Engineering Drawings for the Roberts Bay Fuel Tank Farm, Doris North Project, Nunavut, Canada

ACTIVE DRAWING STATUS

DWG NUMBER	NEWMONT DWG NUMBER	DRAWING TITLE	REVISION	DATE	STATUS	OLD/REPLACED REVISIONS		
RBTF-00	HB+R-CIV-CIV-OND-0027	Engineering Drawings for the Roberts Bay Fuel Tank Farm	0	April 6, 2011	Issued for Construction	Rev. C, Mar. 11, 2011	Rev. B, Sept. 27, 2010	Rev. A, April 27, 2010
RBTF-01	HB+R-CIV-CIV-OND-0028	Fuel Tank Farm General Arrangement	0	April 6, 2011	Issued for Construction	Rev. C, Mar. 11, 2011	Rev. B, Sept. 27, 2010	Rev. A, April 27, 2010
RBTF-02	HB+R-CIV-CIV-OND-0029	Fuel Tank Farm Plan Layout	0	April 6, 2011	Issued for Construction	Rev. C, Mar. 11, 2011	Rev. B, Sept. 27, 2010	Rev. A, April 27, 2010
RBTF-03	HB+R-CIV-CIV-OND-0042	Fuel Tank Farm Bedrock Excavation	0	April 6, 2011	Issued for Construction	Rev. A, Mar. 11, 2011		
RBTF-04	HB+R-CIV-CIV-OND-0043	Fuel Tank Farm Subgrade Plan	0	April 6, 2011	Issued for Construction	Rev. A, Mar. 11, 2011		
RBTF-05	HB+R-CIV-CIV-OND-0044	Fuel Tank Farm Subgrade Sections and Details	0	April 6, 2011	Issued for Construction	Rev. A, Mar. 11, 2011		
RBTF-06	HB+R-CIV-CIV-OND-0045	Fuel Tank Farm Final Layout Plan (with Stake Out Points)	0	April 6, 2011	Issued for Construction	Rev. A, Mar. 11, 2011		
RBTF-07	HB+R-CIV-CIV-OND-0030	Fuel Tank Farm Sections Sheet 1 of 2	0	April 6, 2011	Issued for Construction	Rev. C, Mar. 11, 2011	Rev. B, Sept. 27, 2010	Rev. A, April 27, 2010
RBTF-08	HB+R-CIV-CIV-OND-0046	Fuel Tank Farm Sections Sheet 2 of 2	0	April 6, 2011	Issued for Construction	Rev. A, Mar. 11, 2011		
RBTF-09	HB+R-CIV-CIV-OND-0031	Fuel Tank Farm Details Sheet 1 of 2	0	April 6, 2011	Issued for Construction	Rev. C, Mar. 11, 2011	Rev. B, Sept. 27, 2010	Rev. A, April 27, 2010
RBTF-10	HB+R-CIV-CIV-OND-0047	Fuel Tank Farm Details Sheet 2 of 2	0	April 6, 2011	Issued for Construction	Rev. A, Mar. 11, 2011		
RBTF-11	HB+R-CIV-CIV-OND-0048	Roberts Bay Preliminary Laydown Expansion	0	April 6, 2011	Issued for Construction	Rev. A, Mar. 11, 2011		
RBTF-12	HB+R-CIV-CIV-OND-0039	Roberts Bay Overburden Storage Area and Sedimentation Control Berm	0	April 6, 2011	Issued for Construction	Rev. B, Mar. 11, 2011	Rev. A, Sept. 27, 2010	

HOPE BAY MINING LTD.

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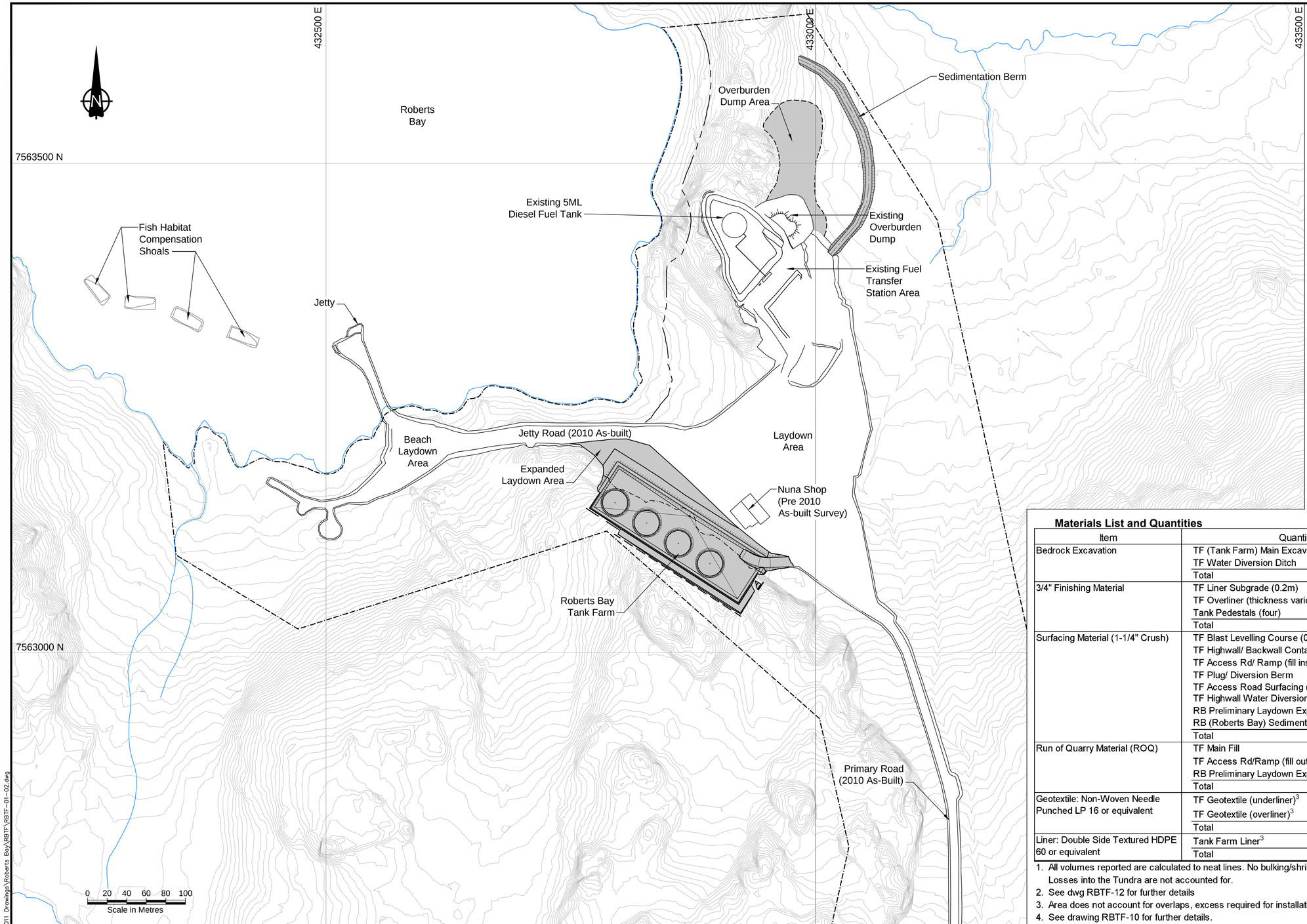
PROJECT NO: 1CH008.033
ISSUED FOR CONSTRUCTION
Revision 0
April 6, 2011
RBTF-00 / HB+R-CIV-CIV-OND-0027



NOTES

1. The designs are based on the contour information shown on these drawings. It is however the Contractor's responsibility to confirm that the contours are a fair reflection of the ground levels in the vicinity of the works, and to advise the Construction Manager and Engineer of any differences.
2. The co-ordinate system is UTM NAD 83, Zone 13.
3. All dimensions are in metric units, unless specifically mentioned.
4. All drawings are scaled appropriately for D-Size construction drawings. Scales may not be correct if these drawings are reproduced and presented in any other size format.
5. The Engineer will provide the Construction Manager and Contractor with digital design files for setting out the works. The Engineer will instruct the Contractor to survey random spot checks to confirm whether the works have been set out correct.
6. Construction shall be in accordance with the following Technical Specifications: Earthworks and Geotechnical Engineering, Hope Bay project, Nunavut, Canada, Revision G -Issue for Construction.
7. Quarried rock from the tank farm area will be used to construct the laydown expansive areas. Excess rock will be used at other areas of the site.
8. Notes in this drawing apply to all other active drawings.

