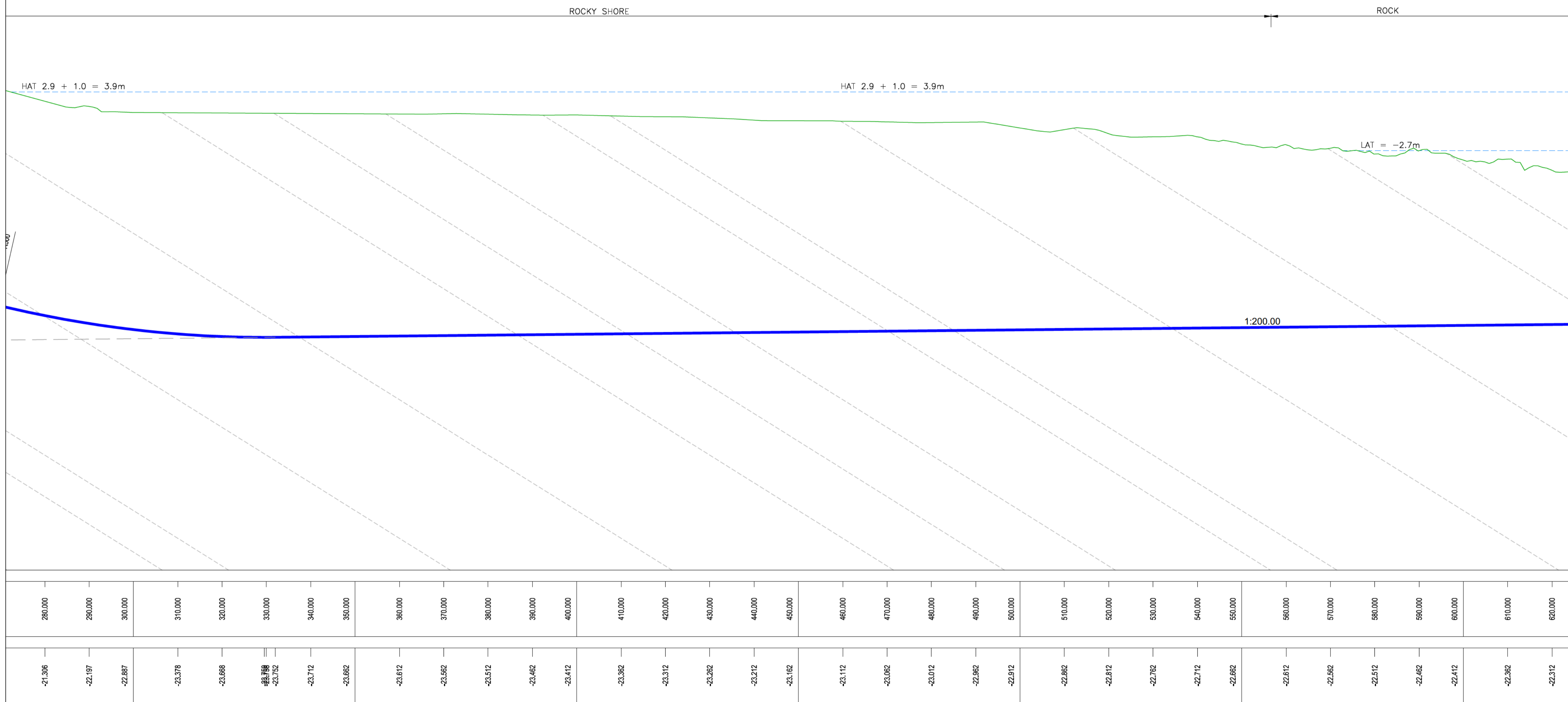


This drawing should not be scaled. Dimensions to be verified on site. Any discrepancies should be referred to the Engineer prior to work being put in hand.
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FOUL OUTFALL - LONGSECTION
 SCALE: H 1:500, V 1:250. DATUM: -50.000

