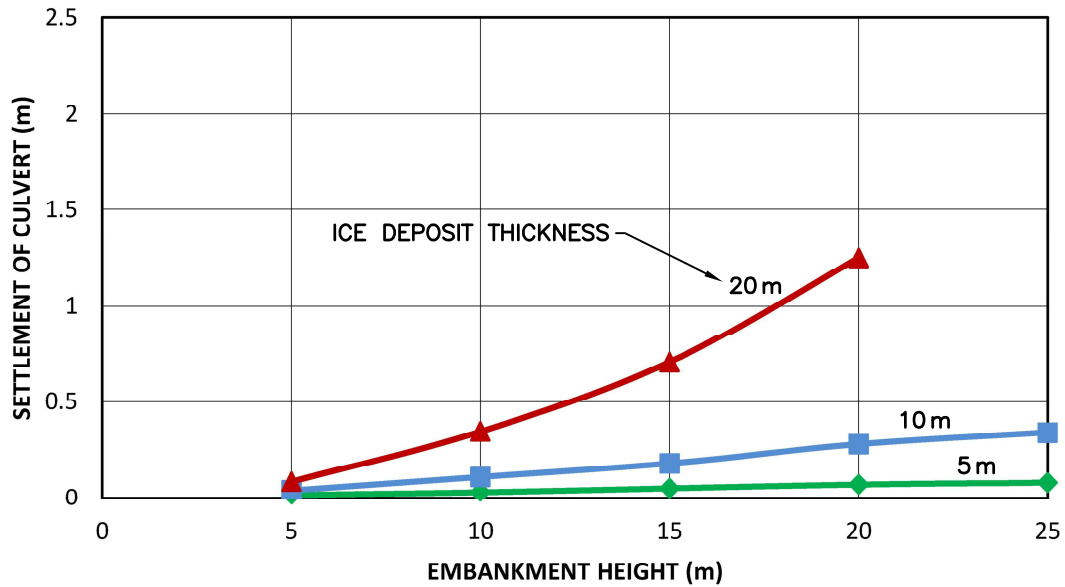


DRAWN BY	ICB	DESIGNED BY	LBS	APPROVED BY	LBS	SCALE	AS SHOWN	DATE	NOVEMBER 9, 2011	FILE No.	19-1605-126-D1N
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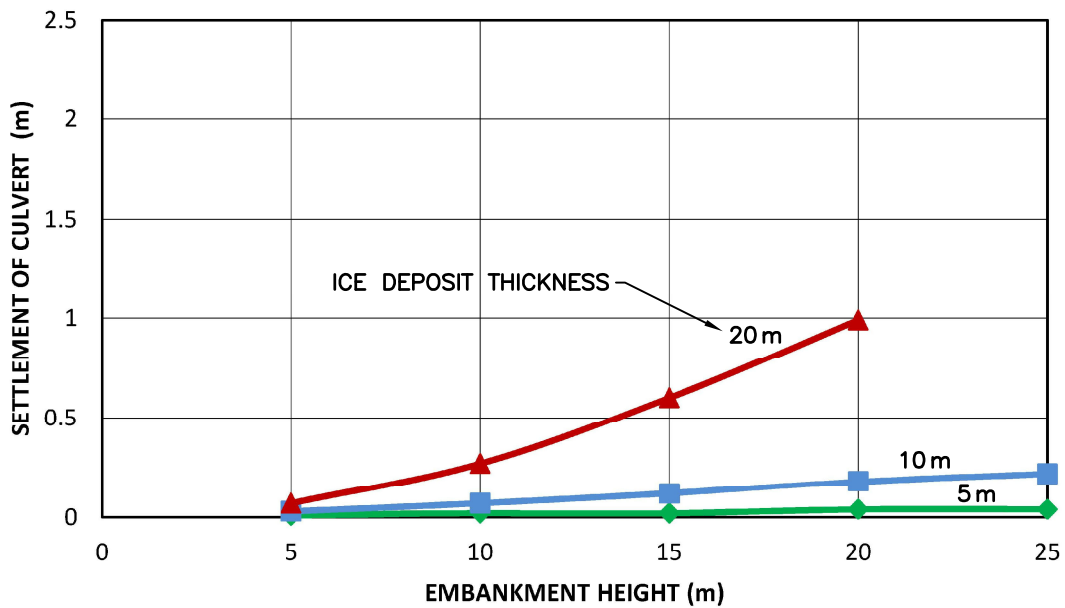
MARY RIVER PROJECT
CULVERT SETTLEMENT AFTER 25 YEARS VS EMBANKMENT HEIGHT -
NO BERMS