LEGEND

- New Infrastructure
- Commercial lease boundary
- 30m shoreline setback

Materials List and Quantities

Item	Quantity/Area/Volume		Description[1]
Bedrock Excavation	TF (Tank Farm) Main Excavation	75,500 m³	Volumes derived from Gemcom (Gems 6.3) model.
	TF Water Diversion Ditch	5 m³	
	Total	75,505 m³	
3/4" Finishing Material	TF Liner Subgrade (0.2m)	2,110 m³	Volumes derived from Gemcom (Gems 6.3) model.
	TF Overliner (thickness varies)	5,455 m³	
	Tank Pedestals (four)	1,815 m³	
	Total	9,380 m³	
Surfacing Material (1-1/4" Crush)	TF Blast Levelling Course (0.15m)	1,160 m³	Volumes derived from Gemcom (Gems 6.3) model.
	TF Highwall/ Backwall Containment Berm	790 m³	
	TF Access Rd/ Ramp (fill inside containment)	190 m³	
	TF Plug/ Diversion Berm	15 m³	
	TF Access Road Surfacing (outside continment)	45 m³	Calculated from ACAD 2011
	TF Highwall Water Diversion Berm[4]	300 m³	~ Hand calculation to neat lines
	RB Preliminary Laydown Expansion	380 m³	Calculated from ACAD 2011
	RB (Roberts Bay) Sedimentation Berm[2]	2,500 m³	Volumes derived from CIVIL 3D
	Total	5,380 m³	
Run of Quarry Material (ROQ)	TF Main Fill	12,355 m³	Volumes derived from Gemcom (Gems 6.3) model.
	TF Access Rd/Ramp (fill outside of containment)	410 m³	
	RB Preliminary Laydown Expansion	2,365 m³	Volumes derived from CIVIL 3D
	Total	15,130 m³	
Geotextile: Non-Woven Needle Punched LP 16 or equivalent	TF Geotextile (underliner)[3]	10,300 m²	Areas derived from Gemcom (Gems 6.3) model.
	TF Geotextile (overliner)[3]	10,300 m²	
	Total	20,600 m²	
Liner: Double Side Textured HDPE 60 or equivalent	Tank Farm Liner[3]	10,300 m²	Areas derived from Gemcom (Gems 6.3) model.
	Total	10,300 m²	

1. All volumes reported are calculated to neat lines. No bulking/shrinking factor have been utilized in the volume determination. Losses into the Tundra are not accounted for.
2. See dwg RBTF-12 for further details
3. Area does not account for overlaps, excess required for installation or for any deviation from neat design lines
4. See drawing RBTF-10 for further details.

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE

REFERENCE DRAWINGS

NO.	DESCRIPTION	CHK'D	APP'D	DATE
0	Issued for Construction	JBK	EMR	06Apr11
C	Issued for Review	JBK	EMR	11Mar11
B	Never Issued	AT	EMR	27Sep10
A	Issued for Comments	AT	EMR	27Apr10

REVISIONS

Original Drawings Stamped and Signed by Engineer

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PROFESSIONAL ENGINEER'S STAMP

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DESIGN:	DRAWN:	REVIEWED:
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JBK/MMM	EMR	Apr. 06, 2011

FILE NAME: RBTF-01-02.dwg

NEWMONT NORTH AMERICA

HOPE BAY MINING LTD.

SRK JOB NO.: 1CH008.033 SRK DWG NO.: RBTF-01

Doris North Project

DRAWING TITLE:

Fuel Tank Farm
General Arrangement

NEWMONT DRAWING NO.	SHEET	REVISION NO.
HB+R-CIV-CIV-OND-0028	2 OF 13	0

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Jetty Road (2010 As-built)

Expanded Laydown Area

Laydown Area

Tie Into Existing Laydown Pad

Slope 2H:1V

3.00

Containment Berm (El. 11.3m)

51.77

18.30

Cut and Fill line

2.4m

Tank 1 (5ML)

Tank 2 (5ML)

Tank 3 (5ML)

Tank 4 (5ML)

12.5m

5.0m

1%

16.68

Sump

17.45

17.43

Tank Pedestal (Typ.)

30.37m

178.80

Safety Catchment Bench (~El. 18.0m)

Water Diversion Berm See Note 8

Commercial Lease Boundary

Nuna Shop (Pre 2010 As-built Survey)

3.20m

R=34.8m

0+032.40

0+030

0+020

0+000

+10%

0%

-10%

Slope 1.5H:1V

6.00

See Inset

7563200 N

7563100 N

7563000 N

432800 E

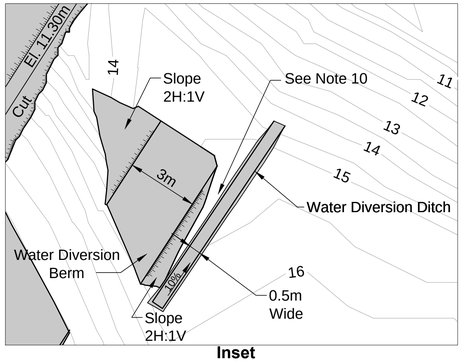
432900 E

433000 E

Scale in Meters 0 5 10 15 20 25

NOTES:

1. The Roberts Bay Tank Farm is to be constructed on a graded engineered fill pad over an intact bedrock surface.
2. The bedrock surface shall be drill and blasted to specified elevation. The finished grade of the blasted bedrock surface has a maximum tolerance of -0.3m.
3. The Contractor shall ensure the blasted floor has natural drainage and minimal ponding water.
4. All blasted material shall be excavated to the expose intact rock surface for survey and approval from the EPCM team and the Engineer.
5. The scope of work described herein specifically excludes all electrical and mechanical elements.
6. Tanks 1 to 4 will be designed and constructed by Others and will only be operational once the appropriate regulatory approvals have been put in place. The grounding of the tanks will be designed and installed by Others.
7. The Roberts Bay Tank Farm Design is based on and meets the standards from Canadian Council of Ministers of Environment (CCME), National Fire Code of Canada (2010) and Newmont Environmental Standards.
8. The exact location of the highwall water diversion is to be field fit to ensure drainage is directed away from highwall. See typical detail 13 on dwg RBTF-10 for additional berm details.
9. Ramp access shall be restricted, for light maintenance vehicles only.
10. Water Diversion Berm side slope to be field fit to ensure no ponding and drainage directed towards diversion ditch.
11. The Owner will install appropriate signage and barricade to prevent any vehicle access within the secondary catchment area other than on the ramp.



Inset
Diversion Berm and Ditch

Scale in Meters 0 1.25 2.5 3.75 5 6.25

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE
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FILE NAME: RBTF-01-02.dwg

NEWMONT NORTH AMERICA

HOPE BAY MINING LTD.

SRK JOB NO.: 1CH008.033 SRK DWG NO.: RBTF-02

Doris North Project

DRAWING TITLE:

Fuel Tank Farm
Plan Layout

NEWMONT DRAWING NO.	SHEET	REVISION NO.
HB+R-CIV-CIV-OND-0029	3 OF 13	0

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NOTES

1. Rock fall safety measures such as rock bolts and mesh maybe required pending on the final surface of the bedrock highwall. The EPCM Manager and the Engineer will determine the proper safety measure once the highwall is completed.
2. If permafrost/ overburden is exposed during drilling and blasting activities then standard procedures of constructing a min 1m thick thermal insulating cover shall be implemented (e.g. at areas such as at the top of the highwall excavation).

EXCAVATION STAKE OUT POINTS

ID	Northing	Easting	Elev.(m)
EC-01	7563176.55	432788.84	9.06
EC-02	7563166.75	432799.29	8.92
EC-03	7563161.23	432814.06	8.75
EC-04	7563153.27	432826.84	8.58
EC-05	7563155.40	432831.03	8.55
EC-06	7563154.62	432839.98	8.46
EC-07	7563146.04	432858.78	8.23
EC-08	7563148.24	432865.07	8.13
EC-09	7563141.14	432875.60	8.07
EC-10	7563128.09	432878.80	8.20
EC-11	7563120.85	432886.78	8.32
EC-12	7563118.55	432897.90	8.45
EC-13	7563103.45	432917.46	8.73
EC-14	7563087.50	432931.82	8.96
EC-15	7563083.49	432942.14	9.08
EC-16	7563050.97	432921.30	9.11
EC-17	7563147.79	432770.38	9.11
EC-18	7563147.53	432769.18	14.19
EC-19	7563126.35	432800.99	18.00
EC-20	7563048.89	432921.75	18.00
EC-21	7563069.00	432934.65	18.00
EC-22	7563063.00	432937.94	18.00
EC-23	7563040.60	432923.56	18.00
EC-24	7563120.95	432798.36	18.00
EC-25	7563097.73	432832.56	24.14
EC-26	7563074.03	432869.08	25.50
EC-27	7563048.38	432908.89	26.06
EC-28	7563039.46	432923.81	22.86

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE
REFERENCE DRAWINGS			

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FILE NAME: RB-TF-03.dwg

NEWMONT NORTH AMERICA

HOPE BAY MINING LTD.

SRK JOB NO.: 1CH008.033 SRK DWG NO.: RBTF-03

Doris North Project

DRAWING TITLE:

Fuel Tank Farm
Bedrock Excavation

NEWMONT DRAWING NO.	SHEET	REVISION NO.
HB+R-CIV-CIV-OND-0042	4 OF 13	0

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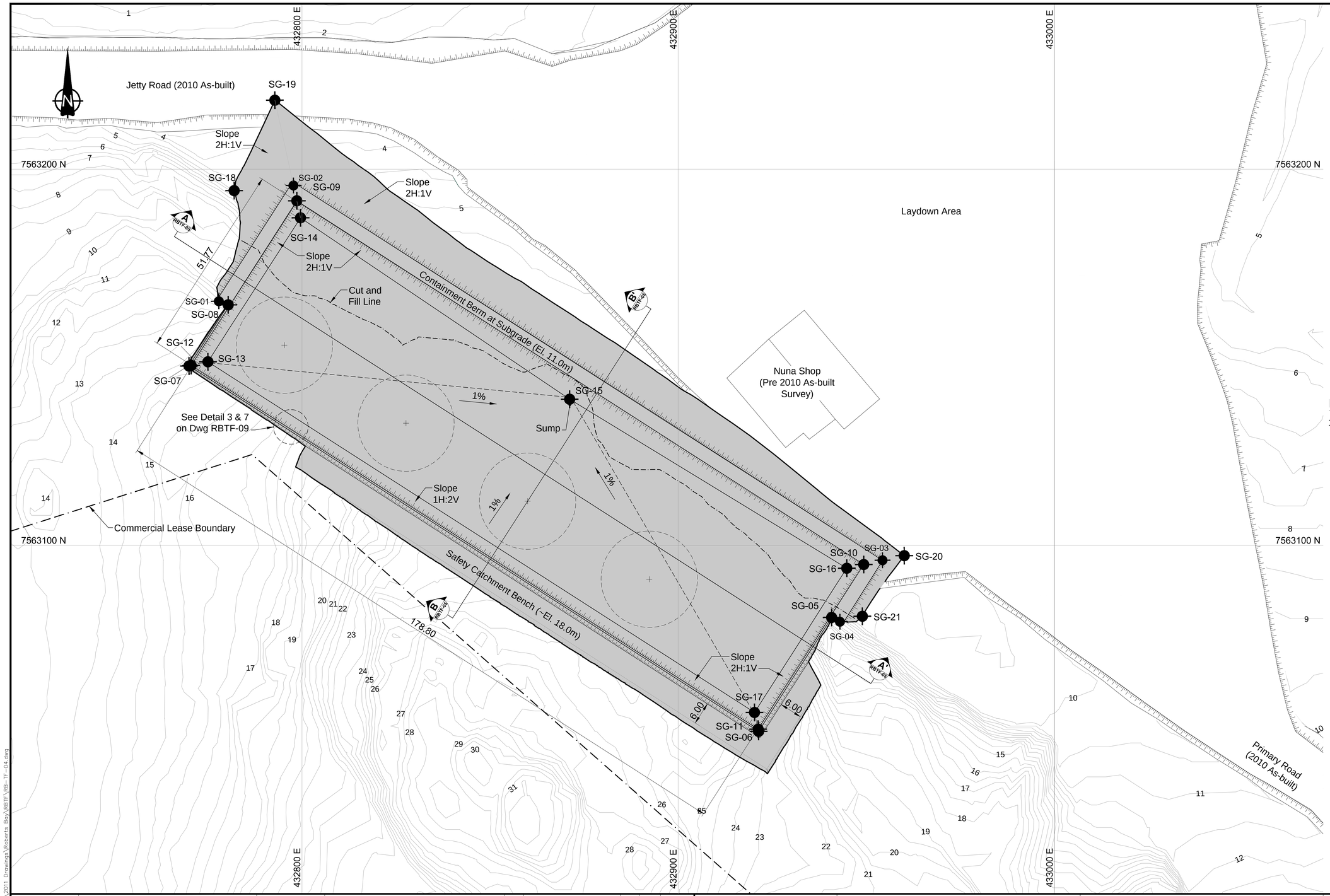

SUBGRADE STAKE OUT POINTS			
ID	Northing	Easting	Elev. (m)
SG-01	7563164.90	432777.91	11.00
SG-02	7563195.67	432797.75	11.00
SG-03	7563096.03	432954.35	11.00
SG-04	7563079.72	432943.00	11.00
SG-05	7563080.83	432940.83	11.00
SG-06	7563050.53	432921.39	11.00
SG-07	7563147.69	432769.93	11.00
SG-08	7563163.96	432780.37	11.00
SG-09	7563191.53	432798.65	11.00
SG-10	7563094.92	432949.27	11.00
SG-11	7563051.22	432921.24	11.00
SG-12	7563147.84	432770.63	11.00
SG-13	7563148.82	432775.07	9.39
SG-14	7563187.01	432799.63	9.40
SG-15	7563138.83	432871.14	8.42
SG-16	7563093.92	432944.75	9.40
SG-17	7563055.67	432920.28	9.39
SG-18	7563194.31	432781.98	5.00
SG-19	7563218.34	432792.80	3.06
SG-20	7563097.28	432960.09	8.85
SG-21	7563081.17	432948.96	9.19

NOTES

1. Stake out points provided are for top subgrade surface (i.e. surface liner system will be installed/placed on top of). The Contractor must make the appropriate adjustments for the different fill types when setting out the works.

0 5 10 15 20 25
Scale in Meters

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE
REFERENCE DRAWINGS			

NO.	DESCRIPTION	CHK'D	APP'D	DATE
0	Issued for Construction	JBK	EMR	06Apr11
A	Issued for Review	JBK	EMR	11Mar11

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JBK/MMM	EMR	Apr. 06, 2011

FILE NAME: RB-TF-04.dwg

NEWMONT NORTH AMERICA

HOPE BAY MINING LTD.

SRK JOB NO.: 1CH008.033 SRK DWG NO.: RBTF-04

Doris North Project

DRAWING TITLE:
Fuel Tank Farm
Subgrade Plan

NEWMONT DRAWING NO.	SHEET	REVISION NO.
HB+R-CIV-CIV-OND-0043	5 OF 13	0

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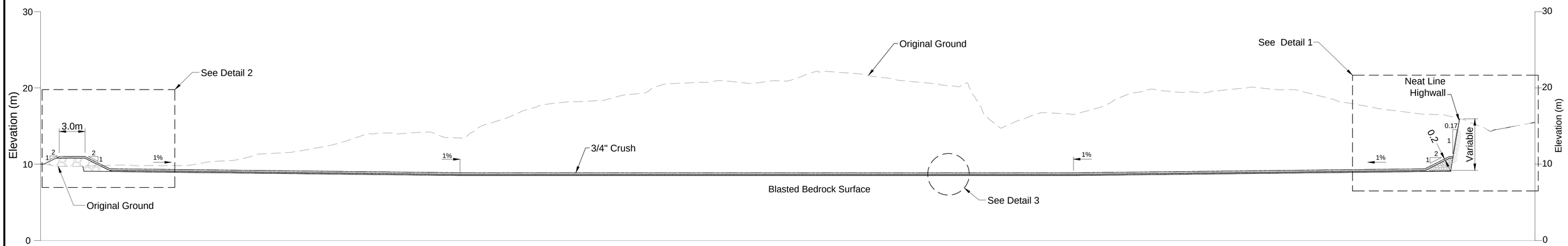
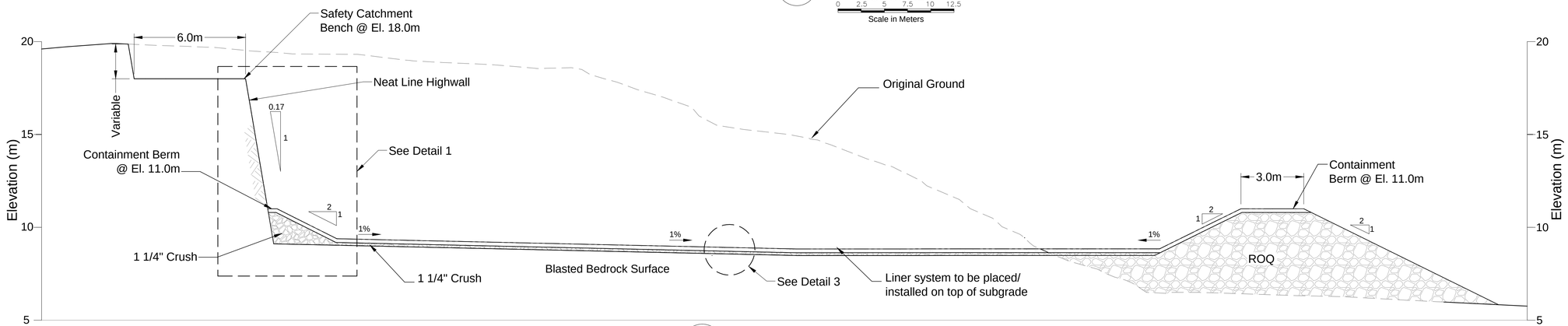


A RBTF-04 **CROSS SECTION A - A'**

SUBGRADE

0 2.5 5 7.5 10 12.5

Scale in Meters

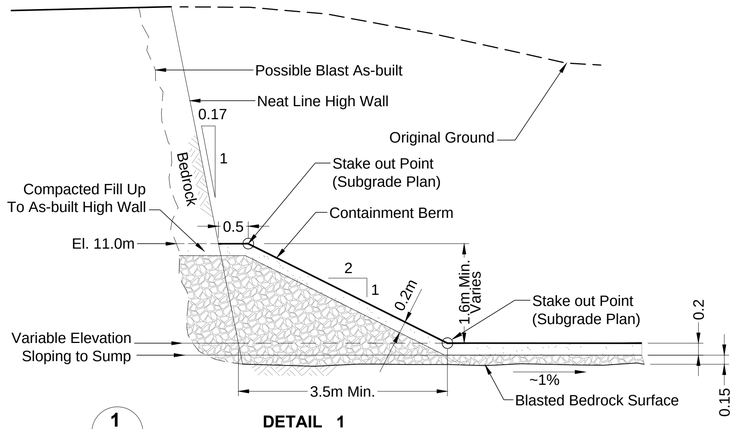


B RBTF-04 **CROSS SECTION B - B'**

SUBGRADE

0 1.25 2.5 3.75 5 6.25

Scale in Meters

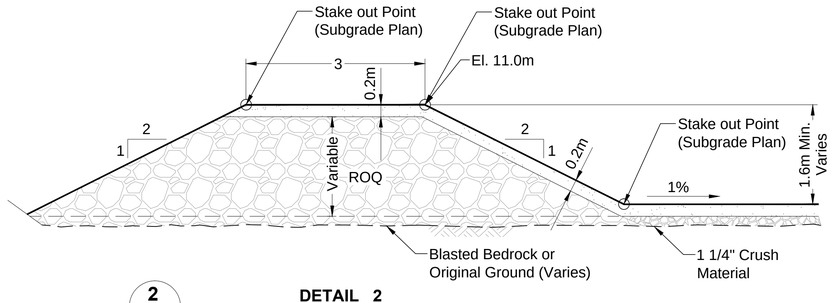


1 RBTF-05 **DETAIL 1**

TYPICAL SUBGRADE ALONG HIGH WALL

0 0.5 1 1.5 2 2.5

Scale in Metres

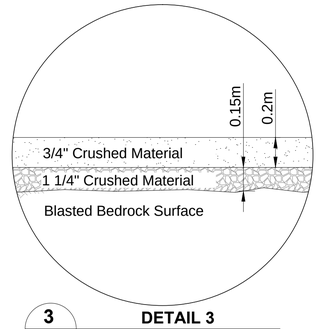


2 RBTF-05 **DETAIL 2**

TYPICAL SUBGRADE ALONG FILL SECTION

0 0.5 1 1.5 2 2.5

Scale in Metres



3 RBTF-05 **DETAIL 3**

0 0.2 0.4 0.6 0.8 1

Scale in Meters

LEGEND

- $\frac{3}{4}$" Crushed Material
- $1\frac{1}{4}$" Crushed Material
- ROQ

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE

REFERENCE DRAWINGS

NO.	DESCRIPTION	CHK'D	APP'D	DATE
0	Issued for Construction	JBK	EMR	06Apr11
A	Issued for Review	JBK	EMR	11Mar11

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FILE NAME: RB-TF-Sections.dwg

NEWMONT NORTH AMERICA

HOPE BAY MINING LTD.

