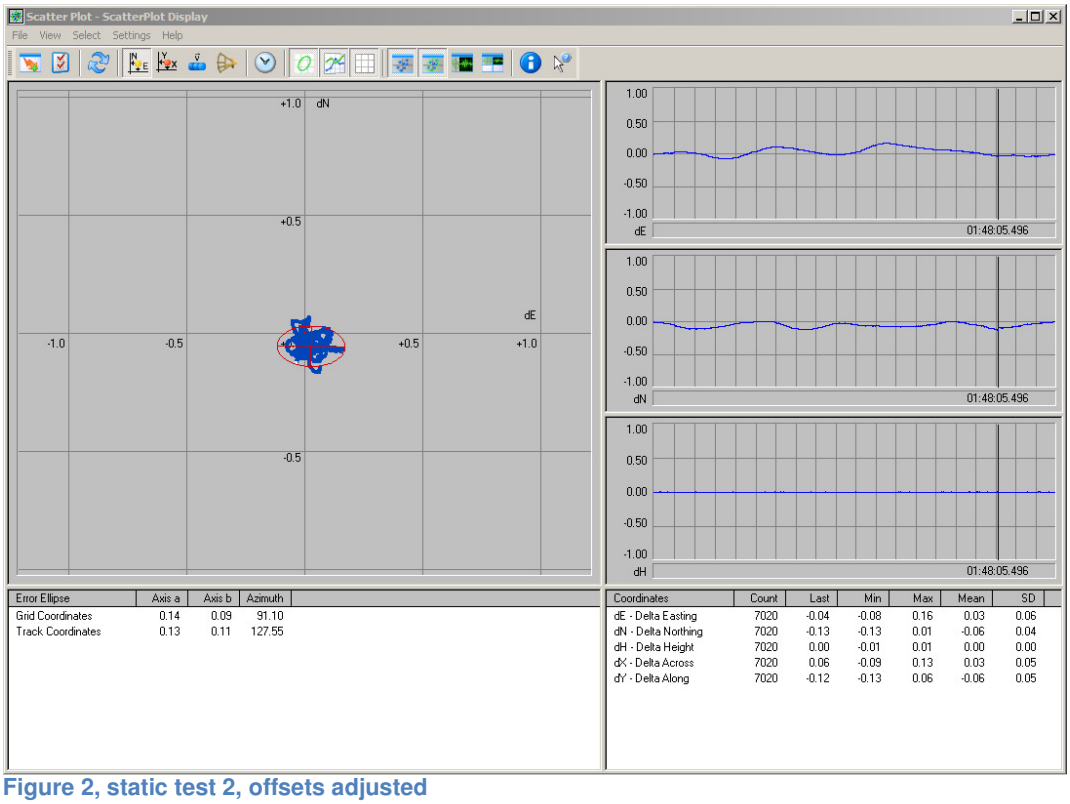
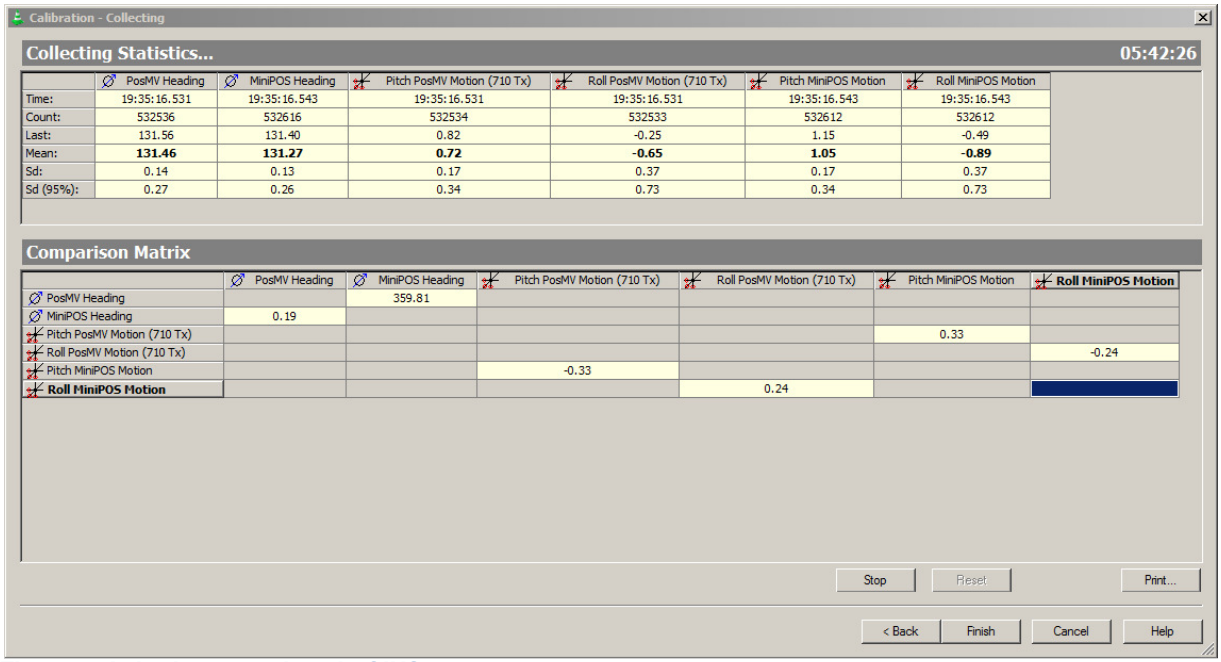


Figure 2, static test 2, offsets adjusted

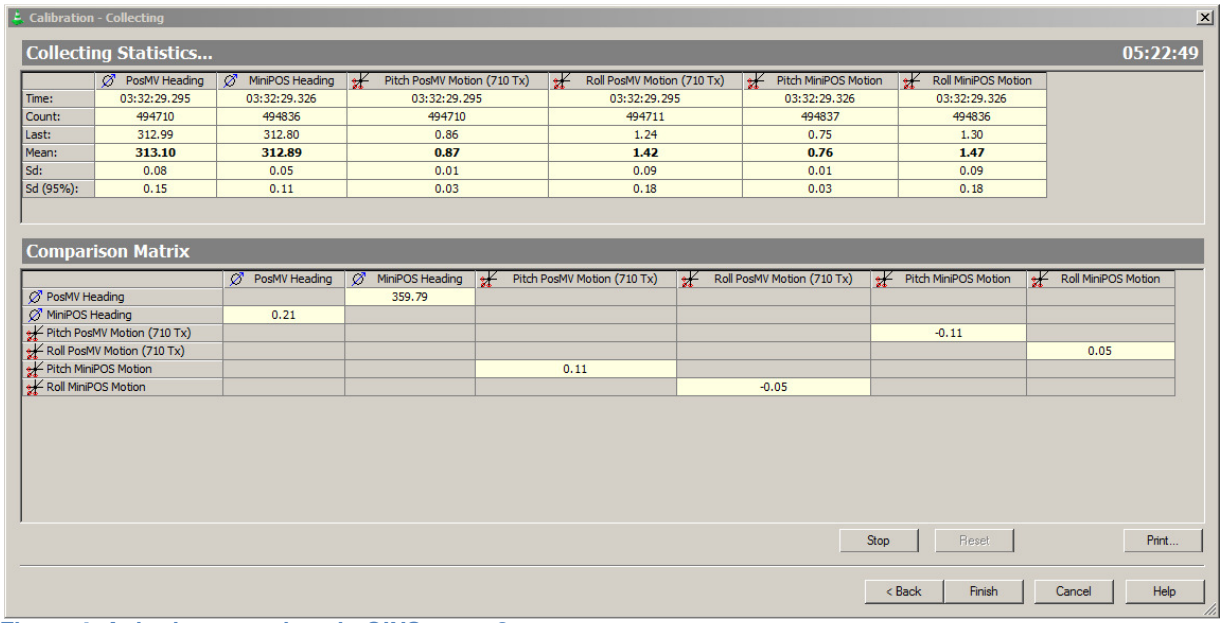
1.1.2. Attitude Comparison, static



	PosMV Heading	MiniPOS Heading	Pitch PosMV Motion (710 Tx)	Roll PosMV Motion (710 Tx)	Pitch MiniPOS Motion	Roll MiniPOS Motion
Time:	19:35:16.531	19:35:16.543	19:35:16.531	19:35:16.531	19:35:16.543	19:35:16.543
Count:	532536	532616	532534	532533	532612	532612
Last:	131.56	131.40	0.82	-0.25	1.15	-0.49
Mean:	**131.46**	**131.27**	**0.72**	**-0.65**	**1.05**	**-0.89**
Sd:	0.14	0.13	0.17	0.37	0.17	0.37
Sd (95%):	0.27	0.26	0.34	0.73	0.34	0.73

	PosMV Heading	MiniPOS Heading	Pitch PosMV Motion (710 Tx)	Roll PosMV Motion (710 Tx)	Pitch MiniPOS Motion	Roll MiniPOS Motion
PosMV Heading		359.81				
MiniPOS Heading	0.19					
Pitch PosMV Motion (710 Tx)					0.33	
Roll PosMV Motion (710 Tx)						-0.24
Pitch MiniPOS Motion			-0.33			
Roll MiniPOS Motion				0.24		

Figure 3, Attitude comparison in QINSy, test 1



	PosMV Heading	MiniPOS Heading	Pitch PosMV Motion (710 Tx)	Roll PosMV Motion (710 Tx)	Pitch MiniPOS Motion	Roll MiniPOS Motion
Time:	03:32:29.295	03:32:29.326	03:32:29.295	03:32:29.295	03:32:29.326	03:32:29.326
Count:	494710	494836	494710	494711	494837	494836
Last:	312.99	312.80	0.86	1.24	0.75	1.30
Mean:	**313.10**	**312.89**	**0.87**	**1.42**	**0.76**	**1.47**
Sd:	0.08	0.05	0.01	0.09	0.01	0.09
Sd (95%):	0.15	0.11	0.03	0.18	0.03	0.18

	PosMV Heading	MiniPOS Heading	Pitch PosMV Motion (710 Tx)	Roll PosMV Motion (710 Tx)	Pitch MiniPOS Motion	Roll MiniPOS Motion
PosMV Heading		359.79				
MiniPOS Heading	0.21					
Pitch PosMV Motion (710 Tx)					-0.11	
Roll PosMV Motion (710 Tx)						0.05
Pitch MiniPOS Motion			0.11			
Roll MiniPOS Motion				-0.05		

Figure 4, Attitude comparison in QINSy, test 2

Parker Maritime

Pos MV

Sensor Name	C-O	SD	Confidence Interval	No. of Mathces	No. Used
Pitch from Q-matrix	-0.04	0.02	-0.04 to -0.04	13243	11834
Pitch by vector	-0.04	0.03	-0.04 to -0.04	13243	11953
Pitch by LSE	-0.04			13243	13243
Roll from Q-matrix	-0.02	0.03	-0.02 to -0.02	13243	11948
Roll by vector	-0.02	0.04	-0.02 to -0.02	13243	11946
Roll by LSE	-0.02			13243	13243
Heading from Q-matrix	0.01	0.03	0.01 to 0.01	13243	11771
Heading by vector	0.01	0.03	0.01 to 0.01	13243	11783
Heading by LSE	0.01			13243	13243

Summary of applied settings

Average of all methods: Avg. pitch: -0.04, Avg. roll: -0.02, Avg. hdg.: 0.01

The confidence interval is computed with 95% confidence level.
Antenna coordinates:
1A (master): {across, along, height}={0.000, 0.000, 0.000}
2A (slave S0): {across, along, height}={3.150, 7.596, 6.687}
3A (slave S1): {across, along, height}={-3.859, 7.096, 6.695}
4A (slave S2): {across, along, height}={3.223, -4.855, 6.689}
Data snooping:
Max difference between calculated and observed antenna separation allowed: 0.025
Max HDOP allowed: 3.0, Max VDOP allowed: 3.0
GNSS vector length is normalized and tested with T-test value 0.95
C-O is normalized and tested with T-test value 0.95

Figure 5, PosMV - Parker Summary Test 1

Parker Maritime

MiniPos

Sensor Name	C-O	SD	Confidence Interval	No. of Mathces	No. Used
Pitch from Q-matrix	-0.37	0.02	-0.37 to -0.37	13243	11873
Pitch by vector	-0.37	0.03	-0.37 to -0.37	13243	12005
Pitch by LSE	-0.37			13243	13243
Roll from Q-matrix	0.22	0.03	0.22 to 0.22	13243	11897
Roll by vector	0.22	0.04	0.22 to 0.22	13243	11945
Roll by LSE	0.22			13243	13243
Heading from Q-matrix	0.20	0.02	0.20 to 0.20	13243	11924
Heading by vector	0.20	0.02	0.20 to 0.20	13243	11932
Heading by LSE	0.20			13243	13243

Summary of applied settings

Average of all methods: Avg. pitch: -0.37, Avg. roll: 0.22, Avg. hdg.: 0.20

The confidence interval is computed with 95% confidence level.
Antenna coordinates:
1A (master): {across, along, height}={0.000, 0.000, 0.000}
2A (slave S0): {across, along, height}={3.150, 7.596, 6.687}
3A (slave S1): {across, along, height}={-3.859, 7.096, 6.695}
4A (slave S2): {across, along, height}={3.223, -4.855, 6.689}
Data snooping:
Max difference between calculated and observed antenna separation allowed: 0.025
Max HDOP allowed: 3.0, Max VDOP allowed: 3.0
GNSS vector length is normalized and tested with T-test value 0.95
C-O is normalized and tested with T-test value 0.95

Figure 6, MiniPos - Parker Summary Test 1

Parker Maritime

Pos MV

Sensor Name	C-O	SD	Confidence Interval	No. of Mathces	No. Used
Pitch from Q-matrix	-0.07	0.03	-0.07 to -0.07	14172	12857
Pitch by vector	-0.08	0.03	-0.08 to -0.08	14172	12736
Pitch by LSE	-0.08			14172	14172
Roll from Q-matrix	0.00	0.02	0.00 to 0.00	14172	12744
Roll by vector	0.00	0.04	0.00 to 0.00	14172	12856
Roll by LSE	0.01			14172	14172
Heading from Q-matrix	-0.01	0.04	-0.01 to -0.01	14172	12838
Heading by vector	-0.01	0.05	-0.01 to -0.01	14172	12878
Heading by LSE	-0.01			14172	14172

Summary of applied settings

Average of all methods: Avg. pitch: -0.07, Avg. roll: 0.00, Avg. hdg.: -0.01

The confidence interval is computed with 95% confidence level.
Antenna coordinates:
1A (master): (across, along, height)=(0.000, 0.000, 0.000)
2A (slave S0): (across, along, height)=(3.150, 7.596, 6.687)
3A (slave S1): (across, along, height)=(-3.859, 7.096, 6.695)
4A (slave S2): (across, along, height)=(3.223, -4.855, 6.689)
Data snooping:
Max difference between calculated and observed antenna separation allowed: 0.025
Max HDOP allowed: 3.0, Max VDOP allowed: 3.0
GNSS vector length is normalized and tested with T-test value 0.95
C-O is normalized and tested with T-test value 0.95

Figure 7, PosMV - Parker Sunmmary Test 2

Parker Maritime

MiniPos

Sensor Name	C-O	SD	Confidence Interval	No. of Mathces	No. Used
Pitch from Q-matrix	0.04	0.03	0.04 to 0.04	14172	12833
Pitch by vector	0.03	0.03	0.03 to 0.03	14172	12757
Pitch by LSE	0.03			14172	14172
Roll from Q-matrix	-0.05	0.02	-0.05 to -0.05	14172	12705
Roll by vector	-0.05	0.04	-0.05 to -0.04	14172	12828
Roll by LSE	-0.04			14172	14172
Heading from Q-matrix	0.21	0.02	0.21 to 0.21	14172	12709
Heading by vector	0.21	0.02	0.21 to 0.21	14172	12698
Heading by LSE	0.21			14172	14172

Summary of applied settings

Average of all methods: Avg. pitch: 0.03, Avg. roll: -0.04, Avg. hdg.: 0.21

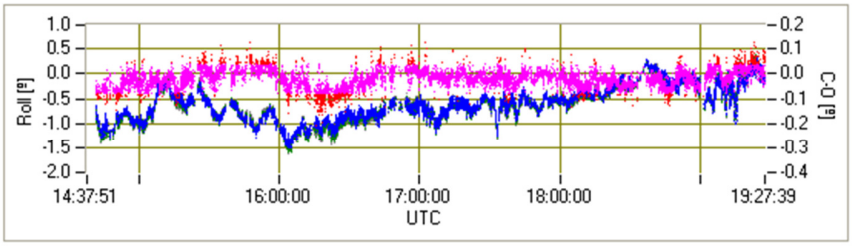
The confidence interval is computed with 95% confidence level.
Antenna coordinates:
1A (master): (across, along, height)=(0.000, 0.000, 0.000)
2A (slave S0): (across, along, height)=(3.150, 7.596, 6.687)
3A (slave S1): (across, along, height)=(-3.859, 7.096, 6.695)
4A (slave S2): (across, along, height)=(3.223, -4.855, 6.689)
Data snooping:
Max difference between calculated and observed antenna separation allowed: 0.025
Max HDOP allowed: 3.0, Max VDOP allowed: 3.0
GNSS vector length is normalized and tested with T-test value 0.95
C-O is normalized and tested with T-test value 0.95

Figure 8, MiniPos - Parker Summary Test 2

Parker Maritime

Pos MV
Verification of roll data:
Pos MV Roll

Id	Start UTC	Stop UTC	C-O	SD	Confidence Interval	No. of Matches	No. Used
Q	2013.08.03 14:41	2013.08.03 19:33	**-0.02**	0.03	-0.02 to -0.02	13243	11948
V	2013.08.03 14:41	2013.08.03 19:33	**-0.02**	0.04	-0.02 to -0.02	13243	11946
L	2013.08.03 14:41	2013.08.03 19:33	**-0.02**			13243	13243
Avg			**-0.02**				



Roll by Vector Roll from Q-matrix Client Pos MV Roll C-O Q Rejected C-O Q

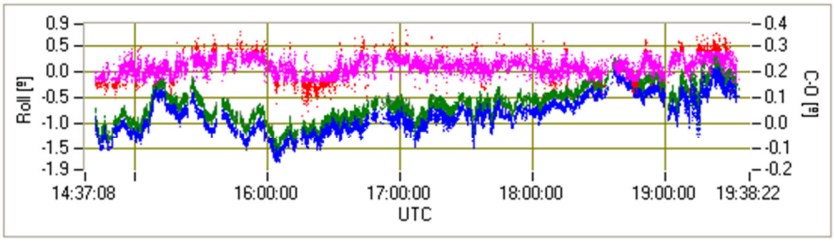
Q: Q-matrix (receiver rotation matrix), V: Average of vectors from Helmert transformation, L: Least Squares Estimation of vectors from Helmert transformation. The confidence interval is computed with 95% confidence level.
Data snooping:
Max difference between calculated and observed antenna separation allowed: 0.025
Max HDOP allowed: 3.0, Max VDOP allowed: 3.0
GNSS vector length and C-O are normalized and tested with T-test value 0.95

Figure 9, PosMV Roll Graph Test 1

Parker Maritime

MiniPos
Verification of roll data:
MiniPos Roll

Id	Start UTC	Stop UTC	C-O	SD	Confidence Interval	No. of Matches	No. Used
Q	2013.08.03 14:41	2013.08.03 19:33	**0.22**	0.03	0.22 to 0.22	13243	11897
V	2013.08.03 14:41	2013.08.03 19:33	**0.22**	0.04	0.22 to 0.22	13243	11945
L	2013.08.03 14:41	2013.08.03 19:33	**0.22**			13243	13243
Avg			**0.22**				



Roll by Vector Roll from Q-matrix Client MiniPos Roll C-O Q Rejected C-O Q

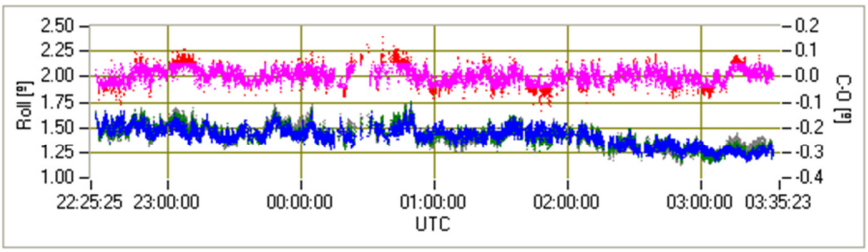
Q: Q-matrix (receiver rotation matrix), V: Average of vectors from Helmert transformation, L: Least Squares Estimation of vectors from Helmert transformation. The confidence interval is computed with 95% confidence level.
Data snooping:
Max difference between calculated and observed antenna separation allowed: 0.025
Max HDOP allowed: 3.0, Max VDOP allowed: 3.0
GNSS vector length and C-O are normalized and tested with T-test value 0.95

Figure 10, MiniPos Roll graph Test 1

Parker Maritime

Pos MV
Verification of roll data:
PosMV Motion Roll

Id	Start UTC	Stop UTC	C-O	SD	Confidence Interval	No. of Matches	No. Used
Q	2013.08.03 22:27	2013.08.04 03:32	**0.00**	0.02	0.00 to 0.00	14172	12744
V	2013.08.03 22:27	2013.08.04 03:32	**0.00**	0.04	0.00 to 0.00	14172	12856
L	2013.08.03 22:27	2013.08.04 03:32	**0.01**			14172	14172
Avg			**0.00**				



Roll by Vector | Roll from Q-matrix | Client PosMV Motion Roll | C-O Q | Rejected C-O Q

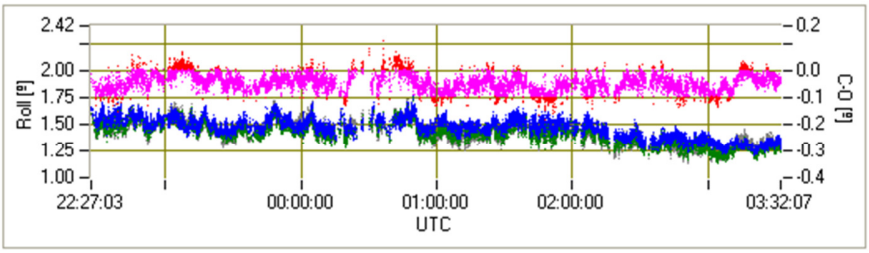
Q: Q-matrix (receiver rotation matrix), V: Average of vectors from Helmert transformation, L: Least Squares Estimation of vectors from Helmert transformation. The confidence interval is computed with 95% confidence level.
Data snooping:
Max difference between calculated and observed antenna separation allowed: 0.025
Max HDOP allowed: 3.0, Max VDOP allowed: 3.0
GNSS vector length and C-O are normalized and tested with T-test value 0.95

Figure 11, PosMV Roll Graph Test 2

Parker Maritime

MiniPos
Verification of roll data:
MiniPOS Roll

Id	Start UTC	Stop UTC	C-O	SD	Confidence Interval	No. of Matches	No. Used
Q	2013.08.03 22:27	2013.08.04 03:32	**-0.05**	0.02	-0.05 to -0.05	14172	12705
V	2013.08.03 22:27	2013.08.04 03:32	**-0.05**	0.04	-0.05 to -0.04	14172	12828
L	2013.08.03 22:27	2013.08.04 03:32	**-0.04**			14172	14172
Avg			**-0.04**				



Roll by Vector | Roll from Q-matrix | Client MiniPOS Roll | C-O Q | Rejected C-O Q

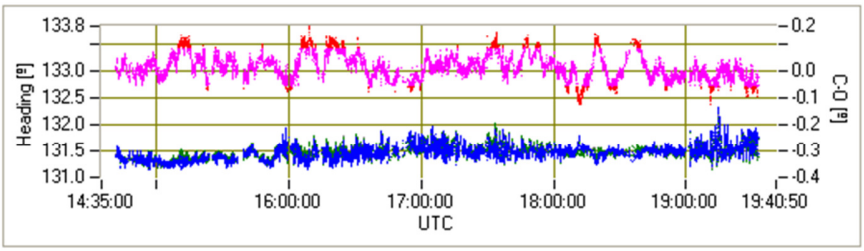
Q: Q-matrix (receiver rotation matrix), V: Average of vectors from Helmert transformation, L: Least Squares Estimation of vectors from Helmert transformation. The confidence interval is computed with 95% confidence level.
Data snooping:
Max difference between calculated and observed antenna separation allowed: 0.025
Max HDOP allowed: 3.0, Max VDOP allowed: 3.0
GNSS vector length and C-O are normalized and tested with T-test value 0.95

Figure 12, MiniPos Roll Graph Test 2

Parker Maritime

Pos MV
Verification of heading data:
Pos MV Heading

Id	Start UTC	Stop UTC	C-O	SD	Confidence Interval	No. of Matches	No. Used
Q	2013.08.03 14:41	2013.08.03 19:33	0.01	0.03	0.01 to 0.01	13243	11771
V	2013.08.03 14:41	2013.08.03 19:33	0.01	0.03	0.01 to 0.01	13243	11783
L	2013.08.03 14:41	2013.08.03 19:33	0.01			13243	13243
Avg			0.01				



Heading by Vector Heading from Q-matrix Client Pos MV Heading C-O Q

Rejected C-O Q

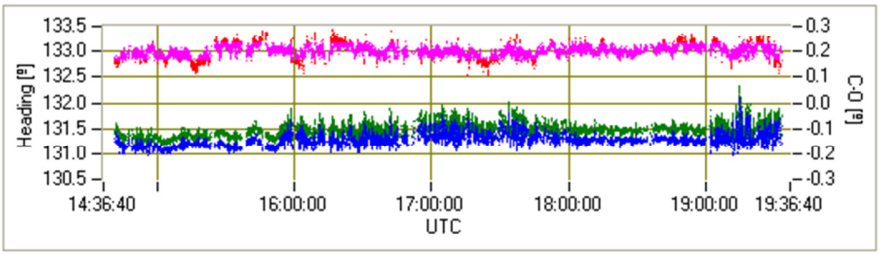
Q: Q-matrix (receiver rotation matrix), V: Average of vectors from Helmert transformation, L: Least Squares Estimation of vectors from Helmert transformation. The confidence interval is computed with 95% confidence level.
Data snooping:
Max difference between calculated and observed antenna separation allowed: 0.025
Max HDOP allowed: 3.0, Max VDOP allowed: 3.0
GNSS vector length and C-O are normalized and tested with T-test value 0.95

Figure 13, PosMV Heading graph Test 1

Parker Maritime

MiniPos
Verification of heading data:
MiniPos Heading

Id	Start UTC	Stop UTC	C-O	SD	Confidence Interval	No. of Matches	No. Used
Q	2013.08.03 14:41	2013.08.03 19:33	0.20	0.02	0.20 to 0.20	13243	11924
V	2013.08.03 14:41	2013.08.03 19:33	0.20	0.02	0.20 to 0.20	13243	11932
L	2013.08.03 14:41	2013.08.03 19:33	0.20			13243	13243
Avg			0.20				



Heading by Vector Heading from Q-matrix Client MiniPos Heading C-O Q

Rejected C-O Q

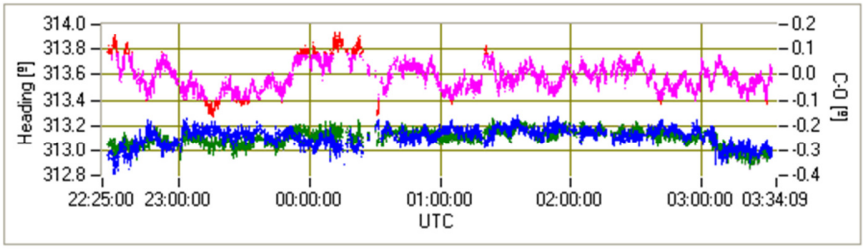
Q: Q-matrix (receiver rotation matrix), V: Average of vectors from Helmert transformation, L: Least Squares Estimation of vectors from Helmert transformation. The confidence interval is computed with 95% confidence level.
Data snooping:
Max difference between calculated and observed antenna separation allowed: 0.025
Max HDOP allowed: 3.0, Max VDOP allowed: 3.0
GNSS vector length and C-O are normalized and tested with T-test value 0.95

Figure 14, MiniPos Heading Test 1

Parker Maritime

Pos MV
Verification of heading data:
PosMV Heading

Id	Start UTC	Stop UTC	C-O	SD	Confidence Interval	No. of Matches	No. Used
Q	2013.08.03 22:27	2013.08.04 03:32	-0.01	0.04	-0.01 to -0.01	14172	12838
V	2013.08.03 22:27	2013.08.04 03:32	-0.01	0.05	-0.01 to -0.01	14172	12878
L	2013.08.03 22:27	2013.08.04 03:32	-0.01			14172	14172
Avg			-0.01				



Heading by Vector Heading from Q-matrix Client PosMV Heading C-O Q
Rejected C-O Q

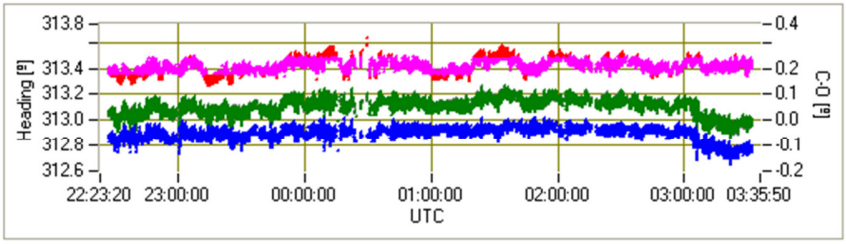
Q: Q-matrix (receiver rotation matrix), V: Average of vectors from Helmert transformation, L: Least Squares Estimation of vectors from Helmert transformation. The confidence interval is computed with 95% confidence level.
Data snooping:
Max difference between calculated and observed antenna separation allowed: 0.025
Max HDOP allowed: 3.0, Max VDOP allowed: 3.0
GNSS vector length and C-O are normalized and tested with T-test value 0.95

Figure 15, PosMV Heading Graph Test 2

Parker Maritime

MiniPos
Verification of heading data:
MiniPOS Heading

Id	Start UTC	Stop UTC	C-O	SD	Confidence Interval	No. of Matches	No. Used
Q	2013.08.03 22:27	2013.08.04 03:32	0.21	0.02	0.21 to 0.21	14172	12709
V	2013.08.03 22:27	2013.08.04 03:32	0.21	0.02	0.21 to 0.21	14172	12698
L	2013.08.03 22:27	2013.08.04 03:32	0.21			14172	14172
Avg			0.21				



Heading by Vector Heading from Q-matrix Client MiniPOS Heading C-O Q
Rejected C-O Q

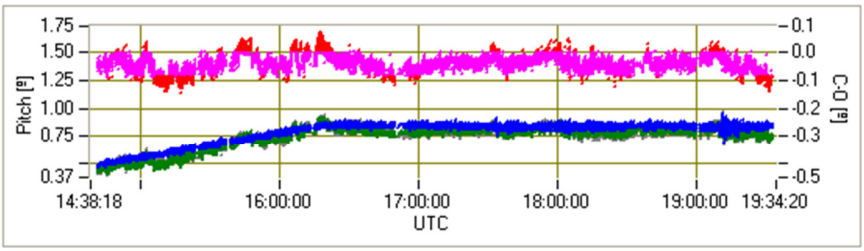
Q: Q-matrix (receiver rotation matrix), V: Average of vectors from Helmert transformation, L: Least Squares Estimation of vectors from Helmert transformation. The confidence interval is computed with 95% confidence level.
Data snooping:
Max difference between calculated and observed antenna separation allowed: 0.025
Max HDOP allowed: 3.0, Max VDOP allowed: 3.0
GNSS vector length and C-O are normalized and tested with T-test value 0.95

Figure 16, MiniPos Heading Graph Test 2

Parker Maritime

Pos MV
Verification of pitch data:
Pos MVPitch

Id	Start UTC	Stop UTC	C-O	SD	Confidence Interval	No. of Matches	No. Used
Q	2013.08.03 14:41	2013.08.03 19:33	-0.04	0.02	-0.04 to -0.04	13243	11834
V	2013.08.03 14:41	2013.08.03 19:33	-0.04	0.03	-0.04 to -0.04	13243	11953
L	2013.08.03 14:41	2013.08.03 19:33	-0.04			13243	13243
Avg			-0.04				



Pitch by Vector | Pitch from Q-matrix | Client Pos MVPitch | C-O Q | Rejected C-O Q

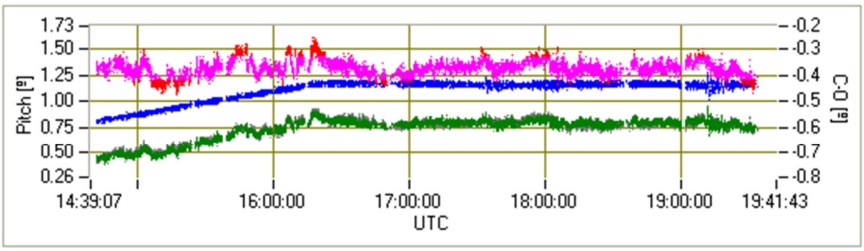
Q: Q-matrix (receiver rotation matrix), V: Average of vectors from Helmert transformation, L: Least Squares Estimation of vectors from Helmert transformation. The confidence interval is computed with 95% confidence level.
Data snooping:
Max difference between calculated and observed antenna separation allowed: 0.025
Max HDOP allowed: 3.0, Max VDOP allowed: 3.0
GNSS vector length and C-O are normalized and tested with T-test value 0.95

Figure 17, PosMV Pitch graph Test 1

Parker Maritime

MiniPos
Verification of pitch data:
MiniPos Pitch

Id	Start UTC	Stop UTC	C-O	SD	Confidence Interval	No. of Matches	No. Used
Q	2013.08.03 14:41	2013.08.03 19:33	-0.37	0.02	-0.37 to -0.37	13243	11873
V	2013.08.03 14:41	2013.08.03 19:33	-0.37	0.03	-0.37 to -0.37	13243	12005
L	2013.08.03 14:41	2013.08.03 19:33	-0.37			13243	13243
Avg			-0.37				



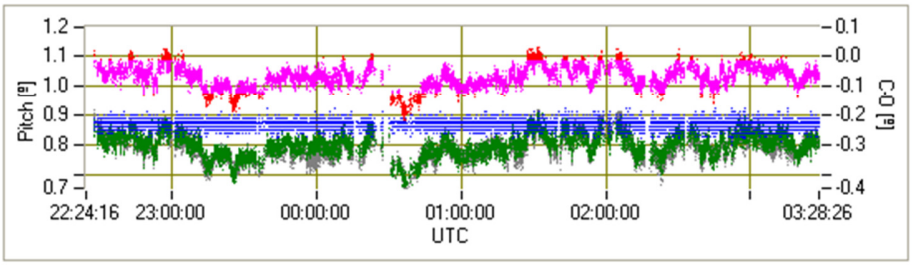
Pitch by Vector | Pitch from Q-matrix | Client MiniPos Pitch | C-O Q | Rejected C-O Q

Q: Q-matrix (receiver rotation matrix), V: Average of vectors from Helmert transformation, L: Least Squares Estimation of vectors from Helmert transformation. The confidence interval is computed with 95% confidence level.
Data snooping:
Max difference between calculated and observed antenna separation allowed: 0.025
Max HDOP allowed: 3.0, Max VDOP allowed: 3.0
GNSS vector length and C-O are normalized and tested with T-test value 0.95

Figure 18, MiniPos Pitch Graph Test 1

Pos MV
Verification of pitch data:
PosMV Motion Pitch

Id	Start UTC	Stop UTC	C-O	SD	Confidence Interval	No. of Matches	No. Used
Q	2013.08.03 22:27	2013.08.04 03:32	**-0.07**	0.03	-0.07 to -0.07	14172	12857
V	2013.08.03 22:27	2013.08.04 03:32	**-0.08**	0.03	-0.08 to -0.08	14172	12736
L	2013.08.03 22:27	2013.08.04 03:32	**-0.08**			14172	14172
Avg			**-0.07**				



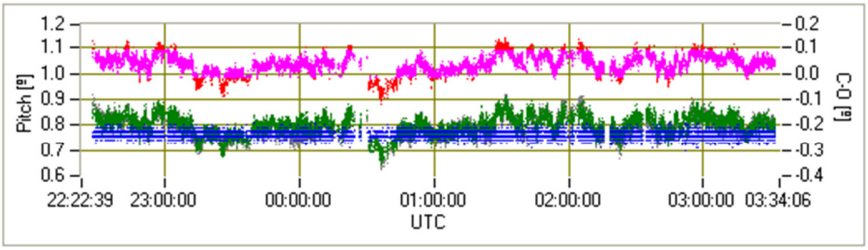
Pitch by Vector Pitch from Q-matrix Client PosMV Motion Pitch C-O Q
Rejected C-O Q

Q: Q-matrix (receiver rotation matrix), V: Average of vectors from Helmert transformation, L: Least Squares Estimation of vectors from Helmert transformation. The confidence interval is computed with 95% confidence level.
Data snooping:
Max difference between calculated and observed antenna separation allowed: 0.025
Max HDOP allowed: 3.0, Max VDOP allowed: 3.0
GNSS vector length and C-O are normalized and tested with T-test value 0.95

Figure 19, PosMV Pitch Graph Test 2

MiniPos
Verification of pitch data:
MiniPOS Pitch

Id	Start UTC	Stop UTC	C-O	SD	Confidence Interval	No. of Matches	No. Used
Q	2013.08.03 22:27	2013.08.04 03:32	**0.04**	0.03	0.04 to 0.04	14172	12833
V	2013.08.03 22:27	2013.08.04 03:32	**0.03**	0.03	0.03 to 0.03	14172	12757
L	2013.08.03 22:27	2013.08.04 03:32	**0.03**			14172	14172
Avg			**0.03**				



Pitch by Vector Pitch from Q-matrix Client MiniPOS Pitch C-O Q Rejected C-O Q

Q: Q-matrix (receiver rotation matrix), V: Average of vectors from Helmert transformation, L: Least Squares Estimation of vectors from Helmert transformation. The confidence interval is computed with 95% confidence level.
Data snooping:
Max difference between calculated and observed antenna separation allowed: 0.025
Max HDOP allowed: 3.0, Max VDOP allowed: 3.0
GNSS vector length and C-O are normalized and tested with T-test value 0.95

Figure 20, MiniPos Pitch Graph Test 2

1.2. Dynamic Tests, Outside Hirtshals 2013-08-04

Upon completion of Static tests, A dynamic test lasting for 8 hours was completed outside Hirtshals. Attitude and position were logged during the entire test, while the vessel performed figure 8 manoeuvres.

1.1.3. Comparison, PosMV vs Starpack

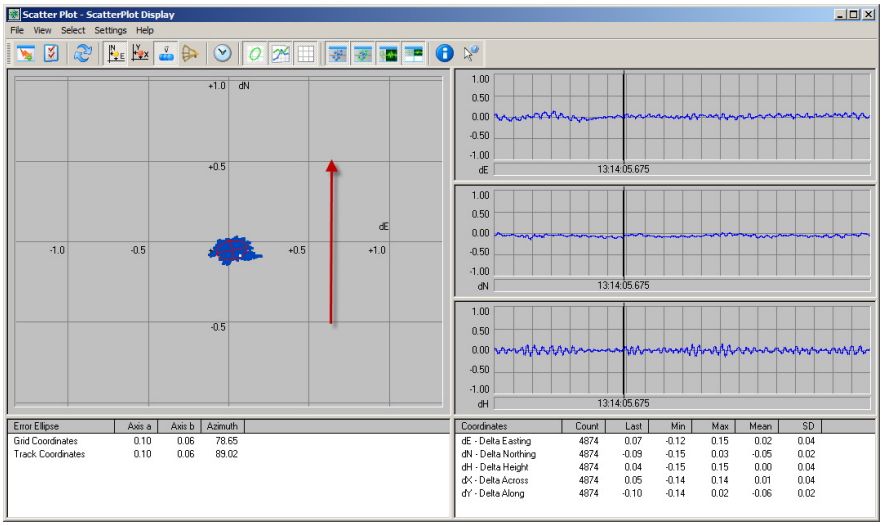


Figure 21, North

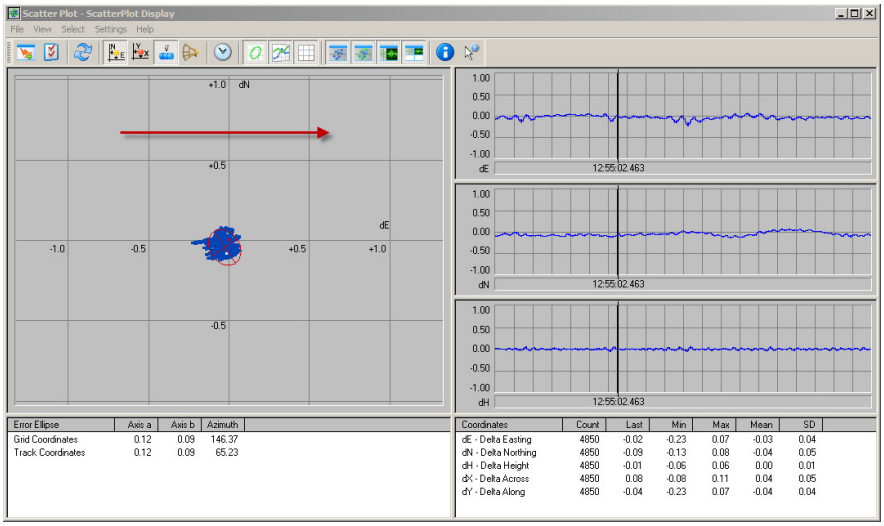


Figure 22, East

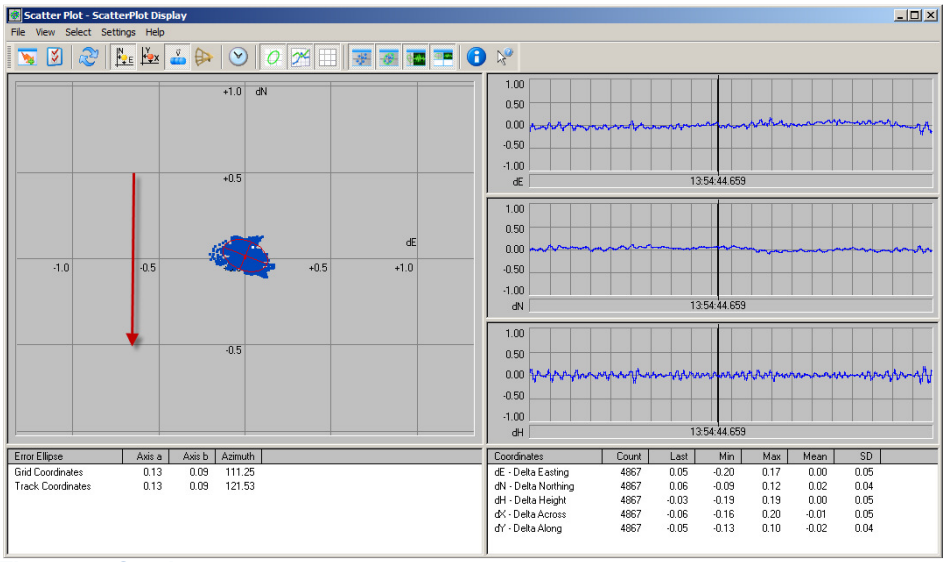


Figure 23, South

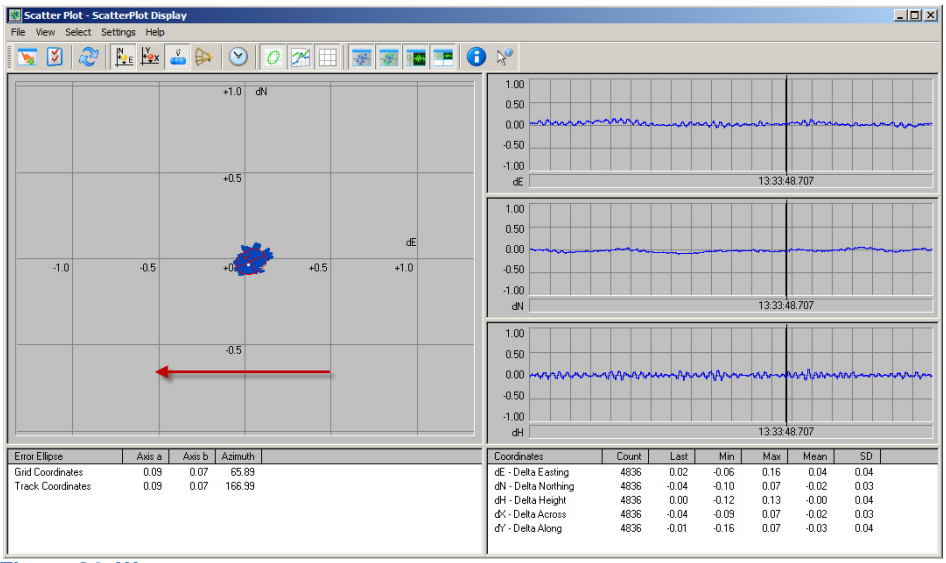


Figure 24, West

1.1.4. Attitude

Parker Maritime

Pos MV

Sensor Name	C-O	SD	Confidence Interval	No. of Mathces	No. Used
Pitch from Q-matrix	0.05	0.12	0.05 to 0.05	25092	22867
Pitch by vector	0.05	0.12	0.05 to 0.05	25092	22894
Pitch by LSE	0.05			25092	25092
Roll from Q-matrix	0.01	0.06	0.01 to 0.01	25092	23071
Roll by vector	0.00	0.07	0.00 to 0.00	25092	23104
Roll by LSE	0.00			25092	25092
Heading from Q-matrix	0.01	0.08	0.01 to 0.01	25092	22271
Heading by vector	0.01	0.08	0.01 to 0.01	25092	22273
Heading by LSE	0.01			25092	25092

Summary of applied settings

Average of all methods: Avg. pitch: 0.05, Avg. roll: 0.01, Avg. hdg.: 0.01

The confidence interval is computed with 95% confidence level.
Antenna coordinates:
1A (master): (across, along, height)=(0.000, 0.000, 0.000)
2A (slave S0): (across, along, height)=(3.150, 7.596, 6.687)
3A (slave S1): (across, along, height)=(-3.859, 7.096, 6.695)
4A (slave S2): (across, along, height)=(3.223, -4.055, 6.689)
Data snooping:
Max difference between calculated and observed antenna separation allowed: 0.025
Max HDOP allowed: 3.0, Max VDOP allowed: 3.0
GNSS vector length is normalized and tested with T-test value 0.95
C-O is normalized and tested with T-test value 0.95

Figure 25, PosMV summary

Parker Maritime

MiniPos

Sensor Name	C-O	SD	Confidence Interval	No. of Mathces	No. Used
Pitch from Q-matrix	-0.01	0.12	-0.01 to -0.01	25092	22924
Pitch by vector	-0.01	0.12	-0.01 to -0.01	25092	22899
Pitch by LSE	-0.01			25092	25092
Roll from Q-matrix	-0.03	0.07	-0.03 to -0.03	25092	23152
Roll by vector	-0.04	0.08	-0.04 to -0.04	25092	23153
Roll by LSE	-0.04			25092	25092
Heading from Q-matrix	0.75	0.99	0.74 to 0.76	25092	24486
Heading by vector	0.75	0.99	0.74 to 0.76	25092	24487
Heading by LSE	0.71			25092	25092

Summary of applied settings

Average of all methods: Avg. pitch: -0.01, Avg. roll: -0.04, Avg. hdg.: 0.74

The confidence interval is computed with 95% confidence level.
Antenna coordinates:
1A (master): (across, along, height)=(0.000, 0.000, 0.000)
2A (slave S0): (across, along, height)=(3.150, 7.596, 6.687)
3A (slave S1): (across, along, height)=(-3.859, 7.096, 6.695)
4A (slave S2): (across, along, height)=(3.223, -4.055, 6.689)
Data snooping:
Max difference between calculated and observed antenna separation allowed: 0.025
Max HDOP allowed: 3.0, Max VDOP allowed: 3.0
GNSS vector length is normalized and tested with T-test value 0.95
C-O is normalized and tested with T-test value 0.95

Figure 26, MiniPos Summary

1.3. Summary

The results from both the Static and Dynamic tests are satisfactory to very good. It should be noted, that the MiniPos Heading is not GPS Aided, and has a tendency to drift compared to the PosMV, as expected.

Roll and Pitch data quality are very consistent from both systems.

Position comparison between the PosMV with CNav corrections, and Starpack with XP/HP corrections shows very consistent results.

To: Matt Cowing, Statoil Representative	Date: 31.08.2013
Copy: Helena Strömberg, MMT Project Manager	FHR002 ST13828 Unidentified Linear Magnetic Anomaly
From: Tobias Berggren, Report Coordinator Franklin	Company Ref: ST13828

Introduction:

An unidentified linear magnetic anomaly has been detected transecting the northern part of the turbine survey area.

See reference file: ST13828_Unidentified Linear Magnetic Anomaly.dxf

1.1. Unidentified Linear Magnetic Anomaly

During processing of magnetometer data a linear feature was discovered running in a E-W direction transecting the northern part of the turbine areas. This feature is not visible in SSS, MBES or SBP data records. The feature does not correlate to any known features in the supplied background information in the survey area.

According to the background information one Telecom cable, two pipeline installations, and one umbilical (Figure 1) are present within the survey area and these four features are clearly visible in the magnetometer data (Figure 2).

The unidentified linear feature is detected on most of the magnetometer survey lines, both the main and cross lines. The anomalies generally ranges from 2 to 15 nT (Figure 3). At the outer western part of the survey area the signatures becomes weaker and more unclear and therefore more difficult to trace (Figure 2).

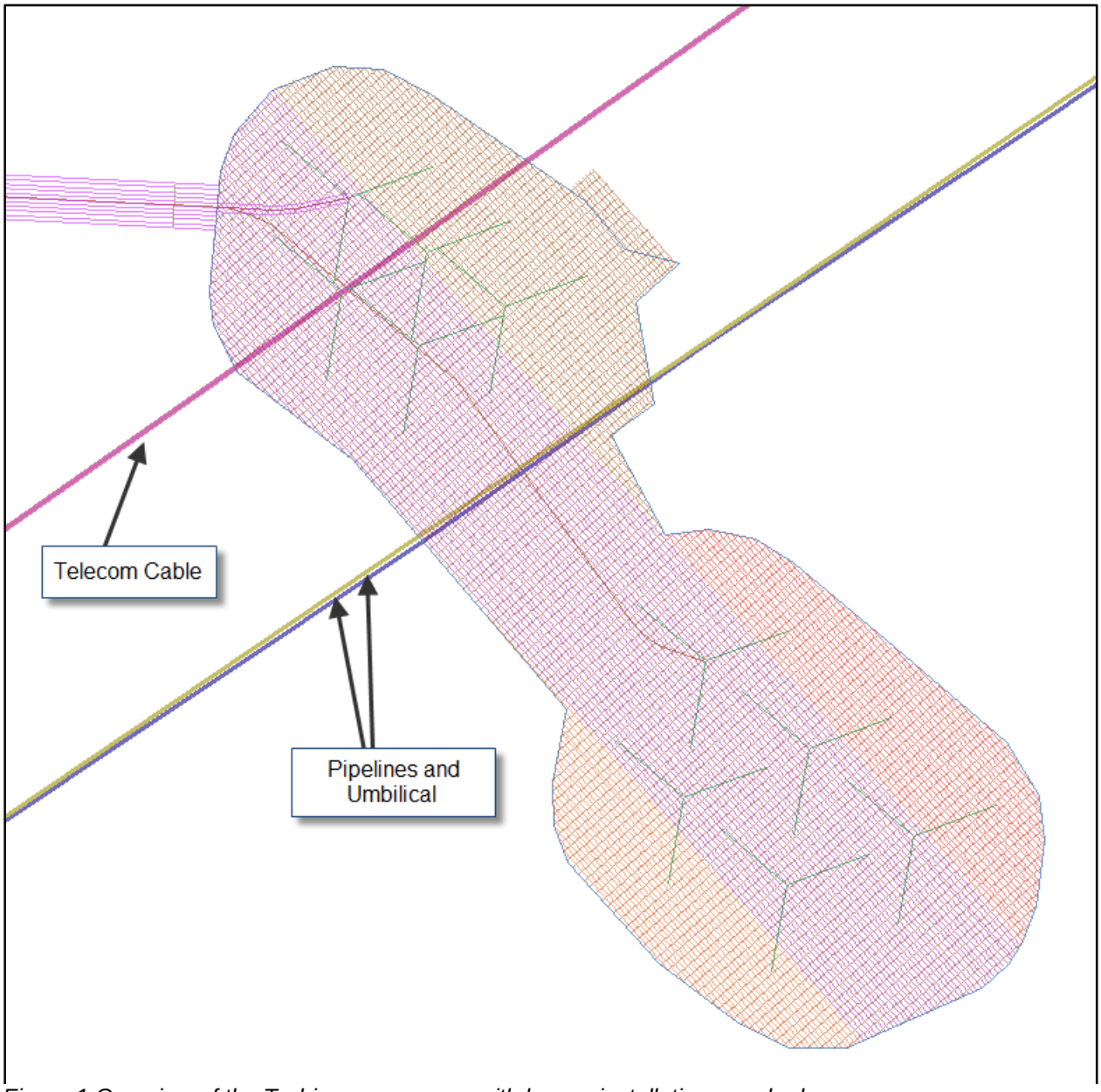


Figure 1 Overview of the Turbine survey area with known installations marked.

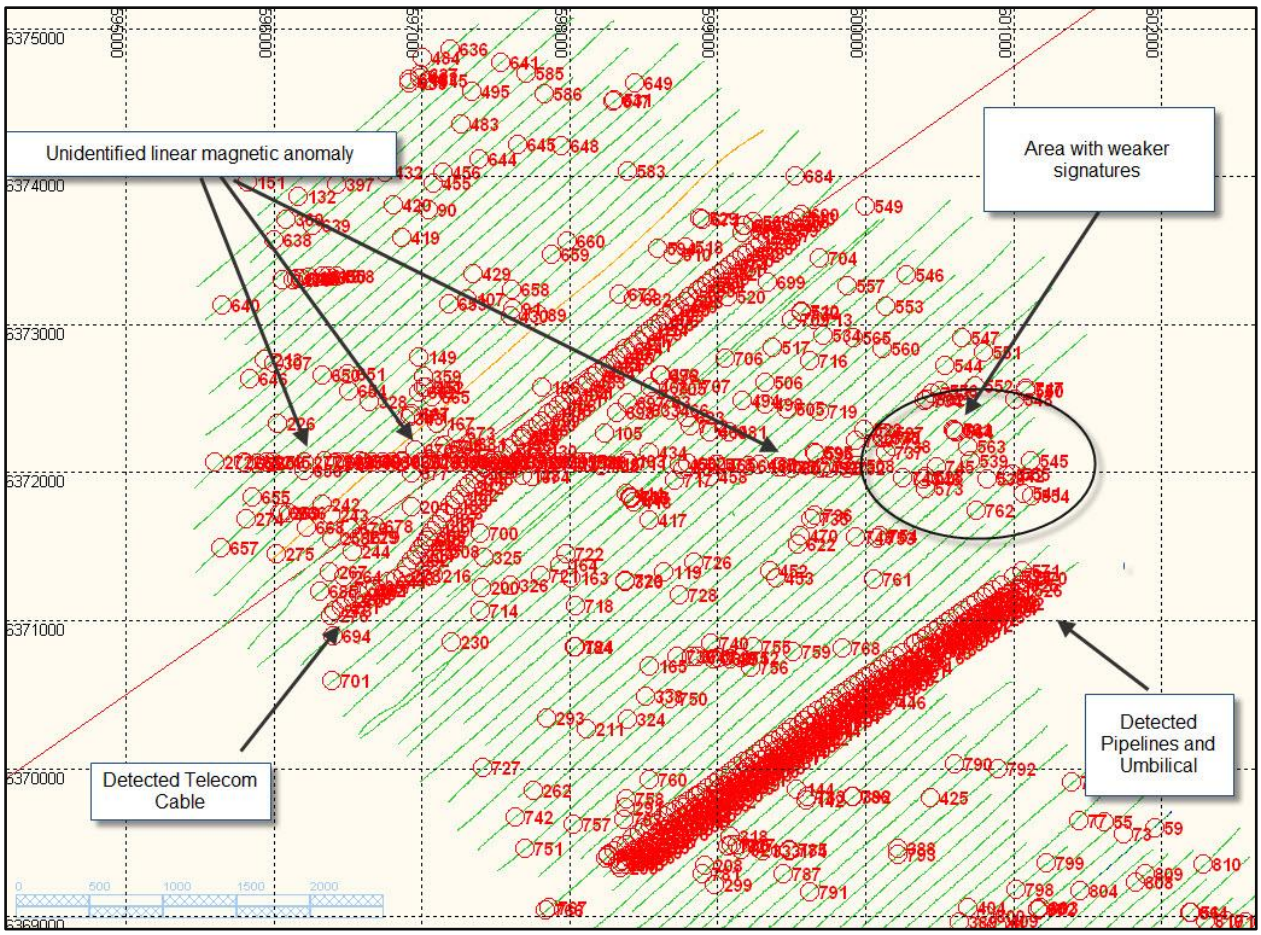


Figure 2 The image illustrates detected magnetic anomalies within the northern part of the Turbine survey area.

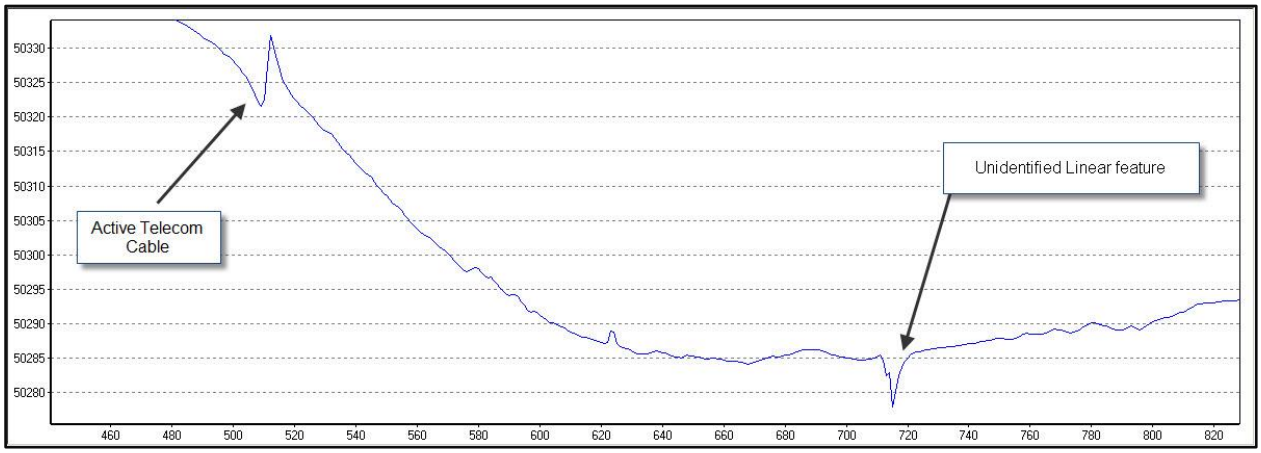


Figure 3 Image illustrating magnetic anomalies along survey line TB2700 (nT values along the Y-axis, metres along the X-axis).

APPENDIX D

TASK PLANS (SOW)

Attachment 1 – Scope of Work

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1 Introduction

This scope of Work is to be seen in relation to the Appendix A of the ITT. This document contains the scope of work for Hywind Scotland Offshore Windfarm - Seabed and Sub-Seabed Mapping of development site and export cable corridor.