FIGURE B.10





a.) CULVERT SETTLEMENT VS EMBANKMENT HEIGHT – BERMS ARE 1/6 OF EMBANKMENT HEIGHT

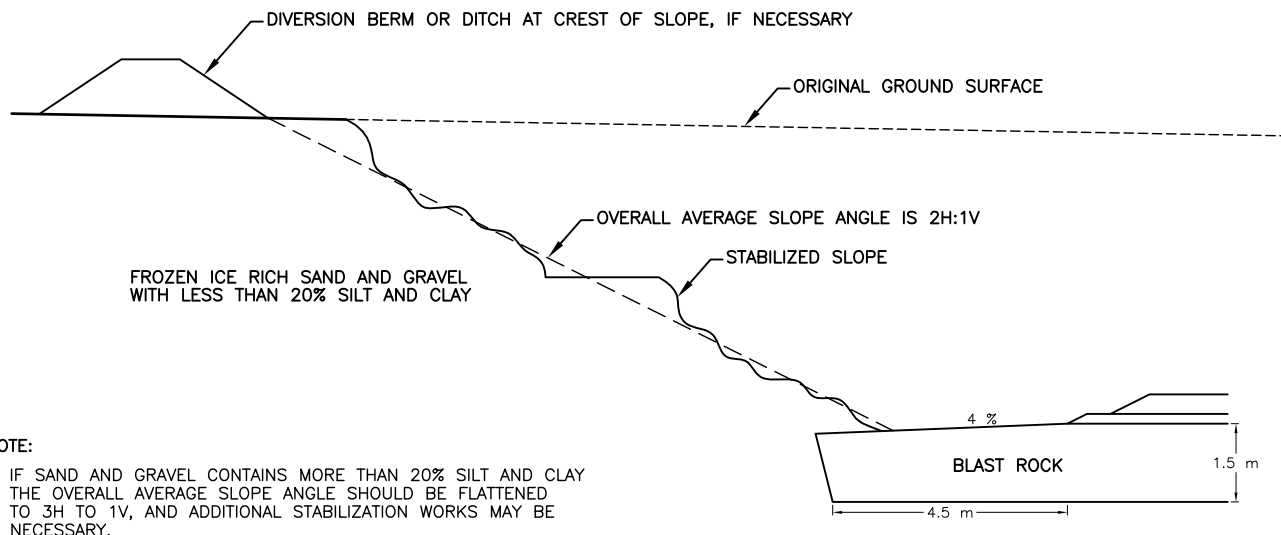
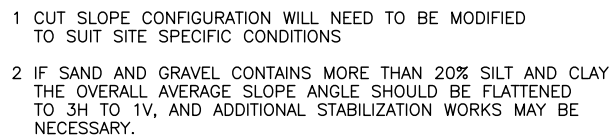


b.) CULVERT SETTLEMENT VS EMBANKMENT HEIGHT – BERMS ARE 1/3 OF EMBANKMENT HEIGHT

DRAWN BY	ICB	DESIGNED BY	LBS	APPROVED BY	LBS	SCALE	AS SHOWN	DATE	NOVEMBER 9, 2011	FILE No.	19-1605-126-D1N
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MARY RIVER PROJECT
CULVERT SETTLEMENT AFTER 25 YEARS VS EMBANKMENT HEIGHT