SRK JOB NO.: 1CH008.033 SRK DWG NO.: RBTF-05

Doris North Project

DRAWING TITLE:

Fuel Tank Farm
Subgrade Sections and Details

NEWMONT DRAWING NO.	SHEET	REVISION NO.
HB+R-CIV-CIV-OND-0044	6 OF 13	0

J:\01_SITES\Hope Bay\ACAD\2011 Drawings\Roberts Bay\RBTF\RB-TF-Sections.dwg

Jetty Road (2010 As-built)

Expanded Laydown Area

Laydown Area

Nuna Shop (Pre 2010 As-built Survey)

Containment Berm (El. 11.3m)

Safety Catchment Bench (~El. 18.0m)

Water Diversion Berm

Commercial Lease Boundary

Cut and Fill line

Sump. See Detail 5, Dwg. RBTF-09

Max. Pad El.10.0m

Slope 2H:1V

Slope 1.5H:1V

Berm

See Inset

Radius=34.8m

El.11.60m

TF-01 TF-02 TF-03 TF-04 TF-05 TF-06 TF-07 TF-08 TF-09 TF-10 TF-11 TF-12

SP

T-1 Tank 1 (5ML)

T-2 Tank 2 (5ML)

T-3 Tank 3 (5ML)

T-4 Tank 4 (5ML)

AR-1 AR-2 AR-3 AR-4 AR-5 AR-6 AR-7 AR-8

0+000 0+020 0+040 0+052.240

1% +10% 0% -10%

7563200 N

7563100 N

7563000 N

432800 E

432900 E

433000 E

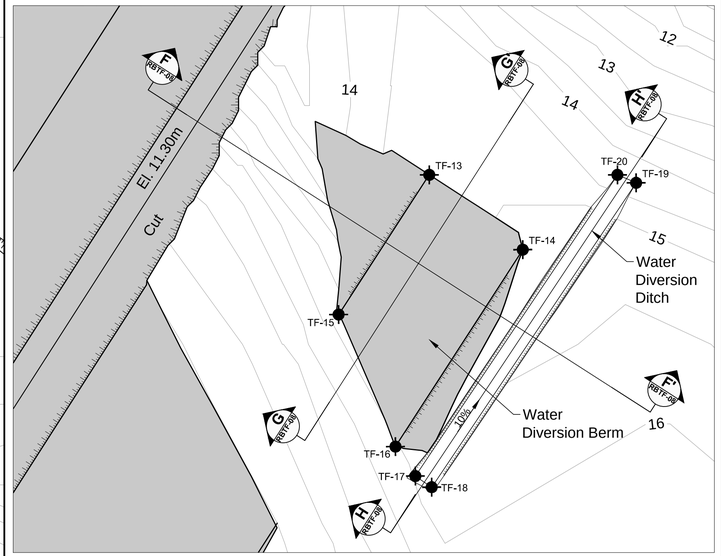
0 5 10 15 20 25
Scale in Meters

ACCESS RAMP STAKE OUT POINTS			
ID	Northing	Easting	Elev. (m)
AR-1	7563098.04	432972.72	9.69
AR-2	7563088.29	432977.56	9.26
AR-3	7563093.16	432975.14	9.48
AR-4	7563092.00	432953.96	11.60
AR-5	7563093.03	432942.62	11.60
AR-6	7563100.11	432927.30	10.14
AR-7	7563097.42	432922.23	9.75
AR-8	7563102.06	432924.54	9.75
SUMP PUMP STAKE OUT POINT			
ID	Northing	Easting	Elev. (m)
SP	7563139.33	432871.47	9.02

FUEL TANK FARM STAKE OUT POINTS			
ID	Northing	Easting	Elev. (m)
TF-01	7563187.84	432799.46	10.00
TF-02	7563148.65	432774.32	10.00
TF-03	7563054.91	432920.44	10.00
TF-04	7563086.02	432940.39	10.00
TF-05	7563079.72	432943.00	11.30
TF-06	7563080.86	432940.91	11.30
TF-07	7563051.32	432921.22	11.30
TF-08	7563147.86	432770.72	11.30
TF-09	7563191.44	432798.68	11.30
TF-10	7563195.58	432797.77	11.30
TF-11	7563164.82	432778.04	11.30
TF-12	7563163.81	432780.22	11.30
TF-13	7563071.76	432941.76	15.10
TF-14	7563069.88	432944.11	15.15
TF-15	7563068.25	432939.48	15.75
TF-16	7563064.93	432940.91	16.07
TF-17	7563064.19	432941.41	15.21
TF-18	7563063.91	432941.82	15.21
TF-19	7563071.56	432946.96	14.28
TF-20	7563071.76	432946.49	14.29
TANK (Center) STAKE OUT POINTS			
ID	Northing	Easting	Elev. (m)
T-1	7563153.23	432795.32	10.34
T-2	7563132.50	432827.65	10.32
T-3	7563111.76	432859.98	10.32
T-4	7563091.02	432892.31	10.32

NOTE

1. Stake out points shown are for final Fuel Tank Farm surface (i.e. after liner cover and access ramp are constructed).
2. Tank Spacing by others.



Inset - Diversion Berm and Ditch

0 0.75 1.5 2.25 3 3.75
Scale in Meters

NO.	DESCRIPTION	CHK'D	APP'D	DATE
–	–			
0	Issued for Construction	JBK	EMR	06Apr11
A	Issued for Review	JBK	EMR	11Mar11

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JBK/MMM	EMR	Apr. 6, 2011

FILE NAME: RB–TF–06.dwg

NEWMONT NORTH AMERICA

HOPE BAY MINING LTD.

SRK JOB NO.: 1CH008.033 SRK DWG NO.: RBTF-06

Doris North Project

DRAWING TITLE:
Fuel Tank Farm
Final Layout Plan
(with Stake Out Points)

NEWMONT DRAWING NO.	SHEET	REVISION NO.
HB+R-CIV-CIV-OND-0045	7 OF 13	0

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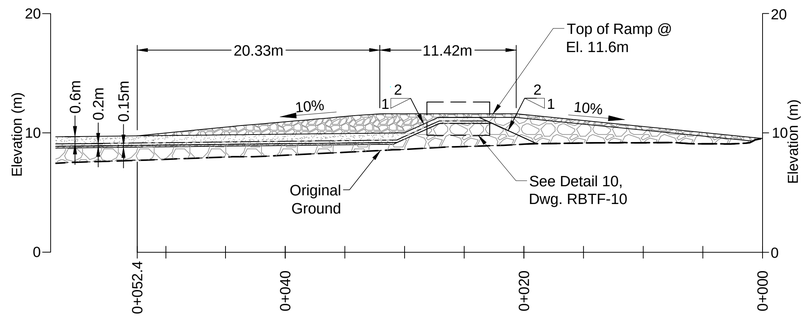
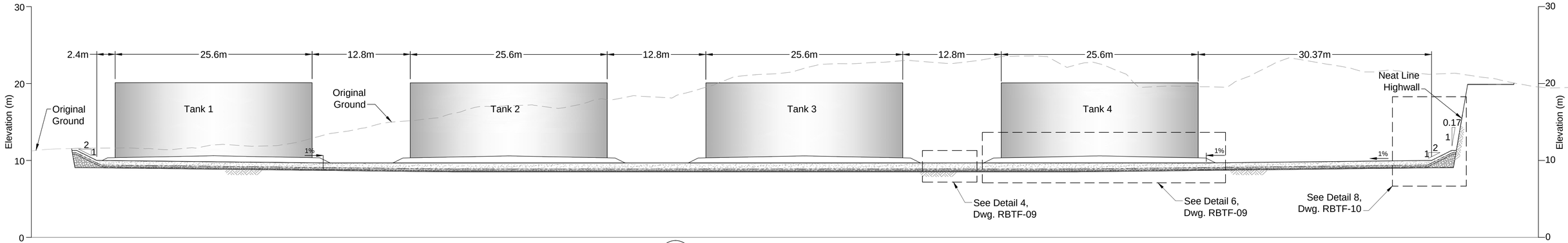