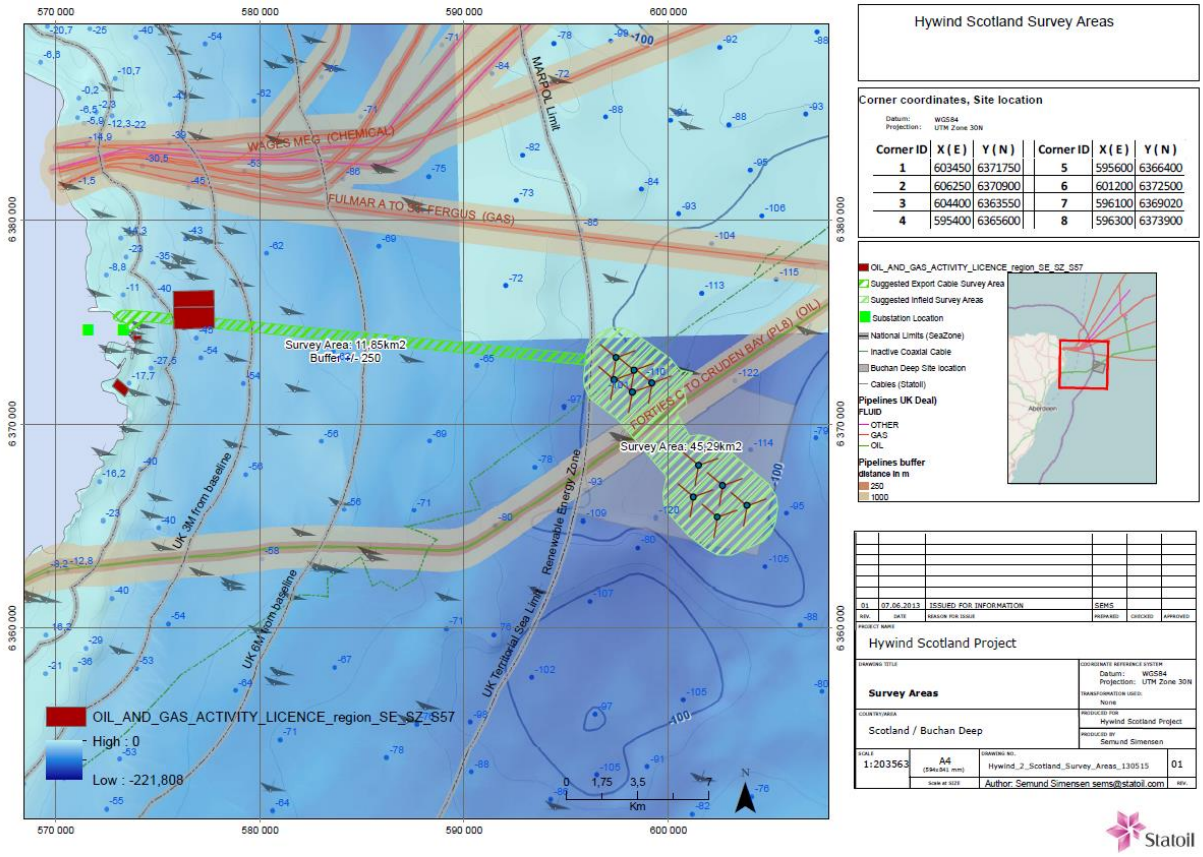

Figure 1 Overview map of the Hywind Scotland Offshore Windfarm site

The Hywind Scotland Offshore Windfarm site is located on the East coast of Scotland at the Buchan Deep site, 25km East of Peterhead. See location map in Figure 1. The development area is approximately 60km^2, and the export cable corridor is 25-30km long with a planned landfall in the Peterhead area. The site has water depths in the range of 110 – 130m. The survey coverage for the export cable corridor is planned to be 500m width (±250m). The development will consist of 5 floating wind turbines anchored to the seafloor with connection to the export cable.

The purpose of this document is to detail the planned seabed and sub-seabed survey and benthic surveys within the development site and the export cable corridor. Optional work shall include archaeological and UXO surveys.

The work and reporting shall be performed in accordance with the Crown Estate Specifications and Guidelines.

2 Survey Control

2.1 Datum and Projections

Datum: WGS84
Projection: UTM Zone 30N
EPSG Code: 32630
Units: Meters
Vertical reference: LAT

2.2 Datum Transformations

The survey shall be carried out in WGS84. Hence no datum transformation is applicable.

2.3 Survey Area

The survey area is approximately 45 km2 with a cable route of 25km.
The coordinates for the survey area is shown below and defined by the attached drawing.

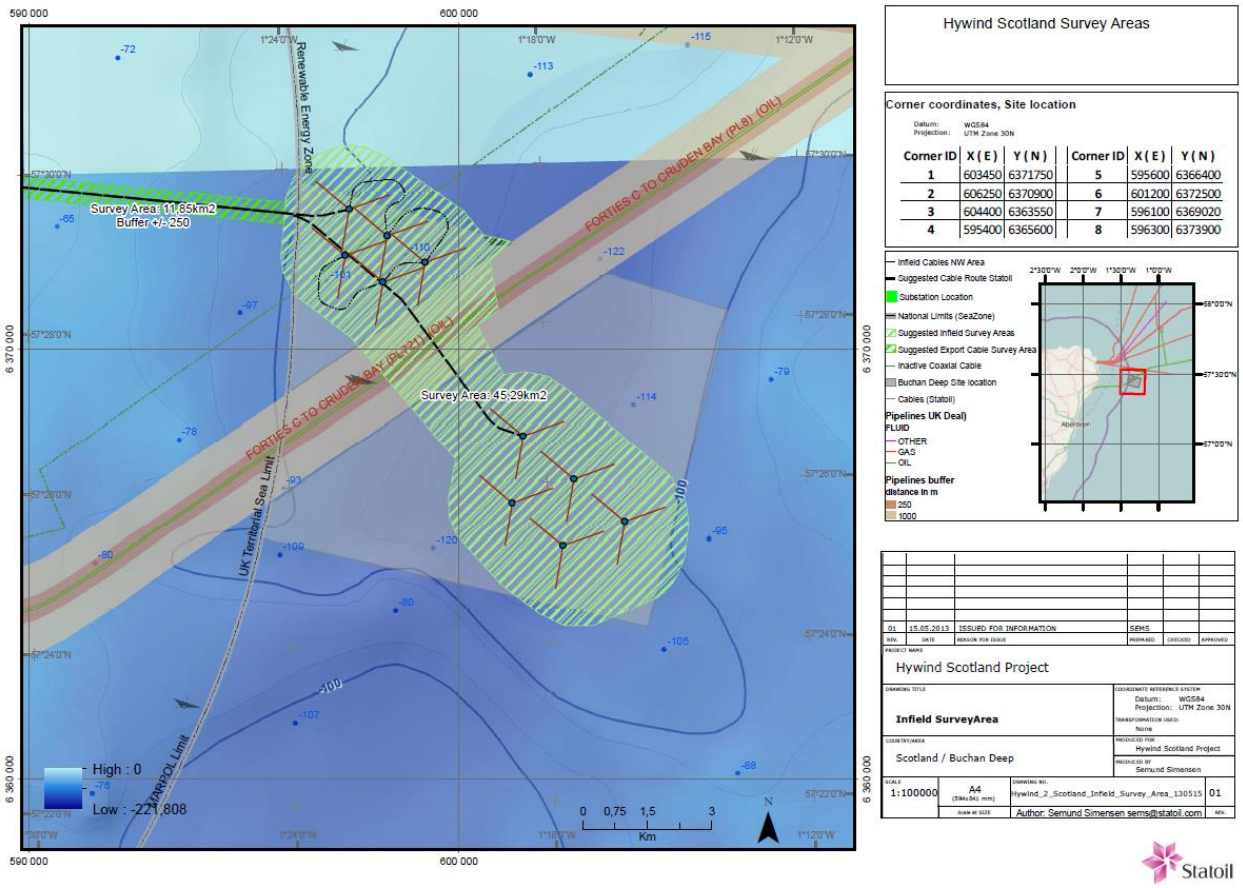

Figure 1 Hywind Scotland Survey Area (Highlighted in Green)

The cable corridor will connect the lease site with Peterhead, approximate distance of 25km.

2.4 Water Level Variations

Water level variations shall be measured by means of GPS during the survey.

3 Work Package

3.1 Survey Preparations

The work shall include, but not be limited to:

- Obtain all required permits for execution of all survey activities, except for fishing authorities, including Notice to Mariners

- Proper planning and preparation of all activities after Contract award in order to meet the technical and operational specifications.
- Preparation of a project manual documenting the plans. The aim of the manual shall be to guide and instruct the Contractor's personnel during the execution of the survey.
- Mobilisation, calibration, testing and acceptance test of all items of the equipment as well as all sub-systems working together in an integrated operation.
- Include experienced Marine Mammal Observers - when necessary for full 24hr coverage.
- .

3.2 Survey Aims

3.2.1 General

The planned work includes seabed and sub-seabed survey of the construction area and the export cable corridor. The main aims with the survey are to:

- Acquire and interpret high quality seabed and sub-seabed data for project planning/execution, including shallow geology, local topography, seabed sediment distribution, seabed features, seabed obstructions, wrecks and archaeological sites, possible occurrence of benthic habitats and species of known conservation importance.
- Improve the geological / geotechnical understanding of the shallow stratigraphy and soil properties in the turbine site and export corridor for planning/execution of turbine foundation installation and cable routing, installation and protection.
- Optional work may include
    - Archaeological Survey
    - UXO Survey

3.2.2 Seabed and Sub-Seabed Survey

3.2.2.1 Survey Execution and Reporting Plan

The base case is to use all specified equipment for the entire survey area and cable corridor. The required narrow separation of the magnetometer lines will dictate the maximum distance between the vessel tracks. Due to the assumed required narrow spacing of the vessel tracks and the large amount of collected data it is anticipated desirable to survey and report the data in blocks, to enable intermediate reporting block by block (intermediate reports) and put these together in one report at the end of the survey period.

Dividing the survey areas in blocks/sections will probably also ease the cooperation with the fishing activity.

Contractor shall propose a plan for the block division and intermediate reporting prior to survey start.

3.2.2.2 Survey Data Interpretation

Based on the survey data the following interpretations shall as a minimum be presented (if desirable and agreed several topics may be combined on the same map):

- Bathymetry maps / DTMs (grid size 0.5m x 0.5m)
- Line spacing to be calculated to provide full coverage of the survey area and cable corridor.
- Seabed sediment distribution maps
- Identify existing infrastructure including burial depth (pipelines, cables, etc).

- Seabed features maps, including areas of possible mobile sediments (ripples, mega ripples, sand waves sand strikes, etc).
- Obstructions maps, wrecks, debris, boulders etc. Mapped obstructions shall also be listed with coordinates and estimated origin.
- Shallow geology distribution and stratigraphy, including isopach maps and models for the main upper geological units. As a minimum isopach contours for the upper 3-5m of the geological units, below the surface layer, shall be interpreted and presented, but where appropriate to understand the geological stratigraphy deeper interpretations shall be done if possible from the seismic penetration.
- Minimum 30m sub bottom profiler penetration required at lease site. Minimum 3m penetration required along cable route.
- Typical interpreted profiles (presented as alignment sheets), as a minimum one in the east-westerly direction and one in the across direction of the site, to illustrate the local stratigraphy in the development area.
- Three interpreted profiles (presented as alignment sheets) along the entire cable corridor, centre line and one on each side.
- Base case is to run all lines with all specified equipment and interpret all data from all lines.

3.2.3 Benthic Sampling

3.2.3.1 Introduction

This work will include grab sampling and digital video of the export cable route and lease area to characterise and map benthic habitats and species present in the development areas.

3.2.3.2 Survey Aim

The survey will be used to identify and benthic communities and provide baseline information for the lease area and cable route. The results of the survey will be used as a reference for the future surveys/inspections of the area.

This option can be divided in two:

a. Based on the SSS and MBE data the survey areas shall be interpreted and reported with regards to benthic habitats.
b. The results of the benthic assessment may entail a seabed survey to document the actual situation (video/photo and sampling of seabed with following laboratory analysis and reporting). This type of survey has to be performed by responsible specialists on this type of ecology. Such survey and analysis may also arise from authority requirements.

3.2.3.3 Proposed Equipment

The following survey spread is proposed:

- Grab sampler.
- Digital video sled or drop down camera.

3.2.3.4 Survey Layout

As a general approach it is assumed that samples will be taken in regular intervals along the route and in the lease area based on the seabed survey data.

3.2.3.5 Deliverables

The following deliveries shall be produced:

- Text report with images describing in detail benthic communities.
- Faunal Analysis (optional)
- Contamination analysis (optional)

3.3 Document and Drawing Formats and Scales

Base formats and scales:

- Maps: Format A0/A1 scale 1:5000 or 1:2000 depending on details
- Alignment sheets (profiles): Format A0/A1, horizontal scale (map/profile): 1:2000, vertical scale (profile) 1:500.
- Other scales and formats may be agreed, depending on practicality etc.
- Maps and alignment sheets enclosed as a part of the hardcopies of the report should be printed in A3 format. Legends, KPs and descriptions on profiles and maps should be readable in A3 format.

3.4 Survey Spread

The survey shall be performed with vessel(s) and equipment especially designed for detailed mapping of the seabed and shallow geology. As a minimum the following requirements shall apply:

- The general survey spread shall be able to achieve the required data to reach the survey aims both as to quality and accuracy specified in the contract.
- For the penetrating seismic equipment the sediment stratigraphy shall be interpretable down to minimum 30m penetration at lease site.
- The magnetometer data shall enable detailed mapping and quantification of magnetic targets for assessment of possible UXO for later removal, or enable cable rerouting or changes in turbine grid or anchor pattern to avoid such targets.
- Benthic sampling and video grabs will be conducted at selected locations.

All profiling equipment and positioning equipment utilised during the data acquisition shall operate together in one pass with a minimum of acoustic or electrical interference. The survey speed shall be between 3 and 5 knots and optimised for the best possible results of the acquired data.

3.5 Vessel and Survey Grid

A full coverage of the seabed within the construction site and cable corridor will require narrow line spacing due to the shallow water depths and the acquisition of adequate magnetometer data. It may require a smaller vessel for mapping of the landfall area.

Line spacing is planned to be 50m with 100m crosslines (supplier to confirm).

UXO Option: In areas of ferrous materials, estimated line spacing is expected to be 20m, and the towing height shall be around 3m or less, and maximum 5m. Arrangement to tow several magnetometers on the same pass to maximise the vessel run line separation shall be emphasised if UXO option is chosen.

If the independent desktop study shows UXO's are present and optional UXO survey is chosen, a minimum arrangement to tow 4 magnetometers with a separation of 5m is required. The arrangement shall also include separate winches for each magnetometer with options to adjust cable length individually on each winch or on all winches together. The adjustment of the towing cables shall be possible both from the survey room and the survey deck.

In addition to the main grid, cross-lines shall be run along in perpendicular directions. For the cable corridor cross lines shall be run every approx. 2-3km.
A regular grid of magnetometer tracks, with a low towing height of the sensors, is crucial to achieve data of sufficient quality to perform a confident area based interpretation. To monitor and control the separation between the magnetometers, and the towing height above seabed, the magnetometers shall be individually positioned and equipped with altimeters. Due to currents, wind and waves it may be difficult at times to maintain accurate line-keeping. Therefore additional data may be required to achieve sufficient data coverage/density with the magnetometers. Criteria for such infill profiling (on Contractors cost) are as follows:

- When horizontal track line of a magnetometer is more than 55m from neighbouring magnetometer track for more than 50m length.
- When magnetometers are flying more than 5 m vertically above seabed for more than 50m length

For QC-purpose processed Easting, Northing, Height (XYH) position tracks shall be made and supplied in excel format for every survey line, with columns for:

- Easting
- Northing
- Height (altimeter readings, height above seabed)
- Depth

These excel files shall be created on board and used to illustrated where the magnetometer coverage is within or outside the specifications above. The required infill surveying shall be performed block by block to allow completing the interpretation block by block, ref. 3.2.2.1.

Based on above, and the proposed survey spread, Contractor shall prepare survey grids for the turbine site and the cable corridor, optimised for efficiency of the survey performance and quality of the survey results.

3.6 Survey Area Limitations

3.6.1 General

The planned survey area can be divided in two main parts; the turbine site area with accompanied construction and anchoring areas and the export cable corridor.

3.6.2 Turbine Site and Anchoring Areas

An overview of the areas is shown in Figure 1. The survey area contains the turbine area limited by the Forties pipeline with the 2000m wide exclusion zone running NE –SW direction. The total lease area is approximately 60 km^2 but the survey area is expected to be 45m^2. This area may be changed depending of final layout of the turbine locations.

3.6.3 Planned Export Cable Corridor

The corridor is planned to cover a width of approximately 500m. Additional widening or rerouting may be considered based on the achieved survey results.

4 Survey Sensors

SURVEY TYPE/SENSOR	Seabed and Sub-seabed Mapping
Vessel	
Acoustic Survey	X
Nearshore	X – if required
Sensor Carrier	
Vessel – Hullmounted / towed	X
ROTV / Towfish	(Optional)
Positioning	
GNSS	X
USBL/SSBL	X
Heading & Attitude	X
Vessel Survey Sensors	
MBES (Reson 7125 or similar)	X
SBP	X
Boomer/streamer	X -Surface towed (if required)
Subsea Survey Sensors	
SSS	X
Altimeter	X
Digital Video	X – Benthic sampling
Magnetometer	X
Pressure depth	-
Auxiliary Sensors	
Weather station	X
CTD / SV	X
Subsea Camera	X – Benthic Sampling
Benthic Grab Samples	X

5 Survey Deliverables

DELIVERABLE	FORMAT	REF	FEATURE IN SSDM
Report	Paper/PDF/Word	TR1007, TR2234	
Survey Metadata	Excel	TR1007, TR2234	
Charts	Paper/PDF/MXD	TR1007 SSDM	
Chart Boxes / Index Map	Geodatabase	SSDM	Chart_Index_Map
Project Key Information and Area of Interest Polygon	Geodatabase	SSDM	Survey_Keysheet
Survey Project / Job Header - name and other basic attributes	Geodatabase	SSDM	T_SurveyJob_Details
Track Plot / sail line	Geodatabase	SSDM	Survey_Tracklines
Polygon indicates the boundaries / limits of survey for each equipment	Geodatabase	SSDM	Survey_Equipment_Limits
Line to indicates Profile / Cross-section map or Seismic Horizon Picks	Geodatabase	SSDM	Line_of_Profile
Seabed gradient value (for annotation/label purpose)	Geodatabase	SSDM	Seabed_Slope_Pnt
Bathymetry contour lines	Geodatabase	SSDM	Bathymetry_Contours
Isopach contour lines	Geodatabase	SSDM	Isopach
Isochron contour lines	Geodatabase	SSDM	Isochron
Seismic Acoustic Anamolies	Geodatabase	SSDM	Acoustic_Feature_ply
General purpose Subsurface Geologic	Geodatabase	SSDM	Geologic_Feature_arc
Shallow Geological Zone - Paleo Channel outlines	Geodatabase	SSDM	Paleo_Channel_System_arc
Shallow Geological Zone - Paleo Channel System Contour Lines	Geodatabase	SSDM	Paleo_Channel_System_Contour

Subsurface Geologic Fault Lines / Surface	Geodatabase	SSDM	Fault_arc
Subsurface Geologic polygon features	Geodatabase	SSDM	Geologic_Feature_pnt
Seabed features (excluding infrastructure, e.g. pipe lines)	Geodatabase	SSDM	Seabed_Feature_Arc
Seabed Classification - Lithology - Primary sediments	Geodatabase	SSDM	Sediment_Primary_Ply
Seabed Classification - Lithology - Secondary sediments	Geodatabase	SSDM	Sediment_Secondary_Ply
Seawater Characteristics sample points	Geodatabase	SSDM	TSdip_Sample_Pnt
Sub Bottom Profiler	Raster	TR1063	
Magnetometer	To be agreed	TR1063	
Side Scan Sonar	Raster	TR1063	
Backscatter	Raster	TR1063	
Bathymetry - DTM	ASCII text	TR1063	
Bathymetry - Shaded relief (Hillshade)	Raster	TR1063	
Bathymetry - Soundings	ASCII text	TR1063	
Still images (photo)	Raster (.jpg/.tif)	TR1063, TR2234	
Geotechnical sample points	Geodatabase	SSDM	Geotechnical_Sample_Pnt
Proposed Survey Run Lines/Sail Lines for planning and monitoring of operations on AVTS	Geodatabase	SSDM	Proposed_Survey_Run_Lines

**Final report and deliveries are expected within 3 weeks after completion of field work.

6 Options

6.1 Option 1 - UXO survey (Based on Desktop Study Results)

6.1.1 UXO Threat Assessment

An independent UXO threat assessment desktop study shall be performed independently and the results made available for this scope of work. This study shall be performed prior to the seabed survey activities and used to determine the requirements for the UXO survey.

6.1.2 UXO Survey Interpretation, Target Assessment and Classification

To allow for safe operations within the turbine construction area and the export corridor, Contractor shall document that all variants of potential UXO are detected in the complete construction area (site and corridor). This shall include (but not limited to):

- Casing of ferrous mines
- Casing of discarded iron bombs
- Larger non-magnetic body of mine
- Initiation mechanism in non-ferrous sea mines

Based on interpretation and evaluation of the survey data by an UXO specialist belonging to the reporting team, Contractor shall make an assessment of all magnetic targets to classify them in categories regarding their UXO potential, i.e. high, medium and low. The classification shall be based on the interpretation of the survey data and the evaluations and conclusion of the “UXO threat assessment”. Contractor shall in advance of the field work have established criteria for what qualifies as potential UXO targets – based on Desktop study.

All magnetic targets shall be coded according to their potential of being an UXO, and listed with coordinates, and presented on maps together with other obstructions mapped from SSS and MBE.

Contractor shall document thorough knowledge and experience in magnetometer data acquisition, data interpretation, data reporting and evaluation of the results with respect to potential UXO. Please submit project references and CVs of proposed personnel.

To enable testing of the magnetometers, an acceptance test shall be performed in an area (preferably in the survey area) where three ferrous items resembling the mass of a Mine, an Aircraft Delivered Bomb and Anti-Aircraft Munitions are pre deployed with enough separation that they are not interfering with each other. Before deployment the test area shall be surveyed to ensure there is no magnetic target in the area that may interfere with the deployed targets. On completion of the acceptance test the dummy UXO targets shall be recovered from the seabed. A detailed plan for the acceptance test shall be prepared by Contractor and presented to Company for approval not less than 1 week before the mobilisation starts

6.2 Option 2 - Archaeological Survey

6.2.1 Marine Archaeological Assessment

Conduct full analysis and assessment on submerged cultural resources at lease site and along cable route. Includes at minimum archival and background research for prehistoric and historic resources for full site, input and montioring of data for geophysical survey, data analysis of all information gathered and final report in compliance with The Crown Estate

7 Communication & Reporting

The Statoil project identifier, on the form ST13828 is used as the unique tracking identifier in all project and data management operations. Hence, it is of high importance that all relevant documentation, logs, labels and written communication related to the project shall have the Project Identifier as part of the title/subject field.

7.1 Contractors DPR

Contractors DPR shall be distributed to the following:

Statoil	DPR Common Mailbox	dpr@statoil.com
	Vessel rep Common Mailbox	

7.2 First Hand Reports / Field Memo

First Hand Reports / Field Memo shall be distributed to

Statoil	MMG Document Control	mmg-tdk@statoil.com
Task Responsible		

7.3 Report & Deliverables

Irrespective of the method of delivering the data (e.g., email attachment, data put on FTP server, data to be delivered by conventional post, etc.), an electronic copy of all "Transmittal Forms" shall be sent to: mmg-tdk@statoil.com

The method of delivery should be clearly stated on the transmittal.

As soon as delivery of the data is confirmed, Statoil will print the transmittal form, sign & date it, scan it and return it to Contractor by email.

Hard copy deliveries of reports, charts and data etc. shall be sent to:

Statoil ASA
N-4035 Stavanger
Forus Øst G-4
Att: Sølvi Elisabeth Valheim

7.4 Doc numbers

Item	**ST13828**
Report	*TBA*
Charts	*TBA*

8 Reference documents

IHO Standards for Hydrographic Surveys Link
Protocol for Archaeological Discoveries by The Crown Estate Link Link
TR1007 Statoil Specifications for Subsea Surveys
TR1063 Statoil Geographic Information Data Formats
TR2234 Data Format Specification for External Inspection of Offshore Pipelines
SSDM OGP Seabed Survey data Model (SSDM) Link
Requirements for providing survey data to The Crown Estate via the Marine Data Exchange. Link
Mapping European Seabed Habitats (MESH) Guidelines. Link
Marine Guidance Note 371 Offshore Renewable Energy Installations (OREIs). Annex 2 Section 6. Link
Marine Survey Data Management Handbook, Internal report IR/08/024 BGS Specification Link

Statoil Survey Area Drawing: 
Hywind_Scotland_Survey_Areas_WGS84

APPENDIX E

TARGET LISTINGS

Target Listing MAG
Export Route

Survey ID	Date	Time	Easting	Northing	Kp	Description 1 nT	Description 2 type	OBS number	Obs method	Comments	SSS target correlation
ST13828			596294	6373375	1.185	27.8	MONOPOLE	M-1291	MAG		
ST13828			595971	6372920	1.485	6.6	DIPOLE	M-1335	MAG		
ST13828			595702	6373343	1.775	14.8	MONOPOLE	M-1318	MAG		SS-1432
ST13828			595537	6373404	1.942	6.9	MONOPOLE	M-1292	MAG		
ST13828			595394	6373208	2.076	24.2	DIPOLE	M-1363	MAG		
ST13828			595204	6373276	2.269	126	DIPOLE	M-1336	MAG		
ST13828			595141	6373312	2.333	10.3	MONOPOLE	M-1001	MAG		
ST13828			595063	6373114	2.402	8.5	DIPOLE	M-1361	MAG		
ST13828			594726	6373135	2.739	12.6	MONOPOLE	M-1362	MAG	Associated with a visible SSS contact	
ST13828			594520	6372995	2.938	5.9	MONOPOLE	M-1334	MAG		
ST13828			594214	6373219	3.255	13.1	DIPOLE	M-1029	MAG	May be associated with another Mag anomaly	
ST13828			594016	6373264	3.455	6	MONOPOLE	M-1364	MAG		
ST13828			593982	6373226	3.487	4	DIPOLE	M-1028	MAG	May be associated with another Mag anomaly	
ST13828			593974	6373364	3.502	13	MONOPOLE	M-1000	MAG		
ST13828			593970	6373324	3.504	21.1	COMPLEX	M-1338	MAG	complex anomaly or noise	
ST13828			593788	6373333	3.686	14.9	MONOPOLE	M-1337	MAG		
ST13828			593619	6373174	3.847	7.7	MONOPOLE	M-1360	MAG		
ST13828			593407	6373399	4.070	5.6	MONOPOLE	M-1002	MAG		
ST13828			593332	6373514	4.150	6.4	MONOPOLE	M-1293	MAG		
ST13828			593254	6373306	4.218	9.2	COMPLEX	M-1365	MAG	Complex anomaly or noise	
ST13828			592423	6373147	5.040	6.8	MONOPOLE	M-1027	MAG		
ST13828			592334	6373204	5.132	13.2	DIPOLE	M-1289	MAG		
ST13828			592323	6373153	5.140	9.7	DIPOLE	M-1026	MAG		
ST13828			592234	6373118	5.227	15.6	COMPLEX	M-1333	MAG		
ST13828			592111	6373162	5.352	5.5	DIPOLE	M-1025	MAG		
ST13828			592103	6373054	5.355	11.9	DIPOLE	M-1316	MAG		
ST13828			591963	6373398	5.512	12.5	MONOPOLE	M-1386	MAG		
ST13828			591670	6373230	5.796	27.9	MONOPOLE	M-1290	MAG		
ST13828			591227	6373209	6.238	44.2	MONOPOLE	M-1022	MAG		
ST13828			591227	6373400	6.247	211	COMPLEX	M-1366	MAG	Associated with a visible SSS contact	SS-1374
ST13828			591209	6373362	6.263	25.6	MONOPOLE	M-1030	MAG		
ST13828			591206	6373505	6.273	5	MONOPOLE	M-1003	MAG		
ST13828			590983	6373518	6.497	11.9	MONOPOLE	M-1004	MAG		
ST13828			590901	6373224	6.564	8.2	DIPOLE	M-1023	MAG		
ST13828			590836	6373121	6.624	9	DIPOLE	M-1317	MAG		
ST13828			590787	6373173	6.675	9.6	MONOPOLE	M-1332	MAG		
ST13828			590434	6373591	7.048	13.7	MONOPOLE	M-1319	MAG		
ST13828			590251	6373330	7.218	6.1	MONOPOLE	M-1288	MAG		SS-1506
ST13828			589663	6373635	7.821	141.9	DIPOLE	M-1320	MAG		
ST13828			589463	6373296	8.004	17.1	MONOPOLE	M-1024	MAG		
ST13828			588709	6373230	8.754	30.4	DIPOLE	M-1314	MAG		
ST13828			588654	6373398	8.817	135.9	MONOPOLE	M-1286	MAG		
ST13828			588610	6373486	8.865	7.3	MONOPOLE	M-1385	MAG		

Target Listing MAG
Export Route

Survey ID	Date	Time	Easting	Northing	Kp	Description 1 nT	Description 2 type	OBS number	Obs method	Comments	SSS target correlation
ST13828			588339	6373732	9.148	12.3	MONOPOLE	M-1296	MAG		
ST13828			588326	6373622	9.155	13	MONOPOLE	M-1339	MAG		SS-1450
ST13828			588093	6373319	9.373	27.9	MONOPOLE	M-1331	MAG		
ST13828			588040	6373364	9.428	5.8	DIPOLE	M-1020	MAG		
ST13828			588037	6373750	9.450	5.5	MONOPOLE	M-1295	MAG		
ST13828			587906	6373428	9.565	7.6	MONOPOLE	M-1287	MAG		
ST13828			587773	6373735	9.713	6.8	DIPOLE	M-1321	MAG		
ST13828			587610	6373388	9.859	17.4	MONOPOLE	M-1019	MAG		
ST13828			587609	6373479	9.865	28.2	DIPOLE	M-1359	MAG		
ST13828			587265	6373352	10.202	106.3	MONOPOLE	M-1328	MAG		
ST13828			587261	6373395	10.208	19.6	MONOPOLE	M-1021	MAG		
ST13828			587164	6373609	10.315	16.7	MONOPOLE	M-1367	MAG	Possible Noise	
ST13828			587120	6373308	10.345	11.8	MONOPOLE	M-1311	MAG		
ST13828			587078	6373511	10.395	30.2	DIPOLE	M-1358	MAG		
ST13828			586653	6373484	10.816	19.3	MONOPOLE	M-1285	MAG		
ST13828			586582	6373398	10.879	7.1	DIPOLE	M-1327	MAG		
ST13828			586418	6373556	11.056	7.4	DIPOLE	M-1357	MAG		
ST13828			586190	6373744	11.300	5.9	MONOPOLE	M-1342	MAG		
ST13828			586066	6373389	11.386	13.1	COMPLEX	M-1309	MAG		
ST13828			586027	6373706	11.460	7.6	MONOPOLE	M-1368	MAG		SS-1412
ST13828			585867	6373777	11.627	676.7	DIPOLE	M-1340	MAG		
ST13828			585797	6373826	11.708	33	DIPOLE	M-1005	MAG		
ST13828			585697	6373506	11.758	7.8	DIPOLE	M-1330	MAG		
ST13828			585507	6373524	11.948	52.2	DIPOLE	M-1329	MAG		
ST13828			585567	6373968	11.957	5.8	DIPOLE	M-1297	MAG		
ST13828			585519	6373822	11.982	24.2	MONOPOLE	M-1341	MAG		
ST13828			585484	6373638	11.990	7.3	MONOPOLE	M-1383	MAG		
ST13828			585463	6373664	12.015	8.8	DIPOLE	M-1355	MAG		
ST13828			585486	6373907	12.024	9.4	COMPLEX	M-1384	MAG		
ST13828			585339	6373592	12.128	53.7	DIPOLE	M-1018	MAG		
ST13828			584959	6373757	12.525	12.8	COMPLEX	M-1356	MAG		
ST13828			584511	6373932	12.997	22.6	MONOPOLE	M-1370	MAG		
ST13828			584203	6373832	13.281	22.2	DIPOLE	M-1284	MAG		
ST13828			584188	6374044	13.336	6.9	MONOPOLE	M-1345	MAG		
ST13828			584196	6374090	13.336	9.4	MONOPOLE	M-1006	MAG		
ST13828			584113	6373747	13.353	100.4	DIPOLE	M-1326	MAG		
ST13828			584019	6374079	13.508	15.6	DIPOLE	M-1344	MAG		
ST13828			583961	6373930	13.537	14.5	DIPOLE	M-1353	MAG		
ST13828			583916	6374250	13.645	69	DIPOLE	M-1298	MAG		
ST13828			583745	6373982	13.758	24	MONOPOLE	M-1354	MAG		
ST13828			583722	6373934	13.771	10.4	DIPOLE	M-1280	MAG		
ST13828			583783	6374274	13.780	45	MONOPOLE	M-1301	MAG		
ST13828			583716	6374084	13.807	11.2	DIPOLE	M-1371	MAG		

Target Listing MAG
Export Route

Survey ID	Date	Time	Easting	Northing	Kp	Description 1 nT	Description 2 type	OBS number	Obs method	Comments	SSS target correlation
ST13828			583707	6374143	13.828	79.2	MONOPOLE	M-1343	MAG		
ST13828			583526	6373977	13.969	36	DIPOLE	M-1279	MAG		
ST13828			583460	6373994	14.037	6.3	DIPOLE	M-1283	MAG		
ST13828			583332	6373902	14.141	6.2	DIPOLE	M-1324	MAG		
ST13828			583352	6374026	14.150	34.3	DIPOLE	M-1282	MAG		
ST13828			583322	6374174	14.213	15	DIPOLE	M-1369	MAG	Possible Noise	
ST13828			583298	6374278	14.260	268.4	MONOPOLE	M-1007	MAG		
ST13828			583226	6373982	14.263	6.9	DIPOLE	M-1017	MAG		
ST13828			583303	6374371	14.276	11	MONOPOLE	M-1303	MAG		
ST13828			583223	6374357	14.351	9.8	DIPOLE	M-1322	MAG		
ST13828			583118	6373908	14.351	19.9	MONOPOLE	M-1308	MAG		
ST13828			583154	6374407	14.438	172.1	DIPOLE	M-1305	MAG		
ST13828			583054	6374344	14.518	81.8	MONOPOLE	M-1008	MAG	Bedrock out or sub-cropping	
ST13828			582893	6374281	14.657	132.1	DIPOLE	M-1373	MAG	Possible unknown cable 1	
ST13828			582845	6374247	14.694	197	MONOPOLE	M-1031	MAG	Possible unknown cable 1	
ST13828			582837	6374353	14.731	9.9	MONOPOLE	M-1347	MAG		
ST13828			582756	6374180	14.761	136.1	DIPOLE	M-1278	MAG	Possible unknown cable 1	
ST13828			582836	6374497	14.772	184	DIPOLE	M-1299	MAG		
ST13828			582702	6374136	14.801	172.8	DIPOLE	M-1014	MAG	Possible unknown cable 1	
ST13828			582716	6374232	14.814	14.6	MONOPOLE	M-1351	MAG		
ST13828			582549	6374067	14.928	125.7	MONOPOLE	M-1307	MAG	Possible unknown cable 1	
ST13828			582520	6374250	15.003	11.5	MONOPOLE	M-1281	MAG		
ST13828			582585	6374532	15.034	10.2	MONOPOLE	M-1323	MAG		
ST13828			582513	6374605	15.126	5.9	DIPOLE	M-1300	MAG		
ST13828			582221	6374177	15.254	26.2	MONOPOLE	M-1306	MAG		
ST13828			582129	6374487	15.450	6	DIPOLE	M-1032	MAG		
ST13828			582141	6374537	15.459	16.8	DIPOLE	M-1372	MAG	Assoc with another Mag anomaly	
ST13828			582161	6374735	15.518	50.3	DIPOLE	M-1302	MAG		
ST13828			582030	6374634	15.599	7.3	DIPOLE	M-1346	MAG		SS-1672
ST13828			581867	6374439	15.662	9.9	MONOPOLE	M-1015	MAG		
ST13828			581933	6374629	15.690	21.8	DIPOLE	M-1374	MAG		
ST13828			581764	6374484	15.774	359.8	DIPOLE	M-1016	MAG		
ST13828			581733	6374613	15.861	1798.6	MONOPOLE	M-1352	MAG	Unknown high anomaly	
ST13828			581722	6374666	15.894	125.9	MONOPOLE	M-1033	MAG		
ST13828			581727	6374784	15.943	14.5	DIPOLE	M-1349	MAG		
ST13828			581593	6374564	15.964	5.3	MONOPOLE	M-1012	MAG		
ST13828			581714	6374953	16.045	9.1	DIPOLE	M-1304	MAG		
ST13828			581493	6374597	16.057	99.2	COMPLEX	M-1325	MAG		
ST13828			581558	6374939	16.173	10.8	DIPOLE	M-1009	MAG		
ST13828			581383	6374685	16.197	53.7	MONOPOLE	M-1011	MAG		
ST13828			581237	6374761	16.361	23.4	MONOPOLE	M-1013	MAG		
ST13828			581359	6375048	16.400	1029.1	DIPOLE	M-1010	MAG		
ST13828			581306	6374974	16.408	186.4	MONOPOLE	M-1375	MAG		

Target Listing MAG
Export Route

Survey ID	Date	Time	Easting	Northing	Kp	Description 1 nT	Description 2 type	OBS number	Obs method	Comments	SSS target correlation
ST13828			581303	6375018	16.433	177.6	DIPOLE	M-1348	MAG		
ST13828			580830	6375019	16.843	5140.5	MONOPOLE	M-1134	MAG		
ST13828			580783	6375322	17.036	146	DIPOLE	M-1206	MAG		
ST13828			580659	6375286	17.125	240.3	DIPOLE	M-1036	MAG		
ST13828			580202	6375278	17.516	124.7	MONOPOLE	M-1073	MAG		
ST13828			580236	6375405	17.550	33.7	DIPOLE	M-1229	MAG		
ST13828			580224	6375437	17.577	57.4	MONOPOLE	M-1277	MAG	Associated with anomaly M-1242	
ST13828			580236	6375478	17.587	24.1	MONOPOLE	M-1350	MAG	Associated with anomaly M-1308	SS-1711
ST13828			580242	6375640	17.663	25	DIPOLE	M-1204	MAG		
ST13828			580190	6375604	17.690	10.8	MONOPOLE	M-1377	MAG		
ST13828			580258	6375755	17.707	73.7	MONOPOLE	M-1202	MAG		
ST13828			580122	6375605	17.749	110.2	DIPOLE	M-1035	MAG		
ST13828			579939	6375541	17.875	51.5	MONOPOLE	M-1133	MAG		
ST13828			580025	6375702	17.882	5.8	DIPOLE	M-1376	MAG		
ST13828			579967	6375802	17.982	89.7	MONOPOLE	M-1203	MAG		SS-1599
ST13828			579903	6375722	17.997	11.4	MONOPOLE	M-1242	MAG		
ST13828			579827	6376016	18.211	35.4	MONOPOLE	M-1201	MAG		
ST13828			579723	6375939	18.262	60.9	DIPOLE	M-1205	MAG		
ST13828			579548	6375649	18.268	116.3	MONOPOLE	M-1072	MAG		
ST13828			579570	6375788	18.318	171.4	MONOPOLE	M-1224	MAG		
ST13828			579634	6375903	18.321	76.5	MONOPOLE	M-1074	MAG		
ST13828			579589	6375915	18.366	95.1	MONOPOLE	M-1034	MAG		
ST13828			579488	6375742	18.366	138.9	MONOPOLE	M-1109	MAG		
ST13828			579497	6375829	18.402	25.8	DIPOLE	M-1226	MAG		
ST13828			579508	6376121	18.539	8.3	MONOPOLE	M-1130	MAG		
ST13828			579328	6375835	18.551	8.9	MONOPOLE	M-1113	MAG		
ST13828			579342	6376058	18.651	157.3	DIPOLE	M-1037	MAG		
ST13828			579266	6375947	18.661	19.9	DIPOLE	M-1243	MAG		
ST13828			579196	6375842	18.669	5.9	MONOPOLE	M-1067	MAG		
ST13828			579372	6376203	18.698	12.1	MONOPOLE	M-1132	MAG		
ST13828			579319	6376171	18.728	6.2	MONOPOLE	M-1207	MAG		
ST13828			579198	6375988	18.741	26.1	MONOPOLE	M-1244	MAG		
ST13828			579108	6376010	18.829	26.4	MONOPOLE	M-1135	MAG		
ST13828			579234	6376283	18.858	9.5	MONOPOLE	M-1131	MAG		
ST13828			579066	6376087	18.904	24.6	DIPOLE	M-1228	MAG		
ST13828			579084	6376131	18.911	37	MONOPOLE	M-1232	MAG		
ST13828			579159	6376269	18.915	51.4	DIPOLE	M-1209	MAG		
ST13828			579135	6376254	18.929	14.5	DIPOLE	M-1075	MAG		
ST13828			578906	6376183	19.091	37.4	MONOPOLE	M-1225	MAG		
ST13828			578848	6376127	19.113	105.9	DIPOLE	M-1110	MAG		
ST13828			578913	6376242	19.115	5.7	DIPOLE	M-1230	MAG		
ST13828			578973	6376499	19.192	81.1	MONOPOLE	M-1199	MAG		
ST13828			578724	6376118	19.216	23.2	MONOPOLE	M-1070	MAG		

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Survey ID	Date	Time	Easting	Northing	Kp	Description 1 nT	Description 2 type	OBS number	Obs method	Comments	SSS target correlation
ST13828			578794	6376309	19.251	8.2	MONOPOLE	M-1231	MAG		
ST13828			578942	6376588	19.263	66.2	MONOPOLE	M-1106	MAG		
ST13828			578924	6376598	19.284	16.8	COMPLEX	M-1103	MAG		
ST13828			578824	6376455	19.299	56.2	MONOPOLE	M-1212	MAG		SS-1684
ST13828			578904	6376610	19.307	46.8	DIPOLE	M-1102	MAG		
ST13828			578590	6376189	19.367	23.5	MONOPOLE	M-1071	MAG		
ST13828			578756	6376494	19.377	9.9	DIPOLE	M-1210	MAG		
ST13828			578612	6376347	19.428	13.2	MONOPOLE	M-1227	MAG		
ST13828			578557	6376292	19.448	14	DIPOLE	M-1111	MAG		
ST13828			578625	6376468	19.477	20.9	MONOPOLE	M-1039	MAG		
ST13828			578643	6376753	19.604	19.9	MONOPOLE	M-1104	MAG		
ST13828			578587	6376674	19.613	18.6	DIPOLE	M-1129	MAG		
ST13828			578562	6376734	19.664	47.8	MONOPOLE	M-1200	MAG		SS-1655
ST13828			578562	6376795	19.695	26.5	MONOPOLE	M-1105	MAG		
ST13828			578425	6376637	19.735	8.7	MONOPOLE	M-1079	MAG		
ST13828			578478	6376839	19.790	13.9	MONOPOLE	M-1107	MAG		
ST13828			578235	6376523	19.856	50.1	DIPOLE	M-1140	MAG		
ST13828			578195	6376466	19.868	47.9	MONOPOLE	M-1112	MAG		
ST13828			578182	6376546	19.914	97.2	MONOPOLE	M-1143	MAG		
ST13828			578252	6376733	19.928	55.6	COMPLEX	M-1081	MAG		
ST13828			578122	6376452	19.929	5.2	MONOPOLE	M-1069	MAG		
ST13828			578162	6376607	19.957	116.6	DIPOLE	M-1220	MAG		
ST13828			578151	6376645	19.983	6.8	DIPOLE	M-1240	MAG		
ST13828			578132	6376620	19.990	99.3	DIPOLE	M-1221	MAG		
ST13828			578222	6376970	20.029	31.6	MONOPOLE	M-1099	MAG		
ST13828			578115	6376783	20.069	6.9	MONOPOLE	M-1082	MAG		
ST13828			577869	6376542	20.224	30.6	MONOPOLE	M-1068	MAG		
ST13828			577891	6377048	20.319	62.9	MONOPOLE	M-1101	MAG	Possible Cable or wire	
ST13828			577819	6376821	20.363	23.4	MONOPOLE	M-1038	MAG		
ST13828			577808	6376872	20.380	44	MONOPOLE	M-1076	MAG		
ST13828			577821	6377002	20.383	39.3	MONOPOLE	M-1198	MAG		
ST13828			577798	6377054	20.390	18	MONOPOLE	M-1100	MAG		
ST13828			577785	6376909	20.395	9	DIPOLE	M-1250	MAG	Associated with other Mag anomalies	
ST13828			577770	6376876	20.411	83.4	MONOPOLE	M-1078	MAG		
ST13828			577759	6376959	20.420	55.7	MONOPOLE	M-1127	MAG		
ST13828			577737	6376683	20.447	21.7	DIPOLE	M-1142	MAG		
ST13828			577710	6376743	20.473	31.2	MONOPOLE	M-1380	MAG		
ST13828			577675	6376706	20.509	119.5	MONOPOLE	M-1218	MAG		
ST13828			577662	6376594	20.524	19.5	DIPOLE	M-1274	MAG		
ST13828			577657	6376686	20.527	1250.3	DIPOLE	M-1144	MAG		
ST13828			577617	6376742	20.566	18.9	MONOPOLE	M-1379	MAG		
ST13828			577611	6376593	20.575	29.6	MONOPOLE	M-1272	MAG		
ST13828			577593	6376787	20.589	58	DIPOLE	M-1233	MAG		

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Survey ID	Date	Time	Easting	Northing	Kp	Description 1 nT	Description 2 type	OBS number	Obs method	Comments	SSS target correlation
ST13828			577565	6376705	20.619	10.7	MONOPOLE	M-1223	MAG		SS-1615
ST13828			577555	6376685	20.629	19.7	DIPOLE	M-1136	MAG		
ST13828			577549	6376859	20.632	20.6	DIPOLE	M-1251	MAG		
ST13828			577509	6376585	20.677	11	MONOPOLE	M-1271	MAG		
ST13828			577457	6376582	20.729	10.7	MONOPOLE	M-1273	MAG		
ST13828			577323	6376956	20.856	10.4	DIPOLE	M-1128	MAG		
ST13828			577277	6376822	20.905	17.6	MONOPOLE	M-1042	MAG		
ST13828			577275	6376916	20.905	81.9	MONOPOLE	M-1211	MAG		
ST13828			577258	6376673	20.926	33.1	DIPOLE	M-1137	MAG		
ST13828			577125	6376699	21.059	153.6	MONOPOLE	M-1219	MAG		
ST13828			577073	6376758	21.110	140.9	MONOPOLE	M-1236	MAG		
ST13828			576979	6376694	21.205	7.1	DIPOLE	M-1222	MAG		
ST13828			576974	6376543	21.212	1237	MONOPOLE	M-1062	MAG	Unknown anomaly with high value	
ST13828			576969	6376664	21.215	7.9	DIPOLE	M-1138	MAG		
ST13828			576943	6376959	21.236	50.3	MONOPOLE	M-1126	MAG		
ST13828			576928	6376544	21.258	31.4	MONOPOLE	M-1066	MAG		
ST13828			576877	6376660	21.307	43.1	DIPOLE	M-1139	MAG		
ST13828			576875	6376745	21.308	15.7	DIPOLE	M-1235	MAG		
ST13828			576877	6376604	21.308	10.9	MONOPOLE	M-1116	MAG		
ST13828			576867	6376858	21.314	16.2	MONOPOLE	M-1080	MAG		
ST13828			576858	6376805	21.324	76.7	DIPOLE	M-1249	MAG		
ST13828			576843	6377008	21.335	544.8	MONOPOLE	M-1197	MAG	Possible existing Telecom Cable inactive 1	
ST13828			576833	6376606	21.352	8.5	MONOPOLE	M-1118	MAG		
ST13828			576781	6376854	21.400	31.9	MONOPOLE	M-1077	MAG		
ST13828			576773	6376609	21.412	14.9	DIPOLE	M-1119	MAG		
ST13828			576745	6376741	21.438	206.2	MONOPOLE	M-1234	MAG		
ST13828			576723	6377045	21.455	16.8	MONOPOLE	M-1098	MAG	Possible Cable or wire	
ST13828			576725	6376658	21.459	14.5	DIPOLE	M-1141	MAG		
ST13828			576712	6376814	21.470	88.1	MONOPOLE	M-1041	MAG		
ST13828			576691	6376959	21.488	12.1	MONOPOLE	M-1125	MAG	Possible existing Telecom Cable inactive 1	
ST13828			576529	6376619	21.656	12.8	MONOPOLE	M-1114	MAG		
ST13828			576502	6376895	21.678	946	MONOPOLE	M-1214	MAG	Possible existing Telecom Cable inactive 1	
ST13828			576188	6376786	21.994	839.6	DIPOLE	M-1239	MAG	Possible existing Telecom Cable inactive 1	
ST13828			576111	6376877	22.069	721	MONOPOLE	M-1213	MAG	Cable or wire	
ST13828			576108	6376543	22.078	94.2	MONOPOLE	M-1063	MAG		
ST13828			576043	6376743	22.140	491.6	DIPOLE	M-1237	MAG	Possible existing Telecom Cable inactive 1	
ST13828			575955	6376796	22.227	34.4	MONOPOLE	M-1040	MAG		
ST13828			575950	6376787	22.232	10.9	MONOPOLE	M-1159	MAG		
ST13828			575933	6376767	22.249	234.3	MONOPOLE	M-1253	MAG	Possible existing Telecom Cable inactive 1	
ST13828			575879	6376681	22.305	904.3	DIPOLE	M-1217	MAG	Possible existing Telecom Cable inactive 1	
ST13828			575825	6377038	22.353	54.4	MONOPOLE	M-1092	MAG	Possible Cable or wire	
ST13828			575801	6376992	22.373	213.3	MONOPOLE	M-1196	MAG	Possible existing Telecom Cable inactive 2	
ST13828			575762	6376733	22.422	883.4	DIPOLE	M-1238	MAG	Possible existing Telecom Cable inactive 1	

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Survey ID	Date	Time	Easting	Northing	Kp	Description 1 nT	Description 2 type	OBS number	Obs method	Comments	SSS target correlation
ST13828			575673	6377027	22.503	35	MONOPOLE	M-1254	MAG		
ST13828			575642	6377033	22.534	30.7	MONOPOLE	M-1093	MAG		SS-1738
ST13828			575650	6376560	22.538	331.7	COMPLEX	M-1061	MAG		
ST13828			575642	6376675	22.543	64.4	DIPOLE	M-1172	MAG	Possible existing Telecom Cable inactive 1	
ST13828			575553	6377025	22.597	61.8	MONOPOLE	M-1097	MAG	Possible existing Telecom Cable inactive 2	
ST13828			575480	6377016	22.651	47.7	MONOPOLE	M-1095	MAG	Possible existing Telecom Cable inactive 2	
ST13828			575531	6376714	22.664	1410.6	MONOPOLE	M-1185	MAG	Possible existing Telecom Cable inactive 1	
ST13828			575463	6376862	22.689	15.8	MONOPOLE	M-1152	MAG		
ST13828			575546	6376583	22.695	46.8	MONOPOLE	M-1117	MAG		
ST13828			575546	6376583	22.695	75.1	MONOPOLE	M-1245	MAG	Possible existing Telecom Cable inactive 1	
ST13828			575555	6376529	22.703	16.6	MONOPOLE	M-1064	MAG		
ST13828			575428	6376897	22.711	83.1	MONOPOLE	M-1123	MAG		
ST13828			575367	6376984	22.733	32.1	MONOPOLE	M-1096	MAG	Possible existing Telecom Cable inactive 2	
ST13828			575369	6376930	22.742	72.9	MONOPOLE	M-1195	MAG	Possible existing Telecom Cable inactive 2	
ST13828			575507	6376507	22.775	5813.3	MONOPOLE	M-1059	MAG	Unknown anomaly with high value	
ST13828			575328	6376906	22.789	57.1	DIPOLE	M-1194	MAG	Possible existing Telecom Cable inactive 2	
ST13828			575446	6376583	22.803	27.1	DIPOLE	M-1145	MAG		
ST13828			575308	6376735	22.870	187.6	MONOPOLE	M-1084	MAG	Cable	
ST13828			575364	6376611	22.872	36.5	MONOPOLE	M-1215	MAG	Possible existing Telecom Cable inactive 1	
ST13828			575317	6376691	22.881	86.1	MONOPOLE	M-1048	MAG	Possible Cable or wire	
ST13828			575296	6376681	22.904	70.7	MONOPOLE	M-1045	MAG	Possible Cable or wire	
ST13828			575286	6376693	22.908	17.3	MONOPOLE	M-1160	MAG		
ST13828			575144	6376869	22.935	83	MONOPOLE	M-1094	MAG	Possible Cable or wire	
ST13828			575167	6376819	22.939	115.3	MONOPOLE	M-1265	MAG	Possible existing Telecom Cable inactive 2	
ST13828			575102	6376786	23.012	41.9	MONOPOLE	M-1267	MAG	Possible existing Telecom Cable inactive 2	
ST13828			575185	6376546	23.070	63.4	MONOPOLE	M-1187	MAG	Possible existing Telecom Cable inactive 1	
ST13828			575213	6376497	23.072	84.9	MONOPOLE	M-1216	MAG	Debris Block	
ST13828			575149	6376587	23.078	20	MONOPOLE	M-1162	MAG	Possible existing Telecom Cable inactive 1	
ST13828			575144	6376589	23.081	12.5	MONOPOLE	M-1047	MAG	Possible existing Telecom Cable inactive 1	
ST13828			575120	6376619	23.084	16.1	MONOPOLE	M-1086	MAG	Possible existing Telecom Cable inactive 1	
ST13828			575045	6376711	23.093	106.4	DIPOLE	M-1124	MAG	Possible existing Telecom Cable inactive 2	
ST13828			575045	6376694	23.103	1483.4	DIPOLE	M-1262	MAG	Possible existing Telecom Cable inactive 2	
ST13828			575078	6376534	23.167	25	DIPOLE	M-1161	MAG	Possible existing Telecom Cable inactive 1	
ST13828			575145	6376413	23.181	54.3	DIPOLE	M-1146	MAG		
ST13828			575059	6376535	23.182	19.9	MONOPOLE	M-1044	MAG	Possible existing Telecom Cable inactive 1	
ST13828			575001	6376596	23.195	45.2	DIPOLE	M-1154	MAG	Possible existing Telecom Cable inactive 2	
ST13828			575023	6376553	23.201	14.1	MONOPOLE	M-1085	MAG	Possible existing Telecom Cable inactive 1	
ST13828			575103	6376407	23.219	134.8	DIPOLE	M-1192	MAG		
ST13828			575164	6376282	23.240	226.4	MONOPOLE	M-1191	MAG	Associated with other Mag anomalies	
ST13828			575175	6376256	23.246	47.7	DIPOLE	M-1180	MAG		
ST13828			574971	6376450	23.303	27	DIPOLE	M-1158	MAG		
ST13828			575026	6376347	23.316	34.4	MONOPOLE	M-1193	MAG		
ST13828			575046	6376302	23.326	50.6	MONOPOLE	M-1120	MAG		

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Survey ID	Date	Time	Easting	Northing	Kp	Description 1 nT	Description 2 type	OBS number	Obs method	Comments	SSS target correlation
ST13828			574856	6376552	23.339	140.4	MONOPOLE	M-1260	MAG	Possible existing Telecom Cable inactive 1	
ST13828			575067	6376225	23.352	215.8	DIPOLE	M-1190	MAG		
ST13828			575076	6376200	23.359	90.6	DIPOLE	M-1179	MAG		
ST13828			574885	6376349	23.431	195.3	MONOPOLE	M-1182	MAG		
ST13828			574860	6376362	23.444	1059.2	MONOPOLE	M-1164	MAG	Possible existing Telecom Cable inactive 2	
ST13828			574823	6376370	23.470	23.3	MONOPOLE	M-1043	MAG	Possible existing Telecom Cable inactive 1	
ST13828			574935	6376204	23.473	17.8	DIPOLE	M-1257	MAG	Associated with other Mag anomalies	
ST13828			574927	6376213	23.474	138.3	MONOPOLE	M-1121	MAG	Possible geological feature	
ST13828			574946	6376185	23.474	139.8	DIPOLE	M-1247	MAG		
ST13828			574868	6376292	23.477	90.1	DIPOLE	M-1171	MAG		
ST13828			574934	6376187	23.483	72.6	DIPOLE	M-1255	MAG	Associated with other man anomalies	
ST13828			574702	6376501	23.495	119.7	MONOPOLE	M-1266	MAG	Possible existing Telecom Cable inactive 1	
ST13828			574830	6376309	23.499	14.9	MONOPOLE	M-1186	MAG	Associated with another anomaly	
ST13828			574952	6376130	23.501	134	DIPOLE	M-1177	MAG		
ST13828			574698	6376448	23.528	64	MONOPOLE	M-1261	MAG	Possible existing Telecom Cable inactive 1	
ST13828			574763	6376342	23.535	35.8	MONOPOLE	M-1083	MAG	Possible existing Telecom Cable inactive 2	
ST13828			574702	6376426	23.537	173.1	DIPOLE	M-1188	MAG	Possible existing Telecom Cable inactive 2	
ST13828			574766	6376333	23.538	52.3	MONOPOLE	M-1046	MAG	Possible existing Telecom Cable inactive 2	
ST13828			574704	6376414	23.543	95.1	DIPOLE	M-1153	MAG	Possible existing Telecom Cable inactive 1	
ST13828			574658	6376429	23.572	42.8	MONOPOLE	M-1122	MAG	Possible existing Telecom Cable inactive 1	
ST13828			574693	6376376	23.573	294.4	MONOPOLE	M-1156	MAG	Possible existing Telecom Cable inactive 1	
ST13828			574814	6376116	23.622	38.8	MONOPOLE	M-1246	MAG		
ST13828			574814	6376108	23.627	27.7	DIPOLE	M-1258	MAG	Associated with other Mag anomaly	
ST13828			574583	6376366	23.669	26.6	MONOPOLE	M-1264	MAG	Possible existing Telecom Cable inactive 1	
ST13828			574602	6376298	23.693	26	DIPOLE	M-1155	MAG	Possible existing Telecom Cable inactive 2	
ST13828			574658	6376186	23.710	137	DIPOLE	M-1183	MAG	Possible existing Telecom Cable inactive 2	
ST13828			574672	6376160	23.714	80.6	MONOPOLE	M-1168	MAG		
ST13828			574715	6376098	23.714	95.3	DIPOLE	M-1148	MAG		
ST13828			574609	6376217	23.733	7.3	MONOPOLE	M-1054	MAG	Possible existing Telecom Cable inactive 1	
ST13828			574482	6376391	23.738	9.5	MONOPOLE	M-1157	MAG	Possible existing Telecom Cable inactive 1	
ST13828			574582	6376221	23.753	36	MONOPOLE	M-1088	MAG		
ST13828			574699	6376031	23.765	20.1	MONOPOLE	M-1057	MAG		
ST13828			574706	6376007	23.773	52.6	DIPOLE	M-1256	MAG	Associated with other man anomalies	
ST13828			574563	6376151	23.808	22.7	MONOPOLE	M-1163	MAG	Possible existing Telecom Cable inactive 2	
ST13828			574528	6376161	23.831	85.6	MONOPOLE	M-1055	MAG	Possible existing Telecom Cable inactive 2	
ST13828			574489	6376165	23.861	44.5	MONOPOLE	M-1091	MAG	Possible existing Telecom Cable inactive 2	
ST13828			574429	6376245	23.865	18.5	MONOPOLE	M-1263	MAG		
ST13828			574522	6376087	23.879	186	MONOPOLE	M-1184	MAG		
ST13828			574485	6376133	23.883	28	MONOPOLE	M-1052	MAG	Possible existing Telecom Cable inactive 2	
ST13828			574593	6375955	23.896	7.6	MONOPOLE	M-1058	MAG		
ST13828			574528	6376047	23.897	12.2	MONOPOLE	M-1167	MAG		
ST13828			574477	6376087	23.916	55.2	DIPOLE	M-1165	MAG	Possible existing Telecom Cable inactive 2	
ST13828			574425	6376095	23.954	24.5	MONOPOLE	M-1051	MAG	Possible existing Telecom Cable inactive 2	