GENERAL NOTES

- ALL WORK IS TO BE CARRIED OUT IN COMPLIANCE WITH THE REQUIREMENTS OF THE RELEVANT STATUTORY AUTHORITIES AND REGULATIONS.
- AT THE REQUEST OF AMEY-BLACK & VETCH, THE PROFILE IS BASED ON A FULL LENGTH HDD AND WILL REQUIRE A CHECK AND POSSIBLE AMENDMENTS TO THE PROPOSED GRAVITY FED OUTFALL. IT IS POSSIBLE THAT A PUMPED SYSTEM MAY BE REQUIRED.
- IF A GRAVITY FED SYSTEM IS TO BE MAINTAINED, IT IS UNDERSTOOD THAT A MAXIMUM 1 IN 300 FALL IS PERMISSIBLE. IN THIS INSTANCE, IT WOULD BE RECOMMENDED THAT THE HDD TERMINATES AT CH700 AT A TARGET DEPTH OF 1.5 TO 2.0m BELOW SEA BED LEVEL. THE REMAINDER OF THE PIPELINE SHOULD THEN BE INSTALLED IN A SEABED TRENCH. THIS IS DUE TO THE RISK OF FRAC-OUT OF DRILL FLUIDS TO THE MARINE ENVIRONMENT AND COLLAPSE OF THE HDD BORE DUE TO LIMITED DEPTH OF COVER.
- THE BORE PROFILE IS AN OUTLINE DESIGN ONLY, BASED ON AN ENTRY ANGLE OF 14 DEGREES AND MINIMUM RADIUS R500m FOR BEDDED SANDSTONES.
- PRIOR TO CONSTRUCTION, DETAILED DESIGN WILL REQUIRE TO BE UNDERTAKEN TO CONFIRM THE SUITABILITY OF THE PROPOSED DRILL PROFILE. THIS MUST INCLUDE PUSHING CALCULATIONS TO CONFIRM THAT FORCES REMAIN WITHIN THE YIELD / COMPRESSION STRENGTH OF THE PRODUCT PIPE, AND HYDRO-FRACTURE CALCULATIONS TO CONFIRM SUFFICIENT DEPTH OF COVER TO PREVENT FRAC-OUT OF DRILL FLUIDS TO THE MARINE ENVIRONMENT. FURTHER CONSIDERATION SHOULD ALSO BE GIVEN TO THE INFLUENCE OF BEDDING AND JOINT SETS ON THE DRILL STEERING, TO CONFIRM THE SUITABILITY OF THE PROPOSED MINIMUM RADIUS R500m.
- THE INFERRED GEOLOGY HAS BEEN BASED ON INFORMATION PROVIDED BY AMEY-BLACK & VETCH.
- DEPTH TO ROCK AT THE PROPOSED ENTRY POINT IS CIRCA 2.6m BGL (BH01). A REINFORCED CONCRETE ANCHOR BLOCK MAY THEREFORE BE REQUIRED TO PROVIDE SUPPORT TO THE HDD RIG DURING DRILLING OPERATIONS, AS THE DEPTH OF COVER IS INSUFFICIENT FOR SHEET PILES BUT TOO GREAT FOR ANCHORING DIRECTLY TO ROCK.



NOT FOR CONSTRUCTION

PO2	23.11.18	HDD PROFILE AMENDED TO SHOW 1:200 RISING GRADIENT, ISSUED FOR DISCUSSION	Redacted
PO1	14.09.18	ISSUED FOR DISCUSSION	Redacted

Rev	Date	Description	By
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Project: **DUNNET**

Title: **LONGITUDINAL SECTIONS
300m TO 600m CHAINAGE
SHEET 2 OF 3**

Client: **STOCKTON DRILLING LTD**

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Status: **PRELIMINARY**

Designed By	Designer	Checked By	Re	Waterman Ref	WIE12731
Drawn By	R	Date	12.09.18	Scales @ A1	H 1:500, V 1:250

Project	Originator	Volume	Level	Type	Role	Number	Revision
12731-WIE-ZZ-XX-DR-C-90102							P02

SHEET 1 OF 3

SHEET 3 OF 3