C RBTF-06 **CROSS SECTION C - C'**

Center Line of Access Ramp

0 2.5 5 7.5 10 12.5

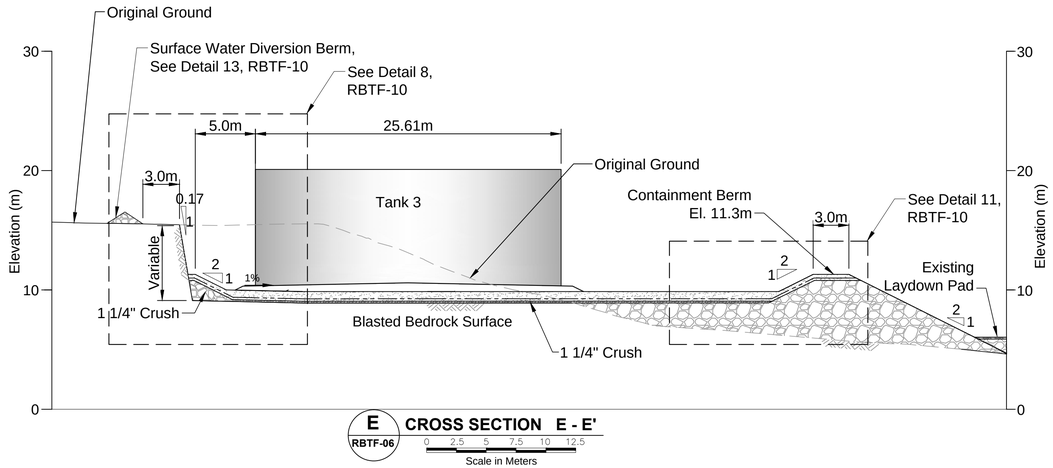
Scale in Meters



D RBTF-06 **CROSS SECTION D - D'**

0 2.5 5 7.5 10 12.5

Scale in Meters



E RBTF-06 **CROSS SECTION E - E'**

0 2.5 5 7.5 10 12.5

Scale in Meters

LEGEND

- ¾" Crushed Material
- 1¼" Crushed Material
- ROQ
- Liner System

NO.	DESCRIPTION	CHK'D	APP'D	DATE
0	Issued for Construction	JBK	EMR	06Apr11
C	Issued for Review	JBK	EMR	11Mar11
B	Never Issued	MK	EMR	27Sep10
A	Issued for Comment	AT	EMR	27Apr10

REVISIONS

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JBK	EMR	Apr. 06, 2011

FILE NAME: RB-TF-Sections.dwg

NEWMONT NORTH AMERICA

HOPE BAY MINING LTD.

SRK JOB NO.: 1CH008.033 SRK DWG NO.: RBTF-07

Doris North Project

DRAWING TITLE:

Fuel Tank Farm
Sections
Sheet 1 of 2

NEWMONT DRAWING NO.	SHEET	REVISION NO.
HB+R-CIV-CIV-OND-0030	8 OF 13	0

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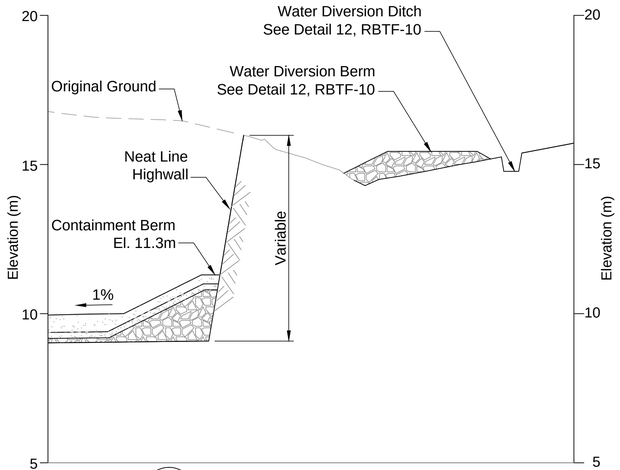
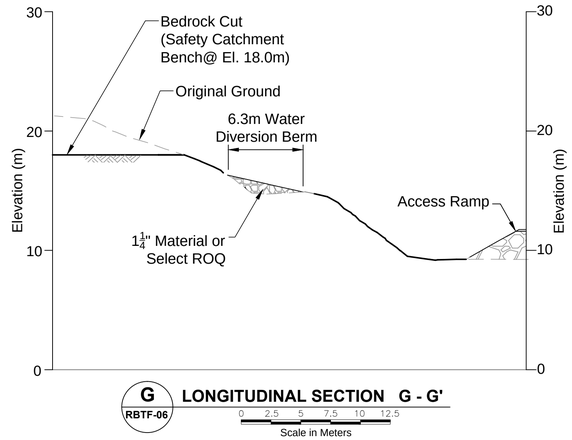


F RBTF-06 **LONGITUDINAL SECTION F - F'**

0 1 2 3 4 5

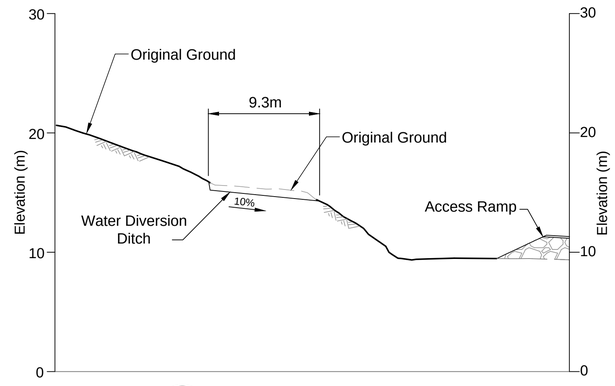
Scale in Meters



G RBTF-06 **LONGITUDINAL SECTION G - G'**

0 2.5 5 7.5 10 12.5

Scale in Meters



H RBTF-06 **LONGITUDINAL SECTION H - H'**

0 2.5 5 7.5 10 12.5

Scale in Meters

LEGEND

- ¾" Crushed Material
- 1¼" Crushed Material
- ROQ
- Liner System

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JBK	EMR	Apr. 06, 2011

FILE NAME: RB-TF-Sections.dwg

NEWMONT NORTH AMERICA

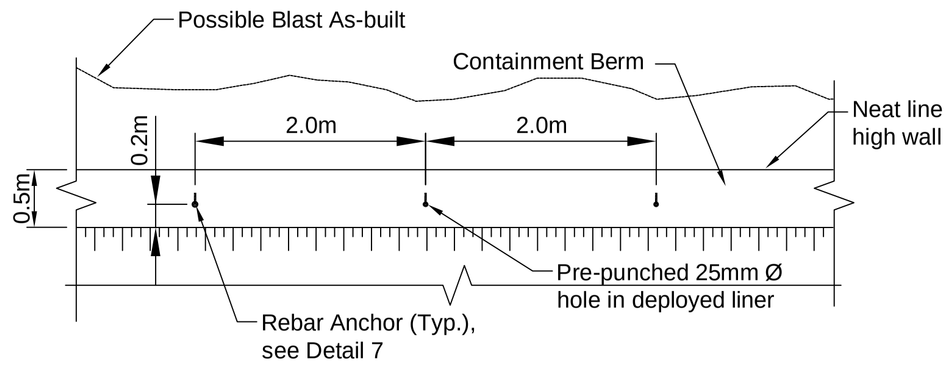
HOPE BAY MINING LTD.

SRK JOB NO.: 1CH008.033 SRK DWG NO.: RBTF-08

Doris North Project

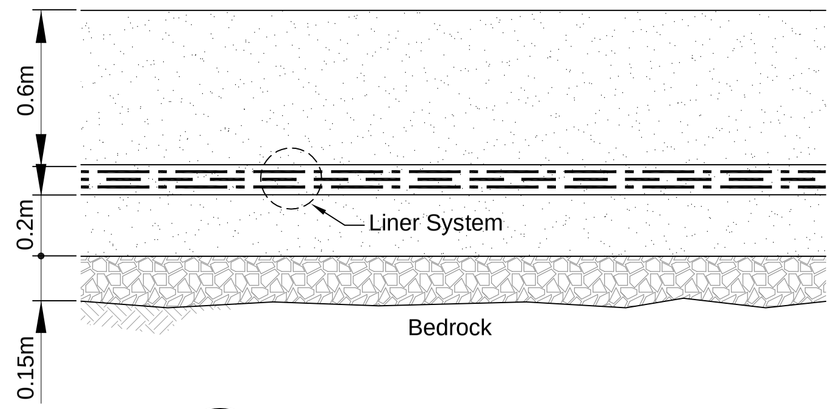
DRAWING TITLE:
Fuel Tank Farm
Sections
Sheet 2 of 2