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Survey ID	Date	Time	Easting	Northing	Kp	Description 1 nT	Description 2 type	OBS number	Obs method	Comments	SSS target correlation
ST13828			574243	6376336	23.966	52	DIPOLE	M-1269	MAG	Possible existing Telecom Cable inactive 1	
ST13828			574367	6376077	24.012	29	MONOPOLE	M-1089	MAG	Possible existing Telecom Cable inactive 2	
ST13828			574462	6375928	24.019	13.4	DIPOLE	M-1147	MAG		
ST13828			574351	6376046	24.042	10.3	MONOPOLE	M-1053	MAG	Possible existing Telecom Cable inactive 2	
ST13828			574171	6376298	24.047	14.6	DIPOLE	M-1270	MAG	Possible existing Telecom Cable inactive 1	
ST13828			574351	6375980	24.080	63.4	MONOPOLE	M-1181	MAG	Possible existing Telecom Cable inactive 2	
ST13828			574393	6375891	24.096	16.8	DIPOLE	M-1150	MAG		
ST13828			574339	6375764	24.213	35.9	DIPOLE	M-1259	MAG	Associated with other Mag anomalies	
ST13828			574342	6375749	24.219	74.3	DIPOLE	M-1178	MAG		
ST13828			574290	6375789	24.239	28	DIPOLE	M-1151	MAG		
ST13828			574183	6375913	24.256	25.3	MONOPOLE	M-1050	MAG	Possible existing Telecom Cable inactive 2	
ST13828			574181	6375786	24.330	10.9	MONOPOLE	M-1169	MAG		
ST13828			574210	6375711	24.349	49.1	DIPOLE	M-1149	MAG		
ST13828			573750	6375903	24.618	54.1	DIPOLE	M-1426	MAG		
ST13828			573862	6375671	24.658	39.7	MONOPOLE	M-1049	MAG	Possible existing Telecom Cable inactive 2	
ST13828			573640	6375978	24.665	89.1	DIPOLE	M-1427	MAG		
ST13828			573838	6375686	24.669	109.8	MONOPOLE	M-1174	MAG	Possible existing Telecom Cable inactive 2	
ST13828			573854	6375648	24.678	8.2	DIPOLE	M-1166	MAG	Possible existing Telecom Cable inactive 2	
ST13828			573833	6375643	24.698	35.1	MONOPOLE	M-1056	MAG	Possible existing Telecom Cable inactive 2	
ST13828			573830	6375531	24.764	37.6	MONOPOLE	M-1175	MAG	Possible existing Telecom Cable inactive 2	
ST13828			573688	6375720	24.773	9.9	MONOPOLE	M-1428	MAG		
ST13828			573703	6375638	24.807	5315.8	MONOPOLE	M-1090	MAG	High anomaly	
ST13828			573588	6375802	24.808	58.8	MONOPOLE	M-1268	MAG		
ST13828			573619	6375719	24.830	22.3	MONOPOLE	M-1429	MAG		
ST13828			573781	6375406	24.876	58.1	MONOPOLE	M-1170	MAG	Possible existing Telecom Cable inactive 2	
ST13828			573739	6375306	24.967	81.7	DIPOLE	M-1189	MAG	Possible existing Telecom Cable inactive 2	
ST13828			573434	6375745	24.967	120.2	MONOPOLE	M-1407	MAG		
ST13828			573520	6375615	24.971	4.3	MONOPOLE	M-1417	MAG		SS-1641
ST13828			573616	6375446	24.988	10.6	MONOPOLE	M-1418	MAG		
ST13828			573537	6375549	24.995	12.4	MONOPOLE	M-1416	MAG		
ST13828			573530	6375523	25.015	62.9	MONOPOLE	M-1173	MAG		
ST13828			573433	6375629	25.034	41.7	MONOPOLE	M-1409	MAG	Associated with Anomaly M-401	
ST13828			573429	6375611	25.048	9.3	MONOPOLE	M-1408	MAG		
ST13828			573638	6375297	25.055	45.2	MONOPOLE	M-1412	MAG		
ST13828			573572	6375392	25.055	10.2	MONOPOLE	M-1413	MAG		
ST13828			573530	6375380	25.097	35.5	MONOPOLE	M-1414	MAG		
ST13828			573588	6375289	25.101	16	MONOPOLE	M-1415	MAG		
ST13828			573260	6375751	25.107	130.2	MONOPOLE	M-1388	MAG		
ST13828			573270	6375725	25.113	136.5	MONOPOLE	M-1396	MAG	Unknown high anomaly	
ST13828			573309	6375655	25.121	17.3	MONOPOLE	M-1405	MAG		
ST13828			573250	6375717	25.134	2989.9	MONOPOLE	M-1400	MAG	Unknown high anomaly	
ST13828			573241	6375698	25.153	5060.7	DIPOLE	M-1394	MAG	Unknown high anomaly	
ST13828			573522	6375260	25.172	6	DIPOLE	M-1420	MAG		

Target Listing MAG
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Survey ID	Date	Time	Easting	Northing	Kp	Description 1 nT	Description 2 type	OBS number	Obs method	Comments	SSS target correlation
ST13828			573215	6375701	25.172	377.7	DIPOLE	M-1391	MAG	Unknown high anomaly	
ST13828			573424	6375398	25.173	28.2	MONOPOLE	M-1419	MAG		
ST13828			573374	6375449	25.185	109.3	MONOPOLE	M-1387	MAG		
ST13828			573363	6375455	25.191	22	MONOPOLE	M-1422	MAG		
ST13828			573210	6375672	25.193	785.5	DIPOLE	M-1392	MAG	Unknown high anomaly	
ST13828			573412	6375379	25.194	31.7	MONOPOLE	M-1423	MAG		
ST13828			573505	6375235	25.200	29.8	MONOPOLE	M-1421	MAG		
ST13828			573477	6375185	25.251	125	DIPOLE	M-1410	MAG		
ST13828			573476	6375181	25.255	122	MONOPOLE	M-1406	MAG		
ST13828			573328	6375379	25.263	27.9	DIPOLE	M-1425	MAG		
ST13828			573359	6375263	25.304	46.3	DIPOLE	M-1424	MAG		
ST13828			573427	6375125	25.327	94.6	MONOPOLE	M-1393	MAG		
ST13828			573358	6375190	25.346	12.8	DIPOLE	M-1403	MAG		
ST13828			573183	6375434	25.351	69.4	DIPOLE	M-1402	MAG		
ST13828			573132	6375501	25.355	636	DIPOLE	M-1395	MAG	Unknown high anomaly	
ST13828			573208	6375365	25.370	8	MONOPOLE	M-1404	MAG		
ST13828			573106	6375466	25.396	6840	COMPLEX	M-1399	MAG	Unknown high anomaly	
ST13828			573105	6375438	25.413	1605.2	COMPLEX	M-1401	MAG	Unknown high anomaly	
ST13828			573069	6375442	25.440	232.8	DIPOLE	M-1397	MAG	Unknown high anomaly	
ST13828			573126	6375271	25.491	132	DIPOLE	M-1398	MAG		
ST13828			573083	6375184	25.576	26.5	DIPOLE	M-1389	MAG		
ST13828			573083	6375184	25.576	26.5	DIPOLE	M-1390	MAG		

Target Listing SSS
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Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130821	17:33:09	596599	6373056	0.868	Seabed Morphology	Boulder	SS-1354	SEABF	SFBO	1.5	0.2	0.8	SSS	
ST13828	20130821	17:33:10	596585	6373050	0.881	Seabed Morphology	Boulder	SS-1355	SEABF	SFBO	1.6	0.3	0.7	SSS	
ST13828	20130821	17:33:17	596498	6373066	0.966	Seabed Morphology	Boulder	SS-1356	SEABF	SFBO	1.0	0.4	0.9	SSS	
ST13828	20130821	17:33:22	596393	6373064	1.071	Seabed Morphology	Boulder	SS-1357	SEABF	SFBO	2.1	0.3	0.7	SSS	
ST13828	20130821	23:57:38	595720	6373338	1.756	Man-made Hazards	Debris	SS-1432	DEBRI	DEOT	5.2	0.2	3.5	SSS	Correlated to M-1318
ST13828	20130822	02:00:54	594888	6372964	2.569	Man-made Hazards	Linear Debris	SS-1524	DEBRI	DEOT	5.2	0.3	1.3	SSS	
ST13828	20130822	02:00:40	594721	6373063	2.740	Seabed Morphology	Boulder	SS-1523	SEABF	SFBO	1.1	0.3	0.6	SSS	
ST13828	20130822	02:00:38	594670	6373057	2.792	Seabed Morphology	Boulder	SS-1522	SEABF	SFBO	0.9	0.4	0.7	SSS	
ST13828	20130821	23:58:16	594629	6373362	2.847	Seabed Morphology	Boulder	SS-1433	SEABF	SFBO	1.8	0.3	0.8	SSS	
ST13828	20130821	17:46:01	594575	6373251	2.895	Seabed Morphology	Boulder	SS-1359	SEABF	SFBO	2.3	0.3	1.4	SSS	
ST13828	20130821	17:46:04	594544	6373142	2.921	Seabed Morphology	Boulder	SS-1360	SEABF	SFBO	1.7	0.4	1.4	SSS	
ST13828	20130821	23:58:24	594543	6373296	2.930	Seabed Morphology	Boulder	SS-1435	SEABF	SFBO	2.6	0.6	2.1	SSS	
ST13828	20130821	23:58:23	594534	6373326	2.941	Seabed Morphology	Boulder	SS-1434	SEABF	SFBO	0.8	0.7	0.8	SSS	
ST13828	20130821	17:46:11	594519	6373225	2.951	Seabed Morphology	Boulder	SS-1361	SEABF	SFBO	1.1	0.3	0.7	SSS	
ST13828	20130821	17:46:29	594330	6373149	3.135	Seabed Morphology	Boulder	SS-1362	SEABF	SFBO	1.3	0.1	0.6	SSS	
ST13828	20130821	17:46:37	594302	6373186	3.166	Seabed Morphology	Boulder	SS-1363	SEABF	SFBO	0.7	0.4	0.7	SSS	
ST13828	20130822	02:00:23	594204	6373084	3.259	Seabed Morphology	Boulder	SS-1521	SEABF	SFBO	1.5	0.5	0.9	SSS	
ST13828	20130825	08:01:53	593847	6373079	3.614	Seabed Morphology	Boulder	SS-1750	SEABF	SFBO	3.2	0.3	0.5	SSS	
ST13828	20130825	08:01:51	593773	6373100	3.690	Seabed Morphology	Boulder	SS-1749	SEABF	SFBO	4.0	0.4	0.5	SSS	
ST13828	20130822	01:55:39	593608	6373109	3.854	Seabed Morphology	Boulder	SS-1519	SEABF	SFBO	1.0	0.3	0.6	SSS	
ST13828	20130822	01:55:28	593277	6373139	4.187	Seabed Morphology	Bedrock	SS-1518	SEABF	SFBE	1.2	0.4	0.7	SSS	
ST13828	20130821	17:47:20	592957	6373317	4.515	Seabed Morphology	Boulder	SS-1364	SEABF	SFBO	0.9	0.2	0.8	SSS	
ST13828	20130821	17:47:39	592844	6373294	4.627	Seabed Morphology	Boulder	SS-1365	SEABF	SFBO	0.8	0.3	0.5	SSS	
ST13828	20130822	01:55:14	592761	6373154	4.703	Seabed Morphology	Boulder	SS-1517	SEABF	SFBO	0.9	0.5	0.5	SSS	
ST13828	20130821	17:48:00	592410	6373280	5.060	Man-made Hazards	Cable/wire	SS-1366	DEBRI	DECW	1.2	0.7	0.3	SSS	
ST13828	20130821	17:48:04	592357	6373335	5.115	Seabed Morphology	Boulder	SS-1367	SEABF	SFBO	0.9	0.6	0.8	SSS	
ST13828	20130821	17:48:11	592183	6373358	5.290	Seabed Morphology	Boulder	SS-1368	SEABF	SFBO	1.4	0.2	0.4	SSS	
ST13828	20130825	11:29:21	592147	6373535	5.335	Seabed Morphology	Boulder	SS-1751	SEABF	SFBO	5.3	0.7	1.7	SSS	
ST13828	20130821	17:48:13	592105	6373344	5.367	Seabed Morphology	Boulder	SS-1369	SEABF	SFBO	1.2	0.5	0.5	SSS	
ST13828	20130825	08:01:42	592071	6373239	5.397	Seabed Morphology	Boulder	SS-1748	SEABF	SFBO	2.6	0.3	0.4	SSS	
ST13828	20130821	17:48:17	592050	6373329	5.421	Seabed Morphology	Boulder	SS-1370	SEABF	SFBO	1.6	0.8	0.5	SSS	
ST13828	20130821	17:48:26	592031	6373277	5.438	Seabed Morphology	Boulder	SS-1371	SEABF	SFBO	2.1	0.6	1.6	SSS	
ST13828	20130822	01:55:00	591957	6373208	5.509	Seabed Morphology	Boulder	SS-1516	SEABF	SFBO	1.2	0.1	0.7	SSS	
ST13828	20130822	01:54:58	591949	6373192	5.515	Seabed Morphology	Boulder	SS-1515	SEABF	SFBO	0.9	0.4	0.4	SSS	
ST13828	20130822	01:54:55	591937	6373127	5.524	Seabed Morphology	Boulder	SS-1513	SEABF	SFBO	1.4	0.2	0.5	SSS	
ST13828	20130822	01:54:57	591937	6373149	5.525	Seabed Morphology	Boulder	SS-1514	SEABF	SFBO	1.6	0.5	0.7	SSS	
ST13828	20130821	17:48:40	591717	6373368	5.756	Seabed Morphology	Boulder	SS-1372	SEABF	SFBO	0.8	0.4	0.6	SSS	
ST13828	20130821	17:48:46	591484	6373355	5.989	Seabed Morphology	Boulder	SS-1373	SEABF	SFBO	0.9	0.4	0.9	SSS	
ST13828	20130822	00:02:42	591442	6373512	6.038	Seabed Morphology	Boulder	SS-1436	SEABF	SFBO	0.7	0.5	0.7	SSS	
ST13828	20130822	01:54:17	591428	6373236	6.039	Seabed Morphology	Boulder	SS-1511	SEABF	SFBO	1.1	0.8	0.4	SSS	
ST13828	20130822	01:54:19	591415	6373179	6.048	Seabed Morphology	Boulder	SS-1512	SEABF	SFBO	0.6	0.4	0.4	SSS	
ST13828	20130821	19:59:43	591230	6373387	6.244	Seabed Morphology	Boulder	SS-1374	SEABF	SFBO	3.4	0.7	2.0	SSS	Correlated to M-1366
ST13828	20130821	19:59:55	591148	6373315	6.322	Seabed Morphology	Boulder	SS-1376	SEABF	SFBO	1.1	0.3	0.5	SSS	
ST13828	20130822	01:54:08	591124	6373254	6.342	Seabed Morphology	Boulder	SS-1510	SEABF	SFBO	1.3	0.2	0.5	SSS	
ST13828	20130821	20:00:00	591083	6373415	6.391	Seabed Morphology	Boulder	SS-1377	SEABF	SFBO	0.7	0.2	0.5	SSS	
ST13828	20130821	20:00:02	591067	6373416	6.408	Seabed Morphology	Boulder	SS-1378	SEABF	SFBO	0.9	0.1	0.6	SSS	

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Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130821	20:00:19	590753	6373329	6.717	Seabed Morphology	Boulder	SS-1379	SEABF	SFBO	1.2	0.2	0.8	SSS	
ST13828	20130822	01:48:51	590671	6373241	6.795	Seabed Morphology	Boulder	SS-1509	SEABF	SFBO	1.0	0.7	0.8	SSS	
ST13828	20130822	00:03:06	590673	6373549	6.808	Seabed Morphology	Sand Ripples	SS-1437	SEABF	SFOT	2.4	1.2	0.6	SSS	
ST13828	20130822	01:48:25	590618	6373256	6.848	Seabed Morphology	Boulder	SS-1508	SEABF	SFBO	1.1	0.7	0.4	SSS	
ST13828	20130821	20:00:28	590623	6373439	6.852	Seabed Morphology	Boulder	SS-1380	SEABF	SFBO	1.5	0.8	1.1	SSS	
ST13828	20130821	20:00:35	590564	6373386	6.909	Seabed Morphology	Boulder	SS-1381	SEABF	SFBO	1.1	0.4	0.8	SSS	
ST13828	20130826	02:02:14	590496	6373294	6.972	Seabed Morphology	Boulder	SS-1792	SEABF	SFBO	3.2	0.3	1.5	SSS	
ST13828	20130822	01:48:15	590469	6373237	6.996	Seabed Morphology	Boulder	SS-1507	SEABF	SFBO	0.8	0.9	0.5	SSS	
ST13828	20130822	00:03:17	590473	6373502	7.006	Man-made Hazards	Fish Traps	SS-1438	SUBSS	SUFG	3.9	0.0	4.4	SSS	
ST13828	20130821	20:00:40	590407	6373389	7.066	Seabed Morphology	Boulder	SS-1382	SEABF	SFBO	0.7	0.5	0.6	SSS	
ST13828	20130826	02:57:29	590366	6373430	7.108	Seabed Morphology	Boulder	SS-1796	SEABF	SFBO	2.0	0.7	0.8	SSS	
ST13828	20130822	00:03:28	590365	6373571	7.116	Seabed Morphology	Boulder	SS-1439	SEABF	SFBO	0.9	0.5	0.6	SSS	
ST13828	20130826	02:57:32	590344	6373500	7.134	Seabed Morphology	Boulder	SS-1797	SEABF	SFBO	2.0	0.4	1.3	SSS	
ST13828	20130822	00:03:31	590341	6373578	7.141	Seabed Morphology	Boulder	SS-1440	SEABF	SFBO	0.7	0.3	0.5	SSS	
ST13828	20130822	01:48:10	590250	6373309	7.218	Seabed Morphology	Boulder	SS-1506	SEABF	SFBO	3.3	0.5	1.0	SSS	Correlated to M-1288
ST13828	20130822	00:03:35	590246	6373526	7.233	Seabed Morphology	Boulder	SS-1441	SEABF	SFBO	0.6	0.8	0.6	SSS	
ST13828	20130822	01:48:07	590157	6373295	7.310	Seabed Morphology	Boulder	SS-1505	SEABF	SFBO	1.9	0.2	0.6	SSS	
ST13828	20130825	12:54:41	590151	6373218	7.313	Seabed Morphology	Boulder	SS-1764	SEABF	SFBO	4.6	0.2	0.8	SSS	
ST13828	20130821	20:00:52	589902	6373414	7.572	Seabed Morphology	Boulder	SS-1383	SEABF	SFBO	0.6	0.7	0.4	SSS	
ST13828	20130826	02:02:07	589849	6373401	7.623	Seabed Morphology	Boulder	SS-1791	SEABF	SFBO	1.9	0.5	0.9	SSS	
ST13828	20130821	20:01:00	589835	6373403	7.637	Seabed Morphology	Boulder	SS-1385	SEABF	SFBO	1.2	0.6	0.8	SSS	
ST13828	20130822	00:03:49	589833	6373528	7.646	Man-made Hazards	Linear Debris	SS-1442	DEBRI	DEOT	2.0	1.7	0.7	SSS	
ST13828	20130821	20:01:05	589685	6373455	7.790	Seabed Morphology	Boulder	SS-1386	SEABF	SFBO	1.1	0.5	0.9	SSS	
ST13828	20130822	00:04:02	589618	6373530	7.861	Seabed Morphology	Boulder	SS-1443	SEABF	SFBO	1.8	0.4	0.7	SSS	
ST13828	20130822	00:04:04	589540	6373562	7.940	Seabed Morphology	Boulder	SS-1444	SEABF	SFBO	1.3	0.9	0.9	SSS	
ST13828	20130822	00:04:12	589373	6373547	8.106	Seabed Morphology	Boulder	SS-1445	SEABF	SFBO	2.4	0.6	0.5	SSS	
ST13828	20130822	00:09:43	589362	6373560	8.117	Seabed Morphology	Boulder	SS-1447	SEABF	SFBO	1.2	0.5	0.6	SSS	
ST13828	20130821	20:01:16	589296	6373471	8.179	Seabed Morphology	Boulder	SS-1387	SEABF	SFBO	0.9	0.8	0.7	SSS	
ST13828	20130822	00:09:38	589269	6373635	8.214	Seabed Morphology	Boulder	SS-1446	SEABF	SFBO	1.7	0.5	1.0	SSS	
ST13828	20130821	20:01:23	589209	6373448	8.265	Seabed Morphology	Boulder	SS-1388	SEABF	SFBO	1.1	0.3	0.6	SSS	
ST13828	20130822	01:47:40	589164	6373334	8.305	Seabed Morphology	Boulder	SS-1504	SEABF	SFBO	1.5	0.6	0.6	SSS	
ST13828	20130821	20:01:27	589143	6373429	8.330	Seabed Morphology	Boulder	SS-1389	SEABF	SFBO	1.8	0.4	1.4	SSS	
ST13828	20130822	00:09:54	588899	6373659	8.585	Seabed Morphology	Boulder	SS-1448	SEABF	SFBO	1.3	0.6	0.7	SSS	
ST13828	20130825	11:31:10	588878	6373731	8.609	Seabed Morphology	Boulder	SS-1752	SEABF	SFBO	2.6	0.7	0.7	SSS	
ST13828	20130821	20:01:38	588862	6373511	8.614	Seabed Morphology	Boulder	SS-1390	SEABF	SFBO	1.0	0.6	0.7	SSS	
ST13828	20130822	00:10:04	588801	6373658	8.683	Seabed Morphology	Boulder	SS-1449	SEABF	SFBO	0.9	0.4	0.5	SSS	
ST13828	20130826	04:25:54	588765	6373487	8.710	Seabed Morphology	Boulder	SS-1798	SEABF	SFBO	3.9	0.3	1.2	SSS	
ST13828	20130826	02:01:58	588738	6373440	8.735	Seabed Morphology	Boulder	SS-1790	SEABF	SFBO	1.3	1.0	0.9	SSS	
ST13828	20130821	20:01:49	588721	6373442	8.752	Seabed Morphology	Boulder	SS-1393	SEABF	SFBO	1.1	0.6	0.8	SSS	
ST13828	20130821	20:01:43	588715	6373497	8.760	Seabed Morphology	Boulder	SS-1391	SEABF	SFBO	1.1	0.6	0.5	SSS	
ST13828	20130821	20:01:46	588691	6373505	8.785	Seabed Morphology	Boulder	SS-1392	SEABF	SFBO	1.0	0.4	0.7	SSS	
ST13828	20130822	01:47:16	588582	6373366	8.887	Seabed Morphology	Boulder	SS-1503	SEABF	SFBO	1.1	0.6	0.7	SSS	
ST13828	20130826	04:25:55	588522	6373487	8.954	Seabed Morphology	Boulder	SS-1799	SEABF	SFBO	2.9	0.3	0.4	SSS	
ST13828	20130822	00:10:24	588338	6373625	9.143	Seabed Morphology	Boulder	SS-1450	SEABF	SFBO	1.2	0.7	0.4	SSS	Correlated to M-1339
ST13828	20130821	20:02:02	588265	6373492	9.210	Seabed Morphology	Boulder	SS-1394	SEABF	SFBO	1.0	0.6	1.2	SSS	
ST13828	20130822	00:10:31	588230	6373669	9.254	Seabed Morphology	Boulder	SS-1451	SEABF	SFBO	0.9	0.5	0.4	SSS	

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Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130822	01:47:04	588201	6373390	9.269	Seabed Morphology	Boulder	SS-1502	SEABF	SFBO	0.9	0.6	0.6	SSS	
ST13828	20130822	01:47:01	588131	6373420	9.341	Seabed Morphology	Boulder	SS-1501	SEABF	SFBO	2.8	0.2	1.3	SSS	
ST13828	20130821	20:02:11	588120	6373511	9.356	Seabed Morphology	Boulder	SS-1395	SEABF	SFBO	0.9	1.4	1.0	SSS	
ST13828	20130822	01:47:00	588056	6373316	9.410	Seabed Morphology	Boulder	SS-1500	SEABF	SFBO	2.9	0.1	0.8	SSS	
ST13828	20130822	00:10:44	587950	6373686	9.535	Seabed Morphology	Boulder	SS-1452	SEABF	SFBO	0.7	0.3	0.4	SSS	
ST13828	20130821	20:02:17	587858	6373554	9.620	Seabed Morphology	Boulder	SS-1396	SEABF	SFBO	0.9	0.6	0.9	SSS	
ST13828	20130822	00:10:49	587859	6373623	9.622	Seabed Morphology	Boulder	SS-1453	SEABF	SFBO	1.8	0.5	0.5	SSS	
ST13828	20130825	07:54:00	587829	6373382	9.640	Seabed Morphology	Boulder	SS-1747	SEABF	SFBO	5.3	0.6	1.3	SSS	
ST13828	20130821	20:02:24	587743	6373558	9.735	Seabed Morphology	Boulder	SS-1397	SEABF	SFBO	1.3	0.5	0.9	SSS	
ST13828	20130821	20:02:33	587595	6373523	9.881	Seabed Morphology	Boulder	SS-1399	SEABF	SFBO	0.9	0.3	0.5	SSS	
ST13828	20130821	20:02:34	587591	6373515	9.884	Seabed Morphology	Boulder	SS-1400	SEABF	SFBO	0.9	0.4	0.5	SSS	
ST13828	20130821	20:02:29	587572	6373595	9.907	Seabed Morphology	Boulder	SS-1398	SEABF	SFBO	2.1	0.6	0.6	SSS	
ST13828	20130822	01:39:59	587458	6373423	10.012	Man-made Hazards	Linear Debris	SS-1499	DEBRI	DEOT	3.7	0.7	1.8	SSS	
ST13828	20130822	00:11:15	587447	6373657	10.035	Seabed Morphology	Boulder	SS-1454	SEABF	SFBO	0.9	0.5	0.7	SSS	
ST13828	20130825	18:22:22	587130	6373400	10.339	Seabed Morphology	Boulder	SS-1770	SEABF	SFBO	2.3	0.6	1.1	SSS	
ST13828	20130822	01:39:51	586986	6373447	10.482	Seabed Morphology	Boulder	SS-1498	SEABF	SFBO	1.0	0.7	1.1	SSS	
ST13828	20130825	23:16:44	586909	6373642	10.574	Seabed Morphology	Boulder	SS-1772	SEABF	SFBO	2.5	0.4	1.4	SSS	
ST13828	20130825	11:31:19	586785	6373810	10.708	Seabed Morphology	Boulder	SS-1754	SEABF	SFBO	3.9	0.6	1.1	SSS	
ST13828	20130822	01:39:47	586754	6373418	10.713	Seabed Morphology	Boulder	SS-1497	SEABF	SFBO	0.9	0.7	0.7	SSS	
ST13828	20130822	01:39:46	586739	6373414	10.727	Seabed Morphology	Boulder	SS-1496	SEABF	SFBO	0.8	0.4	0.6	SSS	
ST13828	20130825	07:53:54	586679	6373462	10.788	Seabed Morphology	Boulder	SS-1746	SEABF	SFBO	2.4	0.3	0.9	SSS	
ST13828	20130821	20:45:11	586681	6373624	10.800	Seabed Morphology	Bedrock	SS-1401	SEABF	SFBE	1.1	0.7	0.6	SSS	
ST13828	20130821	20:45:18	586610	6373659	10.873	Seabed Morphology	Boulder	SS-1402	SEABF	SFBO	1.3	0.2	1.0	SSS	
ST13828	20130822	00:27:19	586598	6373706	10.890	Seabed Morphology	Boulder	SS-1455	SEABF	SFBO	0.6	0.4	0.4	SSS	
ST13828	20130821	20:45:21	586509	6373656	10.974	Seabed Morphology	Boulder	SS-1403	SEABF	SFBO	1.3	0.2	0.6	SSS	
ST13828	20130821	20:45:23	586497	6373646	10.985	Seabed Morphology	Boulder	SS-1404	SEABF	SFBO	1.5	0.4	0.5	SSS	
ST13828	20130822	00:27:26	586494	6373799	11.001	Seabed Morphology	Boulder	SS-1456	SEABF	SFBO	1.1	0.5	0.4	SSS	
ST13828	20130821	20:45:28	586439	6373631	11.042	Seabed Morphology	Boulder	SS-1405	SEABF	SFBO	1.1	0.7	0.5	SSS	
ST13828	20130826	01:42:33	586411	6373609	11.067	Seabed Morphology	Boulder	SS-1788	SEABF	SFBO	3.7	0.3	2.2	SSS	
ST13828	20130822	00:27:31	586371	6373747	11.119	Seabed Morphology	Boulder	SS-1457	SEABF	SFBO	1.0	0.6	0.9	SSS	
ST13828	20130822	01:39:17	586289	6373437	11.174	Seabed Morphology	Boulder	SS-1495	SEABF	SFBO	1.1	0.5	0.7	SSS	
ST13828	20130821	20:45:34	586301	6373661	11.182	Seabed Morphology	Boulder	SS-1406	SEABF	SFBO	1.0	0.3	0.6	SSS	
ST13828	20130822	01:39:15	586273	6373428	11.188	Seabed Morphology	Boulder	SS-1494	SEABF	SFBO	2.0	0.5	1.0	SSS	
ST13828	20130821	20:45:47	586283	6373583	11.192	Seabed Morphology	Boulder	SS-1411	SEABF	SFBO	3.0	0.4	0.2	SSS	
ST13828	20130825	18:22:17	586240	6373392	11.218	Seabed Morphology	Boulder	SS-1769	SEABF	SFBO	2.3	0.8	1.6	SSS	
ST13828	20130821	20:45:38	586227	6373651	11.254	Seabed Morphology	Boulder	SS-1408	SEABF	SFBO	0.8	0.6	0.4	SSS	
ST13828	20130821	20:45:39	586219	6373633	11.261	Seabed Morphology	Boulder	SS-1409	SEABF	SFBO	0.8	1.0	0.8	SSS	
ST13828	20130821	20:45:36	586220	6373665	11.263	Seabed Morphology	Boulder	SS-1407	SEABF	SFBO	1.0	0.3	0.6	SSS	
ST13828	20130821	20:45:44	586186	6373608	11.292	Seabed Morphology	Boulder	SS-1410	SEABF	SFBO	1.1	0.6	0.5	SSS	
ST13828	20130825	07:53:50	586087	6373572	11.385	Seabed Morphology	Boulder	SS-1745	SEABF	SFBO	2.5	0.6	0.8	SSS	
ST13828	20130822	00:27:46	586050	6373832	11.451	Seabed Morphology	Boulder	SS-1458	SEABF	SFBO	0.9	0.5	0.5	SSS	
ST13828	20130821	20:45:58	586007	6373692	11.478	Seabed Morphology	Boulder	SS-1412	SEABF	SFBO	1.0	0.6	0.9	SSS	Correlated to M-1368
ST13828	20130822	00:27:48	585974	6373841	11.528	Seabed Morphology	Boulder	SS-1459	SEABF	SFBO	1.0	0.4	0.3	SSS	
ST13828	20130826	01:42:08	585823	6373664	11.658	Seabed Morphology	Boulder	SS-1786	SEABF	SFBO	1.7	0.4	1.3	SSS	
ST13828	20130821	20:47:05	585747	6373728	11.743	Seabed Morphology	Boulder	SS-1413	SEABF	SFBO	1.2	0.5	0.7	SSS	
ST13828	20130821	20:47:15	585454	6373771	12.038	Man-made Hazards	Linear Debris	SS-1414	DEBRI	DEOT	2.5	1.0	0.5	SSS	

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Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130825	18:22:10	585412	6373485	12.041	Seabed Morphology	Boulder	SS-1768	SEABF	SFBO	3.5	0.8	0.9	SSS	
ST13828	20130821	20:47:22	585418	6373785	12.075	Seabed Morphology	Boulder	SS-1416	SEABF	SFBO	1.2	0.4	0.8	SSS	
ST13828	20130821	20:47:21	585413	6373768	12.079	Seabed Morphology	Boulder	SS-1415	SEABF	SFBO	3.3	0.6	3.0	SSS	
ST13828	20130822	00:28:16	585239	6373944	12.275	Seabed Morphology	Corals/Area of Corals	SS-1460	SEABF	SFAC	29.3	3.9	11.3	SSS	
ST13828	20130822	00:28:19	585207	6373930	12.304	Seabed Morphology	Boulder	SS-1461	SEABF	SFBO	0.7	0.9	0.0	SSS	
ST13828	20130821	20:47:35	585162	6373765	12.326	Seabed Morphology	Boulder	SS-1418	SEABF	SFBO	0.9	0.7	1.0	SSS	
ST13828	20130822	01:38:52	585136	6373601	12.331	Seabed Morphology	Boulder	SS-1493	SEABF	SFBO	1.1	0.6	0.5	SSS	
ST13828	20130821	20:47:30	585153	6373823	12.343	Seabed Morphology	Boulder	SS-1417	SEABF	SFBO	0.9	0.8	1.1	SSS	
ST13828	20130821	20:47:37	585144	6373767	12.344	Seabed Morphology	Boulder	SS-1419	SEABF	SFBO	0.9	0.8	0.7	SSS	
ST13828	20130825	18:22:02	585048	6373629	12.421	Seabed Morphology	Boulder	SS-1766	SEABF	SFBO	4.6	0.3	1.6	SSS	
ST13828	20130826	04:26:17	585071	6373865	12.430	Seabed Morphology	Boulder	SS-1800	SEABF	SFBO	2.3	0.7	0.8	SSS	
ST13828	20130822	00:28:29	584995	6373921	12.517	Man-made Hazards	Linear Debris	SS-1462	DEBRI	DEOT	1.4	0.6	0.3	SSS	
ST13828	20130822	01:03:26	584723	6374006	12.799	Seabed Morphology	Boulder	SS-1463	SEABF	SFBO	1.1	0.9	0.7	SSS	
ST13828	20130821	20:48:05	584474	6373856	13.019	Seabed Morphology	Boulder	SS-1420	SEABF	SFBO	1.2	1.1	0.8	SSS	
ST13828	20130821	20:48:06	584463	6373868	13.032	Seabed Morphology	Boulder	SS-1421	SEABF	SFBO	1.0	0.7	0.5	SSS	
ST13828	20130822	01:03:34	584483	6374055	13.048	Seabed Morphology	Boulder	SS-1464	SEABF	SFBO	1.1	0.6	0.5	SSS	
ST13828	20130822	01:03:47	584332	6374098	13.204	Seabed Morphology	Boulder	SS-1465	SEABF	SFBO	1.1	0.4	0.5	SSS	
ST13828	20130822	01:03:51	584310	6374044	13.216	Seabed Morphology	Boulder	SS-1466	SEABF	SFBO	0.9	0.6	0.6	SSS	
ST13828	20130825	12:50:51	584068	6373723	13.393	Seabed Morphology	Boulder	SS-1760	SEABF	SFBO	5.7	0.5	2.4	SSS	
ST13828	20130821	20:48:21	584101	6373906	13.395	Seabed Morphology	Boulder	SS-1422	SEABF	SFBO	1.5	0.5	0.9	SSS	
ST13828	20130821	20:48:25	583992	6374012	13.522	Seabed Morphology	Boulder	SS-1424	SEABF	SFBO	1.2	0.4	0.5	SSS	
ST13828	20130826	01:41:35	583873	6373924	13.621	Seabed Morphology	Boulder	SS-1785	SEABF	SFBO	2.0	0.7	1.2	SSS	
ST13828	20130826	01:41:30	583589	6373992	13.913	Seabed Morphology	Boulder	SS-1784	SEABF	SFBO	2.9	1.0	2.1	SSS	
ST13828	20130821	21:10:29	583468	6374063	14.045	Seabed Morphology	Boulder	SS-1426	SEABF	SFBO	1.1	0.6	0.5	SSS	
ST13828	20130822	01:30:40	583401	6373922	14.078	Seabed Morphology	Boulder	SS-1492	SEABF	SFBO	1.2	0.8	0.5	SSS	
ST13828	20130821	21:10:26	583441	6374104	14.081	Seabed Morphology	Boulder	SS-1425	SEABF	SFBO	1.5	0.9	0.6	SSS	
ST13828	20130826	04:26:35	583404	6374193	14.137	Seabed Morphology	Boulder	SS-1801	SEABF	SFBO	2.8	0.4	0.4	SSS	
ST13828	20130826	04:26:36	583339	6374203	14.202	Seabed Morphology	Boulder	SS-1802	SEABF	SFBO	3.9	0.7	0.9	SSS	
ST13828	20130826	01:41:24	583218	6374056	14.287	Seabed Morphology	Boulder	SS-1782	SEABF	SFBO	3.0	0.6	2.2	SSS	
ST13828	20130822	01:04:43	583010	6374320	14.555	Seabed Morphology	Boulder	SS-1467	SEABF	SFBO	0.9	0.7	0.4	SSS	
ST13828	20130822	01:04:47	582957	6374409	14.628	Seabed Morphology	Boulder	SS-1468	SEABF	SFBO	1.7	0.6	0.4	SSS	
ST13828	20130822	01:04:55	582811	6374432	14.778	Seabed Morphology	Boulder	SS-1469	SEABF	SFBO	0.9	0.5	0.4	SSS	
ST13828	20130822	01:05:00	582673	6374489	14.927	Man-made Hazards	Linear Debris	SS-1470	DEBRI	DEOT	2.7	0.9	0.7	SSS	
ST13828	20130822	01:30:19	582367	6374223	15.138	Seabed Morphology	Boulder	SS-1491	SEABF	SFBO	1.5	1.0	0.9	SSS	
ST13828	20130822	01:30:16	582319	6374289	15.202	Seabed Morphology	Boulder	SS-1490	SEABF	SFBO	1.8	0.3	0.6	SSS	
ST13828	20130822	01:09:31	582412	6374580	15.218	Seabed Morphology	Boulder	SS-1472	SEABF	SFBO	1.3	0.3	0.4	SSS	
ST13828	20130825	23:17:20	582379	6374540	15.235	Man-made Hazards	Linear Debris	SS-1773	DEBRI	DEWD	6.8	1.5	3.2	SSS	
ST13828	20130822	01:30:14	582279	6374293	15.241	Seabed Morphology	Boulder	SS-1489	SEABF	SFBO	1.3	0.5	0.6	SSS	
ST13828	20130822	01:09:34	582365	6374596	15.268	Seabed Morphology	Boulder	SS-1473	SEABF	SFBO	1.4	0.6	0.4	SSS	
ST13828	20130822	01:09:38	582331	6374533	15.278	Seabed Morphology	Boulder	SS-1474	SEABF	SFBO	0.7	0.7	0.2	SSS	
ST13828	20130822	01:09:41	582333	6374618	15.305	Seabed Morphology	Boulder	SS-1475	SEABF	SFBO	0.7	0.3	0.4	SSS	
ST13828	20130822	01:09:44	582293	6374632	15.348	Seabed Morphology	Boulder	SS-1476	SEABF	SFBO	0.8	0.2	0.5	SSS	
ST13828	20130822	01:09:47	582211	6374586	15.413	Seabed Morphology	Boulder	SS-1477	SEABF	SFBO	1.2	0.5	0.9	SSS	
ST13828	20130822	01:30:01	581932	6374430	15.609	Seabed Morphology	Boulder	SS-1488	SEABF	SFBO	1.1	0.5	1.1	SSS	
ST13828	20130822	01:29:59	581922	6374433	15.619	Seabed Morphology	Boulder	SS-1487	SEABF	SFBO	1.1	0.3	0.6	SSS	
ST13828	20130823	08:00:57	582006	6374647	15.625	Seabed Morphology	Boulder	SS-1672	SEABF	SFBO	1.4	0.4	0.4	SSS	Correlated to M-1346

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Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130822	01:10:07	581909	6374726	15.755	Seabed Morphology	Boulder	SS-1478	SEABF	SFBO	0.9	0.4	0.3	SSS	
ST13828	20130822	01:10:11	581909	6374733	15.758	Seabed Morphology	Boulder	SS-1479	SEABF	SFBO	0.8	0.5	0.5	SSS	
ST13828	20130822	01:10:13	581915	6374746	15.759	Seabed Morphology	Boulder	SS-1480	SEABF	SFBO	0.7	1.5	1.1	SSS	
ST13828	20130823	07:58:42	581943	6374815	15.765	Seabed Morphology	Boulder	SS-1671	SEABF	SFBO	2.0	0.5	0.7	SSS	
ST13828	20130826	01:41:04	581747	6374591	15.838	Seabed Morphology	Boulder	SS-1781	SEABF	SFBO	3.2	1.0	2.4	SSS	
ST13828	20130825	07:53:21	581743	6374589	15.841	Seabed Morphology	Boulder	SS-1743	SEABF	SFBO	2.7	0.8	0.4	SSS	
ST13828	20130823	07:58:33	581838	6374869	15.882	Seabed Morphology	Boulder	SS-1670	SEABF	SFBO	1.6	0.3	0.3	SSS	
ST13828	20130822	02:26:21	581667	6374542	15.888	Man-made Hazards	Linear Debris	SS-1530	DEBRI	DEOT	3.7	0.4	0.6	SSS	
ST13828	20130826	04:26:54	581768	6374775	15.902	Seabed Morphology	Boulder	SS-1803	SEABF	SFBO	3.2	0.7	0.6	SSS	
ST13828	20130822	02:26:26	581566	6374556	15.984	Man-made Hazards	Fish Traps	SS-1531	SUBSS	SUFG	3.7	0.4	0.5	SSS	
ST13828	20130825	07:53:17	581583	6374628	16.002	Seabed Morphology	Boulder	SS-1742	SEABF	SFBO	2.1	0.4	0.4	SSS	
ST13828	20130826	04:26:56	581633	6374835	16.056	Seabed Morphology	Boulder	SS-1804	SEABF	SFBO	3.8	1.2	0.3	SSS	
ST13828	20130822	01:28:17	581415	6374629	16.141	Seabed Morphology	Boulder	SS-1486	SEABF	SFBO	1.3	0.4	0.7	SSS	
ST13828	20130822	01:28:14	581418	6374636	16.142	Seabed Morphology	Boulder	SS-1485	SEABF	SFBO	1.3	0.3	0.5	SSS	
ST13828	20130822	02:26:34	581370	6374620	16.176	Seabed Morphology	Boulder	SS-1532	SEABF	SFBO	1.3	0.8	0.6	SSS	
ST13828	20130822	01:10:32	581575	6374990	16.184	Man-made Hazards	Fish Traps	SS-1481	SUBSS	SUFG	4.0	1.6	6.6	SSS	
ST13828	20130822	23:41:03	581275	6374794	16.345	Seabed Morphology	Boulder	SS-1607	SEABF	SFBO	0.8	0.5	0.6	SSS	
ST13828	20130823	07:58:11	581414	6375102	16.379	Seabed Morphology	Boulder	SS-1669	SEABF	SFBO	2.1	0.5	0.7	SSS	
ST13828	20130822	01:10:50	581318	6375092	16.457	Seabed Morphology	Boulder	SS-1482	SEABF	SFBO	1.1	0.5	0.3	SSS	
ST13828	20130821	21:11:28	581248	6374972	16.458	Seabed Morphology	Boulder	SS-1427	SEABF	SFBO	1.6	0.3	0.4	SSS	
ST13828	20130823	08:01:25	581206	6375031	16.524	Seabed Morphology	Boulder	SS-1676	SEABF	SFBO	2.1	0.4	0.4	SSS	
ST13828	20130825	12:50:36	581034	6374802	16.557	Seabed Morphology	Boulder	SS-1759	SEABF	SFBO	2.3	0.6	0.6	SSS	
ST13828	20130822	13:50:52	581179	6375121	16.593	Seabed Morphology	Boulder	SS-1605	SEABF	SFBO	1.8	0.6	0.4	SSS	
ST13828	20130826	01:40:47	581007	6375023	16.692	Seabed Morphology	Boulder	SS-1780	SEABF	SFBO	2.6	1.6	1.2	SSS	
ST13828	20130826	01:40:45	580976	6375056	16.735	Seabed Morphology	Boulder	SS-1779	SEABF	SFBO	2.1	1.5	3.7	SSS	
ST13828	20130823	08:01:36	581041	6375202	16.752	Seabed Morphology	Boulder	SS-1677	SEABF	SFBO	1.9	0.4	0.9	SSS	
ST13828	20130822	23:41:25	580783	6375016	16.882	Seabed Morphology	Boulder	SS-1608	SEABF	SFBO	2.0	0.4	0.8	SSS	
ST13828	20130823	08:01:48	580863	6375224	16.918	Seabed Morphology	Boulder	SS-1678	SEABF	SFBO	1.1	0.3	0.4	SSS	
ST13828	20130823	09:13:05	580776	6375093	16.927	Seabed Morphology	Boulder	SS-1708	SEABF	SFBO	1.5	0.5	0.3	SSS	
ST13828	20130826	01:40:42	580813	6375157	16.927	Seabed Morphology	Boulder	SS-1778	SEABF	SFBO	1.7	1.1	0.9	SSS	
ST13828	20130823	08:01:50	580852	6375238	16.934	Seabed Morphology	Boulder	SS-1679	SEABF	SFBO	2.4	0.4	0.5	SSS	
ST13828	20130823	08:01:51	580842	6375244	16.945	Seabed Morphology	Boulder	SS-1680	SEABF	SFBO	1.8	0.6	0.4	SSS	
ST13828	20130825	12:50:33	580695	6375029	16.964	Seabed Morphology	Boulder	SS-1758	SEABF	SFBO	2.6	0.7	1.1	SSS	
ST13828	20130826	01:31:42	580729	6375130	16.985	Man-made Hazards	Linear Debris	SS-1774	DEBRI	DEWD	3.8	0.5	1.2	SSS	
ST13828	20130822	02:27:01	580648	6375000	16.990	Seabed Morphology	Boulder	SS-1533	SEABF	SFBO	1.7	0.6	1.1	SSS	
ST13828	20130822	13:50:40	580865	6375396	17.002	Seabed Morphology	Bedrock	SS-1604	SEABF	SFBE	48.4	2.3	20.8	SSS	
ST13828	20130823	08:01:52	580772	6375281	17.024	Seabed Morphology	Boulder	SS-1681	SEABF	SFBO	2.7	0.2	1.5	SSS	
ST13828	20130823	07:55:43	580799	6375381	17.052	Seabed Morphology	Boulder	SS-1668	SEABF	SFBO	3.0	0.4	0.6	SSS	
ST13828	20130826	01:37:50	580683	6375184	17.053	Seabed Morphology	Boulder	SS-1776	SEABF	SFBO	2.4	0.7	1.8	SSS	
ST13828	20130823	07:55:42	580794	6375402	17.067	Seabed Morphology	Boulder	SS-1667	SEABF	SFBO	1.9	0.4	0.3	SSS	
ST13828	20130822	01:17:29	580770	6375413	17.093	Seabed Morphology	Boulder	SS-1483	SEABF	SFBO	1.1	0.6	0.4	SSS	
ST13828	20130823	08:02:00	580717	6375384	17.124	Seabed Morphology	Boulder	SS-1682	SEABF	SFBO	2.4	0.8	1.3	SSS	
ST13828	20130826	01:40:38	580581	6375230	17.164	Seabed Morphology	Boulder	SS-1777	SEABF	SFBO	1.8	0.4	1.2	SSS	
ST13828	20130823	09:14:05	580577	6375230	17.167	Seabed Morphology	Boulder	SS-1709	SEABF	SFBO	1.1	0.4	0.2	SSS	
ST13828	20130825	12:50:29	580446	6375124	17.228	Seabed Morphology	Boulder	SS-1756	SEABF	SFBO	1.2	0.2	0.5	SSS	
ST13828	20130822	02:27:13	580486	6375214	17.238	Seabed Morphology	Boulder	SS-1534	SEABF	SFBO	1.1	0.7	0.6	SSS	

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Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130825	07:53:07	580502	6375243	17.239	Seabed Morphology	Boulder	SS-1740	SEABF	SFBO	3.5	0.4	0.5	SSS	
ST13828	20130823	08:38:58	580445	6375227	17.280	Seabed Morphology	Boulder	SS-1706	SEABF	SFBO	1.8	0.5	0.8	SSS	
ST13828	20130822	01:17:36	580577	6375458	17.282	Seabed Morphology	Boulder	SS-1484	SEABF	SFBO	1.6	0.7	0.8	SSS	
ST13828	20130823	07:55:32	580589	6375521	17.303	Seabed Morphology	Boulder	SS-1666	SEABF	SFBO	1.0	0.5	0.3	SSS	
ST13828	20130823	09:14:11	580488	6375354	17.307	Seabed Morphology	Boulder	SS-1710	SEABF	SFBO	0.8	0.2	0.3	SSS	
ST13828	20130823	08:38:48	580428	6375332	17.348	Seabed Morphology	Boulder	SS-1705	SEABF	SFBO	0.7	0.3	0.3	SSS	
ST13828	20130822	23:41:42	580374	6375308	17.382	Seabed Morphology	Boulder	SS-1609	SEABF	SFBO	1.5	0.4	0.7	SSS	
ST13828	20130822	23:41:44	580297	6375346	17.468	Seabed Morphology	Boulder	SS-1610	SEABF	SFBO	1.1	0.7	1.0	SSS	
ST13828	20130822	23:41:49	580274	6375357	17.494	Seabed Morphology	Boulder	SS-1611	SEABF	SFBO	1.2	0.4	0.3	SSS	
ST13828	20130822	23:42:00	580254	6375372	17.518	Seabed Morphology	Boulder	SS-1613	SEABF	SFBO	2.3	0.9	0.6	SSS	
ST13828	20130822	13:50:09	580331	6375634	17.583	Seabed Morphology	Boulder	SS-1603	SEABF	SFBO	0.8	0.6	0.5	SSS	
ST13828	20130822	23:41:55	580199	6375408	17.583	Seabed Morphology	Boulder	SS-1612	SEABF	SFBO	1.3	0.6	0.6	SSS	
ST13828	20130823	09:14:20	580228	6375490	17.600	Seabed Morphology	Boulder	SS-1711	SEABF	SFBO	0.9	0.5	0.6	SSS	Correlated to M-1350
ST13828	20130823	09:14:22	580180	6375485	17.638	Seabed Morphology	Boulder	SS-1712	SEABF	SFBO	1.7	0.6	1.0	SSS	
ST13828	20130823	09:14:27	580180	6375516	17.654	Seabed Morphology	Boulder	SS-1714	SEABF	SFBO	1.5	0.4	0.3	SSS	
ST13828	20130821	21:11:46	580218	6375613	17.670	Seabed Morphology	Bedrock	SS-1428	SEABF	SFBE	4.0	1.3	0.9	SSS	
ST13828	20130823	09:14:26	580140	6375498	17.680	Seabed Morphology	Boulder	SS-1713	SEABF	SFBO	1.3	0.5	0.4	SSS	
ST13828	20130823	09:14:29	580119	6375517	17.707	Seabed Morphology	Boulder	SS-1715	SEABF	SFBO	1.3	0.5	0.6	SSS	
ST13828	20130822	13:49:59	580208	6375676	17.711	Seabed Morphology	Boulder	SS-1601	SEABF	SFBO	1.7	0.4	0.7	SSS	
ST13828	20130823	08:38:39	580085	6375500	17.728	Seabed Morphology	Boulder	SS-1704	SEABF	SFBO	1.1	1.0	0.4	SSS	
ST13828	20130823	07:55:19	580240	6375790	17.740	Seabed Morphology	Boulder	SS-1665	SEABF	SFBO	1.4	0.5	0.4	SSS	
ST13828	20130823	08:38:33	579963	6375528	17.848	Seabed Morphology	Boulder	SS-1703	SEABF	SFBO	1.2	0.4	0.4	SSS	
ST13828	20130823	08:38:32	579954	6375523	17.853	Seabed Morphology	Boulder	SS-1702	SEABF	SFBO	2.0	0.9	0.5	SSS	
ST13828	20130823	09:14:40	579983	6375670	17.902	Seabed Morphology	Boulder	SS-1716	SEABF	SFBO	3.0	0.4	0.6	SSS	
ST13828	20130822	02:25:03	580069	6375886	17.936	Seabed Morphology	Boulder	SS-1529	SEABF	SFBO	1.6	0.8	0.6	SSS	
ST13828	20130822	13:49:50	580016	6375811	17.945	Seabed Morphology	Boulder	SS-1600	SEABF	SFBO	2.0	0.2	0.2	SSS	
ST13828	20130821	21:26:37	579936	6375692	17.954	Seabed Morphology	Boulder	SS-1429	SEABF	SFBO	0.7	0.6	0.6	SSS	
ST13828	20130822	13:49:45	579940	6375804	18.007	Seabed Morphology	Boulder	SS-1599	SEABF	SFBO	2.1	0.2	0.4	SSS	Correlated to M-1203
ST13828	20130823	12:03:04	579738	6375525	18.041	Seabed Morphology	Boulder	SS-1735	SEABF	SFBO	1.0	0.3	0.2	SSS	
ST13828	20130823	09:14:43	579799	6375734	18.093	Seabed Morphology	Boulder	SS-1717	SEABF	SFBO	1.8	0.8	0.6	SSS	
ST13828	20130823	09:14:57	579466	6375942	18.486	Seabed Morphology	Boulder	SS-1718	SEABF	SFBO	1.1	0.5	0.4	SSS	
ST13828	20130821	21:27:04	579489	6375987	18.489	Seabed Morphology	Boulder	SS-1430	SEABF	SFBO	0.9	1.1	0.7	SSS	
ST13828	20130823	08:20:20	579441	6375931	18.502	Seabed Morphology	Boulder	SS-1701	SEABF	SFBO	2.3	0.3	1.6	SSS	
ST13828	20130821	21:27:06	579460	6376022	18.532	Seabed Morphology	Boulder	SS-1431	SEABF	SFBO	2.1	0.0	1.6	SSS	
ST13828	20130823	08:20:15	579370	6375927	18.561	Seabed Morphology	Boulder	SS-1700	SEABF	SFBO	1.9	0.9	1.4	SSS	
ST13828	20130822	02:27:28	579331	6375875	18.569	Seabed Morphology	Boulder	SS-1535	SEABF	SFBO	1.6	0.5	0.6	SSS	
ST13828	20130823	07:44:12	579447	6376181	18.622	Seabed Morphology	Boulder	SS-1664	SEABF	SFBO	1.3	0.4	0.3	SSS	
ST13828	20130823	07:43:58	579454	6376253	18.652	Seabed Morphology	Boulder	SS-1662	SEABF	SFBO	1.1	0.5	0.8	SSS	
ST13828	20130823	07:44:01	579408	6376185	18.658	Seabed Morphology	Boulder	SS-1663	SEABF	SFBO	1.3	0.3	1.2	SSS	
ST13828	20130822	13:43:45	579348	6376191	18.713	Seabed Morphology	Boulder	SS-1597	SEABF	SFBO	2.1	0.5	0.4	SSS	
ST13828	20130823	09:15:13	579274	6376076	18.719	Seabed Morphology	Boulder	SS-1720	SEABF	SFBO	2.1	0.4	1.0	SSS	
ST13828	20130822	13:43:40	579281	6376218	18.785	Seabed Morphology	Boulder	SS-1596	SEABF	SFBO	2.0	0.4	0.4	SSS	
ST13828	20130822	13:43:36	579192	6376260	18.882	Seabed Morphology	Boulder	SS-1595	SEABF	SFBO	2.0	0.4	0.6	SSS	
ST13828	20130823	09:15:19	579047	6376119	18.937	Seabed Morphology	Boulder	SS-1721	SEABF	SFBO	2.3	1.1	1.2	SSS	
ST13828	20130822	02:27:36	578997	6376076	18.958	Seabed Morphology	Boulder	SS-1536	SEABF	SFBO	1.2	0.6	1.0	SSS	
ST13828	20130823	07:43:46	579095	6376481	19.077	Seabed Morphology	Boulder	SS-1660	SEABF	SFBO	3.5	0.4	0.7	SSS	