FIGURE B.11





APPENDIX C

Photos

Photo C.1: Mary River Railway - KP 94.4 View Looking North

Photo C.2: Mary River Railway - KP 94.4 View Looking South

Photo C.3: Mary River Railway - KP 98.4 View Looking North

Photo C.4: Mary River Railway - KP 98.4 View Looking South

Photo C.5: Mary River Railway - KP 101.6 View Looking North

Photo C.6: Mary River Railway - KP 101.6 View Looking South

Photo C.7: Mary River Railway - KP 106.5 View Looking North

Photo C.8: Mary River Railway - KP 106.5 – View Looking Downslope



Photo C.1 – Mary River Railway – KP 94.4 View Looking North



Photo C.2 – Mary River Railway – KP 94.4 View Looking South



Photo C.3 – Mary River Railway – KP 98.4 View Looking North



Photo C.4 – Mary River Railway – KP 98.4 View Looking South



Photo C.5 – Mary River Railway – KP 101.6 View Looking North



Photo C.6 – Mary River Railway – KP 101.6 View Looking South



Photo C.7 – Mary River Railway – KP 106.5 View Looking North



Photo C.8 – Mary River Railway – KP 106.5 View Looking Down Slope



APPENDIX D

Maps

Figure D.1: Overview Map of the Mary River Project

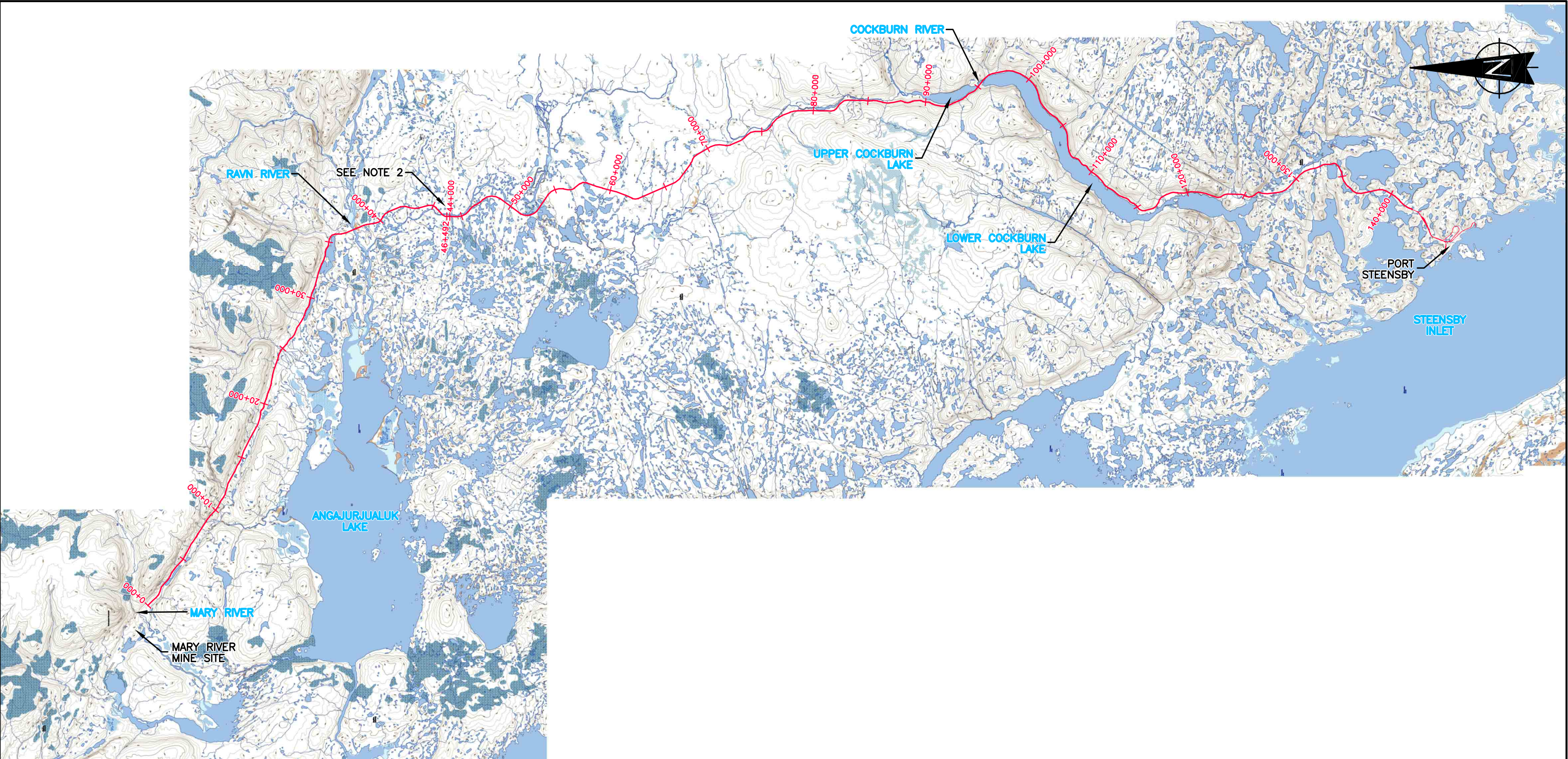
Figure D.2: Mary River Railway – KP 84 to KP 94

Figure D.3: Mary River Railway – KP 94 to KP 108

Figure D.4: Mary River Railway – KP 106 to KP 119

Figure D.5: Mary River Railway – KP 119 to KP136

Figure D.6: Potential Cross-Sections



- NOTES:
- 1 ALIGNMENT AND STATIONING FROM DRAWING "B16_5_TO_8.dwg" SUPPLIED BY CLIENT.
 - 2 RAVN STATIONING CORRECTION 46+492 = 44+000.