NEWMONT DRAWING NO.	SHEET	REVISION NO.
HB+R-CIV-CIV-OND-0046	9 OF 13	0



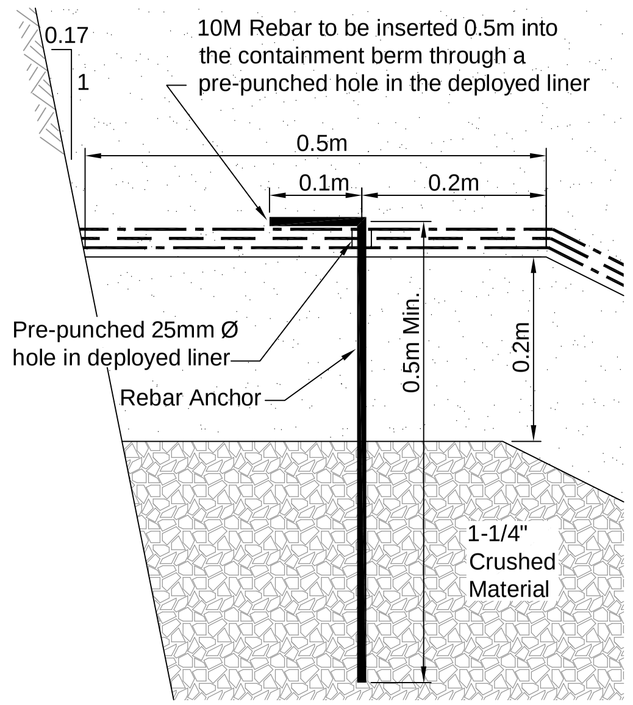
3 RBTF-04 DETAIL 3 - BERM PLAN

0 0.4 0.8 1.2 1.6 2
Scale in Metres



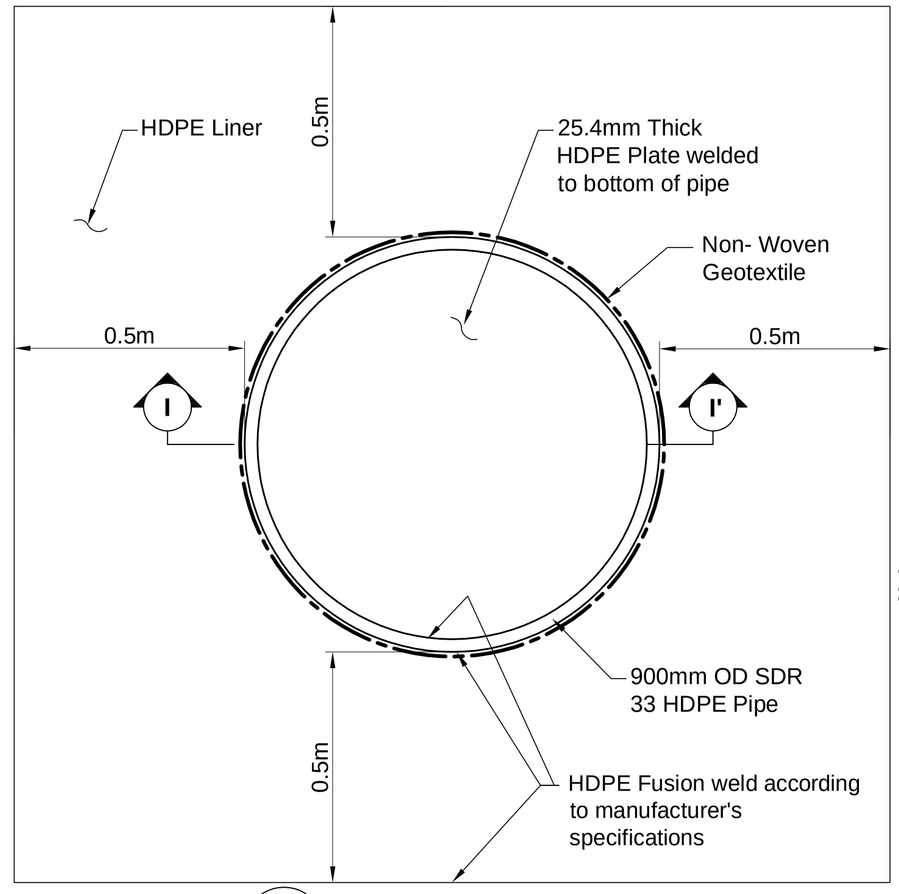
4 RBTF-07 TYPICAL DETAIL 4 - LINER DETAIL

0 0.2 0.4 0.6 0.8 1.0
Scale in Metres



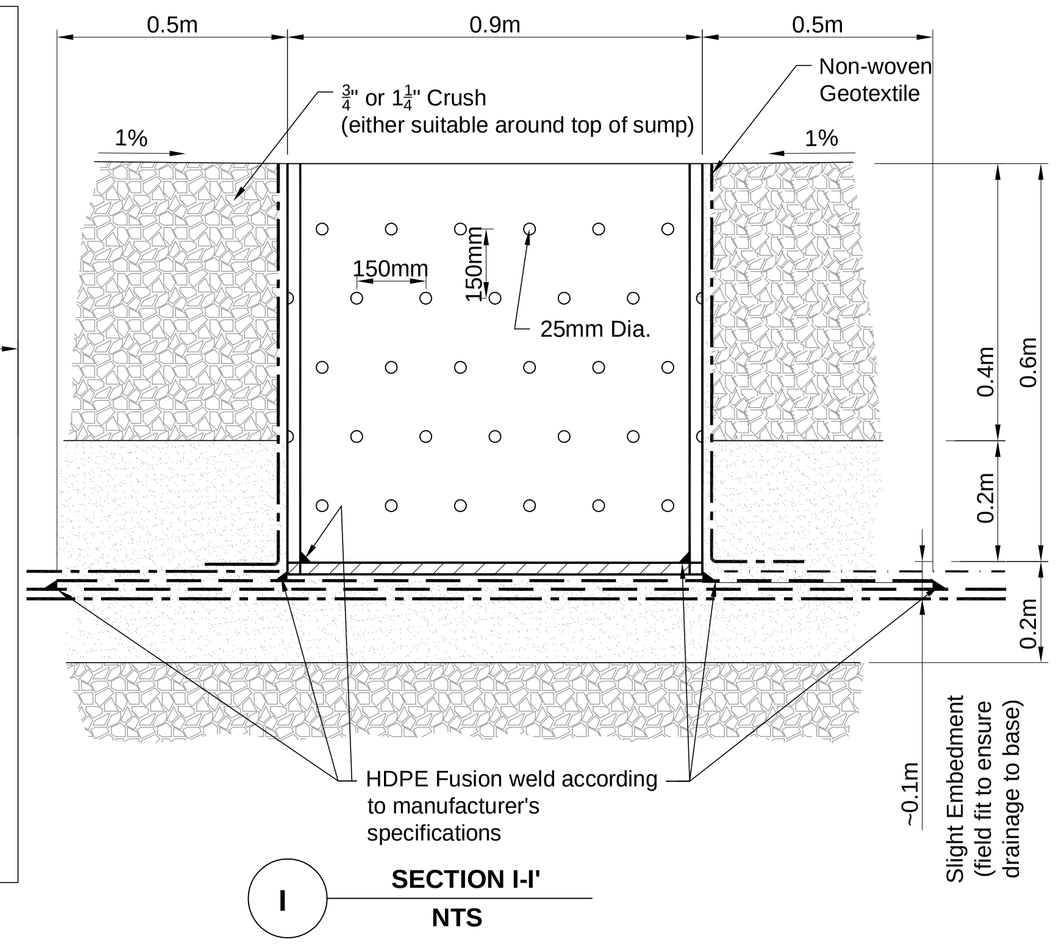
7 RBTF-10 TYPICAL DETAIL 7 - REBAR ANCHOR

0 0.05 0.1 0.15 0.2 0.25
Scale in Metres



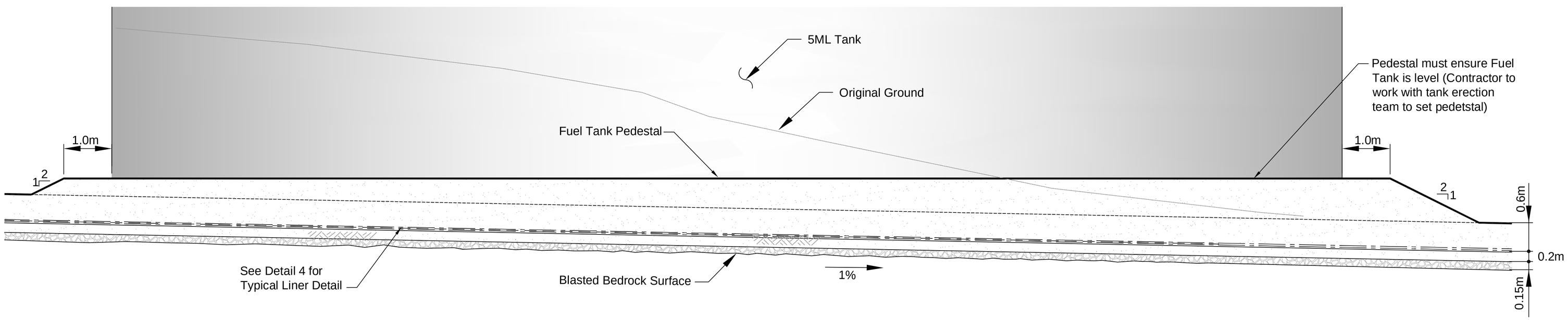
5 RBTF-06 DETAIL 5 - SUMP PLAN

0 0.1 0.2 0.3 0.4 0.5
Scale in Metres



I SECTION I-I'

NTS



6 RBTF-07 DETAIL 6 - FUEL TANK PEDESTAL

0 0.5 1 1.5 2 2.5
Scale in Metres

LEGEND

- ¾" Crushed Material
- 1¼" Crushed Material
- ROQ
- 12oz. Non-woven Geotextile
- Textured HDPE 60mil

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE

REFERENCE DRAWINGS

NO.	DESCRIPTION	CHK'D	APP'D	DATE
0	Issued for Construction	JBK	EMR	06Apr11
C	Issued for Review	JBK	EMR	11Mar11
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A	Issued for Comment	AT	EMR	27Apr10