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Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130823	07:43:47	579091	6376488	19.084	Seabed Morphology	Boulder	SS-1661	SEABF	SFBO	0.9	0.4	1.0	SSS	
ST13828	20130822	05:10:03	578797	6376214	19.201	Seabed Morphology	Boulder	SS-1539	SEABF	SFBO	1.6	0.2	0.5	SSS	
ST13828	20130822	05:06:14	578764	6376184	19.214	Seabed Morphology	Boulder	SS-1538	SEABF	SFBO	0.9	0.8	0.2	SSS	
ST13828	20130823	08:07:42	578861	6376401	19.239	Seabed Morphology	Boulder	SS-1683	SEABF	SFBO	0.9	0.6	0.4	SSS	
ST13828	20130823	07:43:32	578867	6376496	19.282	Seabed Morphology	Boulder	SS-1659	SEABF	SFBO	1.4	0.3	0.5	SSS	
ST13828	20130823	08:07:45	578832	6376459	19.294	Seabed Morphology	Boulder	SS-1684	SEABF	SFBO	1.3	0.9	0.4	SSS	Correlated to M-1212
ST13828	20130823	08:07:48	578834	6376477	19.301	Seabed Morphology	Boulder	SS-1685	SEABF	SFBO	0.6	0.4	0.3	SSS	
ST13828	20130823	07:43:31	578844	6376514	19.311	Seabed Morphology	Boulder	SS-1658	SEABF	SFBO	2.0	0.4	1.2	SSS	
ST13828	20130822	05:10:40	578642	6376208	19.332	Seabed Morphology	Boulder	SS-1540	SEABF	SFBO	0.7	0.3	0.3	SSS	
ST13828	20130823	08:19:58	578635	6376371	19.420	Seabed Morphology	Boulder	SS-1699	SEABF	SFBO	2.0	0.6	0.6	SSS	
ST13828	20130822	05:10:49	578553	6376263	19.436	Seabed Morphology	Boulder	SS-1541	SEABF	SFBO	1.0	0.8	0.5	SSS	
ST13828	20130822	05:11:10	578580	6376320	19.442	Seabed Morphology	Boulder	SS-1542	SEABF	SFBO	1.9	0.3	0.9	SSS	
ST13828	20130823	08:07:52	578670	6376497	19.453	Seabed Morphology	Boulder	SS-1686	SEABF	SFBO	1.8	0.4	1.0	SSS	
ST13828	20130822	02:21:53	578761	6376659	19.455	Seabed Morphology	Boulder	SS-1528	SEABF	SFBO	2.0	0.6	0.5	SSS	
ST13828	20130822	13:43:23	578705	6376569	19.459	Seabed Morphology	Boulder	SS-1593	SEABF	SFBO	1.1	0.4	0.5	SSS	
ST13828	20130822	13:43:15	578657	6376593	19.512	Seabed Morphology	Boulder	SS-1590	SEABF	SFBO	1.3	0.6	0.6	SSS	
ST13828	20130823	09:24:30	578534	6376403	19.523	Seabed Morphology	Boulder	SS-1722	SEABF	SFBO	1.1	0.6	0.6	SSS	
ST13828	20130823	09:24:31	578527	6376391	19.524	Seabed Morphology	Boulder	SS-1723	SEABF	SFBO	1.0	0.3	0.7	SSS	
ST13828	20130823	07:42:50	578614	6376723	19.614	Seabed Morphology	Boulder	SS-1656	SEABF	SFBO	0.4	0.4	0.4	SSS	
ST13828	20130822	05:11:17	578386	6376370	19.636	Seabed Morphology	Boulder	SS-1543	SEABF	SFBO	1.6	1.0	0.5	SSS	
ST13828	20130823	07:42:48	578580	6376750	19.657	Seabed Morphology	Boulder	SS-1655	SEABF	SFBO	1.0	0.4	0.3	SSS	Correlated to M-1200
ST13828	20130823	08:19:50	578345	6376468	19.720	Seabed Morphology	Boulder	SS-1698	SEABF	SFBO	2.1	0.5	0.8	SSS	
ST13828	20130822	05:11:27	578298	6376398	19.725	Seabed Morphology	Boulder	SS-1544	SEABF	SFBO	2.6	0.2	0.5	SSS	
ST13828	20130823	08:07:57	578452	6376700	19.743	Seabed Morphology	Boulder	SS-1687	SEABF	SFBO	1.9	0.9	0.8	SSS	
ST13828	20130822	05:11:34	578242	6376415	19.782	Seabed Morphology	Boulder	SS-1545	SEABF	SFBO	1.4	0.5	0.5	SSS	
ST13828	20130823	09:24:35	578335	6376587	19.788	Seabed Morphology	Boulder	SS-1724	SEABF	SFBO	1.0	0.5	0.6	SSS	
ST13828	20130823	07:42:40	578416	6376799	19.824	Seabed Morphology	Boulder	SS-1654	SEABF	SFBO	1.0	0.4	0.5	SSS	
ST13828	20130823	07:42:38	578385	6376808	19.839	Seabed Morphology	Boulder	SS-1653	SEABF	SFBO	1.1	0.4	0.3	SSS	
ST13828	20130822	05:11:53	578072	6376508	20.021	Seabed Morphology	Boulder	SS-1546	SEABF	SFBO	1.2	0.7	0.6	SSS	
ST13828	20130823	00:58:37	578070	6376559	20.040	Seabed Morphology	Boulder	SS-1614	SEABF	SFBO	1.8	0.7	0.8	SSS	
ST13828	20130822	13:42:42	578149	6376866	20.064	Man-made Hazards	Debris	SS-1589	DEBRI	DEWD	2.1	0.3	0.3	SSS	
ST13828	20130822	13:42:38	578102	6376836	20.099	Man-made Hazards	Debris	SS-1588	DEBRI	DEWD	4.4	0.7	0.7	SSS	
ST13828	20130822	02:21:26	578139	6376961	20.104	Man-made Hazards	Linear Debris	SS-1525	DEBRI	DEOT	3.3	0.5	0.6	SSS	
ST13828	20130823	08:19:38	578044	6376689	20.106	Seabed Morphology	Boulder	SS-1697	SEABF	SFBO	0.9	0.5	0.5	SSS	
ST13828	20130823	07:42:20	578123	6376926	20.108	Seabed Morphology	Boulder	SS-1650	SEABF	SFBO	1.2	0.6	0.4	SSS	
ST13828	20130823	07:42:21	578124	6376938	20.111	Seabed Morphology	Boulder	SS-1651	SEABF	SFBO	1.3	0.3	0.1	SSS	
ST13828	20130823	09:24:47	578037	6376740	20.129	Seabed Morphology	Boulder	SS-1725	SEABF	SFBO	1.6	0.2	0.3	SSS	
ST13828	20130823	08:08:05	578039	6376913	20.183	Seabed Morphology	Boulder	SS-1688	SEABF	SFBO	0.9	0.5	0.4	SSS	
ST13828	20130822	13:42:23	578017	6376947	20.215	Seabed Morphology	Boulder	SS-1587	SEABF	SFBO	0.7	0.5	0.5	SSS	
ST13828	20130822	13:42:14	577978	6376925	20.245	Seabed Morphology	Boulder	SS-1586	SEABF	SFBO	1.0	0.6	0.4	SSS	
ST13828	20130823	12:08:39	577723	6376888	20.458	Seabed Morphology	Boulder	SS-1737	SEABF	SFBO	2.5	1.2	1.0	SSS	
ST13828	20130823	00:58:54	577542	6376709	20.642	Seabed Morphology	Boulder	SS-1615	SEABF	SFBO	2.4	1.1	0.8	SSS	Correlated to M-1223
ST13828	20130823	00:58:58	577447	6376713	20.737	Seabed Morphology	Boulder	SS-1616	SEABF	SFBO	4.3	0.0	5.0	SSS	
ST13828	20130822	08:26:46	577360	6376978	20.819	Seabed Morphology	Boulder	SS-1584	SEABF	SFBO	1.6	0.8	0.6	SSS	
ST13828	20130822	05:13:48	577314	6376610	20.871	Seabed Morphology	Bedrock	SS-1548	SEABF	SFBE	1.8	0.9	0.4	SSS	
ST13828	20130822	08:26:55	577207	6376912	20.973	Seabed Morphology	Boulder	SS-1585	SEABF	SFBO	29.4	2.3	14.1	SSS	

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Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130822	08:26:32	577146	6376995	21.033	Seabed Morphology	Boulder	SS-1582	SEABF	SFBO	3.8	1.0	1.4	SSS	
ST13828	20130822	08:26:28	577104	6376967	21.075	Seabed Morphology	Boulder	SS-1580	SEABF	SFBO	1.0	0.6	0.5	SSS	
ST13828	20130822	08:26:30	577071	6376993	21.107	Seabed Morphology	Boulder	SS-1581	SEABF	SFBO	2.8	0.7	0.7	SSS	
ST13828	20130822	08:26:26	577055	6376964	21.124	Seabed Morphology	Boulder	SS-1579	SEABF	SFBO	1.4	0.8	0.5	SSS	
ST13828	20130823	08:15:56	577034	6376655	21.151	Seabed Morphology	Boulder	SS-1695	SEABF	SFBO	1.6	0.6	0.9	SSS	
ST13828	20130823	00:59:11	576937	6376628	21.248	Man-made Hazards	Linear Debris	SS-1617	DEBRI	DEOT	7.0	1.0	0.9	SSS	
ST13828	20130822	05:14:21	576867	6376618	21.318	Seabed Morphology	Boulder	SS-1550	SEABF	SFBO	2.3	1.0	1.1	SSS	
ST13828	20130822	05:14:13	576862	6376580	21.324	Seabed Morphology	Boulder	SS-1549	SEABF	SFBO	5.3	1.4	1.9	SSS	
ST13828	20130823	07:18:46	576678	6376574	21.508	Seabed Morphology	Boulder	SS-1647	SEABF	SFBO	2.4	0.8	1.2	SSS	
ST13828	20130822	05:24:12	576661	6376645	21.523	Seabed Morphology	Boulder	SS-1551	SEABF	SFBO	2.2	0.5	1.3	SSS	
ST13828	20130822	05:24:29	576513	6376593	21.672	Seabed Morphology	Boulder	SS-1553	SEABF	SFBO	2.7	0.6	0.6	SSS	
ST13828	20130822	05:24:26	576482	6376623	21.702	Seabed Morphology	Boulder	SS-1552	SEABF	SFBO	1.2	1.3	0.5	SSS	
ST13828	20130823	07:25:00	576260	6377060	21.917	Seabed Morphology	Boulder	SS-1649	SEABF	SFBO	4.2	0.5	0.5	SSS	
ST13828	20130823	07:06:36	576257	6376879	21.924	Seabed Morphology	Boulder	SS-1636	SEABF	SFBO	0.8	0.6	0.5	SSS	
ST13828	20130823	07:06:38	576236	6376885	21.944	Seabed Morphology	Boulder	SS-1637	SEABF	SFBO	0.9	0.9	0.3	SSS	
ST13828	20130823	08:15:36	576207	6376664	21.977	Seabed Morphology	Boulder	SS-1694	SEABF	SFBO	0.8	0.6	0.4	SSS	
ST13828	20130823	07:18:19	576196	6376533	21.991	Seabed Morphology	Boulder	SS-1645	SEABF	SFBO	2.0	1.3	1.2	SSS	
ST13828	20130823	08:15:31	576180	6376650	22.005	Seabed Morphology	Boulder	SS-1693	SEABF	SFBO	1.7	1.0	0.5	SSS	
ST13828	20130823	08:15:29	576161	6376671	22.023	Seabed Morphology	Boulder	SS-1692	SEABF	SFBO	1.9	0.9	0.9	SSS	
ST13828	20130822	07:48:58	576048	6376989	22.130	Seabed Morphology	Boulder	SS-1577	SEABF	SFBO	4.6	0.9	1.2	SSS	
ST13828	20130822	07:48:53	575911	6376968	22.268	Seabed Morphology	Boulder	SS-1576	SEABF	SFBO	3.5	0.8	1.3	SSS	
ST13828	20130822	05:24:46	575915	6376635	22.270	Seabed Morphology	Boulder	SS-1554	SEABF	SFBO	1.8	0.7	0.9	SSS	
ST13828	20130822	07:48:43	575899	6376991	22.279	Seabed Morphology	Boulder	SS-1575	SEABF	SFBO	2.3	0.7	0.7	SSS	
ST13828	20130822	05:24:47	575900	6376657	22.285	Seabed Morphology	Boulder	SS-1555	SEABF	SFBO	2.1	1.0	0.7	SSS	
ST13828	20130822	07:48:38	575769	6376969	22.406	Seabed Morphology	Boulder	SS-1574	SEABF	SFBO	1.2	0.3	0.7	SSS	
ST13828	20130822	07:48:36	575761	6376961	22.415	Seabed Morphology	Boulder	SS-1573	SEABF	SFBO	1.0	0.6	0.3	SSS	
ST13828	20130823	08:12:41	575760	6376845	22.420	Seabed Morphology	Boulder	SS-1689	SEABF	SFBO	1.6	0.6	0.5	SSS	
ST13828	20130823	08:12:43	575746	6376849	22.433	Seabed Morphology	Boulder	SS-1690	SEABF	SFBO	2.1	0.7	0.6	SSS	
ST13828	20130822	05:28:07	575735	6376598	22.454	Seabed Morphology	Boulder	SS-1556	SEABF	SFBO	3.4	1.2	1.5	SSS	
ST13828	20130822	05:28:12	575723	6376565	22.465	Seabed Morphology	Boulder	SS-1557	SEABF	SFBO	4.8	0.5	1.6	SSS	
ST13828	20130823	08:12:46	575713	6376863	22.466	Seabed Morphology	Boulder	SS-1691	SEABF	SFBO	1.0	1.5	0.4	SSS	
ST13828	20130823	12:12:00	575648	6377044	22.527	Man-made Hazards	Debris	SS-1738	DEBRI	DEWD	3.1	0.1	0.2	SSS	Correlated to M-1093
ST13828	20130822	05:28:29	575547	6376557	22.702	Seabed Morphology	Boulder	SS-1558	SEABF	SFBO	4.7	0.6	0.4	SSS	
ST13828	20130822	06:01:46	575160	6376388	23.183	Seabed Morphology	Boulder	SS-1559	SEABF	SFBO	2.0	0.9	0.6	SSS	
ST13828	20130821	16:24:45	575000	6376505	23.248	Seabed Morphology	Boulder	SS-1806	SEABF	SFBO	1.7	2.4	1.2	SSS	
ST13828	20130822	07:48:12	574902	6376566	23.293	Seabed Morphology	Boulder	SS-1572	SEABF	SFBO	2.8	0.9	1.3	SSS	
ST13828	20130823	06:58:51	574904	6376399	23.387	Seabed Morphology	Boulder	SS-1635	SEABF	SFBO	0.8	0.6	0.7	SSS	
ST13828	20130822	07:48:07	574787	6376548	23.398	Man-made Hazards	Debris	SS-1571	DEBRI	DEWD	8.4	0.2	0.2	SSS	
ST13828	20130823	06:58:49	574878	6376390	23.413	Seabed Morphology	Boulder	SS-1634	SEABF	SFBO	0.8	0.7	0.7	SSS	
ST13828	20130822	07:48:04	574800	6376463	23.436	Seabed Morphology	Boulder	SS-1570	SEABF	SFBO	1.2	0.5	0.6	SSS	
ST13828	20130822	06:02:04	574935	6376256	23.444	Seabed Morphology	Boulder	SS-1560	SEABF	SFBO	2.2	0.8	1.1	SSS	
ST13828	20130822	07:48:01	574779	6376462	23.454	Seabed Morphology	Boulder	SS-1568	SEABF	SFBO	3.7	0.4	0.8	SSS	
ST13828	20130822	07:48:02	574781	6376458	23.454	Seabed Morphology	Boulder	SS-1569	SEABF	SFBO	3.2	0.6	0.9	SSS	
ST13828	20130822	07:47:54	574751	6376456	23.480	Seabed Morphology	Boulder	SS-1567	SEABF	SFBO	1.1	0.3	0.4	SSS	
ST13828	20130822	06:02:28	574936	6376173	23.490	Seabed Morphology	Boulder	SS-1565	SEABF	SFBO	2.6	0.5	0.3	SSS	
ST13828	20130822	06:02:07	574912	6376176	23.507	Seabed Morphology	Boulder	SS-1561	SEABF	SFBO	1.0	0.3	0.4	SSS	

Target Listing SSS
Export Route

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130822	06:02:20	574841	6376204	23.550	Seabed Morphology	Boulder	SS-1563	SEABF	SFBO	2.7	0.5	0.7	SSS	
ST13828	20130823	06:27:37	574883	6376112	23.567	Seabed Morphology	Boulder	SS-1627	SEABF	SFBO	1.1	0.9	0.9	SSS	
ST13828	20130822	06:02:14	574832	6376178	23.572	Seabed Morphology	Boulder	SS-1562	SEABF	SFBO	3.8	1.2	0.9	SSS	
ST13828	20130822	06:02:22	574798	6376180	23.599	Seabed Morphology	Boulder	SS-1564	SEABF	SFBO	1.9	0.5	0.5	SSS	
ST13828	20130823	12:06:58	574843	6376077	23.621	Seabed Morphology	Boulder	SS-1736	SEABF	SFBO	1.0	0.5	0.3	SSS	
ST13828	20130823	06:27:42	574817	6376073	23.644	Seabed Morphology	Boulder	SS-1628	SEABF	SFBO	0.9	0.7	0.4	SSS	
ST13828	20130822	07:47:43	574600	6376378	23.649	Seabed Morphology	Boulder	SS-1566	SEABF	SFBO	2.1	0.9	1.2	SSS	
ST13828	20130823	06:27:43	574810	6376040	23.668	Seabed Morphology	Boulder	SS-1629	SEABF	SFBO	3.0	0.5	0.8	SSS	
ST13828	20130823	07:13:09	574741	6376019	23.738	Seabed Morphology	Boulder	SS-1644	SEABF	SFBO	1.7	0.8	0.4	SSS	
ST13828	20130823	07:23:12	574579	6376010	23.876	Seabed Morphology	Boulder	SS-1648	SEABF	SFBO	2.4	1.1	0.7	SSS	
ST13828	20130823	07:07:11	574074	6375906	24.350	Seabed Morphology	Boulder	SS-1638	SEABF	SFBO	4.6	1.4	2.2	SSS	
ST13828	20130823	06:25:02	574077	6375739	24.442	Seabed Morphology	Boulder	SS-1626	SEABF	SFBO	3.0	0.4	1.1	SSS	
ST13828	20130823	06:24:55	573961	6375687	24.567	Seabed Morphology	Boulder	SS-1625	SEABF	SFBO	2.5	0.1	1.3	SSS	
ST13828	20130823	06:24:53	573962	6375683	24.569	Seabed Morphology	Boulder	SS-1624	SEABF	SFBO	4.3	0.6	0.9	SSS	
ST13828	20130823	06:24:52	573969	6375658	24.578	Seabed Morphology	Boulder	SS-1623	SEABF	SFBO	4.5	0.6	0.7	SSS	
ST13828	20130823	07:07:24	573839	6375834	24.584	Seabed Morphology	Boulder	SS-1640	SEABF	SFBO	0.8	0.7	0.6	SSS	
ST13828	20130823	07:07:21	573871	6375752	24.604	Seabed Morphology	Boulder	SS-1639	SEABF	SFBO	3.0	0.3	1.1	SSS	
ST13828	20130823	06:21:19	573885	6375730	24.605	Seabed Morphology	Boulder	SS-1619	SEABF	SFBO	2.6	0.7	1.1	SSS	
ST13828	20130823	07:07:31	573503	6375625	24.979	Seabed Morphology	Boulder	SS-1641	SEABF	SFBO	3.2	1.1	1.9	SSS	Correlated to M-1417
ST13828	20130823	06:21:46	573515	6375555	25.009	Seabed Morphology	Boulder	SS-1621	SEABF	SFBO	1.6	0.3	0.4	SSS	
ST13828	20130823	06:21:44	573500	6375550	25.024	Seabed Morphology	Boulder	SS-1620	SEABF	SFBO	4.8	0.3	1.0	SSS	

Target Listing MAG
Turbine A

Survey ID	Date	Time	Easting	Northing	KP	Description 1 nT	Description 2 type	Obs number	Obs method	Comments	SSS target associated
ST13828			601076	6364493		43.2	MONOPOLE	M-1	MAG	May be associated with SS-0004 17m away	
ST13828			600351	6365472		11.4	DIPOLE	M-2	MAG	Part of linear Mag trend	
ST13828			600917	6364849		2.8	MONOPOLE	M-4	MAG		
ST13828			600778	6365158		681.5	MONOPOLE	M-5	MAG		
ST13828			600421	6365562		53.5	MONOPOLE	M-6	MAG	Part of linear Mag trend	
ST13828			600053	6366292		29.9	MONOPOLE	M-7	MAG	May be associated with SS-0057	
ST13828			601009	6365670		4.9	MONOPOLE	M-10	MAG		
ST13828			601797	6364767		4.7	DIPOLE	M-11	MAG	Possible debris present	
ST13828			600066	6367039		6.9	MONOPOLE	M-14	MAG		
ST13828			601550	6365582		236.6	DIPOLE	M-18	MAG		
ST13828			601550	6365582		236.6	DIPOLE	M-19	MAG		
ST13828			600156	6366272		12.2	MONOPOLE	M-22	MAG		
ST13828			600265	6365992		13.2	MONOPOLE	M-23	MAG		
ST13828			600248	6366011		18.9	MONOPOLE	M-24	MAG		
ST13828			600468	6365746		15.6	MONOPOLE	M-25	MAG	Part of linear Mag trend	
ST13828			600451	6365620		23.3	MONOPOLE	M-26	MAG	Part of linear Mag trend	
ST13828			600792	6365229		55.3	DIPOLE	M-27	MAG		SS-0084
ST13828			600386	6365535		5.2	DIPOLE	M-29	MAG	Part of linear Mag trend	
ST13828			602248	6364821		8	MONOPOLE	M-37	MAG	Associated with Mag anomaly M-34	
ST13828			600406	6366512		46.6	DIPOLE	M-40	MAG		
ST13828			601288	6368318		16.5	MONOPOLE	M-125	MAG		SS-0536
ST13828			598978	6369898		1408.3	DIPOLE	M-179	MAG	Pipeline	SS-0671
ST13828			599074	6369478		75	MONOPOLE	M-192	MAG	Associated with SSS Contact	SS-0745
ST13828			598798	6369779		1591.9	MONOPOLE	M-194	MAG	Pipeline	SS-0748
ST13828			599051	6368744		108.5	DIPOLE	M-234	MAG		SS-0833
ST13828			599593	6368031		5.8	MONOPOLE	M-237	MAG		SS-0876
ST13828			598979	6369212		7.6	DIPOLE	M-299	MAG		SS-0882
ST13828			599777	6368301		70.7	DIPOLE	M-301	MAG		SS-0662
ST13828			599085	6369541		12	MONOPOLE	M-318	MAG	Associated with SSS Contact	SS-0710
ST13828			599304	6369438		32.1	MONOPOLE	M-333	MAG		SS-0711
ST13828			598409	6371831		19.3	MONOPOLE	M-413	MAG		SS-0460
ST13828			598382	6371856		11.9	MONOPOLE	M-414	MAG		SS-0460
ST13828			598436	6371803		13.3	MONOPOLE	M-418	MAG		SS-0460
ST13828			600937	6365122		148.4	MONOPOLE	M-837	MAG	Associated with other Mag anomalies M-5	
ST13828			600921	6364719		11.2	MONOPOLE	M-841	MAG	Associated with other Mag anomalies M-4	
ST13828			601119	6364619		12	MONOPOLE	M-844	MAG		
ST13828			601477	6364950		5.2	DIPOLE	M-845	MAG		
ST13828			601354	6364286		4.9	MONOPOLE	M-848	MAG	Debris Block	
ST13828			601792	6364679		3.6	MONOPOLE	M-849	MAG		
ST13828			602263	6364683		4.1	DIPOLE	M-851	MAG		
ST13828			602079	6364524		4.1	MONOPOLE	M-852	MAG		

Target Listing SSS
Turbine A

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130807	18:21:30	600795	6364824		Unidentified	Unidentified	SS-0003	TARGT	TAUN	5.4	0.1	0.8	SSS	
ST13829	20130807	18:26:06	601064	6364502		Seabed Morphology	Boulder	SS-0004	SEABF	SFBO	4.6	0.8	1.7	SSS	Correlated to Mag M-1
ST13828	20130807	18:29:03	601318	6364308		Seabed Morphology	Boulder	SS-0005	SEABF	SFBO	2.7	0.9	1.2	SSS	
ST13828	20130807	19:22:08	600178	6365488		Seabed Morphology	Boulder	SS-0006	SEABF	SFBO	4.6	0.2	1.3	SSS	
ST13828	20130807	20:12:05	600231	6365686		Unidentified	Unidentified	SS-0009	TARGT	TAUN	3.3	0.1	0.7	SSS	
ST13828	20130807	20:12:59	600280	6365637		Seabed Morphology	Boulder	SS-0010	SEABF	SFBO	3.2	0.1	0.6	SSS	
ST13828	20130807	20:12:56	600281	6365644		Seabed Morphology	Boulder	SS-0011	SEABF	SFBO	2.3	0.1	1.0	SSS	
ST13828	20130807	20:16:56	600431	6365362		Seabed Morphology	Boulder	SS-0012	SEABF	SFBO	2.8	0.1	0.9	SSS	
ST13828	20130807	20:21:31	600646	6365110		Seabed Morphology	Boulder	SS-0013	SEABF	SFBO	2.4	0.2	1.5	SSS	
ST13828	20130807	21:27:13	601491	6364294		Seabed Morphology	Boulder	SS-0017	SEABF	SFBO	2.8	0.4	1.3	SSS	
ST13828	20130807	22:44:23	600197	6365919		Seabed Morphology	Boulder	SS-0019	SEABF	SFBO	3.3	0.2	1.0	SSS	
ST13828	20130808	00:38:29	600403	6365859		Seabed Morphology	Boulder	SS-0021	SEABF	SFBO	5.0	0.2	1.1	SSS	
ST13828	20130808	01:57:01	602386	6363773		Seabed Morphology	Boulder	SS-0022	SEABF	SFBO	2.9	0.7	2.3	SSS	
ST13828	20130808	03:24:49	599902	6366879		Seabed Morphology	Boulder	SS-0023	SEABF	SFBO	2.2	0.5	1.1	SSS	
ST13828	20130808	03:04:28	601278	6365141		Seabed Morphology	Boulder	SS-0024	SEABF	SFBO	2.1	0.3	0.4	SSS	
ST13828	20130808	02:56:00	601709	6364651		Seabed Morphology	Boulder	SS-0025	SEABF	SFBO	1.2	0.1	0.6	SSS	
ST13828	20130808	02:55:28	601726	6364614		Seabed Morphology	Debris	SS-0026	DEBRI	DEOT	1.5	0.1	0.6	SSS	
ST13828	20130808	02:51:04	602009	6364442		Seabed Morphology	Debris	SS-0027	DEBRI	DEOT	2.1	0.1	0.6	SSS	
ST13828	20130808	02:49:28	602081	6364350		Seabed Morphology	Debris	SS-0028	DEBRI	DEOT	1.5	0.2	0.6	SSS	
ST13828	20130808	02:40:35	602455	6363816		Seabed Morphology	Boulder	SS-0029	SEABF	SFBO	1.2	0.3	0.9	SSS	
ST13828	20130808	04:14:32	600948	6365812		Man-made Hazard	Cable/Wire	SS-0033	DEBRI	DECW	82.3	0.1	0.9	SSS	
ST13828	20130808	04:04:36	600240	6366596		Seabed Morphology	Debris	SS-0034	DEBRI	DEOT	1.3	0.1	0.9	SSS	
ST13828	20130808	04:00:53	599989	6366906		Seabed Morphology	Boulder	SS-0035	SEABF	SFBO	0.0	0.0	0.0	SSS	
ST13828	20130808	06:37:56	600163	6366877		Seabed Morphology	Boulder	SS-0036	SEABF	SFBO	2.0	0.1	1.0	SSS	
ST13828	20130808	07:19:13	603117	6363635		Seabed Morphology	Debris	SS-0037	DEBRI	DEOT	3.4	0.0	1.3	SSS	
ST13828	20130808	10:39:17	602632	6364253		Man-made Hazard	Cable/Wire	SS-0040	DEBRI	DECW	27.2	0.0	0.5	SSS	
ST13828	20130808	10:04:22	600249	6366991		Seabed Morphology	Boulder	SS-0041	SEABF	SFBO	2.2	0.3	0.4	SSS	
ST13828	20130808	10:03:34	600192	6367050		Seabed Morphology	Boulder	SS-0042	SEABF	SFBO	2.2	0.1	0.9	SSS	
ST13828	20130808	10:03:28	600184	6367057		Seabed Morphology	Boulder	SS-0043	SEABF	SFBO	1.3	0.1	0.4	SSS	
ST13828	20130808	10:00:37	600065	6367333		Seabed Morphology	Boulder	SS-0044	SEABF	SFBO	1.2	0.3	0.8	SSS	
ST13828	20130808	08:29:54	600797	6366431		Seabed Morphology	Boulder	SS-0047	SEABF	SFBO	2.8	0.2	0.9	SSS	
ST13828	20130808	08:01:44	602793	6364019		Seabed Morphology	Boulder	SS-0048	SEABF	SFBO	2.9	1.7	1.0	SSS	
ST13828	20130808	12:06:53	600047	6367207		Seabed Morphology	Boulder	SS-0050	SEABF	SFBO	1.3	0.2	0.4	SSS	
ST13828	20130808	15:19:05	600315	6366473		Seabed Morphology	Sand Ripples	SS-0054	SEABF	SFOT	4.0	0.1	1.6	SSS	
ST13828	20130808	15:03:39	601494	6365135		Seabed Morphology	Boulder	SS-0055	SEABF	SFBO	4.8	0.4	2.4	SSS	
ST13828	20130808	18:32:32	600323	6366043		Seabed Morphology	Boulder	SS-0056	SEABF	SFBO	4.7	0.1	1.4	SSS	
ST13830	20130808	20:03:16	600039	6366317		Seabed Morphology	Boulder	SS-0057	SEABF	SFBO	4.1	0.3	1.3	SSS	Correlated to Mag M-7
ST13828	20130808	19:46:22	601236	6364919		Man-made Hazard	Unidentified	SS-0060	TARGT	TAUN	3.3	0.1	0.9	SSS	
ST13828	20130808	19:43:28	601391	6364624		Man-made Hazard	Unidentified	SS-0061	TARGT	TAUN	3.8	0.1	0.5	SSS	
ST13828	20130808	19:54:20	600663	6365597		Seabed Morphology	Boulder	SS-0062	SEABF	SFBO	2.7	0.1	0.9	SSS	
ST13828	20130808	19:42:54	601421	6364564		Seabed Morphology	Boulder	SS-0063	SEABF	SFBO	4.2	0.6	1.4	SSS	
ST13828	20130808	19:34:23	602128	6363925		Man-made Hazard	Unidentified	SS-0064	TARGT	TAUN	3.2	0.2	0.5	SSS	
ST13828	20130808	20:49:44	599944	6366100		Seabed Morphology	Unidentified	SS-0066	TARGT	TAPB	3.3	0.2	0.7	SSS	
ST13828	20130808	20:53:09	600220	6365982		Seabed Morphology	Unidentified	SS-0067	TARGT	TAPB	3.6	0.2	1.0	SSS	
ST13828	20130808	20:55:49	600347	6365815		Seabed Morphology	Boulder	SS-0068	SEABF	SFBO	2.3	0.1	1.4	SSS	
ST13828	20130808	21:03:51	600775	6365331		Seabed Morphology	Boulder	SS-0069	SEABF	SFBO	2.3	0.1	1.3	SSS	
ST13828	20130808	21:21:05	601650	6364180		Seabed Morphology	Boulder	SS-0070	SEABF	SFBO	1.8	0.5	0.7	SSS	

Target Listing SSS
Turbine A

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130808	22:34:09	600071	6365989		Seabed Morphology	Boulder	SS-0071	SEABF	SFBO	2.6	0.0	0.7	SSS	
ST13828	20130808	22:37:00	599826	6366106		Seabed Morphology	Boulder	SS-0072	SEABF	SFBO	1.8	0.3	1.8	SSS	
ST13828	20130808	23:26:51	600648	6365153		Man-made Hazard	Unidentified	SS-0074	TARGT	TAUN	3.0	0.7	1.3	SSS	
ST13828	20130808	23:26:54	600644	6365144		Seabed Morphology	Boulder	SS-0075	SEABF	SFBO	2.1	0.7	1.3	SSS	
ST13828	20130808	23:27:24	600607	6365042		Seabed Morphology	Boulder	SS-0076	SEABF	SFBO	5.7	0.5	2.9	SSS	
ST13828	20130807	21:44:04	600779	6365235		Man-made Hazard	Debris	SS-0083	DEBRI	SFBO	0.9	0.2	0.9	SSS	Correlate with MAG
ST13831	20130807	21:43:48	600785	6365219		Man-made Hazard	Debris	SS-0084	DEBRI	DEOT	1.7	0.0	0.3	SSS	Correlated to Mag M-27
ST13828	20130807	21:43:34	600786	6365198		Seabed Morphology	Boulder	SS-0085	SEABF	SFBO	1.4	0.1	0.9	SSS	Correlate with MAG
ST13828	20130807	21:43:59	600774	6365226		Man-made Hazard	Debris	SS-0086	DEBRI	DEOT	0.6	0.2	0.3	SSS	Correlate with MAG

Target Listing MAG
Turbine B

Survey ID	Date	Time	Easting	Northing	KP	Description 1 nT	Description 2 type	Obs number	Obs method	Comments	SSS target associated
ST13828			602339	6364241		43.5	MONOPOLE	M-20	MAG		SS-0082
ST13828			600468	6367240		11.4	DIPOLE	M-42	MAG		
ST13828			600891	6368935		13	COMPLEX	M-44	MAG		
ST13828			604790	6365071		69.5	MONOPOLE	M-82	MAG		
ST13828			604362	6365565		38.9	DIPOLE	M-83	MAG		
ST13828			600003	6370529		3012.3	DIPOLE	M-85	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599956	6370583		1208.4	DIPOLE	M-86	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			600038	6370488		44.9	MONOPOLE	M-87	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			598161	6372645		25	MONOPOLE	M-88	MAG	Cable or pipeline Existing Telecom Cable Inactive 3	
ST13828			597788	6373067		5.8	MONOPOLE	M-89	MAG	Possible anomaly	
ST13828			597046	6373772		20.7	DIPOLE	M-90	MAG		
ST13828			597619	6373102		2.6	DIPOLE	M-91	MAG		
ST13828			598087	6372583		32	MONOPOLE	M-92	MAG	Existing Telecom Cable Inactive 3	
ST13828			599962	6370429		99.9	MONOPOLE	M-93	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			599876	6370529		1647	DIPOLE	M-94	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			599929	6370467		2375.3	DIPOLE	M-95	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			601852	6368264		5.7	MONOPOLE	M-96	MAG	May be associated with SSS Contact	
ST13828			603576	6366308		7.2	DIPOLE	M-98	MAG		
ST13828			602675	6367185		6.3	MONOPOLE	M-99	MAG		
ST13828			599878	6370379		314.5	MONOPOLE	M-100	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			599843	6370417		3468.2	MONOPOLE	M-101	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599791	6370474		3609.1	MONOPOLE	M-102	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			598008	6372522		24.2	MONOPOLE	M-104	MAG	Existing Telecom Cable Inactive 3	
ST13828			598238	6372267		19.8	DIPOLE	M-105	MAG	Debris Block	
ST13828			597818	6372574		19.5	MONOPOLE	M-106	MAG		
ST13828			597304	6373170		9.2	MONOPOLE	M-107	MAG		
ST13828			597928	6372450		18.6	MONOPOLE	M-108	MAG	Existing Telecom Cable Inactive 3	
ST13828			599720	6370413		1750.8	DIPOLE	M-109	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			599800	6370321		160.5	DIPOLE	M-110	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			599762	6370366		2357.1	DIPOLE	M-111	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			602253	6367503		19.5	MONOPOLE	M-112	MAG		
ST13828			602271	6367329		10.3	MONOPOLE	M-113	MAG		
ST13828			599711	6370262		87.2	MONOPOLE	M-114	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			599626	6370354		3037.7	MONOPOLE	M-115	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			598133	6372067		2.8	MONOPOLE	M-116	MAG	unknown cable 2	
ST13828			599666	6370308		517.8	DIPOLE	M-117	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			597857	6372393		19	MONOPOLE	M-118	MAG	Existing Telecom Cable Inactive 3	
ST13828			598641	6371325		52.6	MONOPOLE	M-119	MAG		
ST13828			597786	6372321		10.2	DIPOLE	M-120	MAG	Existing Telecom Cable Inactive 3	
ST13828			598005	6372064		7.5	MONOPOLE	M-121	MAG	unknown cable 2	
ST13828			599635	6370202		116.7	MONOPOLE	M-122	MAG	Forties C to Cruden Bay umbilical Cable	

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Survey ID	Date	Time	Easting	Northing	KP	Description 1 nT	Description 2 type	Obs number	Obs method	Comments	SSS target associated
ST13828			599588	6370252		8868.8	MONOPOLE	M-123	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599549	6370293		2422.5	DIPOLE	M-124	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			599548	6370150		288	MONOPOLE	M-126	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			599501	6370199		12266.5	MONOPOLE	M-127	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599466	6370241		2310.5	DIPOLE	M-128	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			597699	6372255		130.2	MONOPOLE	M-129	MAG	Existing Telecom Cable Inactive 3	
ST13828			597796	6372144		8.8	MONOPOLE	M-130	MAG	Possible Contact	SS-1269
ST13828			597861	6372073		4.4	MONOPOLE	M-131	MAG	unknown cable 2	
ST13828			596169	6373867		14.1	MONOPOLE	M-132	MAG		
ST13828			597625	6372186		18.2	MONOPOLE	M-133	MAG	Existing Telecom Cable Inactive 3	
ST13828			597733	6372063		6.7	MONOPOLE	M-134	MAG	Associated with SSS Contact, unknown cable 2	
ST13828			599420	6370135		7190.4	DIPOLE	M-136	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599462	6370088		80.2	MONOPOLE	M-137	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			599382	6370181		2614.4	DIPOLE	M-138	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			602291	6366874		8.4	MONOPOLE	M-139	MAG		
ST13828			601518	6367604		2.3	DIPOLE	M-141	MAG	unknown Mag anomaly	
ST13828			599599	6369784		4.3	MONOPOLE	M-142	MAG	Associated with another Mag anomaly	
ST13828			599298	6370127		1222.8	MONOPOLE	M-143	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			599534	6369857		33.8	MONOPOLE	M-144	MAG	unknown Mag anomaly	
ST13828			599336	6370086		1736.8	MONOPOLE	M-145	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599380	6370035		40.7	DIPOLE	M-146	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			597554	6372128		22.4	MONOPOLE	M-147	MAG	Existing Telecom Cable Inactive 3	
ST13828			597686	6371983		27.9	MONOPOLE	M-148	MAG	unknown Mag anomaly	
ST13828			596979	6372781		5.1	MONOPOLE	M-149	MAG	Debris Block	SS-1254
ST13828			596373	6373323		18.3	MONOPOLE	M-150	MAG	Debris Block	
ST13828			597028	6372575		18	DIPOLE	M-152	MAG	Possible chain, Associated with SSS Contact	SS-1215
ST13828			597479	6372059		8.2	COMPLEX	M-153	MAG	unknown cable 2	
ST13828			599252	6370028		2837	MONOPOLE	M-154	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599298	6369977		873.9	MONOPOLE	M-155	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			599219	6370065		17380.9	DIPOLE	M-156	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			601378	6367603		45.3	DIPOLE	M-157	MAG	unknown Mag anomaly	SS-1228
ST13828			603866	6364754		5.6	DIPOLE	M-158	MAG		
ST13828			601125	6367731		10	MONOPOLE	M-159	MAG		
ST13828			599133	6370013		1436.8	MONOPOLE	M-160	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			599212	6369924		62.1	MONOPOLE	M-161	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			599168	6369973		13620.2	MONOPOLE	M-162	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			598011	6371287		29.9	MONOPOLE	M-163	MAG	Cable or wire	
ST13828			597934	6371375		85.1	MONOPOLE	M-164	MAG	Cable or wire	
ST13828			598538	6370688		25.7	MONOPOLE	M-165	MAG	Cable or wire	
ST13828			597397	6372000		7.6	MONOPOLE	M-166	MAG	Existing Telecom Cable Inactive 3	
ST13828			597101	6372334		3.4	MONOPOLE	M-167	MAG		

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Survey ID	Date	Time	Easting	Northing	KP	Description 1 nT	Description 2 type	Obs number	Obs method	Comments	SSS target associated
ST13828			596241	6373321		20.9	MONOPOLE	M-168	MAG		
ST13828			597201	6372069		7.1	MONOPOLE	M-169	MAG	unknown cable 2	
ST13828			596927	6372381		11.2	MONOPOLE	M-171	MAG		
ST13828			599054	6369951		1162.3	DIPOLE	M-172	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			597327	6371925		25.5	MONOPOLE	M-173	MAG	Existing Telecom Cable Inactive 3	
ST13828			599088	6369907		386	DIPOLE	M-175	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599128	6369863		101.2	MONOPOLE	M-176	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			602946	6365357		7.2	MONOPOLE	M-177	MAG		
ST13828			600253	6368438		7.7	MONOPOLE	M-178	MAG		
ST13828			599050	6369815		214	MONOPOLE	M-180	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			599015	6369855		3046.8	MONOPOLE	M-181	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			597260	6371852		11.7	MONOPOLE	M-182	MAG	Existing Telecom Cable Inactive 3	
ST13828			597065	6372071		4.9	MONOPOLE	M-183	MAG	unknown cable 2	
ST13828			598031	6370823		551.1	MONOPOLE	M-184	MAG		
ST13828			597197	6371775		9.7	MONOPOLE	M-185	MAG	Existing Telecom Cable Inactive 3	
ST13828			598965	6369751		69.2	DIPOLE	M-186	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			598889	6369833		944.4	MONOPOLE	M-187	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			598934	6369783		433.9	MONOPOLE	M-188	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			601722	6366597		15.5	MONOPOLE	M-189	MAG		
ST13828			603058	6365067		5	MONOPOLE	M-190	MAG		
ST13828			601635	6366541		2.4	MONOPOLE	M-191	MAG		
ST13828			598840	6369732		1630.3	MONOPOLE	M-193	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			598877	6369689		127.3	MONOPOLE	M-195	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			596806	6372069		18.7	MONOPOLE	M-196	MAG	unknown cable 2	
ST13828			597136	6371687		12.1	MONOPOLE	M-197	MAG	Existing Telecom Cable Inactive 3	
ST13828			596663	6372069		17.2	MONOPOLE	M-198	MAG	unknown cable 2	
ST13828			597074	6371606		15	DIPOLE	M-199	MAG	Existing Telecom Cable Inactive 3	
ST13828			597405	6371219		19.2	DIPOLE	M-200	MAG		
ST13828			596930	6371768		6	DIPOLE	M-201	MAG		
ST13828			598718	6369721		949.5	MONOPOLE	M-202	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			598761	6369671		2389.5	DIPOLE	M-203	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			598795	6369630		220.7	DIPOLE	M-204	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			599587	6368731		5	DIPOLE	M-205	MAG		
ST13828			603059	6364598		9.6	DIPOLE	M-206	MAG		
ST13828			598685	6369621		4699.4	MONOPOLE	M-207	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			598919	6369343		137.4	DIPOLE	M-208	MAG		
ST13828			598641	6369677		2632.7	DIPOLE	M-209	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			598720	6369585		199.3	MONOPOLE	M-210	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			598118	6370264		56	DIPOLE	M-211	MAG		
ST13828			597012	6371518		39.4	DIPOLE	M-212	MAG	Existing Telecom Cable Inactive 3	
ST13828			595938	6372762		23.7	DIPOLE	M-213	MAG		

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Survey ID	Date	Time	Easting	Northing	KP	Description 1 nT	Description 2 type	Obs number	Obs method	Comments	SSS target associated
ST13828			596962	6371437		9	DIPOLE	M-214	MAG	Existing Telecom Cable Inactive 3	
ST13828			596410	6372064		11.2	MONOPOLE	M-215	MAG	unknown cable 2	
ST13828			597077	6371305		5.5	MONOPOLE	M-216	MAG		
ST13828			598632	6369516		303.2	MONOPOLE	M-217	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			598551	6369614		4006.5	MONOPOLE	M-218	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			598601	6369553		1968	MONOPOLE	M-219	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599790	6368206		5.3	DIPOLE	M-220	MAG		
ST13828			600342	6367566		5.2	MONOPOLE	M-221	MAG		
ST13828			602353	6365275		109.7	MONOPOLE	M-222	MAG		
ST13828			598554	6369467		82.7	DIPOLE	M-223	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			598528	6369500		4560.8	DIPOLE	M-224	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			598473	6369566		790.8	DIPOLE	M-225	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			596025	6372332		46.3	DIPOLE	M-226	MAG		
ST13828			596899	6371356		48.9	MONOPOLE	M-227	MAG	Existing Telecom Cable Inactive 3	
ST13828			596830	6371279		11.2	MONOPOLE	M-228	MAG	Existing Telecom Cable Inactive 3	
ST13828			596583	6371564		5	DIPOLE	M-229	MAG		
ST13828			597202	6370852		21	MONOPOLE	M-230	MAG		
ST13828			598435	6369426		6086.7	MONOPOLE	M-231	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			598384	6369486		4012.2	DIPOLE	M-232	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			598460	6369400		425.7	MONOPOLE	M-233	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600454	6367133		3.5	MONOPOLE	M-235	MAG		
ST13828			600779	6366678		14.5	DIPOLE	M-236	MAG		
ST13828			598336	6369471		3174.7	MONOPOLE	M-238	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			598417	6369382		227.4	MONOPOLE	M-239	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			598391	6369410		14271.4	MONOPOLE	M-240	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			596775	6371264		6.1	MONOPOLE	M-241	MAG	Existing Telecom Cable Inactive 3	
ST13828			596327	6371782		8.1	DIPOLE	M-242	MAG		
ST13828			596390	6371710		18.3	DIPOLE	M-243	MAG		
ST13828			596537	6371466		86.8	DIPOLE	M-244	MAG	Cable or wire	
ST13828			595997	6372065		13.5	DIPOLE	M-245	MAG	unknown cable 2	
ST13828			598307	6369441		736.3	MONOPOLE	M-246	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			598360	6369378		4806.9	MONOPOLE	M-247	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			598386	6369349		40.3	MONOPOLE	M-248	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600741	6366659		88.6	MONOPOLE	M-249	MAG		
ST13828			601417	6365889		5.1	MONOPOLE	M-250	MAG		
ST13828			602115	6365010		82.9	DIPOLE	M-251	MAG		
ST13828			599836	6367614		6.9	DIPOLE	M-252	MAG		
ST13828			600138	6367274		21.3	DIPOLE	M-253	MAG		
ST13828			598265	6369417		2881.3	DIPOLE	M-254	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			598343	6369330		162.9	DIPOLE	M-255	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			598324	6369352		7600.1	MONOPOLE	M-256	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	

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Survey ID	Date	Time	Easting	Northing	KP	Description 1 nT	Description 2 type	Obs number	Obs method	Comments	SSS target associated
ST13828			596685	6371228		8.5	MONOPOLE	M-257	MAG	Existing Telecom Cable Inactive 3	
ST13828			596396	6371555		5.9	DIPOLE	M-258	MAG		
ST13828			595954	6372066		7	DIPOLE	M-259	MAG	unknown cable 2	
ST13828			595885	6372063		5.5	MONOPOLE	M-260	MAG	unknown cable 2	
ST13828			596648	6371207		23.3	MONOPOLE	M-261	MAG	Existing Telecom Cable Inactive 3	
ST13828			596576	6371180		6.7	MONOPOLE	M-263	MAG	Existing Telecom Cable Inactive 3	
ST13828			596477	6371296		14.6	MONOPOLE	M-264	MAG		
ST13828			595799	6372069		10.3	MONOPOLE	M-265	MAG	unknown cable 2	
ST13828			596100	6371730		4.2	MONOPOLE	M-266	MAG		
ST13828			596378	6371329		27.3	MONOPOLE	M-267	MAG		
ST13828			596542	6371151		16.3	MONOPOLE	M-268	MAG	Existing Telecom Cable Inactive 3	
ST13828			596495	6371129		14.7	MONOPOLE	M-270	MAG	Existing Telecom Cable Inactive 3	
ST13828			596458	6371093		54.4	MONOPOLE	M-271	MAG	Existing Telecom Cable Inactive 3	
ST13828			595606	6372070		22.3	MONOPOLE	M-272	MAG	unknown cable 2	
ST13828			596413	6371067		38.6	MONOPOLE	M-273	MAG	Existing Telecom Cable Inactive 3	
ST13828			596384	6371032		11.8	DIPOLE	M-276	MAG	Existing Telecom Cable Inactive 3	
ST13828			596204	6372070		6.4	DIPOLE	M-277	MAG	unknown cable 2	
ST13828			596875	6371302		4.5	MONOPOLE	M-278	MAG	Existing Telecom Cable Inactive 3	
ST13828			598480	6369467		6234.8	DIPOLE	M-279	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			598509	6369433		116	DIPOLE	M-280	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			599058	6368796		32	DIPOLE	M-281	MAG		
ST13828			598427	6369528		3453.7	DIPOLE	M-282	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			600233	6367465		14.8	DIPOLE	M-283	MAG		
ST13828			601847	6365771		102.3	DIPOLE	M-285	MAG		
ST13828			601724	6365908		4.3	DIPOLE	M-286	MAG		
ST13828			599780	6368140		18.3	DIPOLE	M-287	MAG		
ST13828			598588	6369496		291.7	DIPOLE	M-288	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			598562	6369527		365.8	DIPOLE	M-289	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			598505	6369593		2406.9	DIPOLE	M-290	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			598380	6369739		50.9	DIPOLE	M-291	MAG		
ST13828			596931	6371404		11.5	DIPOLE	M-292	MAG	Existing Telecom Cable Inactive 3	
ST13828			597843	6370343		13.2	DIPOLE	M-293	MAG		
ST13828			596343	6372074		9.2	DIPOLE	M-294	MAG	unknown cable 2	
ST13828			596484	6372069		3.2	DIPOLE	M-295	MAG	unknown cable 2	
ST13828			596993	6371480		8.1	DIPOLE	M-296	MAG	Existing Telecom Cable Inactive 3	
ST13828			598606	6369647		3119.3	DIPOLE	M-297	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			598685	6369552		127.6	MONOPOLE	M-298	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			598657	6369586		8673.6	DIPOLE	M-300	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			601148	6366730		12.5	DIPOLE	M-302	MAG		
ST13828			598681	6369700		2145.7	DIPOLE	M-303	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			598726	6369649		1570	DIPOLE	M-304	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	

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Survey ID	Date	Time	Easting	Northing	KP	Description 1 nT	Description 2 type	Obs number	Obs method	Comments	SSS target associated
ST13828			598759	6369610		217.6	DIPOLE	M-305	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			597043	6371565		23.3	MONOPOLE	M-306	MAG	Existing Telecom Cable Inactive 3	
ST13828			596006	6372735		4.8	MONOPOLE	M-307	MAG	Debris Block	
ST13828			597133	6371465		14.7	DIPOLE	M-308	MAG		
ST13828			596603	6372069		8.4	MONOPOLE	M-309	MAG	unknown cable 2	
ST13828			596739	6372069		14.1	DIPOLE	M-310	MAG	unknown cable 2	
ST13828			597108	6371642		10.1	DIPOLE	M-311	MAG	Existing Telecom Cable Inactive 3	
ST13828			598762	6369751		454.1	MONOPOLE	M-312	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			598777	6369732		208	MONOPOLE	M-313	MAG		
ST13828			598840	6369662		167.2	MONOPOLE	M-314	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			598811	6369701		301.7	MONOPOLE	M-315	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599135	6369483		15.1	MONOPOLE	M-317	MAG	Associated with SSS Contact	
ST13828			598918	6369724		203.8	MONOPOLE	M-319	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			598885	6369763		3871.7	MONOPOLE	M-320	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599162	6369452		13.3	MONOPOLE	M-321	MAG	Associated with SSS Contact	
ST13828			598848	6369811		1570.1	MONOPOLE	M-322	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			597164	6371730		11.8	MONOPOLE	M-323	MAG	Existing Telecom Cable Inactive 3	
ST13828			598390	6370331		4.1	MONOPOLE	M-324	MAG		
ST13828			597426	6371429		13.9	MONOPOLE	M-325	MAG		
ST13828			597602	6371236		8	MONOPOLE	M-326	MAG		
ST13828			596649	6372476		14.6	MONOPOLE	M-328	MAG		
ST13828			597000	6372072		24.4	DIPOLE	M-329	MAG	unknown cable 2	
ST13828			597229	6371813		4.7	MONOPOLE	M-330	MAG	Existing Telecom Cable Inactive 3	
ST13828			598972	6369816		8106.3	MONOPOLE	M-331	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599004	6369777		215	MONOPOLE	M-332	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			598933	6369864		2002.2	MONOPOLE	M-334	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			600158	6368623		69.8	DIPOLE	M-335	MAG		
ST13828			600067	6368725		6.6	MONOPOLE	M-336	MAG		
ST13828			599088	6369840		242.3	MONOPOLE	M-337	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			598513	6370487		5.5	MONOPOLE	M-338	MAG		
ST13828			599051	6369883		6109.9	DIPOLE	M-339	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599014	6369925		2844.3	MONOPOLE	M-340	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			596057	6373298		9	MONOPOLE	M-341	MAG		
ST13828			597300	6371900		11.6	MONOPOLE	M-342	MAG	Existing Telecom Cable Inactive 3	
ST13828			596892	6372364		3.6	DIPOLE	M-343	MAG		
ST13828			596187	6373312		5.3	MONOPOLE	M-344	MAG		
ST13828			597362	6371958		8.6	DIPOLE	M-345	MAG	Existing Telecom Cable Inactive 3	
ST13828			597264	6372070		4.1	MONOPOLE	M-346	MAG	unknown cable 2	
ST13828			597220	6372119		68.5	MONOPOLE	M-347	MAG		
ST13828			597164	6372182		10.5	DIPOLE	M-348	MAG		
ST13828			599170	6369893		53.8	MONOPOLE	M-349	MAG	Forties C to Cruden Bay umbilical Cable	

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Survey ID	Date	Time	Easting	Northing	KP	Description 1 nT	Description 2 type	Obs number	Obs method	Comments	SSS target associated
ST13828			599131	6369935		6575.3	MONOPOLE	M-350	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599092	6369980		1365.8	DIPOLE	M-351	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			603222	6365415		26	DIPOLE	M-352	MAG		
ST13828			599253	6369952		104.7	COMPLEX	M-353	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			599207	6370003		9138.5	COMPLEX	M-354	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599174	6370042		1944	COMPLEX	M-355	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			597432	6372030		218.8	COMPLEX	M-356	MAG	Existing Telecom Cable Inactive 3	
ST13828			597408	6372056		51.5	MONOPOLE	M-357	MAG	unknown cable 2	
ST13828			596428	6373328		24.1	DIPOLE	M-358	MAG		
ST13828			597015	6372649		8.9	DIPOLE	M-359	MAG		
ST13828			596088	6373708		6.2	DIPOLE	M-360	MAG		
ST13828			597517	6372080		14.5	COMPLEX	M-361	MAG	Existing Telecom Cable Inactive 3	
ST13828			599293	6370054		1877.1	DIPOLE	M-362	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599338	6370004		127.3	DIPOLE	M-363	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			599258	6370094		4073.3	DIPOLE	M-364	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			600835	6368284		9.3	DIPOLE	M-365	MAG		
ST13828			601091	6367999		22.4	MONOPOLE	M-366	MAG		
ST13828			601707	6367292		16.8	MONOPOLE	M-367	MAG		
ST13828			599345	6370162		1175.7	MONOPOLE	M-369	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			599387	6370116		1031	MONOPOLE	M-370	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599427	6370067		90	DIPOLE	M-371	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			597585	6372155		31.3	DIPOLE	M-372	MAG	Existing Telecom Cable Inactive 3	
ST13828			597657	6372072		18.8	DIPOLE	M-373	MAG	unknown cable 2	
ST13828			597747	6371971		11	MONOPOLE	M-374	MAG		
ST13828			598829	6370754		8.1	MONOPOLE	M-375	MAG		
ST13828			598380	6371261		7.5	MONOPOLE	M-376	MAG	Associated with other Mag anomaly	
ST13828			597673	6372228		14.2	MONOPOLE	M-378	MAG	Existing Telecom Cable Inactive 3	
ST13828			597818	6372067		11.2	DIPOLE	M-379	MAG	unknown cable 2	
ST13828			599510	6370117		392.9	MONOPOLE	M-380	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			599468	6370166		5357.7	MONOPOLE	M-381	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599428	6370212		1700.8	MONOPOLE	M-382	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			598970	6370742		8.7	MONOPOLE	M-383	MAG		
ST13828			601168	6368217		16.4	DIPOLE	M-384	MAG		
ST13828			602541	6366653		73.6	DIPOLE	M-385	MAG		
ST13828			603903	6365089		6.9	DIPOLE	M-386	MAG		
ST13828			602629	6366703		11.3	MONOPOLE	M-387	MAG		
ST13828			600223	6369456		24	DIPOLE	M-388	MAG		
ST13828			600640	6368962		13	MONOPOLE	M-389	MAG		
ST13828			599500	6370274		1088.1	MONOPOLE	M-390	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			599085	6370743		7.5	MONOPOLE	M-391	MAG		
ST13828			599585	6370179		260.3	MONOPOLE	M-393	MAG	Forties C to Cruden Bay umbilical Cable	

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Survey ID	Date	Time	Easting	Northing	KP	Description 1 nT	Description 2 type	Obs number	Obs method	Comments	SSS target associated
ST13828			599540	6370229		3387.9	MONOPOLE	M-394	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			597924	6372069		9.3	DIPOLE	M-395	MAG	unknown cable 2	
ST13828			597740	6372288		19.2	MONOPOLE	M-396	MAG	Existing Telecom Cable Inactive 3	
ST13828			596425	6373946		9.3	MONOPOLE	M-397	MAG		
ST13828			598062	6372067		8	MONOPOLE	M-398	MAG	unknown cable 2	
ST13828			597818	6372348		51.2	MONOPOLE	M-399	MAG	Existing Telecom Cable Inactive 3	
ST13828			599587	6370321		1101.6	DIPOLE	M-400	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			599669	6370230		263.9	MONOPOLE	M-401	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			599625	6370278		3105.2	MONOPOLE	M-402	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600978	6368723		43.3	MONOPOLE	M-403	MAG		
ST13828			600697	6369058		12.7	MONOPOLE	M-404	MAG		
ST13828			601192	6368490		8.2	MONOPOLE	M-405	MAG		
ST13828			603044	6366372		9.3	MONOPOLE	M-406	MAG		
ST13828			603796	6365519		8.1	MONOPOLE	M-407	MAG		
ST13828			604670	6364667		9.1	MONOPOLE	M-408	MAG		
ST13828			600910	6368970		146.5	MONOPOLE	M-409	MAG	Associated with Mag anomaly M- 40	
ST13828			599677	6370391		1440.8	MONOPOLE	M-410	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			599761	6370298		141.1	MONOPOLE	M-411	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			599720	6370346		1476.3	MONOPOLE	M-412	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			598219	6372052		15.3	MONOPOLE	M-415	MAG	unknown cable 2	
ST13828			597898	6372423		21	MONOPOLE	M-416	MAG	Existing Telecom Cable Inactive 3	
ST13828			598541	6371681		8.7	MONOPOLE	M-417	MAG		
ST13828			596870	6373587		10	MONOPOLE	M-419	MAG		
ST13828			596814	6373809		9.2	DIPOLE	M-420	MAG		
ST13828			597971	6372485		16.3	DIPOLE	M-421	MAG	Existing Telecom Cable Inactive 3	
ST13828			599809	6370393		6927.1	DIPOLE	M-422	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599764	6370448		3074.1	DIPOLE	M-423	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			599844	6370351		117.5	MONOPOLE	M-424	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600442	6369800		11	MONOPOLE	M-425	MAG		
ST13828			599890	6370447		2403.3	DIPOLE	M-426	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599840	6370503		1899.6	MONOPOLE	M-427	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			599923	6370408		768.4	MONOPOLE	M-428	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			597345	6373343		103.7	DIPOLE	M-429	MAG		
ST13828			597598	6373057		47.9	DIPOLE	M-430	MAG		
ST13828			598039	6372546		15.6	DIPOLE	M-431	MAG	Existing Telecom Cable Inactive 3	
ST13828			596755	6374028		8.2	DIPOLE	M-432	MAG		
ST13828			598128	6372608		30.5	MONOPOLE	M-433	MAG	Existing Telecom Cable Inactive 3	
ST13828			598537	6372134		15.6	DIPOLE	M-434	MAG		
ST13828			600003	6370460		43.5	MONOPOLE	M-435	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			599963	6370504		1787	MONOPOLE	M-436	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599920	6370556		925.7	MONOPOLE	M-437	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	

Target Listing MAG
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Survey ID	Date	Time	Easting	Northing	KP	Description 1 nT	Description 2 type	Obs number	Obs method	Comments	SSS target associated
ST13828			601892	6368310		7.1	MONOPOLE	M-438	MAG	May be associated with SSS Contact	
ST13828			603308	6366136		116.8	DIPOLE	M-442	MAG		
ST13828			602329	6366616		8.2	DIPOLE	M-443	MAG		
ST13828			599360	6371334		3.4	MONOPOLE	M-452	MAG		
ST13828			599401	6371287		3.3	MONOPOLE	M-453	MAG		
ST13828			598863	6369814		4569.5	COMPLEX	M-576	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			598340	6369365		18807.9	COMPLEX	M-577	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			596000	6373570		18.8	DIPOLE	M-638	MAG		
ST13828			596264	6373666		12.1	DIPOLE	M-639	MAG		
ST13828			596156	6373307		5.6	COMPLEX	M-642	MAG	Associated with other Mag anomalies	
ST13828			596332	6373326		2.5	COMPLEX	M-643	MAG	Associated with other Mag anomalies	
ST13828			596333	6372656		9.8	MONOPOLE	M-650	MAG		
ST13828			596499	6372666		15	MONOPOLE	M-651	MAG		
ST13828			595812	6372064		16.9	MONOPOLE	M-652	MAG	unknown cable 2	
ST13828			597186	6373137		43.1	DIPOLE	M-653	MAG	Cable or wire	
ST13828			596511	6372550		9.9	MONOPOLE	M-654	MAG	possible Cable	SS-1120
ST13828			596208	6372012		16.1	MONOPOLE	M-656	MAG	Cable or wire	
ST13828			597610	6373238		35	MONOPOLE	M-658	MAG		
ST13828			597018	6372578		12.3	MONOPOLE	M-661	MAG		
ST13828			596979	6372544		14.5	DIPOLE	M-662	MAG		
ST13828			596425	6372067		7.5	MONOPOLE	M-664	MAG	unknown cable 2	
ST13828			597069	6372509		12.3	MONOPOLE	M-665	MAG		
ST13828			596580	6372075		5.9	MONOPOLE	M-666	MAG	unknown cable 2	
ST13828			596932	6372393		11.1	MONOPOLE	M-667	MAG		
ST13828			596226	6371629		4.1	DIPOLE	M-668	MAG		
ST13828			596868	6372072		3.5	DIPOLE	M-669	MAG	unknown cable 2	
ST13828			596956	6372148		7.6	DIPOLE	M-670	MAG		
ST13828			597243	6372267		16.4	MONOPOLE	M-673	MAG		SS-1211
ST13828			597130	6372172		4.3	DIPOLE	M-674	MAG		
ST13828			597013	6372069		11.5	DIPOLE	M-675	MAG	unknown cable 2	
ST13828			596519	6371619		5	DIPOLE	M-676	MAG		
ST13828			596934	6371999		37.4	DIPOLE	M-677	MAG		
ST13828			596692	6371638		15.9	DIPOLE	M-678	MAG		
ST13828			596595	6371564		4.7	MONOPOLE	M-679	MAG	Associated with Mag anomaly M-223	
ST13828			597182	6372073		4.2	COMPLEX	M-680	MAG	unknown cable 2	
ST13828			597319	6372189		12.2	MONOPOLE	M-681	MAG		
ST13828			596308	6371193		23.7	DIPOLE	M-685	MAG		
ST13828			597313	6372069		4.1	DIPOLE	M-686	MAG	unknown cable 2	
ST13828			597471	6372073		5	MONOPOLE	M-688	MAG	unknown cable 2	
ST13828			597674	6372243		4.5	DIPOLE	M-689	MAG	Existing Telecom Cable Inactive 3	
ST13828			597640	6372067		8.1	MONOPOLE	M-691	MAG	unknown cable 2	