0	FINAL REPORT	ICB	LBS	11/9/11
REV	DESCRIPTION	DRAWN BY	APPROVED BY	DATE (MM/DD/YY)
DRAWN BY	ICB	DESIGNED BY	LBS	APPROVED BY
SCALE	NOT TO SCALE	DATE	OCTOBER 20, 2011	FILE No. 19-1605-126-C8A



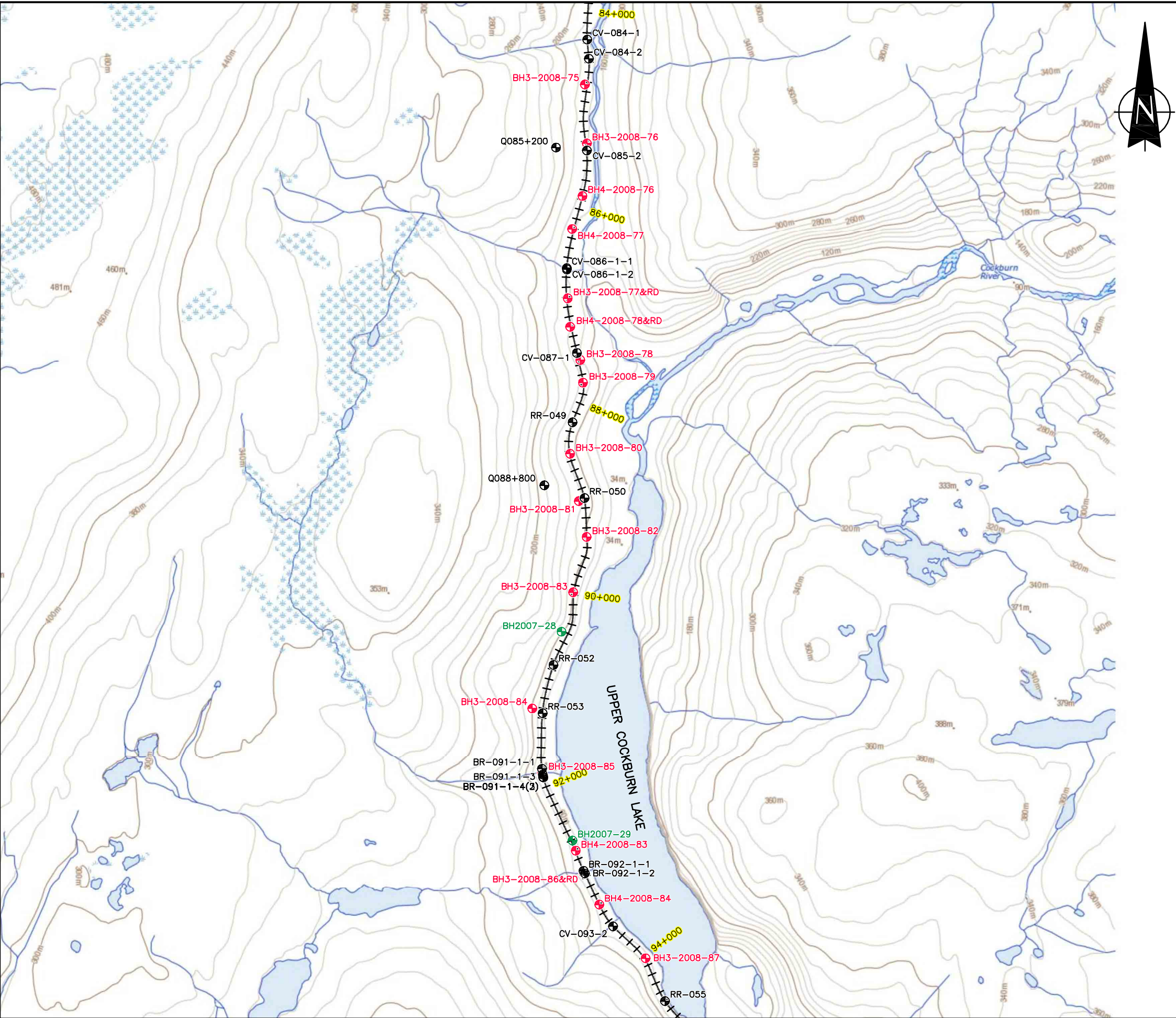
MARY RIVER PROJECT

OVERVIEW MAP OF THE MARY RIVER PROJECT

FIGURE D.1



THURBER ENGINEERING LTD.