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JBK/MMM	EMR	Apr. 06, 2011

FILE NAME: RB-TF-DETAILS.dwg

NEWMONT NORTH AMERICA

HOPE BAY MINING LTD

SRK JOB NO.: 1CH008.033 SRK DWG NO.: RBTF-09

Doris North Project

DRAWING TITLE: Fuel Tank Farm Details Sheet 1 of 2

NEWMONT DRAWING NO.	SHEET	REVISION NO.
HB+R-CIV-CIV-OND-0031	10 OF 13	0

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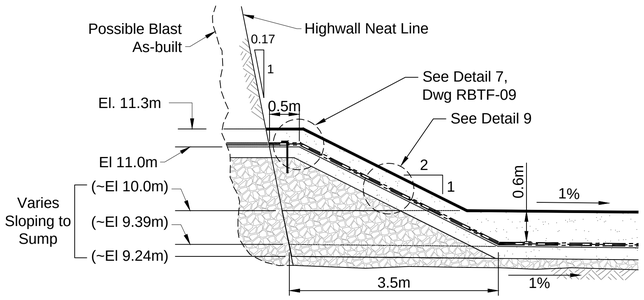
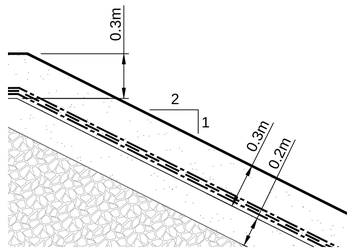
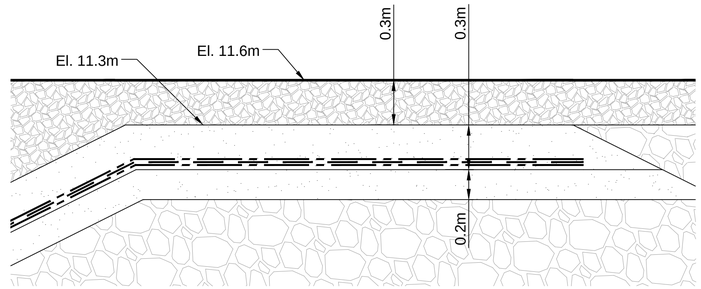


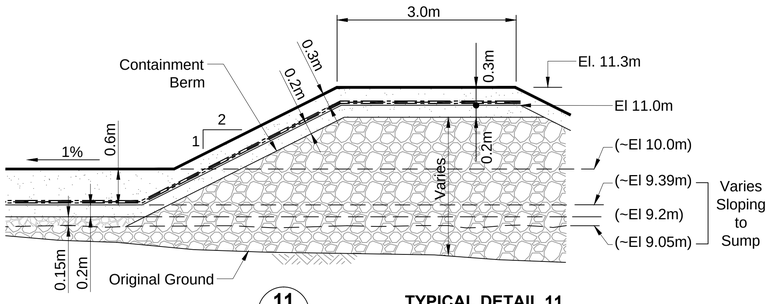
8 RBTF-07 TYPICAL DETAIL 8
TYPICAL FINAL TANK FARM SECTION ALONG BERM
0 0.5 1 1.5 2 2.5
Scale in Metres



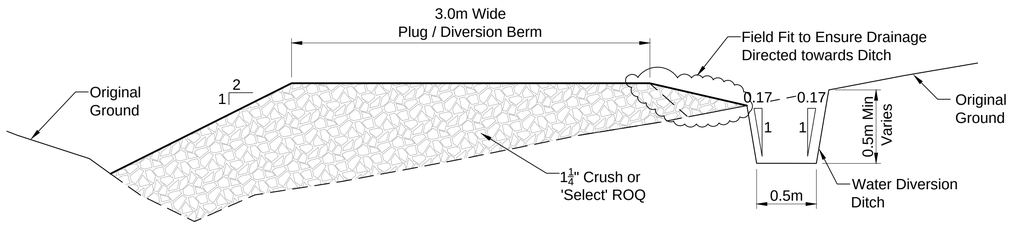
9 RBTF-10 TYPICAL DETAIL 9
0 0.2 0.4 0.6 0.8 1
Scale in Metres



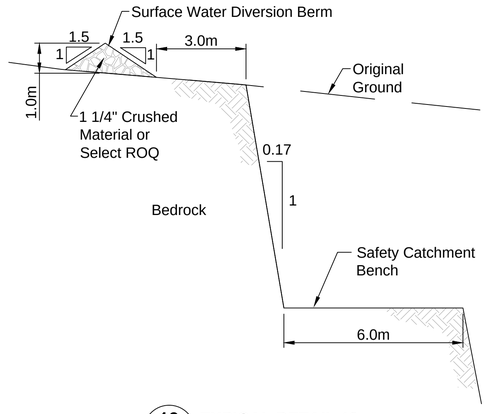
10 RBTF-07 TYPICAL DETAIL 10
ACCESS RAMP
0 0.2 0.4 0.6 0.8 1
Scale in Metres



11 RBTF-07 TYPICAL DETAIL 11
TYPICAL MATERIALS ALONG FILL SECTION
0 0.5 1 1.5 2 2.5
Scale in Metres



12 RBTF-08 DETAIL 12
BERM and DITCH
0 0.25 0.5 0.75 1 1.25
Scale 1:25(m)



13 RBTF-07 TYPICAL DETAIL 13
0 1 2 3 4 5
Scale in Metres

LEGEND

- ¾" Crushed Material
- 1¼" Crushed Material
- ROQ
- 12oz. Non-woven Geotextile
- Textured HDPE 60mil

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE
REFERENCE DRAWINGS			

NO.	DESCRIPTION	CHK'D	APP'D	DATE
0	Issued for Construction	JBK	EMR	06Apr11
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FILE NAME: RB-TF-DETAILS.dwg

NEWMONT NORTH AMERICA

HOPE BAY MINING LTD

SRK JOB NO.: 1CH008 033 SRK DWG NO.: RBTF-10

Doris North Project

DRAWING TITLE:
Fuel Tank Farm
Details
Sheet 2 of 2

NEWMONT DRAWING NO.	SHEET	REVISION NO.
HB+R-CIV-CIV-OND-0047	11 OF 13	0

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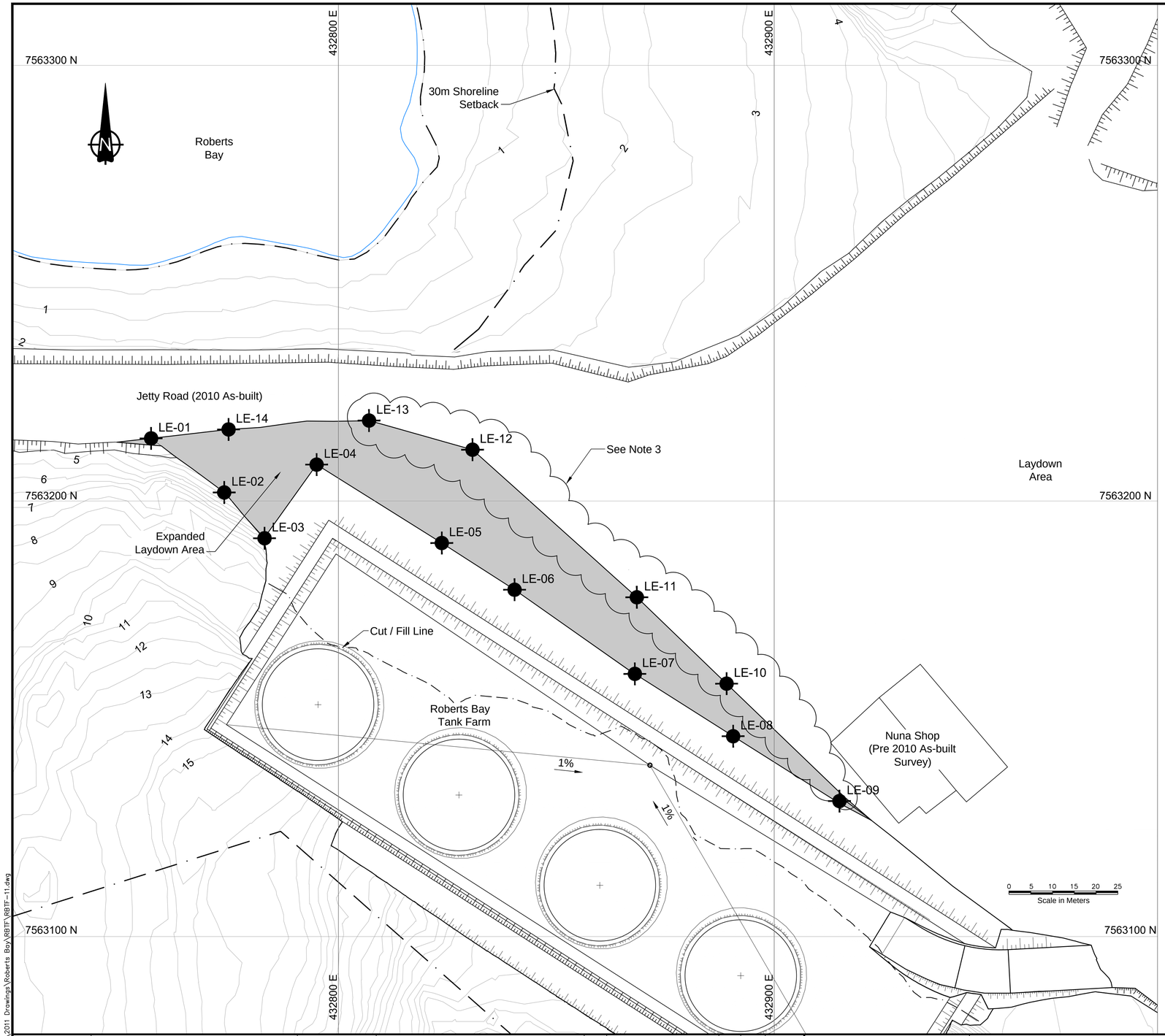

LAYDOWN EXPANSION STAKE OUT POINTS			
ID	Northing	Easting	Elev. (m)
LE-01	7563214.37	432757.02	6.10
LE-02	7563201.95	432773.79	6.15
LE-03	7563191.44	432783.05	6.29
LE-04	7563208.35	432795.00	6.40
LE-05	7563190.35	432823.72	6.50
LE-06	7563179.62	432840.42	6.90
LE-07	7563160.31	432868.03	7.00
LE-08	7563145.99	432890.58	7.20
LE-09	7563131.10	432914.98	7.47
LE-10	7563158.06	432889.08	7.05
LE-11	7563177.89	432868.48	6.20
LE-12	7563211.77	432830.77	5.38
LE-13	7563218.46	432807.03	5.95
LE-14	7563216.42	432774.80	6.00

NOTES:

1. Quarried Rock from the tank farm area will be used to construct the laydown expansion areas. Excess rock will be used at other areas of the site, if applicable.
2. Laydown expansion areas will tie into the existing crest of the as-built laydown pad to ensure a smooth transition and prevent ponding of water in low areas.
3. Based on available as-built data, portions of existing Robert's Bay Laydown area are expected to be slightly under the minimum 1m pad thickness. Transition into existing laydown will be field fit to ensure a smooth transition and uphold minimum permafrost protection.
4. Stake-out table presented above are to final surface grade; 0.15m of $1\frac{1}{4}$" crush should overly the placed ROQ (i.e. ROQ grades are 0.15m below the stake-out elevations listed above).