Target Listing MAG
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Survey ID	Date	Time	Easting	Northing	KP	Description 1 nT	Description 2 type	Obs number	Obs method	Comments	SSS target associated
ST13828			596634	6371208		16	DIPOLE	M-692	MAG	Existing Telecom Cable Inactive 3	
ST13828			597036	6371540		36.1	DIPOLE	M-693	MAG	Existing Telecom Cable Inactive 3	
ST13828			597770	6372069		6.5	DIPOLE	M-695	MAG	unknown cable 2	
ST13828			598320	6372403		2.5	DIPOLE	M-698	MAG		
ST13828			597400	6371585		6.2	MONOPOLE	M-700	MAG		
ST13828			598109	6372066		6.8	MONOPOLE	M-702	MAG	unknown cable 2	
ST13828			598397	6372061		1.9	MONOPOLE	M-711	MAG	unknown cable 2	
ST13828			597395	6371066		8.8	MONOPOLE	M-714	MAG		
ST13828			598421	6371823		10.7	MONOPOLE	M-715	MAG		SS-0460
ST13828			598708	6371948		13.7	DIPOLE	M-717	MAG		
ST13828			598040	6371096		14.4	DIPOLE	M-718	MAG		
ST13828			597810	6371299		76.2	MONOPOLE	M-721	MAG		
ST13828			597979	6371449		5.8	DIPOLE	M-722	MAG		
ST13828			598843	6371395		2	DIPOLE	M-726	MAG		
ST13828			598741	6371172		6.4	DIPOLE	M-728	MAG		
ST13828			598727	6370759		12.3	DIPOLE	M-739	MAG		
ST13828			598959	6370845		1.5	MONOPOLE	M-740	MAG		
ST13828			598863	6370756		5.7	MONOPOLE	M-741	MAG	Associated with other Mag anomalies	
ST13828			599002	6370743		16.1	COMPLEX	M-749	MAG	Associated with other Mag anomalies	
ST13828			598681	6370466		2.7	DIPOLE	M-750	MAG	Associated with other Mag anomalies	
ST13828			599158	6370749		15.9	MONOPOLE	M-752	MAG		
ST13828			599240	6370824		2.1	DIPOLE	M-755	MAG		
ST13828			599227	6370679		3.7	DIPOLE	M-756	MAG		
ST13828			598384	6369793		5.3	DIPOLE	M-758	MAG		
ST13828			599509	6370790		5.1	DIPOLE	M-759	MAG		
ST13828			598540	6369926		3.8	DIPOLE	M-760	MAG		
ST13828			598371	6369653		3.7	MONOPOLE	M-763	MAG		
ST13828			598263	6369412		2580.2	MONOPOLE	M-764	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			598245	6369396		1795.4	MONOPOLE	M-765	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			599589	6370325		6093.9	DIPOLE	M-769	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			599253	6370033		9944.9	DIPOLE	M-770	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599186	6369976		4191	DIPOLE	M-771	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599075	6369873		567.4	DIPOLE	M-772	MAG		
ST13828			598823	6369647		712.1	COMPLEX	M-773	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			599488	6370108		403.5	COMPLEX	M-774	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			599877	6370444		4783.8	COMPLEX	M-775	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			599093	6369486		10.3	DIPOLE	M-780	MAG	Associated with other Mag anomalies	SS-0743
ST13828			598895	6369287		3.1	DIPOLE	M-781	MAG	Associated with other Mag anomalies	
ST13828			599611	6369811		4292.1	DIPOLE	M-783	MAG		
ST13828			599488	6369446		17.5	MONOPOLE	M-785	MAG	Associated with another Mag anomaly	
ST13828			599913	6369809		3.4	MONOPOLE	M-786	MAG	Associated with another Mag anomaly	

Target Listing MAG
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Survey ID	Date	Time	Easting	Northing	KP	Description 1 nT	Description 2 type	Obs number	Obs method	Comments	SSS target associated
ST13828			599449	6369287		21.5	DIPOLE	M-787	MAG		SS-0667
ST13828			598922	6368672		5.7	DIPOLE	M-788	MAG		
ST13828			599622	6369162		11.4	DIPOLE	M-791	MAG		
ST13828			600222	6369419		7.5	MONOPOLE	M-793	MAG	Associated with another anomaly	
ST13828			599814	6368786		48.6	DIPOLE	M-794	MAG		SS-0713
ST13828			599531	6368279		20.4	DIPOLE	M-796	MAG		
ST13828			600245	6368492		2.4	MONOPOLE	M-797	MAG		
ST13828			601019	6369183		34.5	MONOPOLE	M-798	MAG		
ST13828			600821	6369005		4.8	MONOPOLE	M-800	MAG		
ST13828			600612	6368565		12.5	MONOPOLE	M-801	MAG		
ST13828			600674	6368484		5.4	DIPOLE	M-805	MAG		SS-0597
ST13828			600440	6368281		8.1	MONOPOLE	M-806	MAG		SS-0804
ST13828			601016	6368515		3.5	MONOPOLE	M-807	MAG		SS-0535
ST13828			600607	6367909		3.6	MONOPOLE	M-811	MAG		
ST13828			600304	6367636		2.1	MONOPOLE	M-812	MAG		
ST13828			600394	6367578		2.8	MONOPOLE	M-813	MAG	Associated with Mag anomaly M-217	
ST13828			600267	6367337		1.8	MONOPOLE	M-815	MAG	Associated with Mag anomaly M-52	
ST13828			600535	6367412		128	DIPOLE	M-816	MAG		
ST13828			601457	6368234		5.2	MONOPOLE	M-817	MAG		
ST13828			601779	6368518		4.8	MONOPOLE	M-818	MAG		
ST13828			600459	6366948		3.5	MONOPOLE	M-822	MAG		SS-0910
ST13828			601072	6367499		2.6	MONOPOLE	M-823	MAG		SS-1145
ST13828			601411	6367801		4.3	MONOPOLE	M-825	MAG		
ST13828			602259	6367867		47.9	DIPOLE	M-827	MAG		
ST13828			602307	6367774		9.2	DIPOLE	M-829	MAG		
ST13828			602344	6367289		5.3	MONOPOLE	M-831	MAG	Associated with another Mag anomaly	SS-1311
ST13828			601853	6366737		11.9	MONOPOLE	M-832	MAG		
ST13828			602277	6366958		21.4	DIPOLE	M-833	MAG		
ST13828			603226	6366849		5	MONOPOLE	M-838	MAG		
ST13828			602376	6366107		4.3	MONOPOLE	M-840	MAG		
ST13828			602717	6365745		11.1	MONOPOLE	M-847	MAG		SS-0636
ST13828			603188	6365232		3.7	MONOPOLE	M-856	MAG		
ST13828			603602	6365739		29.1	MONOPOLE	M-858	MAG		
ST13828			603921	6365338		12.9	DIPOLE	M-859	MAG		
ST13828			603576	6365029		7.2	DIPOLE	M-860	MAG		
ST13828			604374	6365210		68.1	DIPOLE	M-863	MAG		
ST13828			604173	6364622		11.7	MONOPOLE	M-865	MAG		

Target Listing SSS
Turbine B

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130809	01:05:48	605204	6365452		Seabed Morphology	Boulder	SS-0078	SEABF	SEABO	5.5	0.3	2.6	SSS	
ST13828	20130809	01:06:06	605219	6365477		Seabed Morphology	Boulder	SS-0079	SEABF	SEABO	3.6	0.0	11.7	SSS	
ST13828	20130809	01:48:28	604326	6365233		Seabed Morphology	Boulder	SS-0080	SEABF	SEABO	2.9	0.9	1.9	SSS	
ST13828	20130809	03:20:18	603204	6365050		Seabed Morphology	Boulder	SS-0081	SEABF	SEABO	3.7	0.2	1.5	SSS	
ST13828	20130809	03:07:02	602345	6364273		Man-made Hazards	Boulder	SS-0082	SEABF	SEABO	1.5	0.1	0.7	SSS	Correlated to M-20
ST13828	20130809	04:45:37	602140	6364669		Seabed Morphology	Boulder	SS-0087	SEABF	SEABO	1.1	0.2	1.1	SSS	
ST13828	20130809	04:27:50	603470	6365832		Seabed Morphology	Boulder	SS-0088	SEABF	SEABO	2.2	0.2	1.3	SSS	
ST13828	20130809	04:22:07	603914	6366205		Seabed Morphology	Boulder	SS-0089	SEABF	SEABO	3.8	0.1	0.8	SSS	
ST13828	20130809	05:25:00	601621	6364968		Seabed Morphology	Boulder	SS-0090	SEABF	SEABO	1.5	0.1	0.5	SSS	
ST13828	20130809	07:01:55	601562	6365506		Seabed Morphology	Boulder	SS-0091	SEABF	SEABO	2.1	0.5	0.4	SSS	
ST13828	20130809	06:54:30	602126	6366008		Seabed Morphology	Boulder	SS-0092	SEABF	SEABO	1.7	0.2	0.8	SSS	
ST13828	20130809	09:04:32	602497	6367769		Seabed Morphology	Boulder	SS-0096	SEABF	SEABO	1.2	0.2	1.2	SSS	Correlated to M-830
ST13828	20130809	11:30:39	600657	6366792		Seabed Morphology	Boulder	SS-0099	SEABF	SEABO	4.2	0.1	0.8	SSS	
ST13828	20130809	11:31:29	600725	6366827		Man-made Hazards	Unidentified	SS-0100	TARGT	TAUN	1.2	0.1	0.4	SSS	
ST13828	20130809	11:33:50	600922	6366914		Seabed Morphology	Boulder	SS-0101	SEABF	SEABO	2.2	0.2	0.7	SSS	
ST13828	20130809	12:45:39	601241	6367986		Seabed Morphology	Boulder	SS-0102	SEABF	SEABO	2.8	0.3	0.9	SSS	
ST13828	20130809	12:56:33	600432	6367155		Man-made Hazards	Debris	SS-0103	DEBRI	DEOT	2.6	0.4	1.3	SSS	Possible debris
ST13828	20130809	13:49:55	600317	6367846		Seabed Morphology	Boulder	SS-0105	SEABF	SEABO	7.3	0.3	2.7	SSS	
ST13828	20130809	13:48:05	600193	6367722		Seabed Morphology	Boulder	SS-0106	SEABF	SEABO	5.7	0.2	3.2	SSS	
ST13828	20130809	13:50:41	600434	6367824		Seabed Morphology	Boulder	SS-0107	SEABF	SEABO	4.7	0.1	0.8	SSS	
ST13828	20130809	13:58:17	600988	6368313		Seabed Morphology	Boulder	SS-0108	SEABF	SEABO	5.4	0.1	2.1	SSS	
ST13828	20130809	14:03:34	601310	6368731		Seabed Morphology	Boulder	SS-0109	SEABF	SEABO	5.0	0.4	1.7	SSS	
ST13828	20130809	19:09:17	600133	6368230		Seabed Morphology	Boulder	SS-0114	SEABF	SEABO	3.0	0.1	1.3	SSS	
ST13828	20130809	19:59:08	600138	6367828		Seabed Morphology	Boulder	SS-0120	SEABF	SEABO	5.0	0.2	1.4	SSS	
ST13828	20130809	20:10:03	600937	6368671		Seabed Morphology	Boulder	SS-0123	SEABF	SEABO	6.3	0.1	1.4	SSS	
ST13828	20130811	08:15:14	604051	6365827		Seabed Morphology	Boulder	SS-0355	SEABF	SEABO	2.0	0.4	0.6	SSS	
ST13828	20130811	09:59:12	596842	6374045		Seabed Morphology	Boulder	SS-0357	SEABF	SEABO	1.9	0.3	0.8	SSS	
ST13828	20130811	09:49:19	597586	6373265		Man-made Hazards	Debris	SS-0358	DEBRI	DEOT	1.8	0.5	0.7	SSS	
ST13828	20130811	09:44:17	597919	6372851		Seabed Morphology	Boulder	SS-0360	SEABF	SEABO	1.9	0.3	1.1	SSS	
ST13828	20130811	11:02:02	598061	6372630		Seabed Morphology	Boulder	SS-0361	SEABF	SEABO	1.2	0.6	1.0	SSS	
ST13828	20130811	10:59:02	597868	6372904		Seabed Morphology	Boulder	SS-0362	SEABF	SEABO	1.8	0.2	0.5	SSS	
ST13828	20130811	10:57:44	597703	6372951		Man-made Hazards	Debris	SS-0363	DEBRI	DEOT	1.3	0.1	0.9	SSS	
ST13828	20130811	10:54:13	597495	6373270		Man-made Hazards	Debris	SS-0364	DEBRI	DEOT	1.5	0.4	0.5	SSS	
ST13828	20130811	10:47:05	596970	6373818		Man-made Hazards	Debris	SS-0365	DEBRI	DEOT	2.8	1.0	0.6	SSS	
ST13828	20130811	11:09:33	598642	6372024		Man-made Hazards	Debris	SS-0373	DEBRI	DEOT	4.7	0.1	0.5	SSS	
ST13828	20130811	11:27:16	599853	6370520		Man-made Hazards	Pipeline	SS-0374			79.6	0.6	0.6	SSS	
ST13828	20130811	11:29:18	600038	6370419		Man-made Hazards	Cable/wire	SS-0375	DEBRI	DECW	12.3	0.1	0.6	SSS	
ST13828	20130811	11:30:03	600057	6370337		Man-made Hazards	Debris	SS-0376	DEBRI	DEOT	2.0	0.1	0.5	SSS	
ST13828	20130811	11:31:08	600157	6370276		Seabed Morphology	Boulder	SS-0377	SEABF	SEABO	1.6	0.2	0.9	SSS	
ST13828	20130811	11:31:43	600132	6370175		Man-made Hazards	Debris	SS-0378	DEBRI	DEOT	1.7	0.1	0.3	SSS	
ST13828	20130811	11:34:40	600411	6370000		Man-made Hazards	Debris	SS-0379	DEBRI	DEOT	3.1	0.2	1.4	SSS	
ST13828	20130811	11:35:37	600467	6369916		Seabed Morphology	Boulder	SS-0381	SEABF	SEABO	4.5	0.2	1.2	SSS	
ST13828	20130811	11:36:35	600530	6369840		Seabed Morphology	Boulder	SS-0382	SEABF	SEABO	3.7	0.1	1.0	SSS	
ST13828	20130811	11:38:28	600590	6369642		Seabed Morphology	Boulder	SS-0383	SEABF	SEABO	2.1	0.1	0.6	SSS	
ST13828	20130811	11:38:46	600664	6369665		Seabed Morphology	Unidentified	SS-0384	TARGT	TAPB	15.5	0.4	3.5	SSS	
ST13828	20130811	11:41:24	600856	6369493		Seabed Morphology	Boulder	SS-0385	SEABF	SEABO	8.9	0.4	1.8	SSS	
ST13828	20130811	11:41:13	600848	6369511		Seabed Morphology	Boulder	SS-0386	SEABF	SEABO	2.4	0.4	1.4	SSS	
ST13828	20130811	11:42:55	600932	6369360		Man-made Hazards	Boulder	SS-0387	SEABF	SEABO	10.0	0.3	1.7	SSS	
ST13828	20130811	11:44:21	601026	6369252		Man-made Hazards	Debris	SS-0388	DEBRI	DEOT	4.9	0.2	1.0	SSS	
ST13828	20130811	11:44:37	601051	6369238		Man-made Hazards	Unidentified	SS-0390	TARGT	TAUN	4.4	0.2	1.1	SSS	

Target Listing SSS
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Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130811	11:44:54	601082	6369227		Man-made Hazards	Unidentified	SS-0391	TARGT	TAUN	4.1	0.2	0.9	SSS	
ST13828	20130811	11:47:36	601254	6369017		Man-made Hazards	Unidentified	SS-0392	TARGT	TAUN	7.6	0.2	1.8	SSS	
ST13828	20130811	11:50:44	601408	6368733		Seabed Morphology	Boulder	SS-0393	SEABF	SFBO	1.5	0.4	0.6	SSS	
ST13828	20130811	11:52:07	601541	6368665		Seabed Morphology	Boulder	SS-0394	SEABF	SEABO	2.5	0.3	1.2	SSS	
ST13828	20130811	11:53:31	601654	6368577		Man-made Hazards	Debris	SS-0395	DEBRI	DEOT	6.5	0.1	1.0	SSS	
ST13828	20130811	11:55:29	601778	6368415		Seabed Morphology	Boulder	SS-0396	SEABF	SEABO	3.5	0.2	0.8	SSS	
ST13828	20130811	11:57:13	601885	6368270		Seabed Morphology	Boulder	SS-0397	SEABF	SEABO	1.8	0.2	0.6	SSS	
ST13828	20130811	11:59:57	602014	6368018		Man-made Hazards	Unidentified	SS-0398	TARGT	TAUN	6.1	0.1	1.2	SSS	
ST13828	20130811	12:20:10	603386	6366443		Seabed Morphology	Boulder	SS-0399	SEABF	SEABO	2.1	0.4	0.8	SSS	
ST13828	20130811	12:27:14	603914	6365905		Seabed Morphology	Boulder	SS-0400	SEABF	SEABO	1.3	0.9	0.7	SSS	
ST13828	20130811	12:33:38	604427	6365410		Man-made Hazards	Debris	SS-0401	DEBRI	DEOT	2.9	0.1	0.7	SSS	
ST13828	20130811	12:34:44	604506	6365319		Man-made Hazards	Debris	SS-0402	DEBRI	DEOT	3.8	0.2	0.8	SSS	
ST13828	20130811	12:37:12	604676	6365112		Seabed Morphology	Boulder	SS-0403	SEABF	SEABO	1.3	0.3	0.9	SSS	
ST13828	20130811	13:16:56	604729	6364777		Seabed Morphology	Boulder	SS-0407	SEABF	SEABO	1.3	0.4	0.8	SSS	
ST13828	20130811	13:17:46	604714	6364860		Seabed Morphology	Boulder	SS-0408	SEABF	SEABO	1.8	0.3	0.6	SSS	
ST13828	20130811	13:18:05	604690	6364876		Seabed Morphology	Boulder	SS-0409	SEABF	SEABO	3.0	1.1	1.2	SSS	
ST13828	20130811	13:20:25	604581	6365065		Seabed Morphology	Boulder	SS-0410	SEABF	SEABO	1.4	0.2	0.7	SSS	
ST13828	20130811	13:20:58	604562	6365112		Seabed Morphology	Boulder	SS-0411	SEABF	SEABO	3.0	0.3	0.6	SSS	
ST13828	20130811	13:22:43	604434	6365209		Seabed Morphology	Boulder	SS-0412	SEABF	SEABO	1.2	0.5	0.7	SSS	
ST13828	20130811	13:24:30	604324	6365331		Seabed Morphology	Boulder	SS-0413	SEABF	SEABO	1.3	0.3	0.4	SSS	
ST13828	20130811	13:33:55	603716	6365966		Seabed Morphology	Boulder	SS-0414	SEABF	SEABO	2.0	0.8	1.0	SSS	
ST13828	20130811	13:47:23	602865	6366912		Seabed Morphology	Boulder	SS-0415	SEABF	SEABO	2.9	0.2	0.8	SSS	
ST13828	20130811	13:57:21	602286	6367682		Man-made Hazards	Debris	SS-0416	DEBRI	DEOT	2.8	0.1	0.4	SSS	
ST13828	20130811	14:05:18	601762	6368197		Seabed Morphology	Boulder	SS-0417	SEABF	SEABO	0.9	0.3	0.7	SSS	
ST13828	20130811	14:13:40	601220	6368772		Man-made Hazards	Boulder	SS-0418	SEABF	SEABO	1.8	0.2	1.1	SSS	
ST13828	20130811	14:25:27	600446	6369637		Seabed Morphology	Boulder	SS-0419	SEABF	SEABO	2.6	0.2	1.0	SSS	
ST13828	20130811	14:27:53	600362	6369892		Seabed Morphology	Boulder	SS-0420	SEABF	SEABO	1.8	0.3	0.9	SSS	
ST13828	20130811	14:29:20	600269	6369990		Seabed Morphology	Boulder	SS-0421	SEABF	SEABO	3.5	0.2	0.9	SSS	
ST13828	20130811	14:30:04	600156	6369983		Man-made Hazards	Cable/wire	SS-0422	DEBRI	DECW	47.0	0.1	1.8	SSS	
ST13828	20130811	14:30:54	600187	6370115		Man-made Hazards	Debris	SS-0423	DEBRI	DEOT	1.9	0.1	0.8	SSS	
ST13828	20130811	14:32:24	600033	6370159		Seabed Morphology	Boulder	SS-0424	SEABF	SEABO	1.5	0.4	0.9	SSS	
ST13828	20130811	14:34:26	599909	6370285		Seabed Morphology	Boulder	SS-0425	SEABF	SEABO	0.9	0.5	0.9	SSS	
ST13828	20130811	14:36:44	599771	6370443		Man-made Hazards	Pipeline	SS-0426			72.4	0.3	0.5	SSS	
ST13828	20130811	14:42:32	599472	6370894		Man-made Hazards	Unidentified	SS-0427	TARGT	TAUN	1.7	0.2	0.3	SSS	
ST13828	20130811	14:51:19	598857	6371461		Seabed Morphology	Boulder	SS-0428	SEABF	SEABO	1.1	0.2	0.7	SSS	
ST13828	20130811	14:55:43	598662	6371837		Seabed Morphology	Boulder	SS-0429	SEABF	SEABO	1.3	0.3	0.7	SSS	
ST13828	20130811	14:56:13	598589	6371837		Seabed Morphology	Boulder	SS-0430	SEABF	SEABO	3.6	1.0	1.8	SSS	
ST13828	20130811	15:02:17	598242	6372297		Man-made Hazards	Boulder	SS-0432	SEABF	SEABO	1.8	0.3	0.7	SSS	
ST13828	20130811	15:03:50	598103	6372369		Seabed Morphology	Boulder	SS-0433	SEABF	SEABO	4.2	0.3	1.4	SSS	
ST13828	20130811	15:07:55	597822	6372632		Seabed Morphology	Boulder	SS-0435	SEABF	SEABO	3.2	0.2	0.9	SSS	
ST13828	20130811	15:12:00	597586	6372926		Seabed Morphology	Boulder	SS-0436	SEABF	SEABO	2.3	0.4	0.7	SSS	
ST13828	20130811	15:18:31	597191	6373397		Seabed Morphology	Boulder	SS-0437	SEABF	SEABO	2.0	0.2	0.7	SSS	
ST13828	20130811	15:18:16	597195	6373370		Seabed Morphology	Boulder	SS-0438	SEABF	SEABO	1.9	0.1	0.8	SSS	
ST13828	20130811	15:21:23	597007	6373605		Seabed Morphology	Boulder	SS-0439	SEABF	SEABO	2.1	0.1	0.9	SSS	
ST13828	20130811	15:23:50	596897	6373843		Seabed Morphology	Bedrock	SS-0440	SEABF	SEABE	1.3	0.5	0.9	SSS	
ST13828	20130811	15:55:01	596450	6374196		Man-made Hazards	Boulder	SS-0443	SEABF	SEABO	1.1	0.2	0.6	SSS	
ST13828	20130811	15:56:16	596523	6374086		Seabed Morphology	Boulder	SS-0444	SEABF	SEABO	1.2	0.5	0.8	SSS	
ST13828	20130811	15:56:42	596526	6374030		Seabed Morphology	Boulder	SS-0445	SEABF	SEABO	1.5	0.5	1.1	SSS	
ST13828	20130811	15:57:46	596592	6373936		Seabed Morphology	Boulder	SS-0446	SEABF	SEABO	1.2	0.3	0.7	SSS	
ST13828	20130811	15:58:34	596689	6373906		Seabed Morphology	Boulder	SS-0447	SEABF	SEABO	1.8	0.4	1.0	SSS	

Target Listing SSS
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Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130811	16:06:26	597258	6373286		Seabed Morphology	Boulder	SS-0448	SEABF	SEABO	1.8	0.3	0.9	SSS	
ST13828	20130811	16:06:51	597277	6373246		Seabed Morphology	Boulder	SS-0449	SEABF	SEABO	2.5	0.4	0.8	SSS	
ST13828	20130811	16:08:52	597366	6373047		Seabed Morphology	Boulder	SS-0450	SEABF	SEABO	1.0	0.1	0.4	SSS	
ST13828	20130811	16:09:14	597439	6373058		Seabed Morphology	Boulder	SS-0453	SEABF	SEABO	1.5	0.2	0.7	SSS	
ST13828	20130811	16:16:43	597891	6372440		Seabed Morphology	Boulder	SS-0456	SEABF	SEABO	1.2	0.1	0.3	SSS	
ST13828	20130811	16:18:14	598057	6372383		Seabed Morphology	Boulder	SS-0457	SEABF	SEABO	2.2	0.3	1.0	SSS	
ST13828	20130811	16:20:08	598118	6372184		Seabed Morphology	Boulder	SS-0458	SEABF	SEABO	1.4	0.4	0.7	SSS	
ST13828	20130811	16:22:05	598316	6372109		Seabed Morphology	Boulder	SS-0459	SEABF	SEABO	1.9	0.3	0.8	SSS	
ST13828	20130811	16:24:29	598367	6371856		Seabed Morphology	Boulder	SS-0460	SEABF	SEABO	1.4	0.1	0.5	SSS	Correlated to M-414
ST13828	20130811	16:26:31	598591	6371798		Seabed Morphology	Boulder	SS-0461	SEABF	SEABO	1.5	0.1	0.6	SSS	
ST13828	20130811	16:30:59	598850	6371466		Seabed Morphology	Boulder	SS-0462	SEABF	SEABO	1.1	0.2	0.6	SSS	
ST13828	20130811	16:32:59	598899	6371268		Seabed Morphology	Boulder	SS-0463	SEABF	SEABO	2.8	0.3	1.9	SSS	
ST13828	20130811	16:45:39	599733	6370426		Man-made Hazards	Pipeline	SS-0464			73.7	0.5	0.6	SSS	
ST13828	20130811	16:47:58	599905	6370293		Man-made Hazards	Unidentified	SS-0465	TARGT	TAUN	4.1	0.3	1.3	SSS	
ST13828	20130811	16:47:54	599824	6370228		Seabed Morphology	Boulder	SS-0466	SEABF	SEABO	1.3	0.4	0.9	SSS	
ST13828	20130811	16:52:36	600201	6369948		Man-made Hazards	Debris	SS-0467	DEBRI	DEOT	2.5	0.3	1.8	SSS	
ST13828	20130811	16:55:43	600382	6369707		Man-made Hazards	Debris	SS-0468	DEBRI	DEOT	3.1	0.2	0.7	SSS	
ST13828	20130811	17:04:37	600858	6368992		Man-made Hazards	Unidentified	SS-0469	TARGT	TAUN	3.5	0.4	1.1	SSS	
ST13828	20130811	17:07:31	601144	6368882		Man-made Hazards	Unidentified	SS-0470	TARGT	TAUN	2.9	0.3	1.0	SSS	
ST13828	20130811	17:25:11	602202	6367642		Seabed Morphology	Boulder	SS-0471	SEABF	SEABO	2.1	0.2	1.3	SSS	
ST13828	20130811	17:33:06	602620	6367020		Man-made Hazards	Unidentified	SS-0472	TARGT	TAUN	2.8	0.2	0.5	SSS	
ST13828	20130811	17:37:35	602965	6366762		Seabed Morphology	Boulder	SS-0473	SEABF	SEABO	1.5	0.3	0.6	SSS	
ST13828	20130811	17:44:41	603343	6366223		Seabed Morphology	Boulder	SS-0474	SEABF	SEABO	2.3	0.3	1.2	SSS	
ST13828	20130811	17:48:07	603533	6365973		Seabed Morphology	Boulder	SS-0475	SEABF	SEABO	2.4	0.1	1.1	SSS	
ST13828	20130811	17:55:55	604069	6365472		Seabed Morphology	Boulder	SS-0476	SEABF	SEABO	1.5	0.6	0.7	SSS	
ST13828	20130811	17:58:27	604168	6365252		Seabed Morphology	Boulder	SS-0477	SEABF	SEABO	3.2	0.8	1.2	SSS	
ST13828	20130811	18:00:41	604349	6365107		Man-made Hazards	Unidentified	SS-0478	TARGT	TAUN	1.7	0.5	0.7	SSS	
ST13828	20130811	18:05:30	604645	6364723		Seabed Morphology	Boulder	SS-0479	SEABF	SEABO	1.4	0.2	0.7	SSS	
ST13828	20130811	18:57:08	604683	6364512		Man-made Hazards	Debris	SS-0483	DEBRI	DEOT	2.0	0.6	0.8	SSS	
ST13828	20130811	18:59:17	604581	6364743		Seabed Morphology	Boulder	SS-0484	SEABF	SEABO	2.4	0.8	1.2	SSS	
ST13828	20130811	18:59:40	604515	6364740		Man-made Hazards	Boulder	SS-0485	SEABF	SEABO	2.9	0.2	0.5	SSS	
ST13828	20130811	19:03:10	604303	6365049		Seabed Morphology	Boulder	SS-0486	SEABF	SEABO	1.4	0.6	0.8	SSS	
ST13828	20130811	19:04:24	604185	6365111		Man-made Hazards	Debris	SS-0487	DEBRI	DEOT	1.4	0.3	0.6	SSS	
ST13828	20130811	19:12:18	603635	6365729		Seabed Morphology	Boulder	SS-0488	SEABF	SEABO	3.8	0.1	0.8	SSS	
ST13828	20130811	19:18:13	603198	6366199		Man-made Hazards	Unidentified	SS-0489	TARGT	TAUN	2.6	0.3	1.0	SSS	
ST13828	20130811	19:20:15	603117	6366423		Man-made Hazards	Unidentified	SS-0490	TARGT	TAUN	1.2	0.3	0.5	SSS	
ST13828	20130811	19:23:21	602835	6366639		Man-made Hazards	Unidentified	SS-0491	TARGT	TAUN	2.9	0.1	0.6	SSS	
ST13828	20130811	19:28:52	602449	6367125		Seabed Morphology	Boulder	SS-0492	SEABF	SEABO	1.2	0.5	0.5	SSS	
ST13828	20130811	19:35:15	601959	6367626		Seabed Morphology	Boulder	SS-0493	SEABF	SEABO	2.1	0.2	1.0	SSS	
ST13828	20130811	19:36:05	601886	6367688		Seabed Morphology	Boulder	SS-0494	SEABF	SEABO	2.1	0.4	1.3	SSS	
ST13828	20130811	19:46:46	601161	6368639		Seabed Morphology	Boulder	SS-0495	SEABF	SEABO	2.0	0.6	1.2	SSS	
ST13828	20130811	19:51:32	600765	6368995		Seabed Morphology	Boulder	SS-0496	SEABF	SEABO	3.0	1.0	2.0	SSS	
ST13828	20130811	19:53:40	600600	6369161		Man-made Hazards	Debris	SS-0497	DEBRI	DEOT	3.0	0.2	1.2	SSS	
ST13828	20130811	20:21:38	598536	6371510		Man-made Hazards	Debris	SS-0499	DEBRI	DEOT	3.5	0.0	0.6	SSS	
ST13828	20130811	20:33:27	597684	6372511		Man-made Hazards	Debris	SS-0500	DEBRI	DEOT	3.5	0.1	0.6	SSS	
ST13828	20130811	20:33:55	597710	6372602		Seabed Morphology	Boulder	SS-0501	SEABF	SEABO	1.5	0.3	1.0	SSS	
ST13828	20130811	20:37:52	597375	6372860		Seabed Morphology	Boulder	SS-0502	SEABF	SEABO	1.4	0.3	1.0	SSS	
ST13828	20130811	20:51:02	596453	6373909		Seabed Morphology	Boulder	SS-0503	SEABF	SEABO	1.6	0.3	0.9	SSS	
ST13828	20130811	20:51:49	596411	6373977		Seabed Morphology	Boulder	SS-0504	SEABF	SEABO	1.7	0.4	0.6	SSS	
ST13828	20130811	20:52:02	596383	6373981		Man-made Hazards	Debris	SS-0505	DEBRI	DEOT	4.1	0.1	1.0	SSS	

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Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130811	20:51:50	596426	6373991		Seabed Morphology	Boulder	SS-0506	SEABF	SEABO	1.4	0.4	0.6	SSS	
ST13828	20130811	21:29:01	596349	6373905		Man-made Hazards	Unidentified	SS-0514	TARGT	TAUN	2.1	0.0	0.5	SSS	
ST13828	20130811	21:30:32	596492	6373850		Seabed Morphology	Boulder	SS-0515	SEABF	SEABO	1.8	0.4	0.6	SSS	
ST13828	20130811	21:31:38	596479	6373711		Seabed Morphology	Boulder	SS-0516	SEABF	SEABO	1.8	0.3	1.1	SSS	
ST13828	20130811	21:36:01	596771	6373438		Seabed Morphology	Boulder	SS-0517	SEABF	SEABO	1.5	0.3	0.9	SSS	
ST13828	20130811	21:37:44	596845	6373303		Seabed Morphology	Boulder	SS-0518	SEABF	SEABO	1.2	0.2	0.6	SSS	
ST13828	20130811	21:39:07	597013	6373284		Seabed Morphology	Boulder	SS-0519	SEABF	SEABO	1.6	0.1	0.6	SSS	
ST13828	20130811	21:40:22	597012	6373137		Seabed Morphology	Boulder	SS-0520	SEABF	SEABO	2.2	0.3	1.1	SSS	
ST13828	20130811	21:41:31	597086	6373066		Seabed Morphology	Boulder	SS-0521	SEABF	SEABO	1.0	0.3	0.6	SSS	
ST13828	20130811	21:42:08	597180	6373071		Seabed Morphology	Boulder	SS-0522	SEABF	SEABO	1.3	0.3	0.5	SSS	
ST13828	20130811	21:52:50	597882	6372286		Seabed Morphology	Boulder	SS-0526	SEABF	SEABO	1.9	0.1	1.1	SSS	
ST13828	20130811	21:53:20	597856	6372199		Seabed Morphology	Boulder	SS-0527	SEABF	SEABO	1.4	0.3	1.1	SSS	
ST13828	20130811	21:57:06	598103	6371926		Seabed Morphology	Boulder	SS-0528	SEABF	SEABO	1.3	0.4	0.6	SSS	
ST13828	20130811	21:58:03	598158	6371849		Seabed Morphology	Boulder	SS-0529	SEABF	SEABO	1.0	0.2	0.7	SSS	
ST13828	20130811	22:05:00	598579	6371351		Seabed Morphology	Boulder	SS-0530	SEABF	SEABO	1.3	0.2	0.8	SSS	
ST13828	20130811	22:22:05	599792	6370137		Seabed Morphology	Boulder	SS-0531	SEABF	SEABO	2.3	0.1	0.8	SSS	
ST13828	20130811	22:26:24	599976	6369745		Seabed Morphology	Boulder	SS-0532	SEABF	SEABO	1.4	0.3	0.7	SSS	
ST13828	20130811	22:31:39	600316	6369316		Seabed Morphology	Boulder	SS-0533	SEABF	SEABO	1.5	0.2	0.7	SSS	
ST13828	20130811	22:32:47	600404	6369241		Seabed Morphology	Boulder	SS-0534	SEABF	SEABO	2.0	0.3	0.9	SSS	
ST13828	20130811	22:41:37	601013	6368543		Seabed Morphology	Boulder	SS-0535	SEABF	SEABO	1.2	0.1	0.8	SSS	Correlated to M-807
ST13828	20130811	22:45:18	601318	6368303		Seabed Morphology	Boulder	SS-0536	SEABF	SEABO	1.5	0.7	0.8	SSS	Correlated to M-125
ST13828	20130811	22:45:41	601297	6368227		Man-made Hazards	Debris	SS-0537	DEBRI	DEOT	3.0	0.1	0.6	SSS	
ST13828	20130811	22:49:03	601584	6368032		Seabed Morphology	Boulder	SS-0538	SEABF	SEABO	2.0	0.4	0.9	SSS	
ST13828	20130811	23:04:01	602481	6366869		Seabed Morphology	Boulder	SS-0539	SEABF	SEABO	1.5	0.1	1.5	SSS	
ST13828	20130811	23:08:41	602785	6366514		Seabed Morphology	Boulder	SS-0540	SEABF	SEABO	1.3	0.2	0.4	SSS	
ST13828	20130811	23:16:29	603429	6365947		Seabed Morphology	Boulder	SS-0541	SEABF	SEABO	2.3	0.1	0.9	SSS	
ST13828	20130811	23:20:36	603654	6365518		Seabed Morphology	Boulder	SS-0542	SEABF	SEABO	2.0	0.4	0.8	SSS	
ST13828	20130811	23:27:22	604213	6365042		Seabed Morphology	Boulder	SS-0543	SEABF	SEABO	3.2	0.2	0.9	SSS	
ST13828	20130811	23:28:35	604277	6364923		Seabed Morphology	Boulder	SS-0544	SEABF	SEABO	1.2	0.5	0.7	SSS	
ST13828	20130811	23:30:53	604398	6364667		Seabed Morphology	Boulder	SS-0545	SEABF	SEABO	2.1	0.3	0.8	SSS	
ST13828	20130811	23:31:19	604449	6364648		Seabed Morphology	Boulder	SS-0546	SEABF	SEABO	1.5	0.3	0.6	SSS	
ST13828	20130811	23:35:01	604691	6364349		Seabed Morphology	Boulder	SS-0547	SEABF	SEABO	1.5	0.2	0.7	SSS	
ST13828	20130811	23:35:21	604717	6364328		Seabed Morphology	Boulder	SS-0548	SEABF	SEABO	1.3	0.3	0.3	SSS	
ST13828	20130812	00:10:16	604683	6364320		Seabed Morphology	Boulder	SS-0553	SEABF	SEABO	1.6	0.2	0.5	SSS	
ST13828	20130812	00:10:38	604651	6364336		Seabed Morphology	Boulder	SS-0554	SEABF	SEABO	1.7	0.3	1.0	SSS	
ST13828	20130812	00:12:16	604570	6364452		Seabed Morphology	Boulder	SS-0555	SEABF	SEABO	1.7	0.2	0.6	SSS	
ST13828	20130812	00:12:21	604565	6364457		Seabed Morphology	Boulder	SS-0556	SEABF	SEABO	1.1	0.2	0.6	SSS	
ST13828	20130812	00:16:44	604325	6364761		Man-made Hazards	Debris	SS-0557	DEBRI	DEOT	3.0	0.2	1.2	SSS	
ST13828	20130812	00:17:54	604255	6364829		Seabed Morphology	Boulder	SS-0558	SEABF	SEABO	2.4	0.1	0.7	SSS	
ST13828	20130812	00:18:29	604151	6364802		Seabed Morphology	Boulder	SS-0559	SEABF	SEABO	2.4	0.2	0.8	SSS	
ST13828	20130812	00:21:12	603986	6364994		Seabed Morphology	Boulder	SS-0560	SEABF	SEABO	2.6	0.2	1.0	SSS	
ST13828	20130812	00:27:52	603604	6365481		Seabed Morphology	Boulder	SS-0561	SEABF	SEABO	2.0	0.1	0.8	SSS	
ST13828	20130812	00:29:15	603581	6365626		Man-made Hazards	Debris	SS-0562	DEBRI	DEOT	3.4	0.1	0.8	SSS	
ST13828	20130812	00:32:13	603391	6365814		Seabed Morphology	Boulder	SS-0563	SEABF	SEABO	2.5	0.2	1.0	SSS	
ST13828	20130812	01:04:09	601587	6367873		Seabed Morphology	Boulder	SS-0564	SEABF	SEABO	2.4	0.3	0.7	SSS	
ST13828	20130812	00:38:07	603058	6366234		Seabed Morphology	Boulder	SS-0565	SEABF	SEABO	3.0	0.1	0.6	SSS	
ST13828	20130812	00:42:23	602731	6366447		Seabed Morphology	Boulder	SS-0566	SEABF	SEABO	1.8	0.4	0.8	SSS	
ST13828	20130812	00:43:21	602719	6366546		Seabed Morphology	Boulder	SS-0567	SEABF	SEABO	1.3	0.3	0.5	SSS	
ST13828	20130812	00:44:16	602620	6366565		Seabed Morphology	Boulder	SS-0568	SEABF	SEABO	3.1	0.3	1.0	SSS	
ST13828	20130812	00:46:42	602546	6366768		Seabed Morphology	Boulder	SS-0569	SEABF	SEABO	1.9	0.6	0.9	SSS	

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Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130812	00:46:56	602521	6366770		Seabed Morphology	Boulder	SS-0570	SEABF	SEABO	1.1	0.6	0.6	SSS	
ST13828	20130812	00:56:23	601999	6367363		Seabed Morphology	Boulder	SS-0571	SEABF	SEABO	1.8	0.4	0.6	SSS	
ST13828	20130812	01:08:06	601321	6368073		Seabed Morphology	Boulder	SS-0572	SEABF	SEABO	2.1	0.3	0.9	SSS	
ST13828	20130812	01:20:11	600625	6368867		Seabed Morphology	Boulder	SS-0573	SEABF	SEABO	2.1	0.2	1.0	SSS	
ST13828	20130812	01:22:26	600494	6369013		Seabed Morphology	Boulder	SS-0574	SEABF	SEABO	3.1	0.3	1.4	SSS	
ST13828	20130812	01:23:10	600502	6369101		Seabed Morphology	Boulder	SS-0575	SEABF	SEABO	2.4	0.2	0.6	SSS	
ST13828	20130812	01:24:40	600356	6369141		Seabed Morphology	Boulder	SS-0576	SEABF	SEABO	2.6	0.1	0.7	SSS	
ST13828	20130812	01:24:55	600346	6369161		Seabed Morphology	Boulder	SS-0577	SEABF	SEABO	2.3	0.2	1.1	SSS	
ST13828	20130812	01:30:47	600037	6369554		Seabed Morphology	Boulder	SS-0578	SEABF	SEABO	3.1	0.2	1.0	SSS	
ST13828	20130812	01:34:02	599836	6369723		Man-made Hazards	Unidentified	SS-0579	TARGT	TAUN	2.7	1.0	2.6	SSS	
ST13828	20130812	01:38:58	599622	6370012		Seabed Morphology	Boulder	SS-0580	SEABF	SEABO	1.3	0.2	0.9	SSS	
ST13828	20130812	01:45:51	599259	6370387		Seabed Morphology	Boulder	SS-0581	SEABF	SEABO	1.3	0.1	1.0	SSS	
ST13828	20130812	02:00:26	598553	6371224		Seabed Morphology	Boulder	SS-0582	SEABF	SEABO	1.5	0.1	0.6	SSS	
ST13828	20130812	02:00:39	598548	6371241		Seabed Morphology	Boulder	SS-0583	SEABF	SEABO	0.9	0.1	0.6	SSS	
ST13828	20130812	02:02:05	598543	6371370		Seabed Morphology	Boulder	SS-0584	SEABF	SEABO	0.9	0.1	0.9	SSS	
ST13828	20130812	02:09:04	598113	6371680		Seabed Morphology	Boulder	SS-0585	SEABF	SEABO	2.0	0.1	0.6	SSS	
ST13828	20130812	02:14:25	597899	6371994		Seabed Morphology	Boulder	SS-0586	SEABF	SEABO	1.1	0.4	0.9	SSS	
ST13828	20130812	02:36:14	596893	6373130		Seabed Morphology	Boulder	SS-0587	SEABF	SEABO	1.9	0.3	1.1	SSS	
ST13828	20130812	03:39:03	598213	6371476		Seabed Morphology	Boulder	SS-0588	SEABF	SEABO	1.7	0.5	1.0	SSS	
ST13828	20130812	03:26:24	597166	6372763		Seabed Morphology	Boulder	SS-0589	SEABF	SEABO	1.3	0.4	0.9	SSS	
ST13828	20130812	03:17:29	596375	6373583		Seabed Morphology	Boulder	SS-0590	SEABF	SEABO	4.7	0.3	1.8	SSS	
ST13828	20130812	03:50:34	599171	6370344		Seabed Morphology	Boulder	SS-0591	SEABF	SEABO	1.1	0.2	0.3	SSS	
ST13828	20130812	03:57:44	599854	6369696		Seabed Morphology	Boulder	SS-0592	SEABF	SEABO	2.1	1.3	1.3	SSS	
ST13828	20130812	04:33:34	602698	6366363		Seabed Morphology	Boulder	SS-0593	SEABF	SEABO	1.1	0.4	0.5	SSS	
ST13828	20130811	14:36:43	599828	6370488		Man-made Hazards	Cable/wire	SS-0594	DEBRI	DECW	13.3	0.0	0.0	SSS	
ST13828	20130812	05:37:18	604080	6364629		Seabed Morphology	Boulder	SS-0595	SEABF	SEABO	2.0	0.7	0.9	SSS	
ST13828	20130812	05:34:30	604310	6364453		Seabed Morphology	Boulder	SS-0596	SEABF	SEABO	1.1	0.1	0.7	SSS	
ST13828	20130812	06:26:40	600701	6368501		Seabed Morphology	Boulder	SS-0597	SEABF	SEABO	1.1	0.4	0.7	SSS	Correlated to M-805
ST13828	20130812	06:23:28	600912	6368221		Seabed Morphology	Boulder	SS-0598	SEABF	SEABO	1.4	0.3	1.3	SSS	
ST13828	20130812	06:02:48	602396	6366625		Seabed Morphology	Boulder	SS-0599	SEABF	SEABO	1.5	1.2	1.1	SSS	
ST13828	20130811	21:28:18	596297	6373941		Seabed Morphology	Boulder	SS-0600	SEABF	SEABO	0.6	0.3	0.4	SSS	
ST13828	20130812	06:43:01	599583	6369868		Seabed Morphology	Boulder	SS-0601	SEABF	SEABO	1.2	0.1	0.4	SSS	
ST13828	20130812	07:16:20	596950	6372749		Seabed Morphology	Boulder	SS-0602	SEABF	SEABO	1.1	0.2	0.6	SSS	
ST13828	20130812	07:12:57	597274	6372515		Seabed Morphology	Boulder	SS-0603	SEABF	SEABO	1.0	0.2	0.6	SSS	
ST13828	20130812	07:06:48	597725	6371982		Seabed Morphology	Boulder	SS-0604	SEABF	SEABO	1.2	0.2	0.8	SSS	
ST13828	20130812	07:02:40	597991	6371578		Seabed Morphology	Boulder	SS-0605	SEABF	SEABO	1.0	0.3	0.9	SSS	
ST13828	20130812	08:17:03	596992	6372561		Man-made Hazards	Cable/wire	SS-0606	DEBRI	DECW	7.4	0.2	0.6	SSS	
ST13828	20130812	08:20:07	597167	6372365		Man-made Hazards	Cable/wire	SS-0607	DEBRI	DECW	12.7	0.1	0.2	SSS	
ST13828	20130812	08:22:19	597293	6372217		Man-made Hazards	Cable/wire	SS-0608	DEBRI	DECW	3.4	0.1	0.5	SSS	
ST13828	20130812	08:23:43	597371	6372115		Man-made Hazards	Cable/wire	SS-0609	DEBRI	DECW	7.6	0.1	0.3	SSS	
ST13828	20130812	09:16:46	600567	6368489		Seabed Morphology	Boulder	SS-0610	SEABF	SEABO	1.0	0.6	0.7	SSS	
ST13828	20130812	09:55:00	602847	6365889		Seabed Morphology	Boulder	SS-0611	SEABF	SEABO	1.1	0.5	0.7	SSS	
ST13828	20130812	10:18:46	604225	6364296		Seabed Morphology	Boulder	SS-0612	SEABF	SEABO	1.0	0.2	0.6	SSS	
ST13828	20130812	10:01:08	603179	6365465		Seabed Morphology	Boulder	SS-0613	SEABF	SEABO	1.4	0.2	0.3	SSS	
ST13828	20130812	10:56:06	603906	6364507		Seabed Morphology	Boulder	SS-0614	SEABF	SEABO	1.5	0.3	0.9	SSS	
ST13828	20130812	10:55:04	604031	6364475		Seabed Morphology	Boulder	SS-0615	SEABF	SEABO	0.8	0.3	0.5	SSS	
ST13828	20130812	11:36:04	601234	6367651		Man-made Hazards	Cable/wire	SS-0616	DEBRI	DECW	25.7	0.0	0.0	SSS	
ST13828	20130812	11:33:00	601419	6367399		Seabed Morphology	Boulder	SS-0617	SEABF	SEABO	0.9	0.5	0.4	SSS	
ST13828	20130812	12:23:50	597978	6371263		Seabed Morphology	Bedrock	SS-0618	SEABF	SEABE	4.9	1.6	2.5	SSS	Inspected with drop camera. Large boulder.
ST13828	20130812	12:22:56	598106	6371255		Seabed Morphology	Boulder	SS-0622	SEABF	SEABO	1.8	0.3	0.4	SSS	

Target Listing SSS
Turbine B

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130812	13:40:37	597567	6371604		Seabed Morphology	Boulder	SS-0624	SEABF	SEABO	1.4	0.4	1.6	SSS	
ST13828	20130812	13:42:15	597688	6371450		Seabed Morphology	Boulder	SS-0625	SEABF	SEABO	1.2	0.3	0.3	SSS	
ST13828	20130812	14:08:18	599718	6369122		Seabed Morphology	Boulder	SS-0626	SEABF	SEABO	1.1	0.2	0.4	SSS	
ST13828	20130812	14:16:03	600396	6368520		Seabed Morphology	Boulder	SS-0627	SEABF	SEABO	2.0	0.1	2.2	SSS	
ST13828	20130812	14:25:25	601059	6367626		Seabed Morphology	Boulder	SS-0629	SEABF	SEABO	1.7	0.5	0.6	SSS	
ST13828	20130812	14:32:51	601693	6367022		Seabed Morphology	Boulder	SS-0630	SEABF	SEABO	2.1	0.2	1.2	SSS	
ST13828	20130812	14:34:17	601782	6366881		Seabed Morphology	Boulder	SS-0631	SEABF	SEABO	1.9	0.2	1.0	SSS	
ST13828	20130812	14:34:53	601776	6366779		Seabed Morphology	Boulder	SS-0632	SEABF	SEABO	2.3	0.3	1.2	SSS	
ST13828	20130812	14:35:40	601820	6366698		Seabed Morphology	Boulder	SS-0633	SEABF	SEABO	2.1	0.2	1.0	SSS	
ST13828	20130812	14:43:40	602521	6366053		Seabed Morphology	Boulder	SS-0634	SEABF	SEABO	1.1	0.5	0.9	SSS	
ST13828	20130812	14:44:51	602554	6365900		Seabed Morphology	Boulder	SS-0635	SEABF	SEABO	4.1	0.3	1.1	SSS	
ST13828	20130812	14:46:39	602713	6365754		Seabed Morphology	Boulder	SS-0636	SEABF	SEABO	1.9	0.6	0.9	SSS	Correlated to M-847
ST13828	20130812	14:49:23	602905	6365494		Man-made Hazards	Unidentified	SS-0637	TARGT	TAUN	4.8	0.1	0.8	SSS	
ST13828	20130812	14:51:48	603156	6365327		Man-made Hazards	Unidentified	SS-0638	TARGT	TAUN	4.0	0.8	1.0	SSS	
ST13828	20130812	14:53:18	603224	6365147		Seabed Morphology	Boulder	SS-0639	SEABF	SEABO	2.0	0.3	1.1	SSS	
ST13828	20130812	15:00:34	603805	6364452		Seabed Morphology	Boulder	SS-0640	SEABF	SEABO	2.3	0.2	1.4	SSS	
ST13828	20130812	15:50:52	604075	6364142		Seabed Morphology	Boulder	SS-0643	SEABF	SEABO	1.5	0.2	0.8	SSS	
ST13828	20130812	15:52:37	603976	6364248		Seabed Morphology	Boulder	SS-0645	SEABF	SEABO	1.4	0.3	0.9	SSS	
ST13828	20130812	15:56:59	603742	6364508		Seabed Morphology	Boulder	SS-0646	SEABF	SEABO	2.3	0.4	0.9	SSS	
ST13828	20130812	15:59:35	603551	6364616		Seabed Morphology	Boulder	SS-0647	SEABF	SEABO	1.3	0.3	0.6	SSS	
ST13828	20130812	16:01:13	603510	6364749		Seabed Morphology	Boulder	SS-0648	SEABF	SEABO	1.3	0.2	0.7	SSS	
ST13828	20130812	16:02:32	603379	6364775		Man-made Hazards	Cable/wire	SS-0649	DEBRI	DECW	28.7	0.1	0.5	SSS	
ST13828	20130812	16:04:18	603286	6364873		Seabed Morphology	Boulder	SS-0650	SEABF	SEABO	3.3	0.2	1.1	SSS	
ST13828	20130812	16:05:25	603304	6365006		Seabed Morphology	Boulder	SS-0651	SEABF	SEABO	2.0	0.3	0.7	SSS	
ST13828	20130812	16:15:44	602721	6365534		Seabed Morphology	Boulder	SS-0652	SEABF	SEABO	1.8	0.2	0.9	SSS	
ST13828	20130812	16:18:03	602626	6365656		Seabed Morphology	Boulder	SS-0653	SEABF	SEABO	1.6	0.2	0.6	SSS	
ST13828	20130812	16:18:37	602600	6365682		Seabed Morphology	Boulder	SS-0654	SEABF	SEABO	1.1	0.2	0.5	SSS	
ST13828	20130812	16:21:37	602472	6365833		Seabed Morphology	Boulder	SS-0655	SEABF	SEABO	1.0	0.4	0.7	SSS	
ST13828	20130812	16:24:23	602399	6366017		Seabed Morphology	Boulder	SS-0656	SEABF	SEABO	1.5	0.3	0.9	SSS	
ST13828	20130812	16:45:57	601230	6367213		Seabed Morphology	Boulder	SS-0657	SEABF	SEABO	2.5	0.2	1.0	SSS	
ST13828	20130812	16:47:39	601138	6367320		Seabed Morphology	Boulder	SS-0658	SEABF	SEABO	1.9	0.3	0.8	SSS	
ST13828	20130812	16:49:58	601020	6367466		Seabed Morphology	Boulder	SS-0659	SEABF	SEABO	2.1	0.2	0.8	SSS	
ST13828	20130812	16:57:09	600626	6367911		Seabed Morphology	Boulder	SS-0660	SEABF	SEABO	1.7	0.2	1.5	SSS	
ST13828	20130812	16:59:21	600576	6368114		Seabed Morphology	Boulder	SS-0661	SEABF	SEABO	1.4	0.4	0.7	SSS	
ST13828	20130812	17:02:05	600423	6368297		Seabed Morphology	Boulder	SS-0662	SEABF	SEABO	1.4	0.3	0.8	SSS	Correlated to M-806
ST13828	20130812	17:03:08	600371	6368367		Seabed Morphology	Boulder	SS-0663	SEABF	SFBO	1.5	0.3	0.5	SSS	
ST13828	20130812	17:02:56	600382	6368356		Seabed Morphology	Boulder	SS-0664	SEABF	SEABO	2.1	0.2	1.2	SSS	
ST13828	20130812	17:02:43	600402	6368350		Seabed Morphology	Boulder	SS-0665	SEABF	SEABO	1.5	0.3	1.2	SSS	
ST13828	20130812	17:03:34	600286	6368342		Seabed Morphology	Boulder	SS-0666	SEABF	SEABO	2.3	0.2	0.8	SSS	
ST13828	20130812	17:18:39	599459	6369300		Seabed Morphology	Boulder	SS-0667	SEABF	SEABO	1.1	0.2	0.8	SSS	Correlated to M-787
ST13828	20130812	17:20:50	599347	6369447		Seabed Morphology	Boulder	SS-0668	SEABF	SEABO	0.9	0.3	0.9	SSS	
ST13828	20130812	17:24:46	599159	6369741		Seabed Morphology	Boulder	SS-0669	SEABF	SEABO	1.8	0.3	0.8	SSS	
ST13828	20130812	17:25:24	599054	6369723		Seabed Morphology	Boulder	SS-0670	SEABF	SEABO	2.7	0.4	1.8	SSS	
ST13828	20130812	17:27:33	598958	6369881		Man-made Hazards	Pipeline	SS-0671			75.0	0.0	0.0	SSS	Correlated to M-179
ST13828	20130812	17:35:08	598496	6370371		Seabed Morphology	Boulder	SS-0672	SEABF	SEABO	1.2	0.2	0.9	SSS	
ST13828	20130812	17:37:52	598346	6370565		Seabed Morphology	Boulder	SS-0673	SEABF	SEABO	2.0	0.8	1.5	SSS	
ST13828	20130812	17:38:35	598343	6370652		Seabed Morphology	Boulder	SS-0674	SEABF	SEABO	0.8	0.3	0.7	SSS	
ST13828	20130812	17:39:49	598270	6370742		Seabed Morphology	Boulder	SS-0675	SEABF	SEABO	1.3	0.1	0.7	SSS	
ST13828	20130812	17:40:38	598156	6370748		Seabed Morphology	Boulder	SS-0676	SEABF	SEABO	1.6	0.2	1.3	SSS	
ST13828	20130812	17:41:18	598111	6370795		Seabed Morphology	Boulder	SS-0677	SEABF	SEABO	3.3	0.1	0.6	SSS	