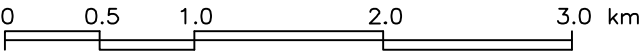


LEGEND:

BOREHOLE LOCATION (2011)

BOREHOLE LOCATION (2008)

BOREHOLE LOCATION (2007)



0	FINAL REPORT	ICB	LBS	11/9/11
REV	DESCRIPTION	DRAWN BY	APPROVED BY	DATE (MM/DD/YY)
DRAWN BY	ICB	DESIGNED BY	LBS	APPROVED BY LBS
SCALE	1:40 000	DATE	OCTOBER 20, 2011	FILE No. 19-1605-126-C7A

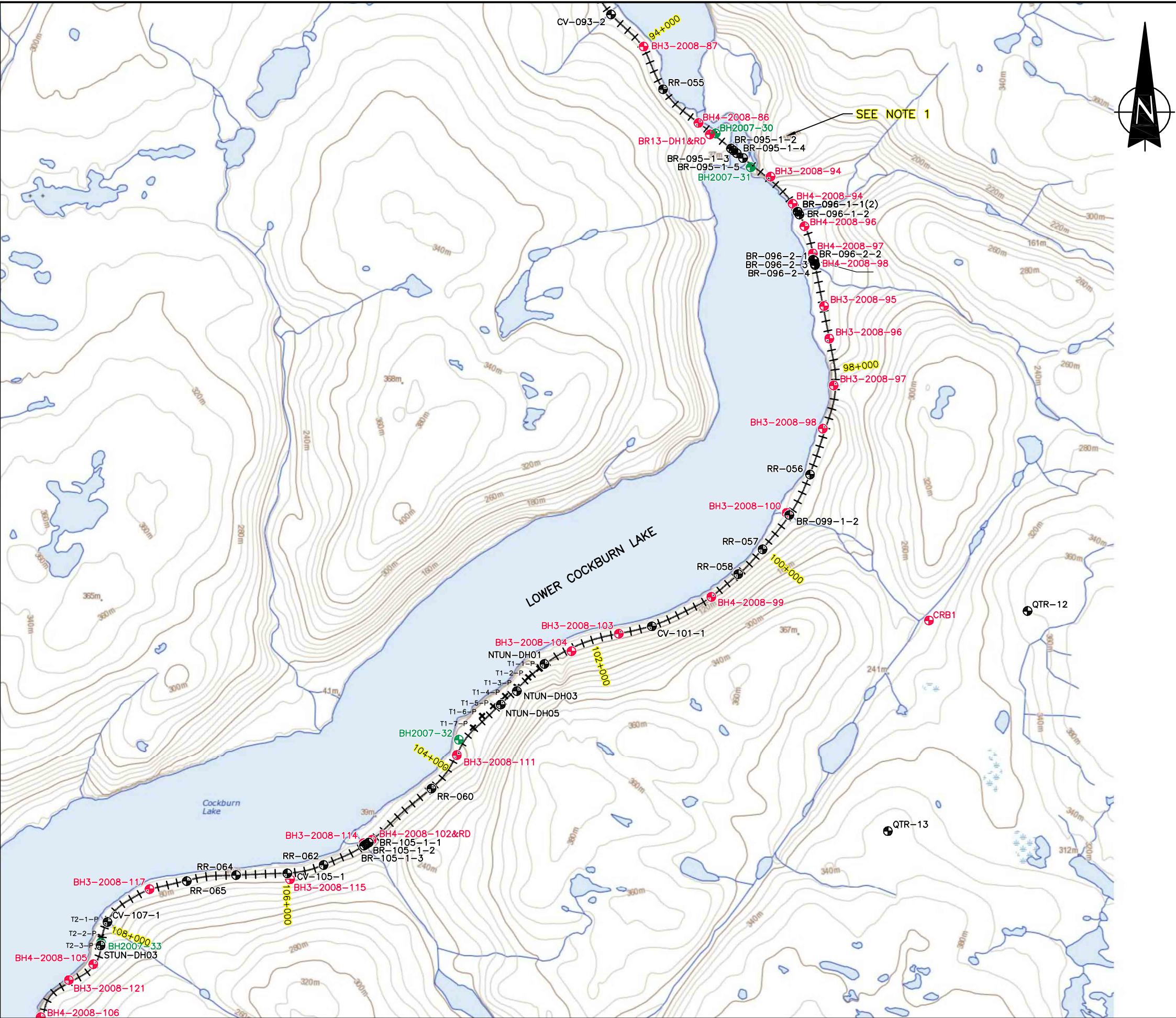


MARY RIVER PROJECT

MARY RIVER RAILWAY -
KP 84 TO KP 94

FIGURE D.2





LEGEND:

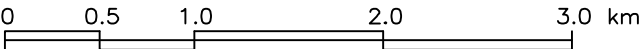
BOREHOLE LOCATION (2011)

BOREHOLE LOCATION (2008)

BOREHOLE LOCATION (2007)

NOTES:

1 SOME BOREHOLES AT COCKBURN CROSSING WHERE HIDDEN FOR CLARITY.



0	FINAL REPORT	ICB	LBS	11/9/11
REV	DESCRIPTION	DRAWN BY	APPROVED BY	DATE (MM/DD/YY)
DRAWN BY	ICB	DESIGNED BY	LBS	APPROVED BY LBS
SCALE	1:40 000	DATE	OCTOBER 20, 2011	FILE No. 19-1605-126-C7A



MARY RIVER PROJECT

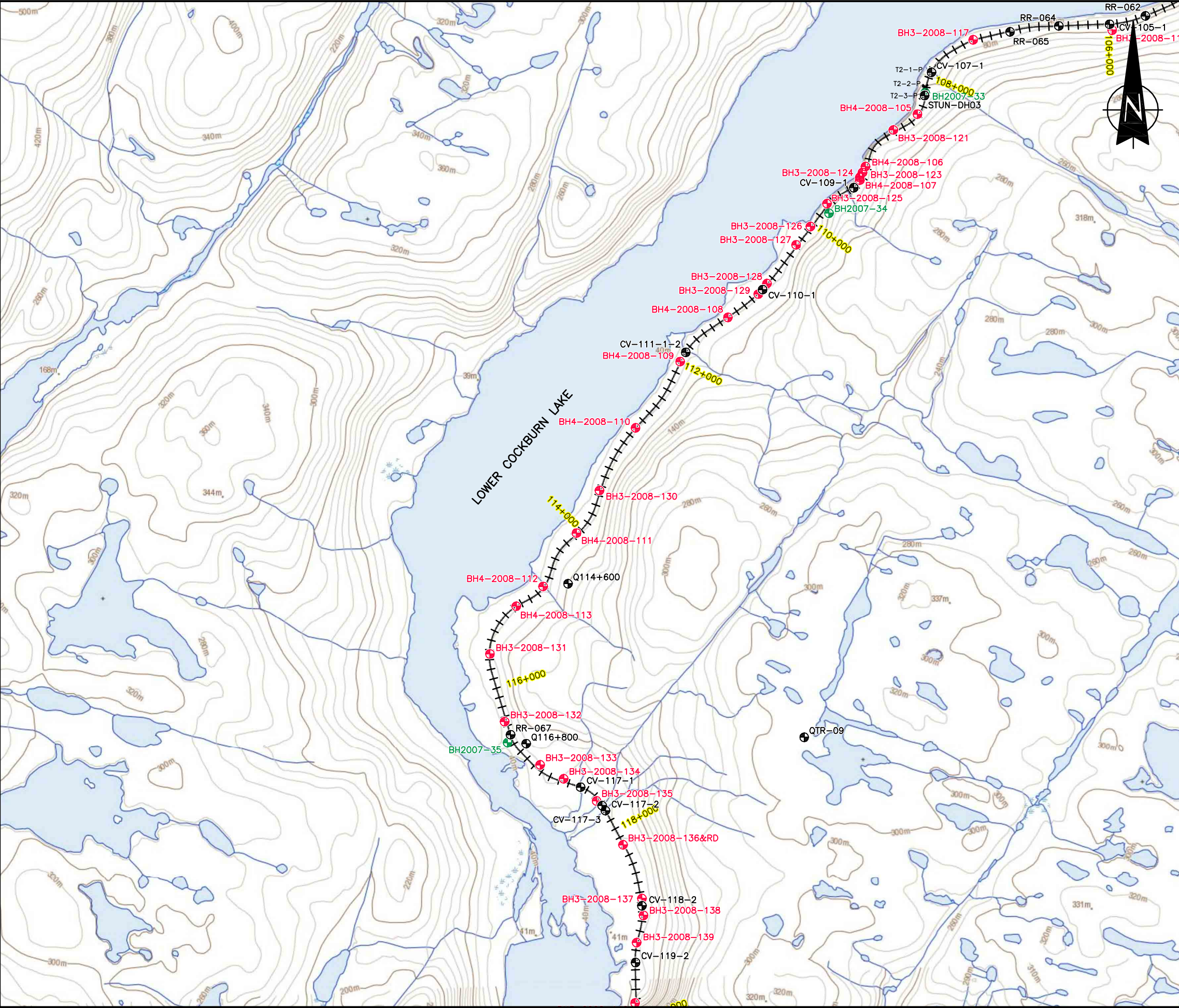
MARY RIVER RAILWAY -

KP 94 TO KP 108

FIGURE D.3



THURBER ENGINEERING LTD.