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE

REFERENCE DRAWINGS

NO.	DESCRIPTION	CHK'D	APP'D	DATE
0	Issued for Construction	JBK	EMR	06Apr11
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JBK	EMR	Apr. 06, 2011

FILE NAME: RBTF-11.dwg

NEWMONT NORTH AMERICA

HOPE BAY MINING LTD.

SRK JOB NO.: 1CH008.033 SRK DWG NO.: RBTF-11

Doris North Project

DRAWING TITLE:

Roberts Bay
Preliminary Laydown Expansion

NEWMONT DRAWING NO.	SHEET	REVISION NO.
HB+R-CIV-CIV-OND-0048	12 OF 13	0

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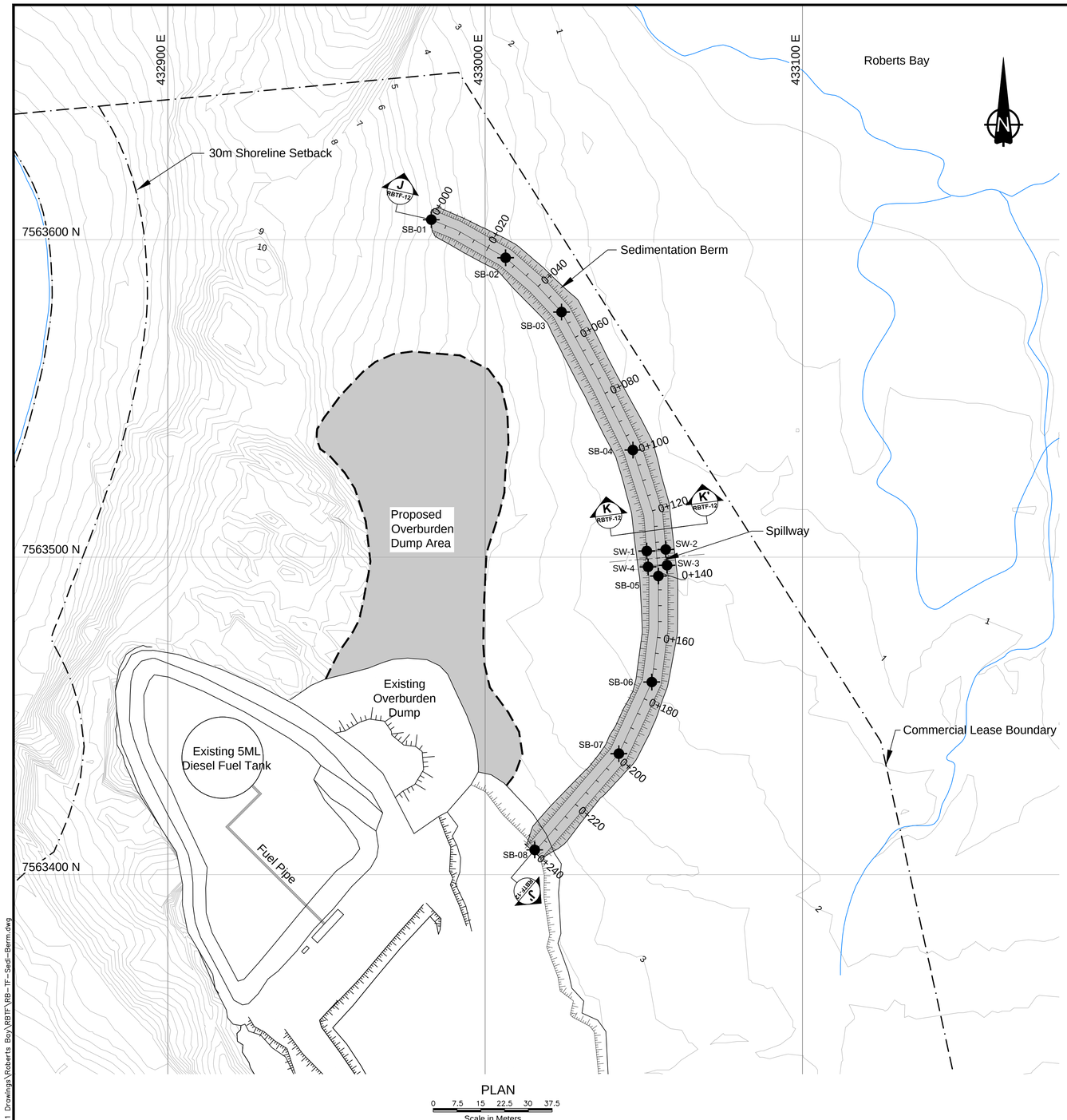
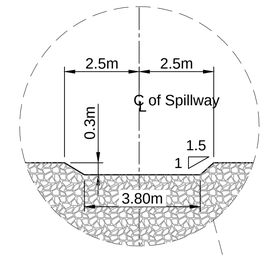
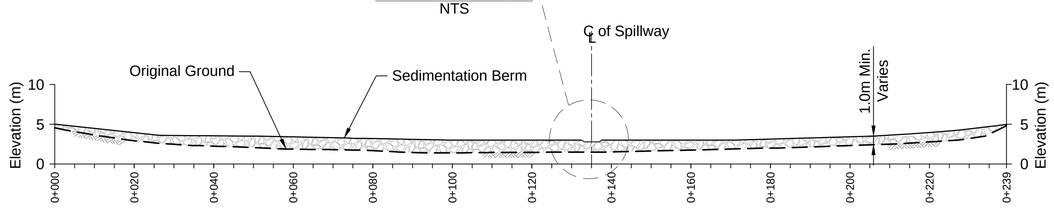


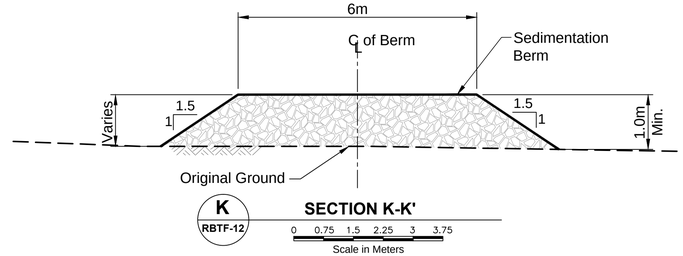
SEDIMENTATION BERM STAKE OUT POINTS			
ID	Northing	Easting	Elev. (m)
SB-01	7563606.32	432983.03	5.00
SB-02	7563594.32	433006.44	4.00
SB-03	7563577.23	433024.08	4.00
SB-04	7563533.76	433046.56	3.00
SB-05	7563494.07	433054.59	3.00
SB-06	7563460.68	433052.51	3.00
SB-07	7563438.11	433042.13	3.50
SB-08	7563407.80	433015.62	5.00
SPILLWAY STAKE OUT POINTS			
ID	Northing	Easting	Elev. (m)
SW-1	7563501.94	433050.92	3.00
SW-2	7563502.44	433056.90	3.00
SW-3	7563497.46	433057.32	3.00
SW-4	7563496.96	433051.34	3.00



SPILLWAY DETAIL
NTS



SECTION J-J'
0 7.5 15 22.5 30 37.5
Horizontal Scale in Meters
0 15 30 45 60 75
2X Vertical Exaggeration Scale in Meters



SECTION K-K'
0 0.75 1.5 2.25 3 3.75
Scale in Meters

NOTES:

1. Overburden material should be placed in lifts not exceeding 1.5m in thickness. The overall final slope of the overburden pile should not exceed 3H:1V.
2. The overburden storage shall have minimum setback of 15m away from the Sedimentation Control Berm and above elevation 2.8m.
3. The Contractor shall employ best management practices to ensure sediment control and to prevent erosion from the overburden stockpile.

LEGEND:

1 1/4" Crush or Select ROQ

Stream / Waterbody

REFERENCE DRAWINGS				REVISIONS				
DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE	NO.	DESCRIPTION	CHK'D	APP'D	DATE
–	–							
				0	Issued for Construction	JBK	EMR	06Apr11
				B	Issued for Review	JBK	EMR	11Mar11
				A	Never Issued	MK	EMR	27Sep10

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FILE NAME: RB–TF–Sedi–Berm.dwg

NEWMONT NORTH AMERICA

HOPE BAY MINING LTD.

SRK JOB NO.: 1CH008.033 SRK DWG NO.: RBTF-12

Doris North Project

DRAWING TITLE:

Roberts Bay Overburden Storage Area and Sedimentation Control Berm

NEWMONT DRAWING NO.	SHEET	REVISION NO.
HB+R-CIV-CIV-OND-0039	13 OF 13	0

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