Target Listing SSS
Turbine B

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130812	17:41:56	598133	6370892		Seabed Morphology	Boulder	SS-0678	SEABF	SEABO	1.3	0.5	0.7	SSS	
ST13828	20130812	17:42:11	598077	6370876		Seabed Morphology	Boulder	SS-0679	SEABF	SEABO	2.1	0.3	0.9	SSS	
ST13828	20130812	17:45:46	597843	6371115		Man-made Hazards	Unidentified	SS-0680	TARGT	TAUN	2.6	0.8	0.8	SSS	
ST13828	20130812	17:46:17	597860	6371195		Seabed Morphology	Boulder	SS-0681	SEABF	SEABO	1.2	0.6	0.5	SSS	
ST13828	20130812	17:47:41	597785	6371299		Seabed Morphology	Boulder	SS-0683	SEABF	SEABO	1.9	0.3	0.5	SSS	
ST13828	20130812	17:48:41	597738	6371383		Seabed Morphology	Boulder	SS-0684	SEABF	SEABO	1.5	0.2	1.2	SSS	
ST13828	20130812	17:59:06	597017	6372052		Seabed Morphology	Boulder	SS-0685	SEABF	SEABO	3.3	0.3	1.1	SSS	
ST13828	20130812	17:59:33	597058	6372148		Seabed Morphology	Boulder	SS-0686	SEABF	SEABO	1.0	0.2	0.7	SSS	
ST13828	20130812	18:01:34	596887	6372240		Seabed Morphology	Boulder	SS-0687	SEABF	SEABO	1.3	0.1	0.5	SSS	
ST13828	20130812	18:02:19	596842	6372292		Seabed Morphology	Boulder	SS-0688	SEABF	SEABO	3.1	0.6	0.8	SSS	
ST13828	20130812	18:02:51	596849	6372366		Seabed Morphology	Boulder	SS-0689	SEABF	SEABO	1.6	0.3	0.8	SSS	
ST13828	20130812	18:08:21	596460	6372721		Seabed Morphology	Boulder	SS-0690	SEABF	SEABO	2.3	0.2	1.4	SSS	
ST13828	20130812	18:08:50	596488	6372808		Seabed Morphology	Boulder	SS-0691	SEABF	SEABO	1.6	0.5	0.7	SSS	
ST13828	20130812	18:11:33	596330	6373016		Man-made Hazards	Debris	SS-0692	DEBRI	DEOT	2.8	0.0	0.8	SSS	
ST13828	20130812	18:11:56	596292	6373029		Seabed Morphology	Boulder	SS-0693	SEABF	SEABO	2.4	0.2	0.7	SSS	
ST13828	20130812	18:48:08	596121	6372943		Seabed Morphology	Boulder	SS-0696	SEABF	SFBO	1.1	0.2	0.7	SSS	
ST13828	20130812	18:48:05	596106	6372938		Seabed Morphology	Boulder	SS-0697	SEABF	SFBO	0.9	0.2	0.5	SSS	
ST13828	20130812	18:53:50	596546	6372556		Seabed Morphology	Boulder	SS-0698	SEABF	SFBO	3.0	0.4	2.1	SSS	
ST13828	20130812	18:53:52	596505	6372513		Seabed Morphology	Boulder	SS-0699	SEABF	SFBO	1.3	0.4	1.1	SSS	
ST13828	20130812	18:54:27	596553	6372477		Seabed Morphology	Boulder	SS-0700	SEABF	SFBO	1.5	0.5	0.5	SSS	
ST13828	20130812	18:54:36	596607	6372505		Seabed Morphology	Boulder	SS-0701	SEABF	SFBO	1.5	0.2	0.7	SSS	
ST13828	20130812	19:00:01	596885	6372028		Seabed Morphology	Boulder	SS-0702	SEABF	SFBO	1.7	0.1	0.7	SSS	
ST13828	20130812	19:00:53	597015	6372028		Seabed Morphology	Boulder	SS-0703	SEABF	SFBO	3.3	0.1	0.4	SSS	
ST13828	20130812	19:11:53	597674	6371208		Seabed Morphology	Boulder	SS-0704	SEABF	SFBO	1.1	0.2	0.5	SSS	
ST13828	20130812	19:13:15	597740	6371092		Seabed Morphology	Boulder	SS-0705	SEABF	SFBO	1.7	0.1	0.7	SSS	
ST13828	20130812	19:17:22	598063	6370849		Seabed Morphology	Boulder	SS-0706	SEABF	SFBO	1.9	0.2	0.9	SSS	
ST13828	20130812	19:18:44	598078	6370690		Seabed Morphology	Boulder	SS-0707	SEABF	SFBO	2.8	0.2	0.9	SSS	
ST13828	20130812	19:19:12	598118	6370663		Seabed Morphology	Boulder	SS-0708	SEABF	SFBO	2.9	0.3	0.5	SSS	
ST13828	20130812	19:18:55	598097	6370683		Seabed Morphology	Boulder	SS-0709	SEABF	SFBO	2.7	0.2	0.7	SSS	
ST13828	20130812	19:34:35	599099	6369556		Man-made Hazards	Cable/wire	SS-0710	DEBRI	DECW	2.3	0.3	1.1	SSS	Correlated to M-318
ST13828	20130812	19:36:43	599295	6369444		Man-made Hazards	Unidentified	SS-0711	TARGT	TAUN	2.1	0.2	0.6	SSS	Correlated to M-333
ST13828	20130812	19:44:57	599824	6368792		Seabed Morphology	Boulder	SS-0713	SEABF	SEABO	1.0	0.2	1.0	SSS	Correlated to M-794
ST13828	20130812	19:46:38	599898	6368631		Seabed Morphology	Boulder	SS-0714	SEABF	SEABO	1.2	0.2	0.5	SSS	
ST13828	20130812	19:54:35	600468	6368026		Seabed Morphology	Boulder	SS-0715	SEABF	SEABO	1.5	1.0	1.3	SSS	
ST13828	20130812	19:59:16	600752	6367636		Seabed Morphology	Boulder	SS-0716	SEABF	SEABO	2.3	0.4	1.2	SSS	
ST13828	20130812	20:03:02	601094	6367419		Seabed Morphology	Boulder	SS-0717	SEABF	SEABO	3.9	0.4	1.9	SSS	
ST13828	20130812	20:12:30	601605	6366663		Seabed Morphology	Boulder	SS-0718	SEABF	SEABO	2.5	0.5	1.3	SSS	
ST13828	20130812	20:12:38	601686	6366711		Seabed Morphology	Boulder	SS-0719	SEABF	SEABO	2.8	0.2	1.1	SSS	
ST13828	20130812	20:46:44	603784	6364314		Seabed Morphology	Boulder	SS-0720	SEABF	SEABO	1.5	0.2	0.8	SSS	
ST13828	20130812	20:20:07	602075	6366125		Man-made Hazards	Unidentified	SS-0721	TARGT	TAUN	2.4	0.1	0.9	SSS	
ST13828	20130812	20:23:16	602327	6365956		Seabed Morphology	Boulder	SS-0722	SEABF	SEABO	1.8	0.2	1.2	SSS	
ST13828	20130812	20:23:18	602341	6365965		Seabed Morphology	Boulder	SS-0723	SEABF	SEABO	2.2	0.2	1.4	SSS	
ST13828	20130812	20:25:54	602413	6365706		Seabed Morphology	Boulder	SS-0724	SEABF	SEABO	2.2	0.4	1.3	SSS	
ST13828	20130812	20:30:57	602750	6365365		Seabed Morphology	Boulder	SS-0725	SEABF	SEABO	0.8	0.2	0.8	SSS	
ST13828	20130812	20:36:42	603154	6365031		Seabed Morphology	Boulder	SS-0726	SEABF	SEABO	1.7	0.1	0.9	SSS	
ST13828	20130812	20:38:12	603186	6364866		Seabed Morphology	Boulder	SS-0727	SEABF	SEABO	1.8	0.2	0.5	SSS	
ST13828	20130812	20:49:09	603959	6364166		Seabed Morphology	Boulder	SS-0728	SEABF	SEABO	2.4	0.3	1.0	SSS	
ST13828	20130812	21:32:33	603836	6363946		Man-made Hazards	Cable/wire	SS-0729	DEBRI	DECW	5.9	0.2	0.5	SSS	
ST13828	20130812	21:36:36	603685	6364308		Man-made Hazards	Unidentified	SS-0730	TARGT	TAUN	2.8	0.1	0.7	SSS	
ST13828	20130812	21:53:53	602591	6365389		Seabed Morphology	Boulder	SS-0731	SEABF	SEABO	3.2	0.2	0.9	SSS	

Target Listing SSS
Turbine B

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130812	22:02:55	602099	6366065		Seabed Morphology	Boulder	SS-0732	SEABF	SEABO	1.1	0.5	0.7	SSS	
ST13828	20130812	22:11:51	601574	6366694		Seabed Morphology	Boulder	SS-0733	SEABF	SEABO	1.7	0.2	1.0	SSS	
ST13828	20130812	22:12:04	601569	6366716		Seabed Morphology	Boulder	SS-0734	SEABF	SEABO	1.8	0.1	1.0	SSS	
ST13828	20130812	22:14:39	601346	6366837		Seabed Morphology	Boulder	SS-0735	SEABF	SEABO	1.6	0.2	0.4	SSS	
ST13828	20130812	22:25:28	600755	6367606		Seabed Morphology	Boulder	SS-0736	SEABF	SEABO	1.9	0.3	0.8	SSS	
ST13828	20130812	22:25:12	600777	6367594		Man-made Hazards	Boulder	SS-0737	SEABF	SEABO	1.9	0.3	0.7	SSS	
ST13828	20130812	22:27:34	600614	6367740		Seabed Morphology	Boulder	SS-0738	SEABF	SEABO	1.5	1.0	0.5	SSS	
ST13828	20130812	22:34:09	600201	6368258		Seabed Morphology	Boulder	SS-0739	SEABF	SEABO	2.9	0.1	1.1	SSS	
ST13828	20130812	22:36:10	600063	6368393		Seabed Morphology	Boulder	SS-0740	SEABF	SEABO	1.5	0.3	0.7	SSS	
ST13828	20130812	22:41:09	599708	6368682		Seabed Morphology	Boulder	SS-0741	SEABF	SEABO	2.1	0.3	0.9	SSS	
ST13828	20130812	22:41:00	599793	6368748		Seabed Morphology	Boulder	SS-0742	SEABF	SEABO	2.0	0.1	0.8	SSS	
ST13828	20130812	22:50:53	599083	6369507		Seabed Morphology	Boulder	SS-0743	SEABF	SEABO	2.5	0.5	2.0	SSS	Correlated to M-780
ST13828	20130812	22:50:33	599045	6369424		Seabed Morphology	Boulder	SS-0744	SEABF	SEABO	1.6	0.3	0.8	SSS	
ST13828	20130812	22:50:47	599078	6369488		Man-made Hazards	Cable/wire	SS-0745	DEBRI	DECW	7.8	0.4	1.2	SSS	Correlated to M-192
ST13828	20130812	22:51:28	599049	6369553		Seabed Morphology	Boulder	SS-0746	SEABF	SEABO	1.4	0.4	1.0	SSS	
ST13828	20130812	22:51:56	599021	6369589		Seabed Morphology	Boulder	SS-0747	SEABF	SEABO	3.7	0.1	0.6	SSS	
ST13828	20130812	22:54:58	598783	6369767		Man-made Hazards	Pipeline	SS-0748			33.8	0.0	0.0	SSS	Correlated to M-194
ST13828	20130812	22:58:31	598583	6370101		Seabed Morphology	Boulder	SS-0749	SEABF	SEABO	3.2	0.6	1.2	SSS	
ST13828	20130812	23:00:15	598398	6370183		Seabed Morphology	Boulder	SS-0750	SEABF	SEABO	2.4	0.3	0.5	SSS	
ST13828	20130812	23:03:41	598161	6370421		Seabed Morphology	Boulder	SS-0751	SEABF	SEABO	2.4	0.2	1.1	SSS	
ST13828	20130812	23:04:16	598193	6370522		Seabed Morphology	Boulder	SS-0752	SEABF	SEABO	1.6	0.3	1.0	SSS	
ST13828	20130812	23:04:15	598138	6370469		Seabed Morphology	Boulder	SS-0753	SEABF	SEABO	1.3	0.4	0.7	SSS	
ST13828	20130812	23:04:47	598105	6370511		Seabed Morphology	Boulder	SS-0754	SEABF	SEABO	1.9	0.2	1.3	SSS	
ST13828	20130812	23:06:27	597983	6370618		Man-made Hazards	Cable/wire	SS-0755	DEBRI	DECW	5.1	0.5	1.5	SSS	Possible Anchor
ST13828	20130812	23:07:19	597943	6370690		Seabed Morphology	Boulder	SS-0756	SEABF	SEABO	2.2	0.2	1.0	SSS	
ST13828	20130812	23:07:59	597904	6370748		Seabed Morphology	Boulder	SS-0757	SEABF	SEABO	2.0	0.2	1.1	SSS	
ST13828	20130812	23:10:44	597772	6371017		Seabed Morphology	Boulder	SS-0758	SEABF	SEABO	3.3	0.5	2.2	SSS	
ST13828	20130812	23:11:04	597769	6371059		Seabed Morphology	Boulder	SS-0759	SEABF	SEABO	2.2	0.2	0.9	SSS	
ST13828	20130812	23:13:33	597539	6371198		Seabed Morphology	Boulder	SS-0760	SEABF	SEABO	1.3	0.4	0.6	SSS	
ST13828	20130812	23:19:12	597189	6371675		Seabed Morphology	Boulder	SS-0761	SEABF	SEABO	2.1	0.3	0.8	SSS	
ST13828	20130812	23:20:40	597019	6371736		Seabed Morphology	Boulder	SS-0762	SEABF	SEABO	1.4	0.3	0.9	SSS	
ST13828	20130812	23:23:24	596854	6371978		Seabed Morphology	Boulder	SS-0763	SEABF	SEABO	1.3	0.2	0.7	SSS	
ST13828	20130812	23:23:57	596818	6372023		Seabed Morphology	Boulder	SS-0764	SEABF	SEABO	1.0	0.5	0.7	SSS	
ST13828	20130812	23:24:23	596824	6372086		Seabed Morphology	Boulder	SS-0765	SEABF	SEABO	1.1	0.3	0.8	SSS	
ST13828	20130812	23:29:27	596532	6372483		Seabed Morphology	Boulder	SS-0766	SEABF	SEABO	1.2	0.2	0.7	SSS	
ST13828	20130813	00:10:45	595965	6372842		Seabed Morphology	Boulder	SS-0771	SEABF	SEABO	1.0	0.4	0.6	SSS	
ST13828	20130813	00:13:22	596119	6372634		Seabed Morphology	Boulder	SS-0772	SEABF	SEABO	1.2	0.4	0.7	SSS	
ST13828	20130813	00:20:25	596615	6372141		Seabed Morphology	Boulder	SS-0773	SEABF	SEABO	2.1	0.7	0.9	SSS	
ST13828	20130813	00:26:35	597044	6371693		Seabed Morphology	Boulder	SS-0774	SEABF	SEABO	1.0	0.2	0.6	SSS	
ST13828	20130813	00:29:31	597192	6371432		Seabed Morphology	Boulder	SS-0775	SEABF	SEABO	0.8	0.3	0.4	SSS	
ST13828	20130813	00:33:20	597435	6371131		Seabed Morphology	Boulder	SS-0776	SEABF	SEABO	2.0	0.2	0.5	SSS	
ST13828	20130813	00:32:49	597473	6371237		Seabed Morphology	Boulder	SS-0777	SEABF	SEABO	1.9	0.2	0.8	SSS	
ST13828	20130813	00:38:01	597785	6370814		Seabed Morphology	Boulder	SS-0778	SEABF	SEABO	1.5	0.4	1.0	SSS	
ST13828	20130813	00:38:54	597851	6370751		Seabed Morphology	Boulder	SS-0779	SEABF	SEABO	1.6	0.4	0.8	SSS	
ST13828	20130813	00:40:15	597910	6370624		Seabed Morphology	Boulder	SS-0780	SEABF	SEABO	1.8	0.6	0.7	SSS	
ST13828	20130813	00:41:37	597964	6370486		Seabed Morphology	Boulder	SS-0781	SEABF	SEABO	3.7	0.1	0.6	SSS	
ST13828	20130813	00:41:26	597967	6370514		Seabed Morphology	Boulder	SS-0782	SEABF	SEABO	1.7	0.2	0.4	SSS	
ST13828	20130813	00:42:55	598118	6370446		Seabed Morphology	Boulder	SS-0783	SEABF	SEABO	1.3	0.3	0.8	SSS	
ST13828	20130813	00:49:58	598559	6369856		Seabed Morphology	Boulder	SS-0784	SEABF	SEABO	1.5	0.3	0.7	SSS	
ST13828	20130813	00:55:54	599020	6369445		Seabed Morphology	Boulder	SS-0785	SEABF	SEABO	1.2	0.2	0.7	SSS	

Target Listing SSS
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Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130813	01:02:33	599430	6368865		Seabed Morphology	Boulder	SS-0786	SEABF	SEABO	1.3	0.2	0.5	SSS	
ST13828	20130813	01:08:42	599896	6368430		Seabed Morphology	Boulder	SS-0787	SEABF	SEABO	1.3	0.4	0.6	SSS	
ST13828	20130813	01:29:01	601306	6366763		Man-made Hazards	Debris	SS-0788	DEBRI	DEOT	2.3	1.3	1.8	SSS	
ST13828	20130813	01:30:11	601366	6366651		Seabed Morphology	Boulder	SS-0789	SEABF	SEABO	2.1	0.4	0.3	SSS	
ST13828	20130813	01:44:19	602356	6365526		Seabed Morphology	Boulder	SS-0790	SEABF	SEABO	1.4	0.0	0.6	SSS	
ST13828	20130813	01:41:37	602164	6365739		Seabed Morphology	Boulder	SS-0791	SEABF	SEABO	1.2	0.5	0.2	SSS	
ST13828	20130813	03:06:27	603112	6364470		Seabed Morphology	Boulder	SS-0792	SEABF	SEABO	1.5	0.3	0.4	SSS	
ST13828	20130813	03:16:31	602538	6365157		Seabed Morphology	Boulder	SS-0793	SEABF	SEABO	1.1	0.2	0.3	SSS	
ST13828	20130813	03:45:30	600863	6367177		Seabed Morphology	Boulder	SS-0794	SEABF	SEABO	1.0	0.4	0.6	SSS	
ST13828	20130813	04:20:20	598876	6369335		Seabed Morphology	Boulder	SS-0795	SEABF	SEABO	1.3	0.4	0.4	SSS	
ST13828	20130813	04:30:51	598251	6370077		Seabed Morphology	Boulder	SS-0796	SEABF	SEABO	1.1	0.6	0.6	SSS	
ST13828	20130813	04:41:06	597638	6370783		Seabed Morphology	Boulder	SS-0798	SEABF	SEABO	1.3	0.3	0.9	SSS	
ST13828	20130813	04:58:40	596553	6372015		Seabed Morphology	Boulder	SS-0799	SEABF	SEABO	1.2	0.4	0.5	SSS	
ST13828	20130813	05:49:15	596781	6371564		Seabed Morphology	Boulder	SS-0800	SEABF	SEABO	1.2	0.2	0.4	SSS	
ST13828	20130813	05:48:59	596822	6371636		Seabed Morphology	Boulder	SS-0801	SEABF	SEABO	1.1	0.4	1.0	SSS	
ST13828	20130813	05:49:14	596796	6371579		Seabed Morphology	Boulder	SS-0802	SEABF	SEABO	1.5	0.1	0.6	SSS	
ST13828	20130813	06:05:15	597887	6370427		Seabed Morphology	Boulder	SS-0803	SEABF	SEABO	1.0	0.4	1.2	SSS	
ST13828	20130813	06:34:15	599781	6368296		Seabed Morphology	Boulder	SS-0804	SEABF	SEABO	2.5	0.3	0.4	SSS	Correlated to M-301
ST13828	20130813	06:54:03	601025	6366822		Seabed Morphology	Boulder	SS-0805	SEABF	SEABO	1.4	0.3	0.7	SSS	
ST13828	20130813	06:58:50	601289	6366424		Seabed Morphology	Boulder	SS-0806	SEABF	SEABO	1.3	0.1	1.1	SSS	
ST13828	20130813	07:18:35	602493	6365050		Seabed Morphology	Boulder	SS-0807	SEABF	SEABO	1.0	0.2	0.6	SSS	
ST13828	20130813	08:39:37	602206	6365334		Seabed Morphology	Boulder	SS-0808	SEABF	SEABO	1.8	0.3	1.1	SSS	
ST13828	20130813	08:32:16	602655	6364833		Seabed Morphology	Boulder	SS-0809	SEABF	SEABO	1.7	0.5	0.6	SSS	
ST13828	20130813	08:44:36	601900	6365702		Seabed Morphology	Boulder	SS-0810	SEABF	SEABO	1.2	0.2	0.4	SSS	
ST13828	20130813	09:42:38	598136	6370020		Seabed Morphology	Boulder	SS-0811	SEABF	SEABO	1.9	0.4	1.1	SSS	
ST13828	20130813	09:51:23	597549	6370691		Seabed Morphology	Boulder	SS-0812	SEABF	SEABO	1.0	0.3	0.5	SSS	
ST13828	20130813	09:54:49	597304	6370931		Seabed Morphology	Boulder	SS-0813	SEABF	SEABO	2.0	0.4	0.9	SSS	
ST13828	20130813	10:03:53	596620	6371584		Seabed Morphology	Boulder	SS-0814	SEABF	SFBO	1.1	0.2	0.6	SSS	
ST13828	20130813	10:14:33	595936	6372463		Seabed Morphology	Boulder	SS-0815	SEABF	SEABO	2.0	0.3	0.6	SSS	
ST13828	20130813	10:47:27	595892	6372425		Seabed Morphology	Boulder	SS-0816	SEABF	SEABO	2.3	0.3	1.3	SSS	
ST13828	20130813	10:51:29	596063	6372122		Seabed Morphology	Boulder	SS-0817	SEABF	SEABO	1.1	0.4	0.5	SSS	
ST13828	20130813	11:01:37	596667	6371430		Seabed Morphology	Boulder	SS-0818	SEABF	SEABO	1.0	0.4	0.3	SSS	
ST13828	20130813	11:09:37	597165	6370944		Seabed Morphology	Boulder	SS-0821	SEABF	SEABO	1.5	0.3	1.2	SSS	
ST13828	20130813	11:13:18	597307	6370661		Seabed Morphology	Boulder	SS-0822	SEABF	SEABO	1.2	0.2	0.7	SSS	
ST13828	20130813	11:28:19	598222	6369726		Seabed Morphology	Boulder	SS-0823	SEABF	SEABO	1.3	0.4	1.4	SSS	
ST13828	20130813	11:41:22	599008	6368820		Seabed Morphology	Boulder	SS-0824	SEABF	SEABO	2.7	0.6	0.9	SSS	
ST13828	20130813	11:47:24	599350	6368389		Seabed Morphology	Boulder	SS-0825	SEABF	SEABO	1.1	1.0	0.6	SSS	
ST13828	20130813	11:56:39	599954	6367753		Seabed Morphology	Boulder	SS-0826	SEABF	SEABO	1.2	0.3	0.7	SSS	
ST13828	20130813	12:11:21	600842	6366622		Seabed Morphology	Boulder	SS-0827	SEABF	SEABO	1.9	0.2	0.5	SSS	
ST13828	20130813	12:41:52	602848	6364319		Seabed Morphology	Boulder	SS-0830	SEABF	SEABO	1.0	0.2	0.8	SSS	
ST13828	20130813	14:27:36	599041	6368743		Seabed Morphology	Boulder	SS-0833	SEABF	SEABO	2.5	0.4	0.8	SSS	Correlated to M-234
ST13828	20130813	14:39:36	598217	6369551		Seabed Morphology	Boulder	SS-0834	SEABF	SEABO	1.1	0.2	0.7	SSS	
ST13828	20130813	14:40:19	598186	6369618		Seabed Morphology	Boulder	SS-0835	SEABF	SEABO	4.0	0.3	0.5	SSS	
ST13828	20130813	14:40:09	598223	6369628		Seabed Morphology	Boulder	SS-0836	SEABF	SEABO	2.3	0.3	0.7	SSS	
ST13828	20130813	14:41:04	598175	6369705		Seabed Morphology	Boulder	SS-0837	SEABF	SEABO	1.6	0.3	1.0	SSS	
ST13828	20130813	14:42:08	598111	6369782		Seabed Morphology	Boulder	SS-0838	SEABF	SEABO	2.0	0.3	1.1	SSS	
ST13828	20130813	14:42:10	598102	6369780		Seabed Morphology	Boulder	SS-0839	SEABF	SEABO	0.9	0.0	0.3	SSS	
ST13828	20130813	14:43:10	597972	6369791		Seabed Morphology	Boulder	SS-0840	SEABF	SEABO	2.3	0.2	0.9	SSS	
ST13828	20130813	14:42:31	598028	6369760		Seabed Morphology	Boulder	SS-0841	SEABF	SEABO	1.7	0.3	0.9	SSS	
ST13828	20130813	14:43:35	597978	6369849		Seabed Morphology	Boulder	SS-0842	SEABF	SEABO	2.0	0.4	0.8	SSS	

Target Listing SSS
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Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130813	14:43:54	598008	6369919		Seabed Morphology	Boulder	SS-0843	SEABF	SEABO	1.3	0.3	1.0	SSS	
ST13828	20130813	14:43:35	598014	6369881		Seabed Morphology	Boulder	SS-0844	SEABF	SEABO	0.8	0.3	0.5	SSS	
ST13828	20130813	14:45:31	597900	6370013		Seabed Morphology	Boulder	SS-0845	SEABF	SEABO	1.5	0.4	0.8	SSS	
ST13828	20130813	14:46:38	597853	6370102		Man-made Hazards	Unidentified	SS-0846	TARGT	TAUN	2.9	0.3	1.8	SSS	
ST13828	20130813	14:46:39	597777	6370039		Man-made Hazards	Unidentified	SS-0847	TARGT	TAUN	3.2	0.3	1.3	SSS	
ST13828	20130813	14:47:58	597696	6370122		Man-made Hazards	Unidentified	SS-0848	TARGT	TAUN	2.1	0.1	0.4	SSS	
ST13828	20130813	14:49:07	597649	6370228		Seabed Morphology	Boulder	SS-0849	SEABF	SEABO	3.1	0.3	1.3	SSS	
ST13828	20130813	14:49:14	597694	6370278		Seabed Morphology	Boulder	SS-0850	SEABF	SEABO	2.6	0.3	1.9	SSS	
ST13828	20130813	14:52:56	597457	6370541		Seabed Morphology	Boulder	SS-0851	SEABF	SEABO	1.5	0.2	0.7	SSS	
ST13828	20130813	14:55:21	597309	6370706		Seabed Morphology	Boulder	SS-0852	SEABF	SEABO	1.5	0.6	1.2	SSS	
ST13828	20130813	14:55:11	597275	6370659		Seabed Morphology	Boulder	SS-0853	SEABF	SEABO	2.9	0.3	0.7	SSS	
ST13828	20130813	14:56:21	597183	6370720		Seabed Morphology	Boulder	SS-0854	SEABF	SEABO	1.5	0.2	1.3	SSS	
ST13828	20130813	14:57:59	597084	6370832		Seabed Morphology	Boulder	SS-0855	SEABF	SEABO	1.9	0.2	1.0	SSS	
ST13828	20130813	15:06:07	596663	6371430		Seabed Morphology	Boulder	SS-0856	SEABF	SEABO	1.1	0.6	0.9	SSS	
ST13828	20130813	15:06:02	596702	6371452		Seabed Morphology	Boulder	SS-0857	SEABF	SEABO	1.7	0.1	0.8	SSS	
ST13828	20130813	15:05:59	596646	6371401		Seabed Morphology	Boulder	SS-0858	SEABF	SEABO	2.0	0.3	0.6	SSS	
ST13828	20130813	15:08:16	596564	6371588		Seabed Morphology	Boulder	SS-0859	SEABF	SEABO	1.5	0.3	1.2	SSS	
ST13828	20130813	15:13:45	596266	6371944		Seabed Morphology	Boulder	SS-0860	SEABF	SEABO	1.6	0.1	0.7	SSS	
ST13828	20130813	15:14:01	596172	6371883		Man-made Hazards	Boulder	SS-0861	SEABF	SEABO	2.3	0.1	0.8	SSS	
ST13828	20130813	15:16:18	596064	6372016		Man-made Hazards	Unidentified	SS-0862	TARGT	TAUN	2.1	0.5	1.2	SSS	
ST13828	20130813	15:17:29	596052	6372128		Seabed Morphology	Boulder	SS-0863	SEABF	SEABO	2.3	0.1	0.6	SSS	
ST13828	20130813	15:18:52	595927	6372170		Seabed Morphology	Boulder	SS-0864	SEABF	SEABO	1.8	0.1	0.8	SSS	
ST13828	20130813	15:56:22	596026	6372056		Seabed Morphology	Boulder	SS-0865	SEABF	SEABO	2.7	0.4	0.3	SSS	
ST13828	20130813	16:07:00	596764	6371139		Seabed Morphology	Bedrock	SS-0868	SEABF	SEABE	2.8	0.5	1.3	SSS	
ST13828	20130813	16:08:39	596949	6371082		Seabed Morphology	Bedrock	SS-0869	SEABF	SEABE	3.4	0.2	1.2	SSS	
ST13828	20130813	16:17:12	597497	6370306		Man-made Hazards	Unidentified	SS-0871	TARGT	TAPB	1.4	0.2	2.5	SSS	Circular object, possible geology
ST13828	20130813	16:20:19	597780	6370108		Seabed Morphology	Bedrock	SS-0872	SEABF	SEABE	3.7	0.3	2.0	SSS	
ST13828	20130813	16:20:23	597787	6370106		Seabed Morphology	Bedrock	SS-0873	SEABF	SEABE	2.3	0.2	0.6	SSS	
ST13828	20130813	16:24:54	598060	6369656		Seabed Morphology	Bedrock	SS-0874	SEABF	SEABE	1.7	0.6	0.9	SSS	
ST13828	20130813	16:38:58	599075	6368502		Man-made Hazards	Unidentified	SS-0875	TARGT	TAUN	4.3	1.1	1.3	SSS	
ST13828	20130813	16:45:42	599585	6368031		Seabed Morphology	Bedrock	SS-0876	SEABF	SEABE	1.6	0.6	0.5	SSS	Correlated to M-237
ST13828	20130813	17:12:10	601397	6365996		Seabed Morphology	Bedrock	SS-0877	SEABF	SEABE	2.7	0.5	1.2	SSS	
ST13828	20130813	17:12:05	601373	6365980		Seabed Morphology	Bedrock	SS-0878	SEABF	SEABE	1.2	0.3	0.6	SSS	
ST13828	20130813	17:12:18	601408	6365988		Seabed Morphology	Bedrock	SS-0879	SEABF	SEABE	1.2	0.3	0.3	SSS	
ST13828	20130813	03:04:38	603272	6364404		Seabed Morphology	Bedrock	SS-0880	SEABF	SEABE	3.0	0.4	0.4	SSS	
ST13828	20130813	03:14:58	602640	6365067		Seabed Morphology	Boulder	SS-0881	SEABF	SEABO	1.3	0.3	0.9	SSS	
ST13828	20130813	04:18:07	598994	6369183		Seabed Morphology	Boulder	SS-0882	SEABF	SFBO	1.8	0.1	0.6	SSS	Correlated to M-299
ST13828	20130813	04:37:15	597829	6370555		Seabed Morphology	Bedrock	SS-0883	SEABF	SEABE	1.0	0.3	0.4	SSS	
ST13828	20130813	04:45:40	597324	6371089		Seabed Morphology	Bedrock	SS-0884	SEABF	SEABE	1.6	0.2	0.5	SSS	
ST13828	20130813	05:57:40	597398	6370995		Seabed Morphology	Boulder	SS-0885	SEABF	SFBO	2.4	0.2	1.0	SSS	
ST13828	20130813	06:00:27	597597	6370804		Seabed Morphology	Boulder	SS-0886	SEABF	SFBO	2.8	0.1	1.1	SSS	
ST13828	20130813	08:43:21	601975	6365605		Seabed Morphology	Boulder	SS-0887	SEABF	SFBO	1.9	0.2	0.5	SSS	
ST13828	20130813	09:31:18	598811	6369098		Man-made Hazards	Unidentified	SS-0889	TARGT	TAUN	3.1	0.5	0.5	SSS	
ST13828	20130813	09:46:41	597879	6370333		Seabed Morphology	Bedrock	SS-0890	SEABF	SEABE	2.7	0.3	1.7	SSS	
ST13828	20130813	10:07:34	596400	6371889		Seabed Morphology	Boulder	SS-0891	SEABF	SEABO	2.4	0.7	1.6	SSS	
ST13828	20130813	10:08:49	596315	6371987		Seabed Morphology	Boulder	SS-0892	SEABF	SEABO	2.2	0.3	1.1	SSS	
ST13828	20130813	10:09:12	596277	6372006		Seabed Morphology	Boulder	SS-0893	SEABF	SEABO	2.1	0.3	0.7	SSS	
ST13828	20130813	18:12:19	603220	6363794		Seabed Morphology	Boulder	SS-0897	SEABF	SEABO	2.9	0.5	1.3	SSS	
ST13828	20130813	18:13:04	603163	6363852		Seabed Morphology	Boulder	SS-0898	SEABF	SEABO	1.4	0.2	0.7	SSS	
ST13828	20130813	18:13:53	603113	6363931		Man-made Hazards	Unidentified	SS-0899	TARGT	TAUN	1.9	0.1	0.6	SSS	

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Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130813	18:13:54	603054	6363881		Seabed Morphology	Boulder	SS-0900	SEABF	SEABO	3.3	0.1	0.9	SSS	
ST13828	20130813	18:15:32	602983	6364057		Seabed Morphology	Boulder	SS-0901	SEABF	SEABO	1.4	0.1	0.6	SSS	
ST13828	20130813	18:16:56	602898	6364173		Seabed Morphology	Boulder	SS-0902	SEABF	SEABO	2.0	0.3	0.5	SSS	
ST13828	20130813	18:21:21	602607	6364498		Seabed Morphology	Boulder	SS-0903	SEABF	SEABO	2.0	0.2	0.6	SSS	
ST13828	20130813	18:31:24	601918	6365298		Seabed Morphology	Boulder	SS-0904	SEABF	SEABO	1.5	0.1	0.6	SSS	
ST13828	20130813	18:40:08	601290	6365919		Seabed Morphology	Boulder	SS-0905	SEABF	SEABO	2.0	0.0	0.6	SSS	
ST13828	20130813	18:40:02	601334	6365946		Man-made Hazards	Cable/wire	SS-0906	DEBRI	DECW	47.1	0.1	0.7	SSS	
ST13828	20130813	18:47:10	600773	6366454		Seabed Morphology	Boulder	SS-0907	SEABF	SEABO	2.1	0.1	0.9	SSS	
ST13828	20130813	18:51:12	600501	6366798		Seabed Morphology	Boulder	SS-0908	SEABF	SEABO	1.8	0.2	0.8	SSS	
ST13828	20130813	18:51:16	600487	6366795		Seabed Morphology	Boulder	SS-0909	SEABF	SEABO	3.8	0.2	1.2	SSS	
ST13828	20130813	18:52:25	600462	6366933		Seabed Morphology	Boulder	SS-0910	SEABF	SEABO	1.4	0.3	0.8	SSS	Correlated to M-822
ST13828	20130813	18:53:14	600410	6367004		Seabed Morphology	Boulder	SS-0911	SEABF	SEABO	2.6	0.2	0.9	SSS	
ST13828	20130813	18:55:00	600237	6367100		Seabed Morphology	Boulder	SS-0912	SEABF	SEABO	4.0	0.2	0.6	SSS	
ST13828	20130813	18:55:24	600213	6367138		Man-made Hazards	Boulder	SS-0913	SEABF	SEABO	3.0	0.2	1.2	SSS	
ST13828	20130813	18:57:19	600076	6367288		Seabed Morphology	Boulder	SS-0914	SEABF	SEABO	0.8	0.3	0.6	SSS	
ST13828	20130813	19:00:11	599949	6367582		Seabed Morphology	Boulder	SS-0915	SEABF	SEABO	1.8	0.1	0.5	SSS	
ST13828	20130813	19:07:17	599371	6368106		Seabed Morphology	Boulder	SS-0917	SEABF	SEABO	3.1	0.1	0.4	SSS	
ST13828	20130813	19:25:23	598100	6369640		Seabed Morphology	Boulder	SS-0922	SEABF	SEABO	1.3	0.3	0.6	SSS	
ST13828	20130813	19:25:43	598029	6369626		Seabed Morphology	Boulder	SS-0923	SEABF	SEABO	2.1	0.2	1.4	SSS	
ST13828	20130813	19:26:53	598005	6369772		Seabed Morphology	Boulder	SS-0924	SEABF	SEABO	2.0	0.3	1.0	SSS	
ST13828	20130813	19:29:33	597767	6369946		Seabed Morphology	Boulder	SS-0925	SEABF	SEABO	1.6	0.4	0.9	SSS	
ST13828	20130813	19:34:43	597387	6370364		Seabed Morphology	Boulder	SS-0927	SEABF	SEABO	1.3	0.2	0.7	SSS	
ST13828	20130813	19:37:01	597264	6370597		Seabed Morphology	Boulder	SS-0928	SEABF	SEABO	1.1	0.5	0.7	SSS	
ST13828	20130813	19:37:01	597212	6370550		Man-made Hazards	Unidentified	SS-0929	TARGT	TAUN	1.9	0.2	0.4	SSS	
ST13828	20130813	19:37:01	597196	6370537		Seabed Morphology	Boulder	SS-0930	SEABF	SEABO	3.5	0.2	1.2	SSS	
ST13828	20130813	19:38:06	597121	6370633		Seabed Morphology	Boulder	SS-0931	SEABF	SEABO	3.5	0.7	0.9	SSS	
ST13828	20130813	19:40:16	596957	6370815		Seabed Morphology	Boulder	SS-0932	SEABF	SEABO	2.0	0.4	1.6	SSS	
ST13828	20130813	19:40:45	596914	6370848		Seabed Morphology	Boulder	SS-0933	SEABF	SEABO	2.5	0.1	0.5	SSS	
ST13828	20130813	19:47:00	596480	6371408		Man-made Hazards	Unidentified	SS-0934	TARGT	TAUN	6.1	0.5	0.9	SSS	
ST13828	20130813	19:47:04	596488	6371427		Man-made Hazards	Debris	SS-0935	DEBRI	DEOT	2.2	0.3	0.5	SSS	
ST13828	20130813	19:48:55	596386	6371614		Seabed Morphology	Boulder	SS-0936	SEABF	SEABO	1.9	0.2	0.6	SSS	
ST13828	20130813	19:49:03	596369	6371620		Seabed Morphology	Boulder	SS-0937	SEABF	SEABO	0.9	0.3	0.5	SSS	
ST13828	20130813	19:50:21	596204	6371671		Seabed Morphology	Boulder	SS-0938	SEABF	SEABO	1.8	0.4	0.9	SSS	
ST13828	20130813	20:36:17	595957	6372062		Seabed Morphology	Boulder	SS-0942	SEABF	SEABO	1.0	0.1	0.5	SSS	
ST13828	20130813	20:37:33	596036	6371970		Seabed Morphology	Boulder	SS-0943	SEABF	SEABO	3.4	0.1	1.0	SSS	
ST13828	20130813	20:40:28	596151	6371705		Seabed Morphology	Boulder	SS-0944	SEABF	SEABO	1.6	0.2	1.2	SSS	
ST13828	20130813	20:40:48	596167	6371676		Seabed Morphology	Boulder	SS-0945	SEABF	SEABO	1.5	0.3	0.9	SSS	
ST13828	20130813	20:48:16	596656	6371150		Man-made Hazards	Debris	SS-0946	DEBRI	DEOT	1.0	0.3	1.2	SSS	
ST13828	20130813	20:55:01	597130	6370709		Seabed Morphology	Boulder	SS-0947	SEABF	SEABO	2.2	0.3	1.0	SSS	
ST13828	20130813	20:54:55	597131	6370722		Seabed Morphology	Boulder	SS-0948	SEABF	SEABO	2.7	0.2	0.8	SSS	
ST13828	20130813	21:00:45	597498	6370320		Man-made Hazards	Cable/wire	SS-0950	DEBRI	DECW	12.3	0.0	0.8	SSS	
ST13828	20130813	21:01:07	597523	6370294		Seabed Morphology	Boulder	SS-0951	SEABF	SEABO	2.8	0.1	0.9	SSS	
ST13828	20130813	21:01:20	597511	6370257		Seabed Morphology	Boulder	SS-0952	SEABF	SEABO	1.5	0.2	1.0	SSS	
ST13828	20130813	21:33:40	597312	6370401		Seabed Morphology	Boulder	SS-0956	SEABF	SEABO	3.0	0.2	0.7	SSS	
ST13828	20130813	21:39:36	596887	6370890		Seabed Morphology	Boulder	SS-0960	SEABF	SEABO	1.8	0.1	1.2	SSS	
ST13828	20130813	21:41:32	596667	6370968		Seabed Morphology	Boulder	SS-0961	SEABF	SEABO	2.9	0.2	1.3	SSS	
ST13828	20130813	21:41:32	596681	6370982		Seabed Morphology	Boulder	SS-0962	SEABF	SEABO	2.1	0.2	0.8	SSS	
ST13828	20130813	21:49:41	596132	6371737		Seabed Morphology	Boulder	SS-0963	SEABF	SEABO	1.5	0.1	0.8	SSS	
ST13828	20130813	21:51:28	596018	6371906		Seabed Morphology	Boulder	SS-0964	SEABF	SEABO	2.2	0.2	1.1	SSS	
ST13828	20130813	21:53:14	595885	6372055		Man-made Hazards	Cable/wire	SS-0965	DEBRI	DECW	7.7	0.1	0.7	SSS	

Target Listing SSS
Turbine B

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130813	22:31:18	596106	6371593		Seabed Morphology	Boulder	SS-0968	SEABF	SEABO	1.7	0.2	0.8	SSS	
ST13828	20130813	22:33:05	596268	6371515		Man-made Hazards	Cable/wire	SS-0969	DEBRI	DECW	6.4	0.2	0.6	SSS	
ST13828	20130813	22:38:20	596585	6371158		Seabed Morphology	Boulder	SS-0970	SEABF	SEABO	2.0	0.2	0.7	SSS	
ST13828	20130813	22:38:55	596561	6371049		Seabed Morphology	Boulder	SS-0971	SEABF	SEABO	2.0	0.2	1.1	SSS	
ST13828	20130813	22:42:23	596839	6370872		Seabed Morphology	Boulder	SS-0972	SEABF	SEABO	1.8	0.1	0.6	SSS	
ST13828	20130813	22:44:39	596979	6370719		Seabed Morphology	Boulder	SS-0973	SEABF	SEABO	1.3	0.3	0.9	SSS	
ST13828	20130813	22:46:44	597112	6370584		Seabed Morphology	Boulder	SS-0975	SEABF	SEABO	2.2	0.4	0.9	SSS	
ST13828	20130813	22:47:33	597160	6370532		Man-made Hazards	Unidentified	SS-0978	TARGT	TAUN	2.7	0.2	0.5	SSS	
ST13828	20130813	23:21:46	596895	6370739		Seabed Morphology	Boulder	SS-0983	SEABF	SEABO	1.4	0.1	0.3	SSS	
ST13828	20130813	23:26:26	596579	6371058		Seabed Morphology	Boulder	SS-0985	SEABF	SEABO	1.4	0.3	0.8	SSS	
ST13828	20130813	23:30:43	596255	6371322		Seabed Morphology	Boulder	SS-0986	SEABF	SEABO	1.6	0.6	1.0	SSS	
ST13828	20130813	23:32:27	596145	6371469		Man-made Hazards	Unidentified	SS-0987	TARGT	TAUN	3.2	0.2	0.9	SSS	
ST13828	20130814	00:14:49	596113	6371564		Seabed Morphology	Boulder	SS-0993	SEABF	SEABO	2.6	0.1	0.6	SSS	
ST13828	20130814	00:15:08	596137	6371541		Seabed Morphology	Boulder	SS-0994	SEABF	SEABO	2.1	0.2	0.6	SSS	
ST13828	20130814	00:17:11	596221	6371331		Seabed Morphology	Boulder	SS-0995	SEABF	SEABO	1.0	0.3	0.5	SSS	
ST13828	20130814	00:17:24	596227	6371306		Seabed Morphology	Boulder	SS-0996	SEABF	SEABO	1.3	0.3	0.6	SSS	
ST13828	20130814	00:18:18	596337	6371277		Seabed Morphology	Boulder	SS-0997	SEABF	SEABO	1.7	0.3	1.0	SSS	
ST13828	20130814	01:00:10	596165	6371314		Seabed Morphology	Boulder	SS-1006	SEABF	SEABO	1.5	0.2	1.1	SSS	
ST13828	20130814	02:52:04	597086	6371122		Seabed Morphology	Boulder	SS-1007	SEABF	SEABO	3.1	0.3	0.9	SSS	
ST13828	20130814	03:03:30	597793	6370196		Seabed Morphology	Boulder	SS-1015	SEABF	SEABO	1.2	0.4	0.6	SSS	
ST13828	20130814	03:03:49	597814	6370173		Seabed Morphology	Boulder	SS-1016	SEABF	SEABO	2.1	0.3	0.8	SSS	
ST13828	20130814	03:04:05	597885	6370230		Man-made Hazards	Unidentified	SS-1017	TARGT	TAUN	4.5	0.2	0.7	SSS	
ST13828	20130814	03:20:08	598945	6369013		Seabed Morphology	Boulder	SS-1018	SEABF	SEABO	2.6	0.3	1.1	SSS	
ST13828	20130814	03:07:40	598113	6369925		Man-made Hazards	Debris	SS-1021	DEBRI	DEOT	2.2	0.4	1.2	SSS	
ST13828	20130814	03:08:54	598206	6369850		Man-made Hazards	Unidentified	SS-1022	TARGT	TAUN	4.1	0.2	0.7	SSS	
ST13828	20130814	03:37:22	600013	6367628		Seabed Morphology	Boulder	SS-1023	SEABF	SEABO	4.1	0.2	1.0	SSS	
ST13828	20130814	03:37:27	600022	6367626		Seabed Morphology	Boulder	SS-1024	SEABF	SEABO	3.1	0.1	0.6	SSS	
ST13828	20130814	03:37:36	600028	6367610		Seabed Morphology	Boulder	SS-1025	SEABF	SEABO	3.3	0.3	0.7	SSS	
ST13828	20130814	03:38:23	600090	6367570		Seabed Morphology	Boulder	SS-1026	SEABF	SEABO	1.5	0.3	0.7	SSS	
ST13828	20130814	03:39:41	600234	6367551		Seabed Morphology	Boulder	SS-1027	SEABF	SEABO	3.0	0.2	0.6	SSS	
ST13828	20130814	03:42:03	600330	6367289		Seabed Morphology	Boulder	SS-1028	SEABF	SEABO	1.9	0.1	0.6	SSS	
ST13828	20130814	03:45:57	600577	6366981		Seabed Morphology	Boulder	SS-1029	SEABF	SEABO	2.1	0.3	1.3	SSS	
ST13828	20130814	03:54:18	601148	6366361		Seabed Morphology	Boulder	SS-1030	SEABF	SEABO	2.8	0.2	0.9	SSS	
ST13828	20130814	03:59:21	601520	6366049		Seabed Morphology	Boulder	SS-1031	SEABF	SEABO	2.5	0.3	1.3	SSS	
ST13828	20130814	04:00:49	601632	6365961		Seabed Morphology	Boulder	SS-1032	SEABF	SEABO	3.5	0.2	0.6	SSS	
ST13828	20130814	04:06:40	601990	6365504		Seabed Morphology	Boulder	SS-1033	SEABF	SEABO	1.1	0.2	0.5	SSS	
ST13828	20130814	04:07:22	601987	6365393		Seabed Morphology	Boulder	SS-1034	SEABF	SEABO	1.4	0.2	0.7	SSS	
ST13828	20130814	04:16:54	602632	6364812		Seabed Morphology	Boulder	SS-1035	SEABF	SEABO	1.4	0.2	0.8	SSS	
ST13828	20130814	04:26:33	603236	6364114		Seabed Morphology	Boulder	SS-1036	SEABF	SEABO	1.4	0.2	0.7	SSS	
ST13828	20130814	05:09:57	603018	6364347		Seabed Morphology	Boulder	SS-1037	SEABF	SEABO	3.3	0.2	1.7	SSS	
ST13828	20130814	05:18:24	602536	6364954		Seabed Morphology	Boulder	SS-1038	SEABF	SEABO	1.4	0.1	0.5	SSS	
ST13828	20130814	05:34:24	601658	6366070		Seabed Morphology	Boulder	SS-1039	SEABF	SEABO	1.8	0.3	1.0	SSS	
ST13828	20130814	05:44:02	600977	6366684		Seabed Morphology	Boulder	SS-1040	SEABF	SEABO	2.7	0.1	0.7	SSS	
ST13828	20130814	05:46:34	600837	6366857		Seabed Morphology	Boulder	SS-1041	SEABF	SEABO	2.8	0.2	0.6	SSS	
ST13828	20130814	05:56:09	600264	6367507		Seabed Morphology	Boulder	SS-1042	SEABF	SEABO	3.7	0.3	0.9	SSS	
ST13828	20130814	05:57:53	600178	6367642		Seabed Morphology	Boulder	SS-1043	SEABF	SEABO	1.1	0.2	0.6	SSS	
ST13828	20130814	05:58:13	600212	6367702		Seabed Morphology	Boulder	SS-1044	SEABF	SEABO	1.2	0.2	0.5	SSS	
ST13828	20130814	06:17:02	598984	6368995		Seabed Morphology	Boulder	SS-1045	SEABF	SEABO	2.9	0.2	0.6	SSS	
ST13828	20130814	06:27:57	598242	6369814		Seabed Morphology	Boulder	SS-1046	SEABF	SEABO	2.1	0.3	1.3	SSS	
ST13828	20130814	06:27:57	598254	6369824		Seabed Morphology	Boulder	SS-1047	SEABF	SEABO	2.6	0.4	0.8	SSS	

Target Listing SSS
Turbine B

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130814	06:27:57	598241	6369814		Seabed Morphology	Boulder	SS-1048	SEABF	SEABO	2.3	0.3	1.2	SSS	
ST13828	20130814	06:27:57	598255	6369825		Seabed Morphology	Boulder	SS-1049	SEABF	SEABO	2.8	0.4	1.1	SSS	
ST13828	20130814	06:28:57	598245	6369950		Seabed Morphology	Boulder	SS-1050	SEABF	SEABO	2.0	0.2	1.0	SSS	
ST13828	20130814	06:29:47	598206	6370022		Seabed Morphology	Boulder	SS-1051	SEABF	SEABO	1.3	0.3	0.9	SSS	
ST13828	20130814	06:30:08	598186	6370049		Man-made Hazards	Unidentified	SS-1052	TARGT	TAUN	4.0	0.2	0.8	SSS	
ST13828	20130814	06:31:48	598005	6370114		Seabed Morphology	Boulder	SS-1053	SEABF	SEABO	1.8	0.1	0.5	SSS	
ST13828	20130814	06:31:06	598054	6370064		Seabed Morphology	Boulder	SS-1054	SEABF	SEABO	1.2	0.3	1.0	SSS	
ST13828	20130814	06:32:48	597980	6370223		Seabed Morphology	Boulder	SS-1055	SEABF	SEABO	2.8	0.5	0.7	SSS	
ST13828	20130814	06:33:56	597868	6370282		Seabed Morphology	Boulder	SS-1056	SEABF	SEABO	1.2	0.3	0.9	SSS	
ST13828	20130814	06:38:53	597528	6370634		Seabed Morphology	Boulder	SS-1057	SEABF	SEABO	2.8	0.3	0.9	SSS	
ST13828	20130814	06:38:31	597548	6370608		Seabed Morphology	Boulder	SS-1058	SEABF	SEABO	2.0	0.1	0.6	SSS	
ST13828	20130814	06:41:11	597447	6370860		Seabed Morphology	Boulder	SS-1059	SEABF	SEABO	1.9	0.4	1.2	SSS	
ST13828	20130814	06:42:37	597299	6370936		Seabed Morphology	Boulder	SS-1060	SEABF	SEABO	2.3	0.5	0.9	SSS	
ST13828	20130814	06:42:35	597277	6370912		Seabed Morphology	Boulder	SS-1061	SEABF	SEABO	1.8	0.3	1.0	SSS	
ST13828	20130814	06:43:11	597301	6371014		Seabed Morphology	Boulder	SS-1062	SEABF	SEABO	1.7	0.3	1.1	SSS	
ST13828	20130814	06:43:34	597214	6370996		Seabed Morphology	Boulder	SS-1063	SEABF	SEABO	2.8	0.2	1.2	SSS	
ST13828	20130814	06:56:26	596332	6372015		Man-made Hazards	Unidentified	SS-1064	TARGT	TAUN	1.9	0.3	0.7	SSS	
ST13828	20130814	08:09:24	598151	6370216		Seabed Morphology	Boulder	SS-1066	SEABF	SEABO	2.3	0.3	0.9	SSS	
ST13828	20130814	08:08:54	598067	6370211		Seabed Morphology	Boulder	SS-1067	SEABF	SEABO	2.1	0.4	1.4	SSS	
ST13828	20130814	08:09:14	598067	6370169		Seabed Morphology	Boulder	SS-1068	SEABF	SEABO	1.8	0.2	0.5	SSS	
ST13828	20130814	08:10:06	598189	6370157		Man-made Hazards	Unidentified	SS-1069	TARGT	TAUN	3.7	0.3	1.7	SSS	
ST13828	20130814	08:22:42	599025	6369210		Seabed Morphology	Boulder	SS-1070	SEABF	SEABO	2.1	0.3	0.9	SSS	
ST13828	20130814	08:34:30	599690	6368367		Seabed Morphology	Boulder	SS-1071	SEABF	SEABO	1.3	0.2	0.2	SSS	
ST13828	20130814	08:41:36	600172	6367868		Seabed Morphology	Boulder	SS-1072	SEABF	SEABO	1.6	0.3	0.8	SSS	
ST13828	20130814	08:42:53	600269	6367786		Seabed Morphology	Boulder	SS-1073	SEABF	SEABO	1.8	0.3	0.8	SSS	
ST13828	20130814	08:43:51	600281	6367675		Seabed Morphology	Boulder	SS-1074	SEABF	SEABO	2.3	0.3	0.8	SSS	
ST13828	20130814	08:57:39	601155	6366676		Seabed Morphology	Boulder	SS-1075	SEABF	SEABO	1.3	0.2	0.7	SSS	
ST13828	20130814	09:09:45	601919	6365802		Seabed Morphology	Boulder	SS-1076	SEABF	SEABO	1.1	0.2	0.6	SSS	
ST13828	20130814	09:13:41	602214	6365554		Seabed Morphology	Boulder	SS-1077	SEABF	SEABO	1.4	0.4	0.6	SSS	
ST13828	20130814	09:18:08	602494	6365218		Seabed Morphology	Boulder	SS-1078	SEABF	SEABO	1.3	0.3	0.7	SSS	
ST13828	20130814	11:16:03	603454	6364291		Seabed Morphology	Boulder	SS-1079	SEABF	SEABO	1.1	0.5	0.7	SSS	
ST13828	20130814	11:40:03	601781	6366107		Seabed Morphology	Boulder	SS-1080	SEABF	SEABO	1.2	0.2	0.7	SSS	
ST13828	20130814	11:42:19	601681	6366353		Seabed Morphology	Boulder	SS-1081	SEABF	SEABO	1.9	0.2	1.1	SSS	
ST13828	20130814	11:55:20	600722	6367302		Seabed Morphology	Boulder	SS-1082	SEABF	SEABO	1.5	0.5	1.1	SSS	
ST13828	20130814	12:19:18	599060	6369306		Seabed Morphology	Boulder	SS-1083	SEABF	SEABO	1.5	0.2	0.7	SSS	
ST13828	20130814	12:19:28	599049	6369321		Seabed Morphology	Boulder	SS-1084	SEABF	SEABO	1.4	0.3	0.7	SSS	
ST13828	20130814	12:25:38	598620	6369828		Seabed Morphology	Boulder	SS-1085	SEABF	SEABO	1.3	0.4	0.9	SSS	
ST13828	20130814	12:30:09	598239	6370134		Seabed Morphology	Boulder	SS-1086	SEABF	SEABO	1.4	0.2	0.8	SSS	
ST13828	20130814	12:31:03	598171	6370201		Seabed Morphology	Boulder	SS-1087	SEABF	SEABO	2.2	0.1	0.9	SSS	
ST13828	20130814	12:34:06	598022	6370520		Seabed Morphology	Boulder	SS-1088	SEABF	SEABO	2.0	0.3	1.5	SSS	
ST13828	20130814	12:37:23	597717	6370706		Man-made Hazards	Boulder	SS-1089	SEABF	SEABO	2.1	0.2	1.0	SSS	
ST13828	20130814	12:51:51	596768	6371845		Seabed Morphology	Boulder	SS-1090	SEABF	SEABO	1.5	0.3	0.5	SSS	
ST13828	20130814	13:01:55	596128	6372669		Man-made Hazards	Unidentified	SS-1091	TARGT	TAUN	8.4	0.3	0.7	SSS	
ST13828	20130814	14:04:20	598083	6370610		Man-made Hazards	Unidentified	SS-1095	TARGT	TAUN	3.4	0.2	0.8	SSS	
ST13828	20130814	14:07:00	598195	6370308		Seabed Morphology	Boulder	SS-1096	SEABF	SEABO	3.2	0.2	1.1	SSS	
ST13828	20130814	14:06:37	598258	6370424		Man-made Hazards	Debris	SS-1097	DEBRI	DEOT	2.9	0.4	1.3	SSS	
ST13828	20130814	14:38:11	600471	6367872		Seabed Morphology	Boulder	SS-1098	SEABF	SEABO	1.9	0.3	0.8	SSS	
ST13828	20130814	15:07:42	602511	6365560		Man-made Hazards	Unidentified	SS-1099	TARGT	TAUN	4.3	0.2	0.7	SSS	
ST13828	20130814	15:16:44	603133	6364819		Man-made Hazards	Debris	SS-1100	DEBRI	DEOT	3.4	0.1	1.0	SSS	
ST13828	20130814	15:20:05	603315	6364478		Seabed Morphology	Boulder	SS-1101	SEABF	SEABO	3.2	0.3	1.3	SSS	