LEGEND:

- BOREHOLE LOCATION (2011)
- BOREHOLE LOCATION (2008)
- BOREHOLE LOCATION (2007)

0 0.5 1.0 2.0 3.0 km

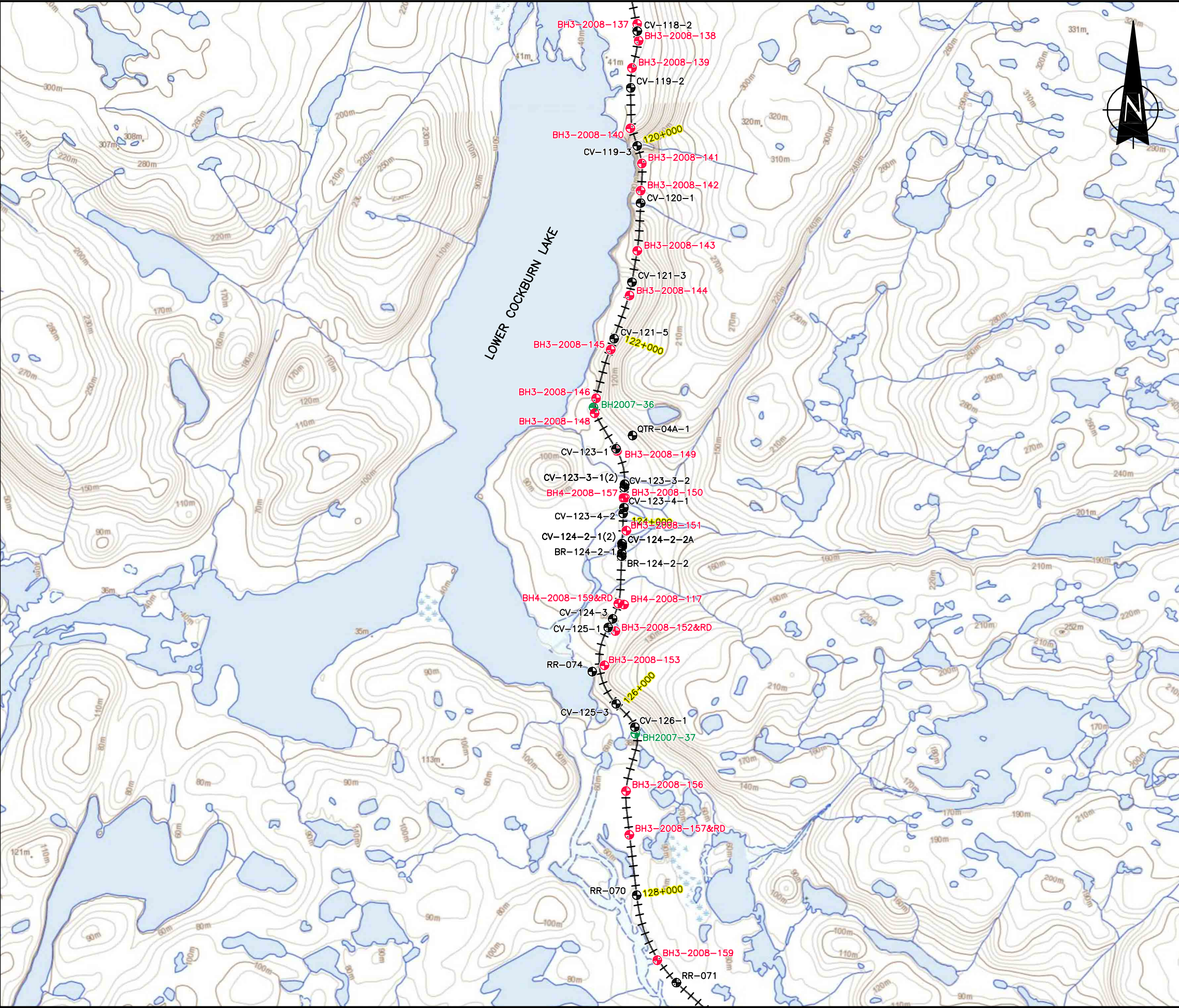
0	FINAL REPORT	ICB	LBS	11/9/11
REV	DESCRIPTION	DRAWN BY	APPROVED BY	DATE (MM/DD/YY)
DRAWN BY	ICB	DESIGNED BY	LBS	APPROVED BY LBS
SCALE	1:40 000	DATE	OCTOBER 20, 2011	FILE No. 19-1605-126-C7A

MARY RIVER PROJECT

MARY RIVER RAILWAY -
KP 106 TO KP 119

THURBER ENGINEERING LTD.