Target Listing SSS
Turbine B

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130814	16:23:40	602510	6365678		Man-made Hazards	Unidentified	SS-1104	TARGT	TAUN	2.4	0.4	1.2	SSS	
ST13828	20130814	16:26:14	602362	6365845		Seabed Morphology	Boulder	SS-1105	SEABF	SEABO	1.5	0.2	1.0	SSS	
ST13828	20130814	16:43:24	601319	6367022		Man-made Hazards	Unidentified	SS-1106	TARGT	TAUN	3.7	0.2	1.1	SSS	
ST13828	20130814	16:47:24	601072	6367304		Seabed Morphology	Boulder	SS-1107	SEABF	SEABO	2.9	0.5	1.5	SSS	
ST13828	20130814	16:48:02	600964	6367293		Man-made Hazards	Boulder	SS-1108	SEABF	SEABO	3.6	0.1	1.1	SSS	
ST13828	20130814	16:49:40	600957	6367465		Seabed Morphology	Boulder	SS-1109	SEABF	SEABO	5.6	0.3	1.4	SSS	
ST13828	20130814	16:52:57	600674	6367653		Seabed Morphology	Boulder	SS-1110	SEABF	SEABO	3.0	0.2	0.6	SSS	
ST13828	20130814	17:02:22	600092	6368303		Seabed Morphology	Boulder	SS-1111	SEABF	SEABO	3.8	0.4	1.8	SSS	
ST13828	20130814	17:05:46	599892	6368547		Seabed Morphology	Boulder	SS-1112	SEABF	SEABO	3.0	0.2	1.2	SSS	
ST13828	20130814	17:08:52	599703	6368774		Man-made Hazards	Unidentified	SS-1113	TARGT	TAUN	3.7	0.2	0.8	SSS	
ST13828	20130814	17:16:25	599278	6369356		Seabed Morphology	Boulder	SS-1114	SEABF	SEABO	0.9	0.1	0.5	SSS	
ST13828	20130814	17:33:05	598133	6370517		Man-made Hazards	Unidentified	SS-1115	TARGT	TAUN	2.4	0.1	1.2	SSS	
ST13828	20130814	17:35:00	598089	6370719		Seabed Morphology	Boulder	SS-1116	SEABF	SEABO	1.5	0.1	0.6	SSS	
ST13828	20130814	17:40:18	597764	6371112		Seabed Morphology	Boulder	SS-1117	SEABF	SEABO	3.3	0.2	0.8	SSS	
ST13828	20130814	17:52:22	597087	6371897		Seabed Morphology	Boulder	SS-1118	SEABF	SEABO	1.3	0.3	1.2	SSS	
ST13828	20130814	17:53:56	597000	6371986		Seabed Morphology	Boulder	SS-1119	SEABF	SEABO	1.4	0.2	0.6	SSS	
ST13828	20130814	18:02:49	596511	6372551		Man-made Hazards	Unidentified	SS-1120	TARGT	TAUN	5.3	0.4	1.0	SSS	Correlated to M-654
ST13828	20130814	18:40:36	596264	6372958		Man-made Hazards	Boulder	SS-1122	SEABF	SEABO	1.6	0.1	0.6	SSS	
ST13828	20130814	18:43:31	596475	6372756		Man-made Hazards	Unidentified	SS-1123	TARGT	TAUN	4.9	0.1	0.5	SSS	
ST13828	20130814	18:51:20	597015	6372123		Seabed Morphology	Boulder	SS-1124	SEABF	SEABO	1.3	0.2	1.1	SSS	
ST13828	20130814	18:51:31	597034	6372113		Seabed Morphology	Boulder	SS-1125	SEABF	SEABO	1.4	0.1	0.5	SSS	
ST13828	20130814	18:53:15	597098	6371919		Seabed Morphology	Boulder	SS-1126	SEABF	SEABO	1.4	0.3	0.5	SSS	
ST13828	20130814	19:01:22	597688	6371346		Seabed Morphology	Boulder	SS-1127	SEABF	SEABO	2.6	0.1	0.5	SSS	
ST13828	20130814	19:09:08	598189	6370673		Seabed Morphology	Boulder	SS-1128	SEABF	SEABO	1.1	0.2	0.4	SSS	
ST13828	20130814	19:19:50	598925	6369852		Seabed Morphology	Boulder	SS-1129	SEABF	SEABO	1.6	0.8	0.7	SSS	
ST13828	20130814	19:20:51	599042	6369831		Seabed Morphology	Boulder	SS-1130	SEABF	SEABO	2.0	0.3	0.9	SSS	
ST13828	20130814	19:25:58	599382	6369428		Seabed Morphology	Boulder	SS-1131	SEABF	SEABO	1.6	0.3	1.2	SSS	
ST13828	20130814	19:28:13	599533	6369262		Man-made Hazards	Unidentified	SS-1132	TARGT	TAUN	3.7	0.2	0.7	SSS	
ST13828	20130814	19:40:37	600379	6368275		Seabed Morphology	Boulder	SS-1133	SEABF	SEABO	2.1	0.1	0.8	SSS	
ST13828	20130814	19:46:30	600738	6367745		Seabed Morphology	Boulder	SS-1134	SEABF	SEABO	1.9	0.2	1.0	SSS	
ST13828	20130814	19:48:57	600901	6367563		Seabed Morphology	Boulder	SS-1135	SEABF	SEABO	2.9	0.1	0.5	SSS	
ST13828	20130814	19:51:32	601065	6367355		Seabed Morphology	Boulder	SS-1136	SEABF	SEABO	2.2	0.3	1.8	SSS	
ST13828	20130814	20:07:13	602125	6366153		Seabed Morphology	Boulder	SS-1137	SEABF	SEABO	2.4	0.2	0.6	SSS	
ST13828	20130814	20:07:03	602182	6366235		Seabed Morphology	Boulder	SS-1138	SEABF	SEABO	1.9	0.2	1.2	SSS	
ST13828	20130814	20:10:53	602433	6365930		Seabed Morphology	Boulder	SS-1139	SEABF	SEABO	1.5	0.3	0.6	SSS	
ST13828	20130814	20:32:46	604053	6364099		Seabed Morphology	Boulder	SS-1140	SEABF	SEABO	2.5	0.1	1.0	SSS	
ST13828	20130814	21:39:40	601804	6366664		Man-made Hazards	Unidentified	SS-1143	TARGT	TAUN	3.4	0.3	0.9	SSS	
ST13828	20130814	21:49:02	601105	6367483		Seabed Morphology	Boulder	SS-1144	SEABF	SEABO	5.0	0.3	1.0	SSS	
ST13828	20130814	21:49:36	601047	6367523		Seabed Morphology	Boulder	SS-1145	SEABF	SEABO	2.7	0.2	1.0	SSS	Correlated to M-823
ST13828	20130814	21:58:09	600447	6368368		Seabed Morphology	Boulder	SS-1146	SEABF	SEABO	2.9	0.3	0.5	SSS	
ST13828	20130814	22:04:27	599903	6368828		Seabed Morphology	Boulder	SS-1147	SEABF	SEABO	5.5	0.2	0.7	SSS	
ST13828	20130814	22:28:05	598235	6370886		Seabed Morphology	Boulder	SS-1148	SEABF	SEABO	1.5	0.3	0.7	SSS	
ST13828	20130814	22:29:16	598082	6370938		Seabed Morphology	Boulder	SS-1149	SEABF	SEABO	4.4	0.3	0.9	SSS	
ST13828	20130814	22:30:50	598010	6371108		Man-made Hazards	Boulder	SS-1150	SEABF	SEABO	1.7	0.3	0.8	SSS	
ST13828	20130814	22:32:52	597825	6371245		Seabed Morphology	Boulder	SS-1151	SEABF	SEABO	3.2	0.3	0.7	SSS	
ST13828	20130814	22:32:57	597815	6371247		Seabed Morphology	Boulder	SS-1152	SEABF	SEABO	2.7	0.3	0.9	SSS	
ST13828	20130814	22:33:55	597784	6371370		Seabed Morphology	Boulder	SS-1153	SEABF	SEABO	2.1	0.5	1.3	SSS	
ST13828	20130814	22:41:55	597129	6372002		Man-made Hazards	Unidentified	SS-1154	TARGT	TAUN	3.0	0.1	0.8	SSS	
ST13828	20130814	22:41:57	597201	6372075		Seabed Morphology	Boulder	SS-1155	SEABF	SEABO	1.6	0.3	0.9	SSS	
ST13828	20130814	23:34:16	596397	6373127		Man-made Hazards	Debris	SS-1157	DEBRI	DEOT	2.2	0.1	0.4	SSS	

Target Listing SSS
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Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130814	23:38:47	596642	6372811		Seabed Morphology	Boulder	SS-1158	SEABF	SEABO	1.5	0.2	0.9	SSS	
ST13828	20130814	23:50:39	597374	6371992		Man-made Hazards	Unidentified	SS-1159	TARGT	TAUN	2.3	0.2	0.7	SSS	
ST13828	20130814	23:52:28	597430	6371808		Seabed Morphology	Boulder	SS-1160	SEABF	SEABO	2.0	0.3	1.2	SSS	
ST13828	20130814	23:53:26	597572	6371806		Seabed Morphology	Boulder	SS-1161	SEABF	SEABO	3.3	0.3	1.7	SSS	
ST13828	20130814	23:58:03	597872	6371451		Man-made Hazards	Unidentified	SS-1162	TARGT	TAUN	3.8	0.2	0.5	SSS	
ST13828	20130814	23:58:59	597875	6371336		Seabed Morphology	Boulder	SS-1163	SEABF	SEABO	1.5	0.2	0.8	SSS	
ST13828	20130815	00:03:55	598177	6370954		Seabed Morphology	Boulder	SS-1164	SEABF	SEABO	1.2	0.2	0.5	SSS	
ST13828	20130815	00:04:08	598193	6370938		Seabed Morphology	Boulder	SS-1165	SEABF	SEABO	2.0	0.2	0.6	SSS	
ST13828	20130815	00:03:51	598228	6371011		Seabed Morphology	Boulder	SS-1166	SEABF	SEABO	1.9	0.3	0.6	SSS	
ST13828	20130815	00:04:54	598321	6370947		Seabed Morphology	Boulder	SS-1167	SEABF	SEABO	4.4	0.2	0.8	SSS	
ST13828	20130815	00:05:29	598335	6370883		Seabed Morphology	Boulder	SS-1168	SEABF	SEABO	2.8	0.2	0.8	SSS	
ST13828	20130815	00:04:59	598273	6370895		Seabed Morphology	Boulder	SS-1169	SEABF	SEABO	1.2	0.3	0.6	SSS	
ST13828	20130815	00:06:03	598311	6370785		Seabed Morphology	Boulder	SS-1170	SEABF	SEABO	3.8	0.2	0.8	SSS	
ST13828	20130815	00:06:30	598352	6370760		Man-made Hazards	Unidentified	SS-1171	TARGT	TAUN	2.4	0.1	0.5	SSS	
ST13828	20130815	00:09:44	598562	6370534		Man-made Hazards	Cable/wire	SS-1172	DEBRI	DECW	7.0	0.1	0.6	SSS	
ST13828	20130815	00:57:06	601743	6367027		Seabed Morphology	Boulder	SS-1173	SEABF	SEABO	3.2	0.2	0.7	SSS	
ST13828	20130815	00:31:51	600038	6368966		Seabed Morphology	Boulder	SS-1174	SEABF	SEABO	2.5	0.2	1.0	SSS	
ST13828	20130815	00:32:53	600113	6368886		Seabed Morphology	Boulder	SS-1175	SEABF	SEABO	3.9	0.1	1.0	SSS	
ST13828	20130815	00:34:21	600212	6368784		Man-made Hazards	Unidentified	SS-1176	TARGT	TAUN	5.2	0.1	0.6	SSS	
ST13828	20130815	00:41:17	600645	6368137		Seabed Morphology	Boulder	SS-1177	SEABF	SEABO	2.8	0.3	0.9	SSS	
ST13828	20130815	00:42:50	600748	6368015		Seabed Morphology	Boulder	SS-1178	SEABF	SEABO	1.9	0.2	1.0	SSS	
ST13828	20130815	00:44:34	600936	6367949		Seabed Morphology	Boulder	SS-1179	SEABF	SFBO	3.5	0.2	0.5	SSS	
ST13828	20130815	00:45:44	600996	6367851		Seabed Morphology	Boulder	SS-1180	SEABF	SEABO	3.1	0.2	1.0	SSS	
ST13828	20130815	00:51:04	601270	6367422		Seabed Morphology	Boulder	SS-1181	SEABF	SEABO	3.4	0.2	0.8	SSS	
ST13828	20130815	00:55:08	601597	6367165		Seabed Morphology	Boulder	SS-1182	SEABF	SEABO	1.7	0.7	0.6	SSS	
ST13828	20130815	01:09:49	602577	6365917		Seabed Morphology	Boulder	SS-1183	SEABF	SEABO	2.5	0.2	0.7	SSS	
ST13828	20130815	01:08:57	602518	6365995		Seabed Morphology	Boulder	SS-1184	SEABF	SEABO	1.6	0.2	0.8	SSS	
ST13828	20130815	01:10:55	602666	6365824		Seabed Morphology	Boulder	SS-1185	SEABF	SEABO	1.7	0.1	0.4	SSS	
ST13828	20130815	01:15:17	602985	6365449		Seabed Morphology	Boulder	SS-1186	SEABF	SEABO	2.8	0.1	0.7	SSS	
ST13828	20130815	01:16:15	603110	6365413		Man-made Hazards	Unidentified	SS-1187	TARGT	TAUN	1.7	0.1	0.5	SSS	
ST13828	20130815	01:25:46	603764	6364584		Seabed Morphology	Boulder	SS-1188	SEABF	SEABO	0.9	0.2	0.8	SSS	
ST13828	20130815	01:30:12	604066	6364253		Seabed Morphology	Boulder	SS-1189	SEABF	SEABO	1.9	0.3	0.7	SSS	
ST13828	20130815	01:30:53	604103	6364189		Seabed Morphology	Boulder	SS-1190	SEABF	SEABO	2.3	0.2	0.6	SSS	
ST13828	20130815	02:03:54	604219	6364202		Man-made Hazards	Unidentified	SS-1191	TARGT	TAUN	2.9	0.2	0.8	SSS	
ST13828	20130815	02:04:06	604279	6364275		Seabed Morphology	Boulder	SS-1192	SEABF	SEABO	1.4	0.2	0.9	SSS	
ST13828	20130815	02:04:56	604162	6364299		Seabed Morphology	Boulder	SS-1193	SEABF	SEABO	2.3	0.2	0.7	SSS	
ST13828	20130815	02:09:47	603835	6364747		Seabed Morphology	Boulder	SS-1194	SEABF	SEABO	1.4	0.2	1.1	SSS	
ST13828	20130815	02:10:17	603766	6364721		Man-made Hazards	Unidentified	SS-1195	TARGT	TAUN	1.5	0.2	1.2	SSS	
ST13828	20130815	02:11:52	603738	6364895		Seabed Morphology	Boulder	SS-1196	SEABF	SEABO	3.4	0.4	1.1	SSS	
ST13828	20130815	02:11:12	603777	6364840		Seabed Morphology	Boulder	SS-1197	SEABF	SEABO	2.4	0.2	0.8	SSS	
ST13828	20130815	02:12:51	603584	6364920		Seabed Morphology	Boulder	SS-1198	SEABF	SEABO	4.1	0.2	0.7	SSS	
ST13828	20130815	02:27:14	602617	6366046		Man-made Hazards	Debris	SS-1199	DEBRI	DEOT	3.7	0.3	1.5	SSS	
ST13828	20130815	02:48:19	601160	6367703		Seabed Morphology	Boulder	SS-1201	SEABF	SEABO	2.1	0.2	0.6	SSS	
ST13828	20130815	02:59:56	600388	6368612		Seabed Morphology	Boulder	SS-1202	SEABF	SEABO	1.6	0.1	0.6	SSS	
ST13828	20130815	03:14:02	599462	6369755		Seabed Morphology	Boulder	SS-1203	SEABF	SEABO	1.9	0.2	0.9	SSS	
ST13828	20130815	03:25:24	598624	6370623		Seabed Morphology	Boulder	SS-1204	SEABF	SEABO	1.9	0.3	0.6	SSS	
ST13828	20130815	03:26:58	598554	6370772		Seabed Morphology	Boulder	SS-1205	SEABF	SEABO	1.9	0.7	1.4	SSS	
ST13828	20130815	03:33:04	598158	6371272		Seabed Morphology	Boulder	SS-1206	SEABF	SEABO	1.6	0.3	1.0	SSS	
ST13828	20130815	03:36:00	597961	6371494		Seabed Morphology	Boulder	SS-1207	SEABF	SEABO	1.2	0.3	1.0	SSS	
ST13828	20130815	03:38:31	597796	6371677		Seabed Morphology	Boulder	SS-1208	SEABF	SEABO	2.2	0.1	0.6	SSS	

Target Listing SSS
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Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130815	03:44:22	597422	6372129		Seabed Morphology	Boulder	SS-1209	SEABF	SEABO	2.8	0.1	1.1	SSS	
ST13828	20130815	03:44:04	597395	6372078		Man-made Hazards	Cable/wire	SS-1210	DEBRI	DECW	6.4	0.3	0.2	SSS	Possible Chain
ST13828	20130815	03:46:46	597228	6372285		Man-made Hazards	Cable/wire	SS-1211	DEBRI	DECW	11.1	0.1	0.2	SSS	Correlated to M-673 Possible Chain
ST13828	20130815	03:46:44	597260	6372302		Seabed Morphology	Boulder	SS-1212	SEABF	SEABO	2.8	0.3	1.6	SSS	
ST13828	20130815	03:48:26	597134	6372413		Man-made Hazards	Cable/wire	SS-1213	DEBRI	DECW	3.0	0.0	0.4	SSS	Possible Chain
ST13828	20130815	03:50:06	597043	6372545		Man-made Hazards	Cable/wire	SS-1214	DEBRI	DECW	6.8	0.1	0.5	SSS	Possible Chain
ST13828	20130815	03:50:27	597024	6372570		Man-made Hazards	Cable/wire	SS-1215	DEBRI	DECW	5.6	0.3	0.5	SSS	Correlated to M-661 - M-152 - Possible Chain
ST13828	20130815	03:57:31	596596	6373056		Seabed Morphology	Boulder	SS-1216	SEABF	SEABO	2.0	0.4	1.5	SSS	
ST13828	20130815	03:58:16	596495	6373067		Seabed Morphology	Boulder	SS-1217	SEABF	SEABO	1.2	0.5	1.0	SSS	
ST13828	20130815	05:29:35	599816	6369504		Seabed Morphology	Boulder	SS-1219	SEABF	SEABO	1.7	0.2	0.9	SSS	
ST13828	20130815	05:29:24	599767	6369470		Seabed Morphology	Boulder	SS-1220	SEABF	SEABO	1.3	0.2	0.5	SSS	
ST13828	20130815	05:34:36	600069	6369099		Seabed Morphology	Boulder	SS-1221	SEABF	SEABO	1.2	0.2	0.6	SSS	
ST13828	20130815	05:36:39	600197	6368963		Seabed Morphology	Boulder	SS-1222	SEABF	SEABO	2.2	0.1	0.5	SSS	
ST13828	20130815	05:38:34	600300	6368815		Seabed Morphology	Boulder	SS-1223	SEABF	SEABO	2.8	0.2	0.8	SSS	
ST13828	20130815	05:39:06	600342	6368793		Seabed Morphology	Boulder	SS-1224	SEABF	SEABO	1.4	0.2	0.5	SSS	
ST13828	20130815	05:42:45	600544	6368532		Seabed Morphology	Boulder	SS-1225	SEABF	SEABO	3.2	0.2	0.7	SSS	
ST13828	20130815	05:49:12	601010	6368135		Seabed Morphology	Boulder	SS-1226	SEABF	SEABO	4.5	0.2	0.6	SSS	
ST13828	20130815	05:51:04	601084	6367949		Seabed Morphology	Boulder	SS-1227	SEABF	SEABO	1.5	0.4	0.7	SSS	
ST13828	20130815	05:55:50	601355	6367591		Man-made Hazards	Unidentified	SS-1228	TARGT	TAUN	4.9	0.1	1.3	SSS	Correlated to M-157
ST13828	20130815	06:11:11	602349	6366511		Seabed Morphology	Boulder	SS-1229	SEABF	SEABO	2.9	0.1	0.7	SSS	
ST13828	20130815	06:11:50	602448	6366537		Seabed Morphology	Boulder	SS-1230	SEABF	SEABO	1.8	0.1	0.5	SSS	
ST13828	20130815	06:13:37	602554	6366411		Seabed Morphology	Boulder	SS-1231	SEABF	SEABO	4.0	0.3	0.8	SSS	
ST13828	20130815	06:14:12	602528	6366302		Seabed Morphology	Boulder	SS-1232	SEABF	SEABO	1.3	0.3	0.6	SSS	
ST13828	20130815	06:33:04	603665	6365001		Seabed Morphology	Boulder	SS-1233	SEABF	SFBO	5.4	0.2	0.3	SSS	
ST13828	20130815	06:44:55	604316	6364210		Man-made Hazards	Unidentified	SS-1234	TARGT	TAUN	3.9	0.2	0.6	SSS	
ST13828	20130815	06:46:05	604442	6364187		Man-made Hazards	Unidentified	SS-1235	TARGT	TAUN	2.2	0.2	0.6	SSS	
ST13828	20130815	07:16:53	604444	6364274		Seabed Morphology	Boulder	SS-1240	SEABF	SEABO	2.2	0.2	0.7	SSS	
ST13828	20130815	07:36:14	603264	6365738		Seabed Morphology	Boulder	SS-1241	SEABF	SEABO	1.8	0.3	0.8	SSS	
ST13828	20130815	07:43:05	602780	6366173		Seabed Morphology	Boulder	SS-1242	SEABF	SEABO	2.8	0.2	0.5	SSS	
ST13828	20130815	07:45:06	602606	6366367		Seabed Morphology	Boulder	SS-1243	SEABF	SEABO	2.0	0.2	0.9	SSS	
ST13828	20130815	07:51:52	602193	6366866		Man-made Hazards	Debris	SS-1244	DEBRI	DEOT	2.8	0.4	0.9	SSS	
ST13828	20130815	08:04:23	601324	6367815		Seabed Morphology	Boulder	SS-1245	SEABF	SEABO	3.5	0.2	1.2	SSS	
ST13828	20130815	08:10:54	600946	6368374		Seabed Morphology	Boulder	SS-1246	SEABF	SEABO	1.5	0.2	0.7	SSS	
ST13828	20130815	08:17:33	600489	6368887		Seabed Morphology	Boulder	SS-1247	SEABF	SEABO	2.0	0.2	0.9	SSS	
ST13828	20130815	08:19:22	600369	6369053		Seabed Morphology	Boulder	SS-1248	SEABF	SEABO	2.0	0.2	1.0	SSS	
ST13828	20130815	08:30:33	599507	6369924		Man-made Hazards	Unidentified	SS-1249	TARGT	TAUN	3.1	0.1	0.7	SSS	
ST13828	20130815	08:37:08	599101	6370535		Seabed Morphology	Boulder	SS-1250	SEABF	SEABO	3.7	0.1	0.7	SSS	
ST13828	20130815	08:46:36	598344	6371274		Seabed Morphology	Boulder	SS-1251	SEABF	SEABO	1.3	0.3	0.8	SSS	
ST13828	20130815	08:52:54	597879	6371778		Seabed Morphology	Boulder	SS-1252	SEABF	SEABO	1.9	0.5	0.9	SSS	
ST13828	20130815	08:57:39	597530	6372175		Seabed Morphology	Boulder	SS-1253	SEABF	SEABO	1.3	0.3	0.7	SSS	
ST13828	20130815	09:05:01	596980	6372773		Seabed Morphology	Boulder	SS-1254	SEABF	SEABO	2.3	0.4	0.9	SSS	
ST13828	20130815	09:07:44	596826	6373062		Seabed Morphology	Boulder	SS-1255	SEABF	SEABO	1.5	0.2	0.8	SSS	
ST13828	20130815	09:08:52	596764	6373181		Man-made Hazards	Unidentified	SS-1256	TARGT	TAUN	5.3	0.3	2.1	SSS	
ST13828	20130815	09:08:59	596709	6373141		Seabed Morphology	Boulder	SS-1257	SEABF	SEABO	1.9	0.4	0.7	SSS	
ST13828	20130815	09:13:29	596400	6373554		Seabed Morphology	Boulder	SS-1258	SEABF	SEABO	1.8	0.6	1.0	SSS	
ST13828	20130815	09:56:41	596755	6373366		Man-made Hazards	Unidentified	SS-1260	TARGT	TAUN	3.7	0.1	0.6	SSS	
ST13828	20130815	09:57:39	596794	6373271		Seabed Morphology	Boulder	SS-1261	SEABF	SEABO	1.8	0.3	0.9	SSS	
ST13828	20130815	10:06:06	597388	6372632		Man-made Hazards	Unidentified	SS-1265	TARGT	TAUN	4.7	0.2	1.0	SSS	
ST13828	20130815	10:05:28	597269	6372625		Man-made Hazards	Unidentified	SS-1266	TARGT	TAUN	2.9	0.1	0.6	SSS	
ST13828	20130815	10:12:12	597763	6372197		Seabed Morphology	Boulder	SS-1268	SEABF	SEABO	3.8	0.1	1.4	SSS	

Target Listing SSS
Turbine B

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130815	10:12:56	597802	6372140		Seabed Morphology	Boulder	SS-1269	SEABF	SEABO	2.2	0.2	0.7	SSS	Correlated to M-130
ST13828	20130815	10:15:44	597972	6371946		Man-made Hazards	Unidentified	SS-1270	TARGT	TAUN	4.4	0.1	0.4	SSS	
ST13828	20130815	10:16:58	597980	6371812		Seabed Morphology	Boulder	SS-1271	SEABF	SEABO	1.3	0.4	0.9	SSS	
ST13828	20130815	10:24:57	598439	6371268		Seabed Morphology	Boulder	SS-1272	SEABF	SEABO	2.5	0.1	0.7	SSS	
ST13828	20130815	11:02:27	600578	6368862		Seabed Morphology	Boulder	SS-1273	SEABF	SEABO	2.6	0.7	1.1	SSS	
ST13828	20130815	11:22:13	601775	6367607		Seabed Morphology	Boulder	SS-1274	SEABF	SEABO	2.9	0.1	0.9	SSS	
ST13828	20130815	11:58:41	604017	6365023		Man-made Hazards	Boulder	SS-1275	SEABF	SEABO	2.9	0.3	1.3	SSS	
ST13828	20130815	12:01:24	604187	6364817		Seabed Morphology	Boulder	SS-1276	SEABF	SEABO	2.7	0.1	0.8	SSS	
ST13828	20130815	12:07:26	604606	6364381		Man-made Hazards	Debris	SS-1277	DEBRI	DEOT	8.5	0.1	1.8	SSS	
ST13828	20130815	12:35:15	604641	6364323		Man-made Hazards	Unidentified	SS-1280	TARGT	TAUN	2.9	0.1	0.8	SSS	
ST13828	20130815	12:42:22	604195	6364963		Seabed Morphology	Boulder	SS-1281	SEABF	SEABO	1.5	0.3	0.7	SSS	
ST13828	20130815	13:09:18	602338	6367067		Man-made Hazards	Unidentified	SS-1282	TARGT	TAUN	2.5	0.3	0.4	SSS	
ST13828	20130815	14:12:43	597866	6372082		Man-made Hazards	Debris	SS-1283	DEBRI	DEOT	1.5	0.2	0.9	SSS	
ST13828	20130815	14:18:29	597533	6372591		Man-made Hazards	Debris	SS-1284	DEBRI	DEOT	1.7	0.4	1.1	SSS	
ST13828	20130815	14:18:26	597483	6372543		Seabed Morphology	Boulder	SS-1285	SEABF	SEABO	1.7	0.2	0.5	SSS	
ST13828	20130815	14:28:30	596792	6373317		Seabed Morphology	Boulder	SS-1286	SEABF	SEABO	1.0	0.5	1.2	SSS	
ST13828	20130815	15:07:27	596297	6373996		Seabed Morphology	Boulder	SS-1288	SEABF	SEABO	3.8	0.1	0.8	SSS	
ST13828	20130815	15:23:41	597424	6372857		Seabed Morphology	Boulder	SS-1289	SEABF	SEABO	1.2	0.2	0.7	SSS	
ST13828	20130815	15:31:40	597965	6372266		Man-made Hazards	Unidentified	SS-1290	TARGT	TAUN	3.8	0.3	0.8	SSS	
ST13828	20130815	15:31:05	597928	6372312		Seabed Morphology	Boulder	SS-1291	SEABF	SEABO	3.5	0.2	0.9	SSS	
ST13828	20130815	16:04:48	600105	6369806		Man-made Hazards	Unidentified	SS-1293	TARGT	TAUN	3.6	0.1	0.8	SSS	
ST13828	20130815	16:09:11	600335	6369406		Man-made Hazards	Unidentified	SS-1294	TARGT	TAUN	4.6	0.1	0.7	SSS	
ST13828	20130815	16:16:56	600829	6368810		Seabed Morphology	Boulder	SS-1295	SEABF	SEABO	3.1	0.1	1.2	SSS	
ST13828	20130815	16:27:54	601601	6368059		Seabed Morphology	Boulder	SS-1296	SEABF	SEABO	2.9	0.3	0.6	SSS	
ST13828	20130815	16:46:44	602816	6366685		Seabed Morphology	Boulder	SS-1297	SEABF	SEABO	1.0	0.4	0.8	SSS	
ST13828	20130815	16:48:00	602923	6366606		Man-made Hazards	Unidentified	SS-1298	TARGT	TAUN	2.2	0.1	0.7	SSS	
ST13828	20130815	16:55:11	603382	6365962		Seabed Morphology	Boulder	SS-1299	SEABF	SEABO	2.1	0.3	0.4	SSS	
ST13828	20130815	17:11:31	604491	6364645		Man-made Hazards	Unidentified	SS-1300	TARGT	TAUN	4.0	0.2	0.6	SSS	
ST13828	20130815	17:56:49	604759	6364497		Seabed Morphology	Boulder	SS-1302	SEABF	SEABO	2.1	0.3	0.7	SSS	
ST13828	20130815	17:56:55	604826	6364566		Seabed Morphology	Boulder	SS-1303	SEABF	SEABO	2.1	0.1	0.6	SSS	
ST13828	20130815	18:17:13	603757	6365793		Seabed Morphology	Boulder	SS-1304	SEABF	SEABO	2.6	0.4	1.3	SSS	
ST13828	20130815	18:17:18	603686	6365739		Man-made Hazards	Boulder	SS-1305	SEABF	SEABO	1.8	0.2	0.5	SSS	
ST13828	20130815	18:20:28	603509	6365928		Seabed Morphology	Boulder	SS-1306	SEABF	SEABO	2.2	0.1	0.9	SSS	
ST13828	20130815	18:21:52	603497	6366071		Seabed Morphology	Boulder	SS-1307	SEABF	SEABO	2.6	0.2	0.5	SSS	
ST13828	20130815	18:23:53	603395	6366195		Seabed Morphology	Boulder	SS-1308	SEABF	SEABO	2.2	0.5	1.1	SSS	
ST13828	20130815	18:41:03	602522	6367209		Man-made Hazards	Unidentified	SS-1309	TARGT	TAUN	3.4	0.1	0.5	SSS	
ST13828	20130815	18:42:10	602383	6367200		Seabed Morphology	Boulder	SS-1310	SEABF	SEABO	2.3	0.1	0.3	SSS	
ST13828	20130815	18:43:01	602348	6367261		Seabed Morphology	Boulder	SS-1311	SEABF	SEABO	1.8	0.1	0.4	SSS	
ST13828	20130815	18:51:46	601976	6367834		Man-made Hazards	Cable/wire	SS-1312	DEBRI	DECW	5.9	0.1	0.4	SSS	
ST13828	20130815	18:55:38	601706	6367997		Man-made Hazards	Unidentified	SS-1313	TARGT	TAUN	2.4	0.0	0.5	SSS	
ST13828	20130815	18:58:11	601644	6368207		Seabed Morphology	Boulder	SS-1314	SEABF	SEABO	2.5	0.4	0.9	SSS	
ST13828	20130815	19:06:31	601199	6368694		Seabed Morphology	Boulder	SS-1315	SEABF	SEABO	1.6	0.2	0.8	SSS	
ST13828	20130815	19:15:43	600721	6369281		Seabed Morphology	Boulder	SS-1316	SEABF	SEABO	2.5	0.2	0.9	SSS	
ST13828	20130815	19:21:04	600434	6369600		Seabed Morphology	Boulder	SS-1317	SEABF	SEABO	1.9	0.1	0.6	SSS	
ST13828	20130815	19:22:15	600372	6369670		Seabed Morphology	Boulder	SS-1318	SEABF	SEABO	2.0	0.2	0.9	SSS	
ST13828	20130815	19:25:40	600170	6369866		Seabed Morphology	Boulder	SS-1319	SEABF	SEABO	1.1	0.2	0.8	SSS	
ST13828	20130815	19:37:22	599520	6370639		Man-made Hazards	Debris	SS-1320	DEBRI	DEOT	3.7	0.1	0.7	SSS	
ST13828	20130815	19:42:13	599239	6370957		Man-made Hazards	Unidentified	SS-1321	TARGT	TAUN	2.4	0.3	1.6	SSS	
ST13828	20130815	19:59:44	598050	6372139		Seabed Morphology	Boulder	SS-1322	SEABF	SEABO	2.8	0.1	1.5	SSS	
ST13828	20130815	20:02:50	597870	6372396		Seabed Morphology	Boulder	SS-1323	SEABF	SEABO	3.2	0.1	1.4	SSS	

Target Listing SSS
Turbine B

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130815	20:05:39	597746	6372662		Seabed Morphology	Boulder	SS-1324	SEABF	SEABO	1.8	0.2	0.5	SSS	
ST13828	20130815	20:09:40	597467	6372956		Man-made Hazards	Unidentified	SS-1326	TARGT	TAUN	4.1	0.3	0.7	SSS	
ST13828	20130815	20:10:08	597429	6372991		Seabed Morphology	Boulder	SS-1327	SEABF	SEABO	1.3	0.3	0.6	SSS	
ST13828	20130815	20:10:28	597433	6373040		Seabed Morphology	Boulder	SS-1328	SEABF	SEABO	2.4	0.2	0.7	SSS	
ST13828	20130815	21:08:39	597260	6373372		Man-made Hazards	Unidentified	SS-1333	TARGT	TAUN	4.3	0.0	0.5	SSS	
ST13828	20130815	21:11:41	597382	6373070		Seabed Morphology	Boulder	SS-1334	SEABF	SEABO	3.7	0.4	1.1	SSS	
ST13828	20130815	21:18:19	597844	6372696		Seabed Morphology	Boulder	SS-1335	SEABF	SEABO	1.3	0.3	0.8	SSS	
ST13828	20130815	21:18:36	597868	6372682		Seabed Morphology	Unidentified	SS-1336	TARGT	TAPB	4.6	0.3	0.9	SSS	
ST13828	20130815	21:22:33	598118	6372379		Man-made Hazards	Unidentified	SS-1337	TARGT	TAUN	4.0	0.1	0.8	SSS	
ST13828	20130815	21:48:13	599674	6370473		Seabed Morphology	Boulder	SS-1338	SEABF	SEABO	1.8	0.2	0.9	SSS	
ST13828	20130815	21:56:30	600143	6369941		Man-made Hazards	Cable/wire	SS-1339	DEBRI	DECW	52.0	0.1	1.1	SSS	
ST13828	20130815	22:07:34	600867	6369231		Seabed Morphology	Boulder	SS-1340	SEABF	SEABO	4.5	0.3	0.9	SSS	
ST13828	20130815	22:15:35	601353	6368667		Seabed Morphology	Boulder	SS-1341	SEABF	SEABO	2.4	0.2	0.7	SSS	
ST13828	20130815	22:16:42	601361	6368537		Seabed Morphology	Boulder	SS-1342	SEABF	SEABO	1.6	0.2	1.2	SSS	
ST13828	20130815	22:27:25	602016	6367776		Seabed Morphology	Boulder	SS-1343	SEABF	SEABO	1.3	0.3	1.0	SSS	
ST13828	20130815	22:47:42	603239	6366516		Seabed Morphology	Boulder	SS-1344	SEABF	SEABO	1.4	0.2	0.4	SSS	
ST13828	20130815	22:53:15	603502	6366099		Seabed Morphology	Boulder	SS-1345	SEABF	SEABO	2.2	0.3	0.7	SSS	
ST13828	20130815	22:59:20	603924	6365714		Man-made Hazards	Unidentified	SS-1346	TARGT	TAUN	2.5	0.1	0.4	SSS	
ST13828	20130815	23:09:53	604550	6365011		Seabed Morphology	Boulder	SS-1347	SEABF	SEABO	2.6	0.2	0.6	SSS	
ST13828	20130815	23:11:12	604554	6364877		Seabed Morphology	Boulder	SS-1348	SEABF	SEABO	1.5	0.3	0.6	SSS	
ST13828	20130815	23:17:01	604924	6364515		Seabed Morphology	Boulder	SS-1349	SEABF	SEABO	1.2	0.5	0.2	SSS	
ST13828	20130809	18:53:29	601295	6369351		Seabed Morphology	Boulder	SS-2188	SEABF	SEABO	4.2	0.3	1.2	SSS	
ST13828	20130809	19:06:05	600381	6368448		Seabed Morphology	Boulder	SS-2189	SEABF	SEABO	4.8	0.2	2.2	SSS	
ST13828	20130809	19:13:33	599761	6367990		Man-made Hazards	Unidentified	SS-2190	TARGT	TAUN	2.7	0.2	1.9	SSS	
ST13828	20130809	19:13:03	599803	6368019		Seabed Morphology	Unidentified	SS-2191	TARGT	TAPB	2.2	0.2	1.3	SSS	
ST13828	20130809	19:07:23	600274	6368366		Seabed Morphology	Boulder	SS-2192	SEABF	SEABO	3.5	0.3	2.0	SSS	
ST13828	20130809	19:02:14	600684	6368711		Seabed Morphology	Boulder	SS-2193	SEABF	SEABO	4.8	0.3	1.3	SSS	
ST13828	20130809	20:08:56	600856	6368579		Seabed Morphology	Boulder	SS-2194	SEABF	SEABO	2.3	0.1	1.4	SSS	
ST13828	20130809	14:10:49	601907	6369150		Seabed Morphology	Boulder	SS-2195	SEABF	SEABO	3.1	0.9	1.2	SSS	
ST13828	20130813	01:58:28	603383	6364444		Seabed Morphology	Boulder	SS-789	SEABF	SEABO	1.4	0.5	0.7	SSS	

Target Listing MAG
Turbine C

Survey ID	Date	Time	Easting	Northing	KP	Description 1 nT	Description 2 type	Obs number	Obs method	Comments	SSS target associated
ST13828			604613	6366219		100.6	DIPOLE	M-31	MAG	Associated with SSS Contact	
ST13828			604291	6365939		9.4	MONOPOLE	M-32	MAG		
ST13828			604247	6365901		16.8	MONOPOLE	M-33	MAG		
ST13828			603307	6368395		20.8	MONOPOLE	M-39	MAG	Associated with SSS Contact	SS-0249
ST13828			602335	6368106		20.1	MONOPOLE	M-43	MAG		
ST13828			603391	6367048		48.3	MONOPOLE	M-45	MAG	Associated with SSS Contact	SS-0135
ST13828			604751	6365643		7	MONOPOLE	M-50	MAG		
ST13828			604409	6366190		21.1	MONOPOLE	M-51	MAG		
ST13828			604116	6366520		64.6	DIPOLE	M-52	MAG		
ST13828			604624	6366091		8.6	DIPOLE	M-53	MAG		
ST13828			603283	6367620		342.4	DIPOLE	M-54	MAG		
ST13828			603495	6367700		36.6	COMPLEX	M-58	MAG	Possible 2 targets	
ST13828			604729	6366420		18.7	MONOPOLE	M-60	MAG		
ST13828			605031	6366078		23.6	MONOPOLE	M-61	MAG		
ST13828			604062	6367346		17.7	DIPOLE	M-62	MAG	Associated with SSS Contact	SS-0239
ST13828			604502	6366837		7.8	MONOPOLE	M-63	MAG		
ST13828			603346	6368078		5.8	MONOPOLE	M-69	MAG		
ST13828			603627	6367757		40.7	DIPOLE	M-70	MAG		
ST13828			602442	6368966		6.9	MONOPOLE	M-71	MAG		
ST13828			604658	6366116		10.4	COMPLEX	M-74	MAG		
ST13828			604102	6366758		54.4	MONOPOLE	M-75	MAG		
ST13828			603359	6367602		27.4	MONOPOLE	M-76	MAG		
ST13828			602466	6368188		6.6	MONOPOLE	M-79	MAG		
ST13828			603882	6366416		24.9	MONOPOLE	M-80	MAG		
ST13828			603652	6366515		12	DIPOLE	M-81	MAG		
ST13828			603804	6366304		9.2	MONOPOLE	M-440	MAG		
ST13828			604005	6366481		5	MONOPOLE	M-441	MAG		
ST13828			603666	6367780		4	DIPOLE	M-444	MAG	Associated with other Mag anomalies	
ST13828			601225	6369361		1.8	MONOPOLE	M-799	MAG		
ST13828			601454	6369173		2.9	MONOPOLE	M-804	MAG		
ST13828			601830	6369232		12.1	DIPOLE	M-808	MAG		
ST13828			601891	6369284		2.7	MONOPOLE	M-809	MAG		
ST13828			602302	6368971		18.4	MONOPOLE	M-819	MAG		
ST13828			602570	6368958		5.5	MONOPOLE	M-821	MAG		
ST13828			602062	6368361		4	MONOPOLE	M-824	MAG		
ST13828			602467	6367797		7.4	DIPOLE	M-830	MAG	Associated with SSS Contact	SS-0096
ST13828			603343	6367632		15.9	MONOPOLE	M-834	MAG	Associated with other Mag anomalies	

Target Listing MAG
Turbine C

Survey ID	Date	Time	Easting	Northing	KP	Description 1 nT	Description 2 type	Obs number	Obs method	Comments	SSS target associated
ST13828			604236	6367618		19.3	MONOPOLE	M-842	MAG	Associated with SSS Contact	SS-0194
ST13828			603641	6366844		6.6	MONOPOLE	M-846	MAG		
ST13828			604322	6366347		7.9	MONOPOLE	M-855	MAG	Associated with SSS Contact	SS-0336

Target Listing SSS
Turbine C

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130809	14:10:49	601907	6369150		Seabed Morphology	Boulder	SS-0110	SEABF	SFBO	3.1	0.9	1.2	SSS	
ST13828	20130809	15:26:53	601263	6369264		Seabed Morphology	Boulder	SS-0112	SEABF	SFBO	4.9	0.2	1.8	SSS	
ST13828	20130809	15:31:54	601604	6368862		Seabed Morphology	Boulder	SS-0113	SEABF	SFBO	4.3	0.3	2.2	SSS	
ST13828	20130809	16:02:32	603624	6366399		Seabed Morphology	Boulder	SS-0115	SEABF	SFBO	4.1	0.1	0.9	SSS	
ST13828	20130809	16:03:35	603777	6366383		Seabed Morphology	Boulder	SS-0116	SEABF	SFBO	3.2	0.2	1.4	SSS	
ST13828	20130809	16:14:45	604563	6365510		Seabed Morphology	Boulder	SS-0117	SEABF	SFBO	4.8	0.1	1.3	SSS	
ST13828	20130809	15:43:24	602394	6367924		Seabed Morphology	Boulder	SS-0118	SEABF	SFBO	2.9	0.3	1.7	SSS	
ST13828	20130809	15:27:36	601251	6369146		Seabed Morphology	Boulder	SS-0119	SEABF	SFBO	4.4	0.2	0.4	SSS	
ST13828	20130809	15:20:43	600810	6369751		Seabed Morphology	Boulder	SS-0121	SEABF	SFBO	4.1	0.1	1.9	SSS	
ST13828	20130809	15:32:36	601649	6368805		Seabed Morphology	Boulder	SS-0122	SEABF	SFBO	4.9	0.2	2.9	SSS	
ST13828	20130809	17:12:19	603561	6366645		Seabed Morphology	Boulder	SS-0125	SEABF	SFBO	3.5	0.2	0.9	SSS	
ST13828	20130809	17:52:58	601134	6369404		Seabed Morphology	Boulder	SS-0126	SEABF	SFBO	1.8	0.1	0.7	SSS	
ST13828	20130809	17:43:16	601690	6368772		Seabed Morphology	Boulder	SS-0127	SEABF	SFBO	2.1	0.2	1.1	SSS	
ST13828	20130809	17:39:34	601959	6368602		Seabed Morphology	Boulder	SS-0128	SEABF	SFBO	1.7	0.5	1.1	SSS	
ST13828	20130809	17:33:24	602286	6368156		Seabed Morphology	Boulder	SS-0129	SEABF	SFBO	2.0	1.3	0.8	SSS	
ST13828	20130809	17:25:25	602775	6367646		Seabed Morphology	Boulder	SS-0131	SEABF	SFBO	4.7	0.3	1.4	SSS	
ST13828	20130809	21:08:27	601484	6369118		Seabed Morphology	Boulder	SS-0132	SEABF	SFBO	3.6	0.4	1.2	SSS	
ST13828	20130809	21:12:22	601749	6368876		Seabed Morphology	Boulder	SS-0133	SEABF	SFBO	1.9	0.6	1.1	SSS	
ST13828	20130809	21:34:01	603098	6367460		Seabed Morphology	Boulder	SS-0134	SEABF	SFBO	3.4	0.1	1.1	SSS	
ST13828	20130809	21:39:39	603360	6367013		Seabed Morphology	Boulder	SS-0135	SEABF	SFBO	1.9	0.7	1.1	SSS	
ST13828	20130809	21:57:59	604556	6365734		Seabed Morphology	Boulder	SS-0136	SEABF	SFBO	2.4	0.8	1.7	SSS	
ST13828	20130809	21:58:24	604622	6365739		Seabed Morphology	Boulder	SS-0137	SEABF	SFBO	2.8	0.1	1.6	SSS	
ST13828	20130809	22:53:10	604760	6365566		Seabed Morphology	Boulder	SS-0138	SEABF	SFBO	4.3	0.1	0.7	SSS	
ST13828	20130809	23:51:23	601348	6369435		Seabed Morphology	Boulder	SS-0139	SEABF	SFBO	4.9	0.2	1.3	SSS	
ST13828	20130809	23:11:13	603725	6366749		Seabed Morphology	Boulder	SS-0140	SEABF	SFBO	3.2	0.1	1.1	SSS	
ST13828	20130809	23:02:43	604256	6366248		Seabed Morphology	Boulder	SS-0141	SEABF	SFBO	3.4	0.1	0.7	SSS	
ST13828	20130810	00:49:10	603752	6366970		Seabed Morphology	Boulder	SS-0143	SEABF	SFBO	3.1	0.2	1.8	SSS	
ST13828	20130810	03:07:08	601722	6369363		Seabed Morphology	Boulder	SS-0145	SEABF	SFBO	2.8	0.7	0.1	SSS	
ST13828	20130810	02:04:25	605084	6365580		Seabed Morphology	Boulder	SS-0146	SEABF	SFBO	1.0	0.7	1.4	SSS	
ST13828	20130810	04:08:23	604402	6366440		Seabed Morphology	Boulder	SS-0147	SEABF	SFBO	2.0	0.5	1.1	SSS	
ST13828	20130810	04:08:20	604400	6366445		Seabed Morphology	Boulder	SS-0148	SEABF	SFBO	2.1	0.4	1.1	SSS	
ST13828	20130810	04:01:09	603890	6367060		Seabed Morphology	Boulder	SS-0149	SEABF	SFBO	1.0	0.3	0.6	SSS	
ST13828	20130810	04:00:51	603907	6367119		Seabed Morphology	Boulder	SS-0150	SEABF	SFBO	1.1	0.2	0.5	SSS	
ST13828	20130810	03:59:01	603745	6367238		Seabed Morphology	Boulder	SS-0151	SEABF	SFBO	4.3	1.7	0.8	SSS	
ST13828	20130810	05:11:08	603645	6367474		Seabed Morphology	Boulder	SS-0152	SEABF	SFBO	0.9	0.2	0.7	SSS	
ST13828	20130810	05:00:46	604424	6366713		Seabed Morphology	Boulder	SS-0153	SEABF	SFBO	1.1	0.1	0.5	SSS	
ST13828	20130810	05:33:58	602094	6369366		Seabed Morphology	Boulder	SS-0154	SEABF	SFBO	1.2	0.4	1.0	SSS	
ST13828	20130810	05:25:24	602641	6368609		Seabed Morphology	Boulder	SS-0155	SEABF	SFBO	3.7	0.4	1.8	SSS	
ST13828	20130810	06:17:38	602973	6368367		Seabed Morphology	Boulder	SS-0156	SEABF	SFBO	1.2	0.2	0.3	SSS	
ST13828	20130810	06:55:51	605158	6365870		Seabed Morphology	Boulder	SS-0159	SEABF	SFBO	0.9	0.4	0.9	SSS	
ST13828	20130810	06:44:51	604593	6366651		Seabed Morphology	Boulder	SS-0160	SEABF	SFBO	0.5	0.2	0.6	SSS	
ST13828	20130810	07:56:19	604204	6367134		Seabed Morphology	Boulder	SS-0161	SEABF	SFBO	1.0	0.1	0.5	SSS	
ST13828	20130810	07:48:47	604693	6366556		Seabed Morphology	Boulder	SS-0163	SEABF	SFBO	1.6	0.3	0.9	SSS	
ST13828	20130810	02:16:14	604409	6366241		Seabed Morphology	Boulder	SS-0166	SEABF	SFBO	2.7	0.5	0.7	SSS	
ST13828	20130810	04:01:25	603888	6367020		Seabed Morphology	Boulder	SS-0167	SEABF	SFBO	1.2	0.2	0.3	SSS	
ST13828	20130810	10:42:26	604571	6366991		Man-made Hazards	Debris	SS-0170	DEBRI	DEOT	1.3	0.4	0.9	SSS	Contact with scour present
ST13828	20130810	10:39:14	604303	6367153		Man-made Hazards	Debris	SS-0172	DEBRI	DEOT	3.4	0.1	1.2	SSS	Possible contact with school of fish present

Target Listing SSS
Turbine C

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130810	10:38:29	604253	6367204		Seabed Morphology	Boulder	SS-0173	SEABF	SFBO	2.2	0.1	0.8	SSS	
ST13828	20130810	11:31:50	604792	6366854		Man-made Hazards	Trawl Scar	SS-0182	SEABF	SFTS	0.0	0.0	0.0	SSS	Multiple trawl scars
ST13828	20130810	11:29:52	604916	6366720		Seabed Morphology	Boulder	SS-0183	SEABF	SFBO	0.7	0.5	0.4	SSS	
ST13828	20130810	11:36:09	604556	6367145		Seabed Morphology	Boulder	SS-0184	SEABF	SFBO	3.4	0.2	1.2	SSS	Scattered boulders
ST13828	20130810	14:03:27	604220	6367614		Seabed Morphology	Boulder	SS-0194	SEABF	SFBO	1.4	0.1	0.6	SSS	Correlated to Mag M-842
ST13828	20130810	14:04:06	604277	6367579		Seabed Morphology	Boulder	SS-0195	SEABF	SFBO	1.0	0.2	0.6	SSS	
ST13828	20130810	14:06:37	604423	6367366		Man-made Hazards	Unidentified	SS-0196	TARGT	TAUN	3.6	0.2	1.1	SSS	
ST13828	20130810	14:06:41	604446	6367375		Seabed Morphology	Boulder	SS-0197	SEABF	SFBO	2.2	0.2	0.6	SSS	
ST13828	20130810	14:09:58	604655	6367115		Seabed Morphology	Boulder	SS-0198	SEABF	SFBO	1.9	0.2	0.8	SSS	
ST13828	20130810	14:12:17	604886	6367000		Seabed Morphology	Boulder	SS-0199	SEABF	SFBO	2.7	0.2	1.0	SSS	
ST13828	20130810	14:55:56	605159	6366510		Seabed Morphology	Boulder	SS-0203	SEABF	SFBO	2.0	0.2	0.8	SSS	
ST13828	20130810	14:58:11	605046	6366695		Seabed Morphology	Boulder	SS-0204	SEABF	SFBO	2.6	0.2	0.9	SSS	
ST13828	20130810	14:58:58	605000	6366750		Seabed Morphology	Boulder	SS-0205	SEABF	SFBO	2.8	0.1	0.5	SSS	
ST13828	20130810	15:02:48	604741	6367010		Seabed Morphology	Boulder	SS-0206	SEABF	SFBO	1.0	0.3	0.7	SSS	
ST13828	20130810	15:05:14	604568	6367164		Seabed Morphology	Boulder	SS-0207	SEABF	SFBO	1.5	0.3	0.9	SSS	
ST13828	20130810	15:06:55	604472	6367293		Seabed Morphology	Boulder	SS-0208	SEABF	SFBO	1.3	0.4	0.6	SSS	
ST13828	20130810	15:06:53	604485	6367300		Seabed Morphology	Boulder	SS-0209	SEABF	SFBO	1.1	0.2	0.5	SSS	
ST13828	20130810	15:07:38	604435	6367354		Seabed Morphology	Boulder	SS-0210	SEABF	SFBO	1.5	0.2	0.8	SSS	
ST13828	20130810	15:12:24	604124	6367677		Seabed Morphology	Boulder	SS-0211	SEABF	SFBO	1.5	0.3	0.7	SSS	
ST13828	20130810	16:13:36	604679	6366772		Seabed Morphology	Unidentified	SS-0212	TARGT	TAPB	1.5	0.2	0.9	SSS	
ST13828	20130810	15:56:23	603662	6367984		Seabed Morphology	Boulder	SS-0214	SEABF	SFBO	2.0	0.5	1.4	SSS	
ST13828	20130810	15:57:41	603724	6367877		Seabed Morphology	Boulder	SS-0215	SEABF	SFBO	1.4	0.3	0.6	SSS	
ST13828	20130810	16:01:55	603993	6367572		Man-made Hazards	Unidentified	SS-0216	TARGT	TAUN	1.9	0.1	0.5	SSS	
ST13828	20130810	16:05:11	604245	6367396		Man-made Hazards	Unidentified	SS-0217	TARGT	TAUN	1.1	0.3	0.6	SSS	
ST13828	20130810	16:06:45	604291	6367249		Seabed Morphology	Boulder	SS-0218	SEABF	SFBO	2.7	0.2	0.8	SSS	
ST13828	20130810	16:13:06	604677	6366830		Seabed Morphology	Boulder	SS-0219	SEABF	SFBO	1.7	0.3	0.5	SSS	
ST13828	20130810	16:15:20	604857	6366730		Seabed Morphology	Boulder	SS-0221	SEABF	SFBO	1.2	0.3	0.7	SSS	
ST13828	20130810	16:15:47	604904	6366718		Man-made Hazards	Unidentified	SS-0222	TARGT	TAUN	1.5	0.3	0.6	SSS	
ST13828	20130810	16:17:41	604978	6366561		Seabed Morphology	Boulder	SS-0223	SEABF	SFBO	0.7	0.3	0.5	SSS	
ST13828	20130810	16:18:08	605012	6366541		Seabed Morphology	Boulder	SS-0224	SEABF	SFBO	1.0	0.1	0.6	SSS	
ST13828	20130810	16:18:21	604986	6366492		Seabed Morphology	Boulder	SS-0225	SEABF	SFBO	0.9	0.3	0.9	SSS	
ST13828	20130810	16:18:52	604995	6366441		Seabed Morphology	Boulder	SS-0226	SEABF	SFBO	0.9	0.2	0.6	SSS	
ST13828	20130810	16:19:18	605011	6366406		Seabed Morphology	Boulder	SS-0227	SEABF	SFBO	1.4	0.1	0.6	SSS	
ST13828	20130810	16:50:02	605179	6366051		Seabed Morphology	Boulder	SS-0230	SEABF	SFBO	1.9	0.2	0.7	SSS	
ST13828	20130810	16:49:37	605278	6366079		Seabed Morphology	Boulder	SS-0231	SEABF	SFBO	1.3	0.2	0.7	SSS	
ST13828	20130810	16:50:44	605158	6366121		Seabed Morphology	Boulder	SS-0232	SEABF	SFBO	1.7	0.2	0.7	SSS	
ST13828	20130810	16:54:28	604923	6366390		Seabed Morphology	Boulder	SS-0233	SEABF	SFBO	1.2	0.3	0.7	SSS	
ST13828	20130810	16:58:17	604693	6366671		Man-made Hazards	Unidentified	SS-0234	TARGT	TAUN	1.6	0.6	0.7	SSS	
ST13828	20130810	17:01:55	604447	6366909		Man-made Hazards	Debris	SS-0235	DEBRI	DEOT	1.4	0.1	0.8	SSS	
ST13828	20130810	17:02:35	604399	6366956		Seabed Morphology	Boulder	SS-0236	SEABF	SFBO	1.2	0.1	0.8	SSS	
ST13828	20130810	17:05:31	604280	6367217		Seabed Morphology	Boulder	SS-0237	SEABF	SFBO	1.1	0.2	0.4	SSS	
ST13828	20130810	17:05:45	604190	6367165		Seabed Morphology	Boulder	SS-0238	SEABF	SFBO	1.3	0.3	0.7	SSS	
ST13828	20130810	17:08:00	604058	6367324		Seabed Morphology	Boulder	SS-0239	SEABF	SFBO	1.5	0.1	0.8	SSS	Correlated to Mag M-62
ST13828	20130810	17:10:17	604014	6367562		Seabed Morphology	Boulder	SS-0240	SEABF	SFBO	1.3	0.1	0.6	SSS	
ST13828	20130810	17:09:52	604032	6367526		Seabed Morphology	Boulder	SS-0241	SEABF	SFBO	1.6	0.3	0.6	SSS	
ST13828	20130810	17:10:35	603925	6367523		Seabed Morphology	Boulder	SS-0242	SEABF	SFBO	1.8	0.2	0.9	SSS	
ST13828	20130810	17:11:24	603887	6367591		Seabed Morphology	Boulder	SS-0243	SEABF	SFBO	2.2	0.3	1.1	SSS	

Target Listing SSS
Turbine C

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130810	17:09:16	603998	6367426		Seabed Morphology	Boulder	SS-0244	SEABF	SFBO	2.3	0.1	0.9	SSS	
ST13828	20130810	16:57:50	604702	6366621		Seabed Morphology	Boulder	SS-0245	SEABF	SFBO	1.6	0.2	0.5	SSS	
ST13828	20130810	17:14:42	603733	6367868		Seabed Morphology	Boulder	SS-0246	SEABF	SFBO	1.4	0.3	0.8	SSS	
ST13828	20130810	17:17:34	603497	6368010		Seabed Morphology	Boulder	SS-0247	SEABF	SFBO	1.9	0.2	0.7	SSS	
ST13828	20130810	17:20:18	603323	6368185		Man-made Hazards	Unidentified	SS-0248	TARGT	TAUN	2.5	1.0	1.6	SSS	
ST13828	20130810	17:21:54	603304	6368363		Seabed Morphology	Boulder	SS-0249	SEABF	SFBO	1.5	0.2	0.5	SSS	Correlated to Mag M-39
ST13828	20130810	17:25:24	603074	6368579		Seabed Morphology	Boulder	SS-0250	SEABF	SFBO	1.8	0.4	0.4	SSS	
ST13828	20130810	18:07:28	602502	6369005		Seabed Morphology	Boulder	SS-0254	SEABF	SFBO	2.2	0.5	1.1	SSS	
ST13828	20130810	18:09:16	602661	6368916		Seabed Morphology	Boulder	SS-0255	SEABF	SFBO	1.0	0.2	0.6	SSS	
ST13828	20130810	18:09:23	602634	6368874		Seabed Morphology	Boulder	SS-0256	SEABF	SFBO	0.7	0.4	0.5	SSS	
ST13828	20130810	18:32:20	604013	6367279		Seabed Morphology	Boulder	SS-0257	SEABF	SFBO	0.7	0.3	0.5	SSS	
ST13828	20130810	18:35:43	604198	6367030		Seabed Morphology	Boulder	SS-0258	SEABF	SFBO	1.1	0.2	1.3	SSS	
ST13828	20130810	18:46:50	604883	6366288		Seabed Morphology	Boulder	SS-0259	SEABF	SFBO	1.0	0.5	0.6	SSS	
ST13828	20130810	18:46:57	604872	6366263		Seabed Morphology	Boulder	SS-0260	SEABF	SFBO	1.3	0.2	0.6	SSS	
ST13828	20130810	18:48:17	604951	6366177		Seabed Morphology	Boulder	SS-0261	SEABF	SFBO	1.3	0.1	0.5	SSS	
ST13828	20130810	19:16:06	605298	6365646		Seabed Morphology	Boulder	SS-0266	SEABF	SFBO	0.9	0.3	0.6	SSS	
ST13828	20130810	19:20:13	605005	6365970		Seabed Morphology	Boulder	SS-0267	SEABF	SFBO	3.2	0.4	0.8	SSS	
ST13828	20130810	19:22:23	604896	6366188		Seabed Morphology	Boulder	SS-0268	SEABF	SFBO	1.5	0.6	0.7	SSS	
ST13828	20130810	19:33:15	604112	6367030		Seabed Morphology	Boulder	SS-0269	SEABF	SFBO	1.5	0.4	0.7	SSS	
ST13828	20130810	19:37:17	603889	6367366		Seabed Morphology	Unidentified	SS-0270	TARGT	TAPB	2.8	0.2	1.1	SSS	
ST13828	20130810	19:46:14	603286	6368041		Man-made Hazards	Unidentified	SS-0271	TARGT	TAUN	1.2	0.7	0.8	SSS	
ST13828	20130810	19:54:50	602689	6368667		Seabed Morphology	Boulder	SS-0272	SEABF	SFBO	1.0	0.3	0.6	SSS	
ST13828	20130810	20:02:42	602214	6369265		Seabed Morphology	Boulder	SS-0273	SEABF	SFBO	1.9	0.2	0.9	SSS	
ST13828	20130810	20:02:59	602205	6369293		Seabed Morphology	Boulder	SS-0274	SEABF	SFBO	1.8	0.2	1.0	SSS	
ST13828	20130810	20:03:07	602127	6369248		Man-made Hazards	Unidentified	SS-0275	TARGT	TAUN	2.7	0.5	0.8	SSS	
ST13828	20130810	20:41:47	602063	6369266		Seabed Morphology	Boulder	SS-0280	SEABF	SFBO	1.1	0.3	0.7	SSS	
ST13828	20130810	20:46:58	602405	6368979		Man-made Hazards	Unidentified	SS-0281	TARGT	TAUN	2.3	0.2	0.9	SSS	
ST13828	20130810	20:47:40	602369	6368879		Seabed Morphology	Boulder	SS-0282	SEABF	SFBO	1.4	0.2	0.5	SSS	
ST13828	20130810	20:49:15	602524	6368806		Man-made Hazards	Unidentified	SS-0283	TARGT	TAUN	3.9	0.1	0.6	SSS	
ST13828	20130810	20:49:56	602481	6368690		Seabed Morphology	Boulder	SS-0284	SEABF	SFBO	1.4	0.2	0.9	SSS	
ST13828	20130810	20:50:32	602515	6368643		Seabed Morphology	Boulder	SS-0285	SEABF	SFBO	1.9	0.1	0.6	SSS	
ST13828	20130810	21:03:53	603447	6367712		Seabed Morphology	Boulder	SS-0286	SEABF	SFBO	1.6	0.1	0.9	SSS	
ST13828	20130810	21:13:46	604018	6366954		Seabed Morphology	Boulder	SS-0287	SEABF	SFBO	1.1	0.2	0.5	SSS	
ST13828	20130810	21:14:16	604095	6366956		Seabed Morphology	Boulder	SS-0288	SEABF	SFBO	1.3	0.1	0.7	SSS	
ST13828	20130810	21:14:30	604063	6366896		Seabed Morphology	Boulder	SS-0289	SEABF	SFBO	2.1	0.2	1.2	SSS	
ST13828	20130810	21:17:27	604257	6366675		Man-made Hazards	Unidentified	SS-0290	TARGT	TAUN	1.4	0.3	0.6	SSS	
ST13828	20130810	21:20:44	604484	6366434		Seabed Morphology	Boulder	SS-0291	SEABF	SFBO	2.3	0.3	1.4	SSS	
ST13828	20130810	21:29:20	605062	6365803		Seabed Morphology	Boulder	SS-0292	SEABF	SFBO	1.4	0.5	1.0	SSS	
ST13828	20130810	21:30:34	605123	6365696		Man-made Hazards	Unidentified	SS-0293	TARGT	TAUN	2.3	0.4	0.8	SSS	
ST13828	20130810	22:50:40	604834	6365822		Man-made Hazards	Unidentified	SS-0295	TARGT	TAUN	3.2	0.2	1.2	SSS	
ST13828	20130810	22:52:37	604804	6366032		Seabed Morphology	Boulder	SS-0296	SEABF	SFBO	1.8	0.5	0.4	SSS	
ST13828	20130810	22:55:48	604597	6366238		Seabed Morphology	Boulder	SS-0297	SEABF	SFBO	2.4	1.0	0.8	SSS	
ST13828	20130810	22:55:47	604619	6366256		Seabed Morphology	Boulder	SS-0298	SEABF	SFBO	2.0	0.3	1.1	SSS	
ST13828	20130810	22:57:04	604470	6366278		Seabed Morphology	Boulder	SS-0299	SEABF	SFBO	1.1	0.3	0.5	SSS	
ST13828	20130810	22:57:16	604460	6366292		Seabed Morphology	Boulder	SS-0300	SEABF	SFBO	1.1	0.3	0.6	SSS	
ST13828	20130810	22:57:55	604487	6366394		Seabed Morphology	Boulder	SS-0301	SEABF	SFBO	1.2	0.2	0.7	SSS	
ST13828	20130810	22:58:26	604444	6366419		Seabed Morphology	Boulder	SS-0302	SEABF	SFBO	2.0	0.2	0.7	SSS	

Target Listing SSS
Turbine C

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130810	23:04:06	604038	6366741		Man-made Hazards	Unidentified	SS-0303	TARGT	TAUN	2.2	0.2	0.8	SSS	
ST13828	20130810	23:03:15	604095	6366690		Seabed Morphology	Boulder	SS-0304	SEABF	SFBO	2.9	0.2	1.0	SSS	
ST13828	20130810	23:04:13	604064	6366777		Seabed Morphology	Boulder	SS-0305	SEABF	SFBO	1.1	0.5	0.5	SSS	
ST13828	20130810	23:08:20	603845	6367088		Man-made Hazards	Unidentified	SS-0306	TARGT	TAUN	4.0	0.1	0.3	SSS	
ST13828	20130810	22:52:09	604744	6365923		Man-made Hazards	Cable/wire	SS-0307	DEBRI	DECW	29.6	0.1	0.3	SSS	
ST13828	20130810	23:14:51	603494	6367531		Seabed Morphology	Boulder	SS-0308	SEABF	SFBO	2.0	0.1	0.6	SSS	
ST13828	20130810	23:18:22	603242	6367710		Seabed Morphology	Boulder	SS-0309	SEABF	SFBO	1.3	0.4	0.8	SSS	
ST13828	20130810	23:25:38	602883	6368238		Seabed Morphology	Boulder	SS-0310	SEABF	SFBO	1.5	0.3	0.7	SSS	
ST13828	20130810	23:31:22	602576	6368582		Seabed Morphology	Boulder	SS-0311	SEABF	SFBO	1.7	0.1	0.4	SSS	
ST13828	20130810	23:31:11	602545	6368536		Seabed Morphology	Boulder	SS-0312	SEABF	SFBO	0.8	0.7	0.8	SSS	
ST13828	20130810	23:32:16	602461	6368573		Seabed Morphology	Boulder	SS-0313	SEABF	SFBO	1.2	0.2	0.6	SSS	
ST13828	20130810	23:33:26	602388	6368631		Man-made Hazards	Unidentified	SS-0314	TARGT	TAUN	1.6	0.1	0.7	SSS	
ST13828	20130810	23:36:49	602280	6368897		Seabed Morphology	Boulder	SS-0315	SEABF	SFBO	1.3	0.4	0.7	SSS	
ST13828	20130810	23:36:23	602306	6368871		Seabed Morphology	Boulder	SS-0316	SEABF	SFBO	0.8	0.2	0.5	SSS	
ST13828	20130810	23:43:46	601911	6369341		Seabed Morphology	Boulder	SS-0319	SEABF	SFBO	1.5	0.1	0.5	SSS	
ST13828	20130810	23:45:58	601717	6369401		Man-made Hazards	Unidentified	SS-0321	TARGT	TAUN	2.5	0.1	0.4	SSS	
ST13828	20130811	00:19:31	601693	6369290		Seabed Morphology	Boulder	SS-0326	SEABF	SFBO	1.5	0.1	0.6	SSS	
ST13828	20130811	00:24:07	602046	6369015		Seabed Morphology	Boulder	SS-0327	SEABF	SFBO	1.5	0.2	0.5	SSS	
ST13828	20130811	00:28:25	602321	6368707		Seabed Morphology	Boulder	SS-0328	SEABF	SFBO	0.9	0.2	0.5	SSS	
ST13828	20130811	00:31:53	602563	6368473		Seabed Morphology	Boulder	SS-0329	SEABF	SFBO	1.6	0.2	0.9	SSS	
ST13828	20130811	00:37:14	602807	6368001		Man-made Hazards	Unidentified	SS-0330	TARGT	TAUN	2.2	0.1	0.4	SSS	
ST13828	20130811	00:43:06	603245	6367602		Seabed Morphology	Boulder	SS-0331	SEABF	SFBO	2.0	0.5	0.8	SSS	
ST13828	20130811	00:42:52	603237	6367625		Seabed Morphology	Boulder	SS-0332	SEABF	SFBO	1.2	0.1	0.4	SSS	
ST13828	20130811	00:55:18	604106	6366662		Seabed Morphology	Boulder	SS-0333	SEABF	SFBO	1.6	0.4	1.0	SSS	
ST13828	20130811	00:56:12	604191	6366604		Seabed Morphology	Boulder	SS-0334	SEABF	SFBO	1.9	0.1	1.1	SSS	
ST13828	20130811	00:55:18	604056	6366613		Seabed Morphology	Boulder	SS-0335	SEABF	SFBO	1.1	0.2	0.7	SSS	
ST13828	20130811	00:58:33	604280	6366339		Seabed Morphology	Boulder	SS-0336	SEABF	SFBO	2.2	0.2	1.3	SSS	
ST13828	20130811	00:59:51	604442	6366296		Seabed Morphology	Boulder	SS-0337	SEABF	SFBO	2.3	0.2	1.3	SSS	
ST13828	20130811	01:02:51	604588	6366011		Man-made Hazards	Unidentified	SS-0338	TARGT	TAUN	2.5	0.2	0.6	SSS	
ST13828	20130811	01:06:15	604865	6365808		Man-made Hazards	Unidentified	SS-0339	TARGT	TAUN	1.8	0.0	0.3	SSS	
ST13828	20130811	01:06:04	604861	6365828		Man-made Hazards	Unidentified	SS-0340	TARGT	TAUN	2.3	0.0	0.4	SSS	
ST13828	20130811	01:08:53	604996	6365603		Man-made Hazards	Unidentified	SS-0341	TARGT	TAUN	1.3	0.6	0.5	SSS	
ST13828	20130811	01:08:53	604958	6365568		Seabed Morphology	Boulder	SS-0342	SEABF	SFBO	1.4	0.2	0.6	SSS	
ST13828	20130811	01:09:20	604995	6365547		Seabed Morphology	Boulder	SS-0343	SEABF	SFBO	0.9	0.3	0.6	SSS	
ST13828	20130811	02:11:32	604655	6365873		Seabed Morphology	Boulder	SS-0344	SEABF	SFBO	0.8	0.2	0.3	SSS	
ST13828	20130811	01:59:51	604704	6365727		Seabed Morphology	Boulder	SS-0345	SEABF	SFBO	0.7	0.8	0.7	SSS	
ST13828	20130811	02:27:55	603367	6367338		Man-made Hazards	Debris	SS-0348	DEBRI	DEOT	1.1	0.2	0.3	SSS	
ST13828	20130811	04:06:04	603631	6366761		Seabed Morphology	Boulder	SS-0349	SEABF	SFBO	1.3	0.5	0.5	SSS	
ST13828	20130811	05:04:22	604447	6365712		Seabed Morphology	Boulder	SS-0350	SEABF	SFBO	1.3	0.2	0.7	SSS	
ST13828	20130811	06:39:41	602206	6368134		Seabed Morphology	Boulder	SS-0351	SEABF	SFBO	1.7	0.5	0.4	SSS	
ST13828	20130811	06:57:48	603312	6366878		Seabed Morphology	Boulder	SS-0352	SEABF	SFBO	1.4	0.5	1.6	SSS	
ST13828	20130809	01:05:48	605204	6365452		Seabed Morphology	Boulder	SS-2185	SEABF	SFBO	4.5	0.4	2.9	SSS	
ST13828	20130809	01:06:06	605219	6365477		Seabed Morphology	Boulder	SS-2186	SEABF	SFBO	35.2	0.0	11.7	SSS	
ST13828	20130809	04:22:07	603914	6366205		Seabed Morphology	Boulder	SS-2187	SEABF	SFBO	3.8	0.1	0.8	SSS	

Target Listing MAG
Turbine D

Survey ID	Date	Time	Easting	Northing	KP	Description 1 nT	Description 2 type	Obs number	Obs method	Comments	SSS target associated
ST13828			600152	6370447		7.3	MONOPOLE	M-446	MAG		
ST13828			600048	6370560		4711.3	MONOPOLE	M-447	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600000	6370613		3069.2	DIPOLE	M-448	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			600087	6370518		165.8	MONOPOLE	M-449	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			598743	6372051		3.7	MONOPOLE	M-450	MAG	unknown cable 2	
ST13828			598770	6372022		12.8	MONOPOLE	M-451	MAG		
ST13828			598193	6372675		35.6	MONOPOLE	M-454	MAG	Existing Telecom Cable Inactive 3	
ST13828			597078	6373956		34.4	MONOPOLE	M-455	MAG		
ST13828			597148	6374025		8	MONOPOLE	M-456	MAG		
ST13828			598276	6372732		65.7	MONOPOLE	M-457	MAG	Existing Telecom Cable Inactive 3	
ST13828			598946	6371970		5.3	MONOPOLE	M-458	MAG		
ST13828			600129	6370618		279.3	MONOPOLE	M-459	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600171	6370571		130.4	MONOPOLE	M-460	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600089	6370663		5993	MONOPOLE	M-461	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			600247	6370629		194.4	MONOPOLE	M-462	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600209	6370670		2060.7	MONOPOLE	M-463	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600163	6370722		2046.8	MONOPOLE	M-464	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			599007	6372053		3.8	MONOPOLE	M-465	MAG	unknown cable 2	
ST13828			598689	6372418		8	MONOPOLE	M-466	MAG		
ST13828			598348	6372796		58.7	MONOPOLE	M-467	MAG	Existing Telecom Cable Inactive 3	
ST13828			598544	6372577		13.5	MONOPOLE	M-468	MAG		
ST13828			598947	6372275		17.5	MONOPOLE	M-469	MAG		
ST13828			599557	6371570		5.8	MONOPOLE	M-470	MAG		
ST13828			598432	6372862		31.7	MONOPOLE	M-471	MAG	Existing Telecom Cable Inactive 3	
ST13828			600298	6370724		7191.1	MONOPOLE	M-473	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600335	6370684		99	MONOPOLE	M-474	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600250	6370780		485.6	MONOPOLE	M-475	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			600420	6370750		259.5	MONOPOLE	M-476	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600382	6370794		6153.8	MONOPOLE	M-477	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600340	6370844		2362.3	MONOPOLE	M-478	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			598505	6372930		30.2	MONOPOLE	M-479	MAG	Existing Telecom Cable Inactive 3	
ST13828			599281	6372049		3.5	MONOPOLE	M-480	MAG	unknown cable 2	
ST13828			599077	6372276		3	MONOPOLE	M-481	MAG	unknown Mag anomaly	
ST13828			597267	6374356		3.9	MONOPOLE	M-483	MAG	unknown Mag anomaly	
ST13828			599414	6372036		3.5	MONOPOLE	M-485	MAG	unknown cable 2	
ST13828			598590	6372996		15.1	MONOPOLE	M-486	MAG	Existing Telecom Cable Inactive 3	
ST13828			600417	6370896		2418.3	MONOPOLE	M-487	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			600499	6370804		142.7	MONOPOLE	M-488	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600463	6370845		2296.6	MONOPOLE	M-489	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600580	6370865		94.5	MONOPOLE	M-490	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600543	6370907		4049.4	MONOPOLE	M-491	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600502	6370955		996.7	DIPOLE	M-492	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			598656	6373059		21.2	MONOPOLE	M-493	MAG	Existing Telecom Cable Inactive 3	
ST13828			599168	6372484		9.9	MONOPOLE	M-494	MAG	unknown Mag anomaly	
ST13828			597337	6374574		10	MONOPOLE	M-495	MAG	unknown Mag anomaly	

Target Listing MAG
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Survey ID	Date	Time	Easting	Northing	KP	Description 1 nT	Description 2 type	Obs number	Obs method	Comments	SSS target associated
ST13828			598741	6373119		19.3	MONOPOLE	M-496	MAG	Existing Telecom Cable Inactive 3	
ST13828			599701	6372026		2.6	MONOPOLE	M-497	MAG	unknown cable 2	
ST13828			599326	6372459		2.8	MONOPOLE	M-498	MAG		
ST13828			600634	6370950		2373.1	MONOPOLE	M-499	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600664	6370918		295.6	MONOPOLE	M-500	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600581	6371009		617.3	MONOPOLE	M-501	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			600739	6370971		323.1	MONOPOLE	M-502	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600709	6371005		5893	MONOPOLE	M-503	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600658	6371064		2497.9	MONOPOLE	M-504	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			599474	6372430		5.3	MONOPOLE	M-505	MAG	Cable or wire	
ST13828			599323	6372604		3.2	MONOPOLE	M-506	MAG		
ST13828			598813	6373183		10.9	MONOPOLE	M-507	MAG	Existing Telecom Cable Inactive 3	
ST13828			599946	6372048		75.9	MONOPOLE	M-508	MAG	Possible anomaly due to linear anomaly trend, possible unknown cable 2	
ST13828			598899	6373248		18.3	MONOPOLE	M-509	MAG	Existing Telecom Cable Inactive 3	
ST13828			598700	6373475		7.4	MONOPOLE	M-510	MAG	May be associated with SSS Contact	SS-2000
ST13828			600747	6371122		3242.1	DIPOLE	M-511	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			600798	6371061		1061.4	DIPOLE	M-512	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600826	6371028		41.1	DIPOLE	M-513	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600903	6371086		190.8	MONOPOLE	M-514	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600881	6371114		1929	DIPOLE	M-515	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600828	6371178		3279.6	DIPOLE	M-516	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			599374	6372845		314.2	DIPOLE	M-517	MAG		
ST13828			598782	6373522		16	MONOPOLE	M-518	MAG	Associated with other Mag anomalies	
ST13828			598964	6373310		5.2	DIPOLE	M-519	MAG	Existing Telecom Cable Inactive 3	
ST13828			599071	6373184		9.9	DIPOLE	M-520	MAG		
ST13828			599048	6373369		29.6	DIPOLE	M-521	MAG	Existing Telecom Cable Inactive 3	
ST13828			599994	6372290		505.7	DIPOLE	M-522	MAG		
ST13828			600925	6371235		864.6	DIPOLE	M-523	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			601002	6371298		1781	DIPOLE	M-524	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			601055	6371234		3355.3	MONOPOLE	M-525	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			601081	6371205		576.5	MONOPOLE	M-526	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600142	6372266		21.4	MONOPOLE	M-527	MAG	Associated with other Mag anomalies	
ST13828			599126	6373432		13	DIPOLE	M-530	MAG	Existing Telecom Cable Inactive 3	
ST13828			599205	6373482		43.3	MONOPOLE	M-533	MAG	Existing Telecom Cable Inactive 3	
ST13828			599715	6372922		8.7	DIPOLE	M-534	MAG		
ST13828			599287	6373545		33.9	MONOPOLE	M-535	MAG	Existing Telecom Cable Inactive 3	
ST13828			599186	6373670		1514.6	MONOPOLE	M-536	MAG		
ST13828			599377	6373604		18.7	MONOPOLE	M-537	MAG	Existing Telecom Cable Inactive 3	
ST13828			600713	6372080		6.4	MONOPOLE	M-539	MAG		
ST13828			599450	6373665		24.5	MONOPOLE	M-540	MAG	Existing Telecom Cable Inactive 3	
ST13828			599545	6373719		10.3	MONOPOLE	M-543	MAG	Existing Telecom Cable Inactive 3	
ST13828			600543	6372724		5.2	DIPOLE	M-544	MAG		
ST13828			600281	6373337		2.7	DIPOLE	M-546	MAG		
ST13828			600652	6372908		6.3	DIPOLE	M-547	MAG		
ST13828			601011	6372495		3.4	DIPOLE	M-548	MAG		

Target Listing MAG
Turbine D

Survey ID	Date	Time	Easting	Northing	KP	Description 1 nT	Description 2 type	Obs number	Obs method	Comments	SSS target associated
ST13828			601083	6372551		54.5	MONOPOLE	M-550	MAG		
ST13828			600798	6372815		6.6	MONOPOLE	M-551	MAG		
ST13828			600744	6372585		9	MONOPOLE	M-552	MAG		
ST13828			600143	6373120		4.3	MONOPOLE	M-553	MAG		
ST13828			600507	6372550		7.8	MONOPOLE	M-556	MAG	Cable or wire	
ST13828			599879	6373259		11.6	MONOPOLE	M-557	MAG		
ST13828			599504	6373694		4.7	MONOPOLE	M-558	MAG	Existing Telecom Cable Inactive 3	
ST13828			599429	6373636		10.7	MONOPOLE	M-559	MAG	Existing Telecom Cable Inactive 3	
ST13828			600113	6372839		41.4	MONOPOLE	M-560	MAG		
ST13828			600597	6372288		13.3	MONOPOLE	M-561	MAG		
ST13828			600413	6372492		3.6	MONOPOLE	M-562	MAG		
ST13828			600698	6372178		5.8	DIPOLE	M-563	MAG		
ST13828			599920	6372908		18.7	DIPOLE	M-565	MAG		
ST13828			599241	6373693		5.6	DIPOLE	M-566	MAG	Associated with other Mag anomalies	
ST13828			599341	6373579		10.1	DIPOLE	M-567	MAG	Existing Telecom Cable Inactive 3	
ST13828			599260	6373516		9.9	DIPOLE	M-568	MAG	Existing Telecom Cable Inactive 3	
ST13828			599172	6373622		15.5	DIPOLE	M-569	MAG	Associated with other Mag anomalies	
ST13828			601061	6371335		3689.7	DIPOLE	M-571	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			599171	6373462		15.4	DIPOLE	M-572	MAG	Existing Telecom Cable Inactive 3	
ST13828			600412	6371887		8	DIPOLE	M-573	MAG		
ST13828			599087	6373400		16.7	DIPOLE	M-574	MAG	Existing Telecom Cable Inactive 3	
ST13828			600112	6372229		12.1	DIPOLE	M-575	MAG	Associated with other Mag anomalies	
ST13828			598991	6372051		3.3	MONOPOLE	M-578	MAG	Associated with other Mag anomalies, unknown cable 2	
ST13828			600931	6371103		317.7	MONOPOLE	M-579	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600909	6371135		2870.7	DIPOLE	M-580	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600864	6371201		927.6	DIPOLE	M-581	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			599011	6373344		19.6	MONOPOLE	M-582	MAG	Existing Telecom Cable Inactive 3	
ST13828			598395	6374037		20.9	MONOPOLE	M-583	MAG	Cable or wire	
ST13828			598934	6373279		9.6	MONOPOLE	M-584	MAG	Existing Telecom Cable Inactive 3	
ST13828			597710	6374694		12.1	DIPOLE	M-585	MAG		
ST13828			597829	6374559		5.7	DIPOLE	M-586	MAG		
ST13828			600797	6371151		2534.6	DIPOLE	M-587	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			600847	6371093		13652	MONOPOLE	M-588	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600873	6371063		125.1	MONOPOLE	M-589	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600708	6371099		5006.7	DIPOLE	M-590	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			600760	6371039		597.6	MONOPOLE	M-591	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600788	6371008		222	DIPOLE	M-592	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			598863	6373225		20.1	DIPOLE	M-593	MAG	Existing Telecom Cable Inactive 3	
ST13828			598594	6373512		6.8	DIPOLE	M-594	MAG	May be associated with SSS Contact	SS-2001
ST13828			599753	6372028		6.8	MONOPOLE	M-597	MAG	unknown cable 2	
ST13828			598782	6373153		6.2	DIPOLE	M-598	MAG	Existing Telecom Cable Inactive 3	
ST13828			600629	6371041		1315.8	MONOPOLE	M-599	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			600682	6370981		3621.2	MONOPOLE	M-600	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600711	6370947		261.1	MONOPOLE	M-601	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600546	6370986		4939.2	DIPOLE	M-602	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	

Target Listing MAG
Turbine D

Survey ID	Date	Time	Easting	Northing	KP	Description 1 nT	Description 2 type	Obs number	Obs method	Comments	SSS target associated
ST13828			600631	6370895		63.7	DIPOLE	M-603	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600596	6370933		2425.3	MONOPOLE	M-604	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			598695	6373097		19.3	MONOPOLE	M-605	MAG	Existing Telecom Cable Inactive 3	
ST13828			598625	6373020		59.5	MONOPOLE	M-606	MAG	Existing Telecom Cable Inactive 3	
ST13828			599499	6372028		4.1	MONOPOLE	M-607	MAG	unknown cable 2	
ST13828			600550	6370834		267.7	MONOPOLE	M-608	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600511	6370875		2461.3	MONOPOLE	M-609	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600465	6370926		1781.3	DIPOLE	M-610	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			600424	6370823		1949	MONOPOLE	M-611	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600381	6370870		835.4	DIPOLE	M-612	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			600463	6370782		331	DIPOLE	M-613	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			598546	6372963		18.1	MONOPOLE	M-614	MAG	Existing Telecom Cable Inactive 3	
ST13828			597058	6374651		6	MONOPOLE	M-615	MAG		
ST13828			598470	6372893		26.9	MONOPOLE	M-617	MAG	Existing Telecom Cable Inactive 3	
ST13828			599210	6372043		7.4	DIPOLE	M-618	MAG	unknown cable 2	
ST13828			600252	6370700		1610.1	MONOPOLE	M-619	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600204	6370754		1848.7	DIPOLE	M-620	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			600292	6370656		69.3	MONOPOLE	M-621	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			599541	6371518		43.3	DIPOLE	M-622	MAG		
ST13828			598795	6372370		3.8	MONOPOLE	M-623	MAG		
ST13828			598379	6372839		8.6	DIPOLE	M-624	MAG	Existing Telecom Cable Inactive 3	
ST13828			598312	6372769		19.7	MONOPOLE	M-625	MAG	Existing Telecom Cable Inactive 3	
ST13828			600126	6370699		1097.6	DIPOLE	M-626	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			600180	6370636		2631.4	MONOPOLE	M-627	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600212	6370598		196.1	MONOPOLE	M-628	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600121	6370545		144.9	MONOPOLE	M-629	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600083	6370589		1380.8	MONOPOLE	M-630	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			598801	6372059		3.6	MONOPOLE	M-632	MAG	unknown cable 2	
ST13828			598490	6372423		12.1	MONOPOLE	M-633	MAG		
ST13828			598240	6372712		56.1	MONOPOLE	M-634	MAG	Existing Telecom Cable Inactive 3	
ST13828			597387	6374117		10	MONOPOLE	M-644	MAG		
ST13828			597653	6374215		5.4	MONOPOLE	M-645	MAG		
ST13828			597946	6374206		15.5	MONOPOLE	M-648	MAG		
ST13828			597876	6373471		19.9	MONOPOLE	M-659	MAG		
ST13828			597985	6373559		5.3	MONOPOLE	M-660	MAG		
ST13828			598336	6373207		9.9	MONOPOLE	M-672	MAG		
ST13828			598431	6373174		7.7	MONOPOLE	M-682	MAG		
ST13828			599571	6373740		47	COMPLEX	M-690	MAG	Existing Telecom Cable Inactive 3	
ST13828			598393	6372468		3	DIPOLE	M-697	MAG		
ST13828			599339	6373286		6.4	MONOPOLE	M-699	MAG		
ST13828			598566	6372473		7.8	DIPOLE	M-703	MAG		
ST13828			599687	6373446		3.9	MONOPOLE	M-704	MAG		
ST13828			598670	6372564		12.1	MONOPOLE	M-705	MAG		
ST13828			599054	6372767		4.5	DIPOLE	M-706	MAG		
ST13828			598838	6372582		7.1	MONOPOLE	M-707	MAG		

Target Listing MAG
Turbine D

Survey ID	Date	Time	Easting	Northing	KP	Description 1 nT	Description 2 type	Obs number	Obs method	Comments	SSS target associated
ST13828			599505	6373032		6.1	MONOPOLE	M-709	MAG		
ST13828			598820	6372314		6.9	MONOPOLE	M-712	MAG	Associated with Mag anomaly M-610	
ST13828			599662	6373035		148.1	MONOPOLE	M-713	MAG		
ST13828			599627	6372757		15.3	DIPOLE	M-716	MAG		
ST13828			599692	6372414		3.4	MONOPOLE	M-719	MAG		
ST13828			599437	6372038		4.4	MONOPOLE	M-725	MAG	unknown cable 2	
ST13828			599935	6372215		4.2	MONOPOLE	M-730	MAG		
ST13828			599875	6372026		7.3	MONOPOLE	M-732	MAG	unknown cable 2	
ST13828			600452	6372533		33	COMPLEX	M-733	MAG	Associated with Mag anomaly M-546	
ST13828			600396	6372486		18.9	MONOPOLE	M-734	MAG	Associated with Mag anomaly M-551	
ST13828			599633	6371682		2.7	MONOPOLE	M-735	MAG		
ST13828			599662	6371710		2.8	MONOPOLE	M-736	MAG		
ST13828			600139	6372131		4.1	MONOPOLE	M-737	MAG		
ST13828			600192	6372179		7.5	DIPOLE	M-738	MAG		
ST13828			600257	6371963		3	MONOPOLE	M-743	MAG		
ST13828			600486	6372037		13	DIPOLE	M-745	MAG		
ST13828			599938	6371563		7.8	COMPLEX	M-748	MAG		
ST13828			600079	6371552		4.4	MONOPOLE	M-753	MAG		
ST13828			600101	6371572		7.5	MONOPOLE	M-754	MAG		
ST13828			600061	6371275		6.5	DIPOLE	M-761	MAG		
ST13828			600750	6371744		3	MONOPOLE	M-762	MAG		
ST13828			599847	6370812		99.2	DIPOLE	M-768	MAG		
ST13828			600331	6370833		4762.9	COMPLEX	M-776	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			600215	6370606		311.7	COMPLEX	M-777	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			601003	6371293		4135	COMPLEX	M-778	MAG	Forties C to Cruden Bay 36in Oil Line (PL721)	
ST13828			600593	6370932		8173	COMPLEX	M-779	MAG	Forties C to Cruden Bay 32in Oil Line (PL8)	
ST13828			600953	6371114		112	COMPLEX	M-782	MAG	Forties C to Cruden Bay umbilical Cable	
ST13828			600601	6370026		14.9	MONOPOLE	M-790	MAG		

Target Listing SSS
Turbine D

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130819	10:48:36	598700	6373480		Seabed Morphology	Boulder	SS-2000	SEABF	SFBO	1.2	0.3	2.2	SSS	Correlated to M-510
ST13828	20130819	10:48:07	598648	6373501		Seabed Morphology	Boulder	SS-2001	SEABF	SFBO	2.0	0.2	1.6	SSS	Correlated to M-594
ST13828	20130816	13:36:40	600931	6369598		Seabed Morphology	Boulder	SS-2002	SEABF	SFBO	1.3	0.3	1.0	SSS	
ST13828	20130816	13:37:26	600882	6369662		Seabed Morphology	Boulder	SS-2003	SEABF	SFBO	1.6	0.2	0.7	SSS	
ST13828	20130816	13:38:53	600739	6369718		Seabed Morphology	Boulder	SS-2004	SEABF	SFBO	1.7	0.3	1.7	SSS	
ST13828	20130816	13:45:15	600303	6370217		Seabed Morphology	Boulder	SS-2005	SEABF	SFBO	2.4	0.1	0.6	SSS	
ST13828	20130816	13:56:48	599506	6371070		Seabed Morphology	Boulder	SS-2006	SEABF	SFBO	1.2	0.1	1.1	SSS	
ST13828	20130816	14:10:24	598689	6372175		Seabed Morphology	Boulder	SS-2007	SEABF	SFBO	1.2	0.3	1.6	SSS	
ST13828	20130816	14:13:53	598419	6372388		Seabed Morphology	Boulder	SS-2008	SEABF	SFBO	1.7	0.2	0.6	SSS	
ST13828	20130816	14:14:21	598372	6372407		Seabed Morphology	Boulder	SS-2009	SEABF	SFBO	1.6	0.4	1.7	SSS	
ST13828	20130816	14:15:26	598307	6372500		Seabed Morphology	Boulder	SS-2010	SEABF	SFBO	1.2	0.3	0.9	SSS	
ST13828	20130816	14:18:21	598226	6372572		Seabed Morphology	Boulder	SS-2011	SEABF	SFBO	1.9	0.4	1.5	SSS	
ST13828	20130816	14:18:11	598144	6372776		Seabed Morphology	Boulder	SS-2012	SEABF	SFBO	3.0	0.1	0.7	SSS	
ST13828	20130816	14:18:20	598110	6372703		Seabed Morphology	Boulder	SS-2013	SEABF	SFBO	1.4	0.1	0.7	SSS	
ST13828	20130816	14:18:37	598099	6372714		Seabed Morphology	Boulder	SS-2014	SEABF	SFBO	1.3	0.3	2.0	SSS	
ST13828	20130816	14:19:30	598076	6372732		Seabed Morphology	Boulder	SS-2015	SEABF	SFBO	2.1	0.1	0.5	SSS	
ST13828	20130816	14:20:18	598016	6372804		Seabed Morphology	Boulder	SS-2016	SEABF	SFBO	1.4	0.2	1.5	SSS	
ST13828	20130816	14:25:30	598023	6372955		Seabed Morphology	Boulder	SS-2017	SEABF	SFBO	1.0	0.3	2.4	SSS	
ST13828	20130816	14:25:53	597595	6373257		Seabed Morphology	Boulder	SS-2018	SEABF	SFBO	1.7	0.3	2.2	SSS	
ST13828	20130816	14:27:26	597581	6373299		Seabed Morphology	Boulder	SS-2019	SEABF	SFBO	4.3	0.1	0.5	SSS	
ST13828	20130816	14:28:34	597523	6373491		Seabed Morphology	Boulder	SS-2020	SEABF	SFBO	1.2	0.1	0.6	SSS	
ST13828	20130816	14:28:54	597407	6373521		Seabed Morphology	Boulder	SS-2021	SEABF	SFBO	1.8	0.3	3.4	SSS	
ST13828	20130816	14:29:12	597449	6373629		Seabed Morphology	Boulder	SS-2022	SEABF	SFBO	1.2	0.2	0.8	SSS	
ST13828	20130816	14:29:08	597370	6373579		Seabed Morphology	Boulder	SS-2023	SEABF	SFBO	1.2	0.8	1.5	SSS	
ST13828	20130816	14:30:50	597397	6373602		Seabed Morphology	Boulder	SS-2024	SEABF	SFBO	1.7	0.2	1.1	SSS	
ST13828	20130816	14:32:29	597293	6373753		Seabed Morphology	Boulder	SS-2025	SEABF	SFBO	1.0	0.2	2.0	SSS	
ST13828	20130816	14:36:12	597126	6373811		Seabed Morphology	Boulder	SS-2026	SEABF	SFBO	1.1	0.2	1.1	SSS	
ST13828	20130816	15:14:19	596932	6374202		Seabed Morphology	Boulder	SS-2027	SEABF	SFBO	0.8	0.2	0.8	SSS	
ST13828	20130816	15:16:10	597442	6373729		Seabed Morphology	Boulder	SS-2028	SEABF	SFBO	1.2	0.2	1.9	SSS	
ST13828	20130816	15:30:11	597586	6373620		Seabed Morphology	Boulder	SS-2029	SEABF	SFBO	1.4	0.2	1.8	SSS	
ST13828	20130816	15:35:21	598448	6372476		Seabed Morphology	Boulder	SS-2030	SEABF	SFBO	1.3	0.2	0.9	SSS	
ST13828	20130816	15:44:44	598805	6372089		Seabed Morphology	Boulder	SS-2031	SEABF	SFBO	2.2	0.2	0.6	SSS	
ST13828	20130816	15:54:08	599453	6371431		Seabed Morphology	Boulder	SS-2032	SEABF	SFBO	3.3	0.1	1.0	SSS	
ST13828	20130816	15:56:12	600101	6370742		Seabed Morphology	Boulder	SS-2033	SEABF	SFBO	0.6	0.5	2.0	SSS	
ST13828	20130816	16:01:41	600225	6370560		Seabed Morphology	Boulder	SS-2034	SEABF	SFBO	3.0	0.1	0.4	SSS	
ST13828	20130816	16:53:43	600592	6370125		Seabed Morphology	Boulder	SS-2035	SEABF	SFBO	1.4	0.2	0.8	SSS	
ST13828	20130816	16:54:13	599714	6371186		Seabed Morphology	Boulder	SS-2036	SEABF	SFBO	1.8	0.7	1.5	SSS	
ST13828	20130816	17:03:29	599699	6371233		Seabed Morphology	Boulder	SS-2037	SEABF	SFBO	1.3	0.4	2.4	SSS	
ST13828	20130816	17:12:54	599111	6371858		Seabed Morphology	Boulder	SS-2038	SEABF	SFBO	2.1	0.4	1.9	SSS	
ST13828	20130816	17:15:11	598564	6372506		Seabed Morphology	Boulder	SS-2039	SEABF	SFBO	1.2	0.2	0.7	SSS	
ST13828	20130816	17:26:40	598428	6372675		Seabed Morphology	Boulder	SS-2040	SEABF	SFBO	1.4	0.3	0.9	SSS	
ST13828	20130816	17:26:20	597761	6373508		Seabed Morphology	Boulder	SS-2041	SEABF	SFBO	2.3	0.2	0.8	SSS	
ST13828	20130816	17:32:19	597745	6373459		Seabed Morphology	Boulder	SS-2042	SEABF	SFBO	1.5	0.2	1.9	SSS	
ST13828	20130816	18:03:54	597406	6373957		Seabed Morphology	Boulder	SS-2043	SEABF	SFBO	1.0	0.2	0.7	SSS	
ST13828	20130816	18:05:28	596899	6374575		Seabed Morphology	Boulder	SS-2044	SEABF	SFBO	1.0	0.2	0.6	SSS	

Target Listing SSS
Turbine D

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130816	18:05:44	597006	6374450		Seabed Morphology	Boulder	SS-2045	SEABF	SFBO	1.0	0.2	0.7	SSS	
ST13828	20130816	18:11:20	597027	6374433		Seabed Morphology	Boulder	SS-2046	SEABF	SFBO	1.6	0.3	1.9	SSS	
ST13828	20130816	18:20:59	597458	6374032		Seabed Morphology	Boulder	SS-2047	SEABF	SFBO	2.4	0.1	0.7	SSS	
ST13828	20130816	18:22:16	598094	6373175		Seabed Morphology	Boulder	SS-2048	SEABF	SFBO	2.1	0.3	1.8	SSS	
ST13828	20130816	18:23:11	598244	6373125		Seabed Morphology	Boulder	SS-2049	SEABF	SFBO	1.4	0.6	2.4	SSS	
ST13828	20130816	18:27:03	598275	6373007		Seabed Morphology	Boulder	SS-2050	SEABF	SFBO	1.4	0.3	1.4	SSS	
ST13828	20130816	18:29:53	598585	6372744		Seabed Morphology	Boulder	SS-2051	SEABF	SFBO	2.0	0.3	1.6	SSS	
ST13828	20130816	18:35:12	598729	6372479		Seabed Morphology	Boulder	SS-2052	SEABF	SFBO	2.2	0.7	2.0	SSS	
ST13828	20130816	18:47:14	599106	6372062		Seabed Morphology	Boulder	SS-2053	SEABF	SFBO	2.9	0.4	0.7	SSS	
ST13828	20130816	18:47:21	599970	6371116		Seabed Morphology	Boulder	SS-2054	SEABF	SFBO	1.7	0.3	1.3	SSS	
ST13828	20130816	18:47:50	599989	6371119		Seabed Morphology	Boulder	SS-2055	SEABF	SFBO	1.5	0.2	1.1	SSS	
ST13828	20130816	19:34:49	599983	6371040		Seabed Morphology	Boulder	SS-2056	SEABF	SFBO	2.8	0.5	4.0	SSS	
ST13828	20130816	20:00:59	600101	6371204		Seabed Morphology	Boulder	SS-2057	SEABF	SFBO	1.4	0.3	1.1	SSS	
ST13828	20130816	20:01:15	598546	6372925		Seabed Morphology	Boulder	SS-2058	SEABF	SFBO	1.2	0.3	0.8	SSS	
ST13828	20130816	20:04:07	598524	6372936		Seabed Morphology	Boulder	SS-2059	SEABF	SFBO	1.0	0.2	1.4	SSS	
ST13828	20130816	20:13:15	598378	6373141		Seabed Morphology	Boulder	SS-2060	SEABF	SFBO	1.4	0.3	1.8	SSS	
ST13828	20130816	20:19:33	597857	6373749		Seabed Morphology	Boulder	SS-2061	SEABF	SFBO	1.6	0.5	4.6	SSS	
ST13828	20130816	20:21:50	597501	6374150		Seabed Morphology	Boulder	SS-2062	SEABF	SFBO	1.2	0.1	1.0	SSS	
ST13828	20130816	20:21:59	597306	6374243		Seabed Morphology	Boulder	SS-2063	SEABF	SFBO	1.7	0.2	0.7	SSS	
ST13828	20130816	20:55:45	597304	6374261		Seabed Morphology	Boulder	SS-2064	SEABF	SFBO	1.6	0.3	0.7	SSS	
ST13828	20130816	20:57:44	597318	6374467		Seabed Morphology	Boulder	SS-2065	SEABF	SFBO	1.3	0.3	1.4	SSS	
ST13828	20130816	21:03:04	597460	6374319		Seabed Morphology	Boulder	SS-2066	SEABF	SFBO	1.0	0.3	1.5	SSS	
ST13828	20130816	21:03:54	597787	6373859		Seabed Morphology	Boulder	SS-2067	SEABF	SFBO	1.4	0.4	1.2	SSS	
ST13828	20130816	21:04:57	597850	6373813		Seabed Morphology	Boulder	SS-2068	SEABF	SFBO	1.3	0.2	0.5	SSS	
ST13828	20130816	21:07:29	597910	6373737		Seabed Morphology	Boulder	SS-2069	SEABF	SFBO	1.7	0.3	1.0	SSS	
ST13828	20130816	21:15:20	598124	6373552		Seabed Morphology	Boulder	SS-2070	SEABF	SFBO	1.4	0.1	0.8	SSS	
ST13828	20130816	21:15:55	598662	6372979		Seabed Morphology	Boulder	SS-2071	SEABF	SFBO	2.8	0.2	1.0	SSS	
ST13828	20130816	21:43:09	598630	6372885		Seabed Morphology	Boulder	SS-2072	SEABF	SFBO	1.4	0.2	1.4	SSS	
ST13828	20130816	21:44:16	600521	6370845		Seabed Morphology	Boulder	SS-2073	SEABF	SFBO	2.6	0.5	1.7	SSS	
ST13828	20130816	21:44:32	600580	6370741		Seabed Morphology	Boulder	SS-2074	SEABF	SFBO	4.3	0.1	1.3	SSS	
ST13828	20130816	22:45:43	600638	6370756		Seabed Morphology	Boulder	SS-2075	SEABF	SFBO	1.2	0.4	1.5	SSS	
ST13828	20130816	22:52:22	598697	6373043		Seabed Morphology	Boulder	SS-2076	SEABF	SFBO	1.2	0.1	0.7	SSS	
ST13828	20130816	22:55:36	598294	6373578		Seabed Morphology	Boulder	SS-2077	SEABF	SFBO	1.5	0.2	1.4	SSS	
ST13828	20130816	22:58:18	597999	6373737		Seabed Morphology	Boulder	SS-2078	SEABF	SFBO	0.9	0.3	1.2	SSS	
ST13828	20130816	23:03:28	597817	6373969		Seabed Morphology	Boulder	SS-2079	SEABF	SFBO	1.7	0.2	1.2	SSS	
ST13828	20130816	23:06:57	597491	6374347		Seabed Morphology	Boulder	SS-2080	SEABF	SFBO	1.8	0.0	0.4	SSS	
ST13828	20130816	23:33:24	597237	6374601		Seabed Morphology	Boulder	SS-2081	SEABF	SFBO	1.6	0.4	2.8	SSS	
ST13828	20130816	23:35:46	597478	6374661		Seabed Morphology	Boulder	SS-2082	SEABF	SFBO	1.2	0.2	0.7	SSS	
ST13828	20130816	23:38:33	597572	6374423		Seabed Morphology	Boulder	SS-2083	SEABF	SFBO	2.2	0.0	0.2	SSS	
ST13828	20130816	23:34:14	597829	6374242		Seabed Morphology	Boulder	SS-2084	SEABF	SFBO	1.2	0.3	1.3	SSS	
ST13828	20130816	23:42:04	597513	6374574		Seabed Morphology	Boulder	SS-2085	SEABF	SFBO	0.9	0.2	1.7	SSS	
ST13828	20130816	23:43:54	597994	6373911		Seabed Morphology	Boulder	SS-2086	SEABF	SFBO	1.3	0.5	1.5	SSS	
ST13828	20130816	23:47:07	598137	6373792		Seabed Morphology	Boulder	SS-2087	SEABF	SFBO	1.3	0.3	1.1	SSS	
ST13828	20130816	23:52:25	598385	6373564		Seabed Morphology	Boulder	SS-2088	SEABF	SFBO	1.9	0.4	2.5	SSS	
ST13828	20130817	00:19:54	598695	6373112		Seabed Morphology	Boulder	SS-2089	SEABF	SFBO	1.1	0.2	0.9	SSS	

Target Listing SSS
Turbine D

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130817	00:22:39	600580	6371074		Seabed Morphology	Boulder	SS-2090	SEABF	SFBO	1.5	0.6	0.8	SSS	
ST13828	20130817	00:53:37	600722	6370861		Seabed Morphology	Boulder	SS-2091	SEABF	SFBO	1.3	0.2	1.1	SSS	
ST13828	20130817	01:05:04	600727	6370914		Seabed Morphology	Boulder	SS-2092	SEABF	SFBO	2.3	0.6	3.6	SSS	
ST13828	20130817	01:18:41	600042	6371844		Seabed Morphology	Boulder	SS-2093	SEABF	SFBO	1.4	0.1	0.4	SSS	
ST13828	20130817	01:23:08	599019	6372879		Seabed Morphology	Boulder	SS-2094	SEABF	SFBO	2.4	0.8	1.1	SSS	
ST13828	20130817	01:24:47	598744	6373259		Seabed Morphology	Boulder	SS-2095	SEABF	SFBO	1.3	0.2	0.6	SSS	
ST13828	20130817	01:35:38	598625	6373376		Seabed Morphology	Boulder	SS-2096	SEABF	SFBO	1.1	0.3	1.5	SSS	
ST13828	20130817	02:14:34	597898	6374276		Seabed Morphology	Boulder	SS-2097	SEABF	SFBO	1.0	0.4	0.9	SSS	
ST13828	20130817	02:15:41	597618	6374690		Seabed Morphology	Boulder	SS-2098	SEABF	SFBO	1.7	0.2	0.7	SSS	
ST13828	20130817	02:17:00	597677	6374600		Seabed Morphology	Boulder	SS-2099	SEABF	SFBO	1.1	0.1	0.8	SSS	
ST13828	20130817	02:22:01	597806	6374553		Seabed Morphology	Boulder	SS-2100	SEABF	SFBO	1.7	0.2	0.7	SSS	
ST13828	20130817	02:23:22	598096	6374203		Seabed Morphology	Boulder	SS-2101	SEABF	SFBO	1.0	0.2	1.0	SSS	
ST13828	20130817	03:01:02	598181	6374109		Seabed Morphology	Boulder	SS-2102	SEABF	SFBO	3.7	0.1	1.1	SSS	
ST13828	20130817	03:01:33	600611	6371344		Seabed Morphology	Boulder	SS-2103	SEABF	SFBO	1.3	0.1	0.9	SSS	
ST13828	20130817	03:01:31	600653	6371310		Seabed Morphology	Boulder	SS-2104	SEABF	SFBO	3.8	0.0	0.4	SSS	
ST13828	20130817	03:38:14	600665	6371325		Seabed Morphology	Boulder	SS-2105	SEABF	SFBO	3.4	0.2	0.9	SSS	
ST13828	20130817	03:38:26	600783	6371282		Seabed Morphology	Boulder	SS-2106	SEABF	SFBO	1.8	0.3	1.8	SSS	
ST13828	20130817	03:39:05	600777	6371305		Seabed Morphology	Boulder	SS-2107	SEABF	SFBO	1.7	0.4	1.1	SSS	
ST13828	20130817	03:53:39	600711	6371345		Seabed Morphology	Boulder	SS-2108	SEABF	SFBO	2.2	0.6	0.9	SSS	
ST13828	20130817	03:53:35	599653	6372529		Seabed Morphology	Boulder	SS-2109	SEABF	SFBO	1.6	0.3	1.2	SSS	
ST13828	20130817	04:06:41	599632	6372499		Seabed Morphology	Boulder	SS-2110	SEABF	SFBO	1.3	0.1	0.6	SSS	
ST13828	20130817	04:07:35	598720	6373638		Seabed Morphology	Boulder	SS-2111	SEABF	SFBO	1.1	0.3	1.1	SSS	
ST13828	20130817	04:08:41	598651	6373707		Seabed Morphology	Boulder	SS-2112	SEABF	SFBO	2.5	1.0	2.0	SSS	
ST13828	20130817	04:11:57	598543	6373773		Seabed Morphology	Boulder	SS-2113	SEABF	SFBO	2.8	0.2	1.4	SSS	
ST13828	20130817	04:13:41	598323	6374102		Seabed Morphology	Boulder	SS-2114	SEABF	SFBO	0.0	0.4	1.4	SSS	
ST13828	20130817	04:54:22	598141	6374210		Seabed Morphology	Boulder	SS-2115	SEABF	SFBO	1.3	0.3	1.9	SSS	
ST13828	20130817	04:55:35	598292	6374177		Seabed Morphology	Boulder	SS-2116	SEABF	SFBO	1.4	0.3	1.4	SSS	
ST13828	20130817	04:56:42	598421	6374140		Seabed Morphology	Boulder	SS-2117	SEABF	SFBO	2.8	0.3	1.7	SSS	
ST13828	20130817	04:56:48	598436	6373998		Seabed Morphology	Boulder	SS-2118	SEABF	SFBO	1.7	0.4	2.3	SSS	
ST13828	20130817	05:00:44	598504	6374049		Seabed Morphology	Boulder	SS-2119	SEABF	SFBO	2.3	0.2	0.8	SSS	
ST13828	20130817	05:00:32	598702	6373722		Seabed Morphology	Boulder	SS-2120	SEABF	SFBO	1.2	0.3	0.8	SSS	
ST13828	20130817	05:04:44	598704	6373746		Seabed Morphology	Boulder	SS-2121	SEABF	SFBO	3.7	0.1	0.7	SSS	
ST13828	20130817	05:05:53	599021	6373460		Seabed Morphology	Boulder	SS-2122	SEABF	SFBO	1.6	0.5	3.9	SSS	
ST13828	20130817	05:19:18	599105	6373387		Seabed Morphology	Boulder	SS-2123	SEABF	SFBO	4.6	0.5	4.7	SSS	
ST13828	20130817	05:26:41	599995	6372389		Seabed Morphology	Boulder	SS-2124	SEABF	SFBO	1.5	0.3	1.5	SSS	
ST13828	20130817	05:31:17	600399	6371780		Seabed Morphology	Boulder	SS-2125	SEABF	SFBO	1.0	0.3	1.0	SSS	
ST13828	20130817	05:32:52	600766	6371443		Seabed Morphology	Boulder	SS-2126	SEABF	SFBO	1.6	0.2	1.4	SSS	
ST13828	20130817	06:27:24	600831	6371270		Seabed Morphology	Boulder	SS-2127	SEABF	SFBO	0.9	0.2	1.1	SSS	
ST13828	20130817	06:32:14	598957	6373684		Seabed Morphology	Boulder	SS-2128	SEABF	SFBO	1.4	0.2	1.0	SSS	
ST13828	20130817	06:37:50	598557	6374029		Seabed Morphology	Boulder	SS-2129	SEABF	SFBO	2.1	0.3	1.6	SSS	
ST13828	20130817	07:13:24	598159	6374488		Seabed Morphology	Boulder	SS-2130	SEABF	SFBO	1.9	0.6	3.9	SSS	
ST13828	20130817	07:15:19	598391	6374358		Seabed Morphology	Boulder	SS-2131	SEABF	SFBO	1.8	0.3	0.9	SSS	
ST13828	20130818	16:23:00	598561	6374270		Seabed Morphology	Boulder	SS-2132	SEABF	SFBO	1.5	0.3	0.5	SSS	
ST13828	20130818	18:55:10	600695	6372276		Seabed Morphology	Boulder	SS-2133	SEABF	SFBO	3.5	0.1	0.5	SSS	
ST13828	20130818	19:22:09	600964	6372509		Seabed Morphology	Boulder	SS-2134	SEABF	SFBO	0.8	0.2	1.2	SSS	

Target Listing SSS
Turbine D

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130818	19:24:29	601074	6372490		Seabed Morphology	Boulder	SS-2135	SEABF	SFBO	1.7	0.7	2.4	SSS	
ST13828	20130818	20:43:55	600908	6372640		Seabed Morphology	Boulder	SS-2136	SEABF	SFBO	2.2	0.7	1.9	SSS	
ST13828	20130818	23:53:03	600704	6372984		Seabed Morphology	Boulder	SS-2137	SEABF	SFBO	1.7	0.4	1.9	SSS	
ST13828	20130819	01:29:42	600907	6372276		Seabed Morphology	Boulder	SS-2138	SEABF	SFBO	1.2	0.6	1.2	SSS	
ST13828	20130819	03:04:02	600455	6372426		Seabed Morphology	Boulder	SS-2139	SEABF	SFBO	1.4	0.4	1.0	SSS	
ST13828	20130819	03:08:29	598788	6374089		Seabed Morphology	Boulder	SS-2140	SEABF	SFBO	3.0	0.5	4.7	SSS	
ST13828	20130819	03:35:33	599009	6373722		Seabed Morphology	Boulder	SS-2141	SEABF	SFBO	2.8	0.3	1.6	SSS	
ST13828	20130819	05:08:28	600682	6371833		Seabed Morphology	Boulder	SS-2142	SEABF	SFBO	1.5	0.3	1.5	SSS	
ST13828	20130819	05:51:52	598220	6374344		Seabed Morphology	Boulder	SS-2143	SEABF	SFBO	2.1	0.2	1.2	SSS	
ST13828	20130819	05:52:24	600702	6371630		Seabed Morphology	Boulder	SS-2144	SEABF	SFBO	2.0	0.4	3.0	SSS	
ST13828	20130819	09:28:54	600647	6371540		Seabed Morphology	Boulder	SS-2145	SEABF	SFBO	1.5	0.4	3.4	SSS	
ST13828	20130819	09:53:30	600156	6371945		Seabed Morphology	Boulder	SS-2146	SEABF	SFBO	1.7	0.3	1.7	SSS	
ST13828	20130819	09:53:20	598688	6373641		Seabed Morphology	Boulder	SS-2147	SEABF	SFBO	1.2	0.4	2.0	SSS	
ST13828	20130819	10:41:56	598701	6373633		Seabed Morphology	Boulder	SS-2148	SEABF	SFBO	2.9	0.2	0.8	SSS	
ST13828	20130819	10:44:23	598209	6374039		Seabed Morphology	Boulder	SS-2149	SEABF	SFBO	1.3	0.4	1.7	SSS	
ST13828	20130819	13:37:01	598399	6373834		Seabed Morphology	Boulder	SS-2150	SEABF	SFBO	1.2	0.2	0.8	SSS	
ST13828	20130819	13:51:06	597873	6374225		Seabed Morphology	Boulder	SS-2151	SEABF	SFBO	1.3	0.5	1.4	SSS	
ST13828	20130819	14:09:11	598733	6373186		Seabed Morphology	Boulder	SS-2152	SEABF	SFBO	3.0	0.2	1.0	SSS	
ST13828	20130819	14:47:59	599971	6371824		Seabed Morphology	Boulder	SS-2153	SEABF	SFBO	2.4	0.2	0.9	SSS	
ST13828	20130819	14:51:26	600492	6371084		Seabed Morphology	Boulder	SS-2154	SEABF	SFBO	3.3	0.1	1.2	SSS	
ST13828	20130819	15:20:47	600190	6371303		Seabed Morphology	Boulder	SS-2155	SEABF	SFBO	1.3	0.2	1.4	SSS	
ST13828	20130819	15:28:57	598000	6373832		Seabed Morphology	Boulder	SS-2156	SEABF	SFBO	1.7	0.3	1.9	SSS	
ST13828	20130819	16:03:43	597675	6374166		Seabed Morphology	Boulder	SS-2157	SEABF	SFBO	1.0	0.3	1.4	SSS	
ST13828	20130819	16:06:24	597393	6374503		Seabed Morphology	Boulder	SS-2158	SEABF	SFBO	1.5	0.4	1.5	SSS	
ST13828	20130819	17:46:07	597568	6374178		Seabed Morphology	Boulder	SS-2159	SEABF	SFBO	2.2	0.4	1.2	SSS	
ST13828	20130819	17:52:36	597796	6374003		Seabed Morphology	Boulder	SS-2160	SEABF	SFBO	1.5	0.2	1.3	SSS	
ST13828	20130819	18:36:36	598618	6372844		Seabed Morphology	Boulder	SS-2161	SEABF	SFBO	0.9	0.3	1.9	SSS	
ST13828	20130819	18:38:44	598207	6373425		Seabed Morphology	Boulder	SS-2162	SEABF	SFBO	1.0	0.2	0.8	SSS	
ST13828	20130819	18:48:30	597408	6374033		Seabed Morphology	Boulder	SS-2163	SEABF	SFBO	1.2	0.5	1.1	SSS	
ST13828	20130819	18:49:40	597596	6373940		Seabed Morphology	Boulder	SS-2164	SEABF	SFBO	1.6	0.2	0.9	SSS	
ST13828	20130819	18:51:37	598162	6373225		Seabed Morphology	Boulder	SS-2165	SEABF	SFBO	1.4	0.1	1.0	SSS	
ST13828	20130819	18:55:08	598218	6373127		Seabed Morphology	Boulder	SS-2166	SEABF	SFBO	0.8	0.2	1.1	SSS	
ST13828	20130819	18:57:03	598409	6373056		Seabed Morphology	Boulder	SS-2167	SEABF	SFBO	1.0	0.3	1.2	SSS	
ST13828	20130819	19:53:13	598560	6372722		Seabed Morphology	Boulder	SS-2168	SEABF	SFBO	3.8	0.2	1.1	SSS	
ST13828	20130819	20:39:50	598694	6372583		Seabed Morphology	Boulder	SS-2169	SEABF	SFBO	2.0	0.3	1.1	SSS	
ST13828	20130819	20:44:03	600440	6370407		Seabed Morphology	Boulder	SS-2170	SEABF	SFBO	1.4	0.2	1.0	SSS	
ST13828	20130819	21:26:51	597495	6373895		Seabed Morphology	Boulder	SS-2171	SEABF	SFBO	1.4	0.1	1.1	SSS	
ST13828	20130819	21:27:50	597187	6374160		Seabed Morphology	Boulder	SS-2172	SEABF	SFBO	1.8	0.1	0.4	SSS	
ST13828	20130819	22:51:57	597482	6373635		Seabed Morphology	Boulder	SS-2173	SEABF	SFBO	1.1	0.3	1.8	SSS	
ST13828	20130819	22:56:54	597621	6373632		Seabed Morphology	Boulder	SS-2174	SEABF	SFBO	1.6	0.3	1.8	SSS	
ST13828	20130819	22:59:35	600753	6369750		Seabed Morphology	Boulder	SS-2175	SEABF	SFBO	1.3	0.3	0.8	SSS	
ST13828	20130819	23:12:58	600480	6370068		Seabed Morphology	Boulder	SS-2176	SEABF	SFBO	1.1	0.2	1.4	SSS	
ST13828	20130819	23:29:12	600352	6370254		Seabed Morphology	Boulder	SS-2177	SEABF	SFBO	1.5	0.2	1.6	SSS	
ST13828	20130819	23:51:12	599547	6371134		Seabed Morphology	Boulder	SS-2178	SEABF	SFBO	3.3	0.1	1.0	SSS	
ST13828	20130816	14:16:31	598591	6372205		Man-made Hazards	Boulder	SS-2179	SEABF	SFBO	1.1	0.3	1.7	SSS	

Target Listing SSS
Turbine D

Survey ID	Date	Time	Easting	Northing	KP	Description 1	Description 2	Obs number	Obs type	Obs class	Length (m)	Height (m)	Width (m)	Obs method	Comments
ST13828	20130819	15:25:05	597418	6373736		Man-made Hazards	Boulder	SS-2180	SEABF	SFBO	3.1	0.3	3.2	SSS	

APPENDIX F

CHARTS

Charts are delivered as separate pdf files.