FIGURE D.4

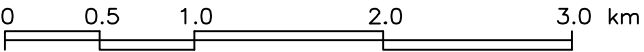


LEGEND:

BOREHOLE LOCATION (2011)

BOREHOLE LOCATION (2008)

BOREHOLE LOCATION (2007)



0	FINAL REPORT	ICB	LBS	11/9/11
REV	DESCRIPTION	DRAWN BY	APPROVED BY	DATE (MM/DD/YY)
DRAWN BY	ICB	DESIGNED BY	LBS	APPROVED BY LBS
SCALE	1:40 000	DATE	OCTOBER 20, 2011	FILE No. 19-1605-126-C7A

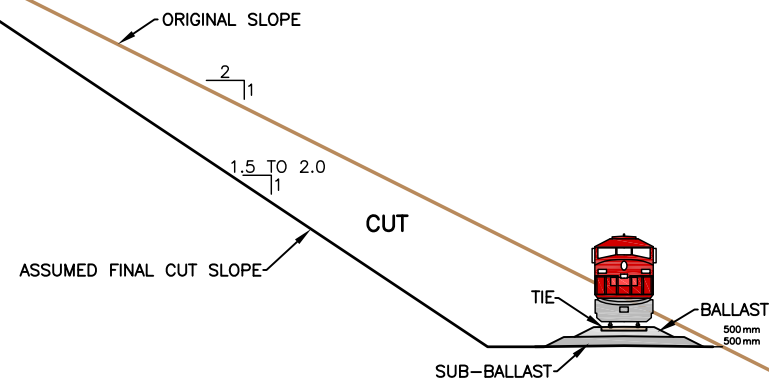


MARY RIVER PROJECT

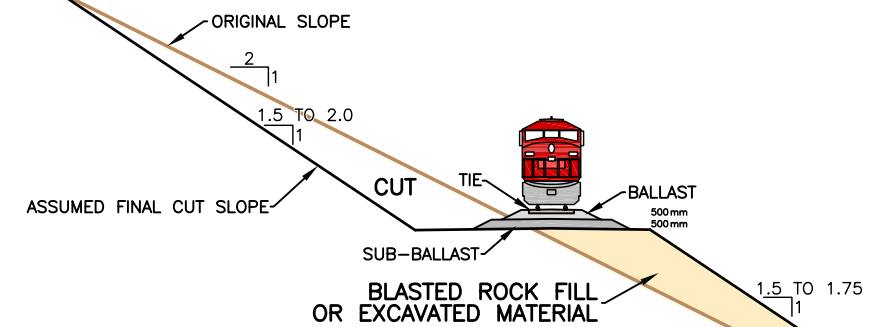
MARY RIVER RAILWAY -
KP 119 TO KP 128

FIGURE D.5

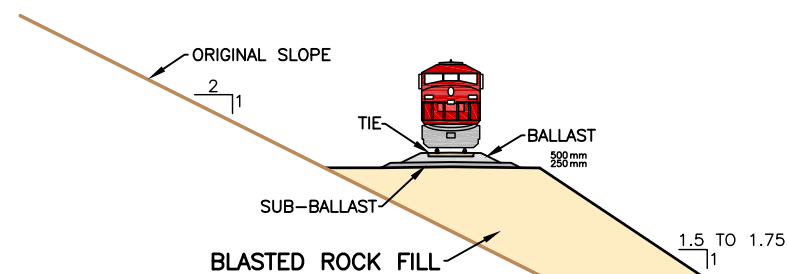




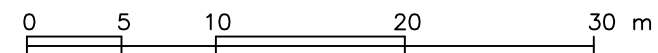
OPTION 1
TRACK STRUCTURE ENTIRELY ON NATURAL GROUND



OPTION 2
BALANCED CUT AND FILL



OPTION 3
BLASTED ROCK FILL PLACED ON EXISTING SLOPE



0	FINAL REPORT	ICB	LBS	11/9/11
REV	DESCRIPTION	DRAWN BY	APPROVED BY	DATE (MM/DD/YY)
DRAWN BY	ICB	DESIGNED BY	LBS	APPROVED BY
SCALE	1:400	DATE	OCTOBER 24, 2011	FILE No. 19-1605-126-C6B



MARY RIVER PROJECT

POTENTIAL EMBANKMENT
CROSS SECTIONS

FIGURE D.6



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