

Engineering Drawings for the North Dam, Doris North Project, Nunavut, Canada

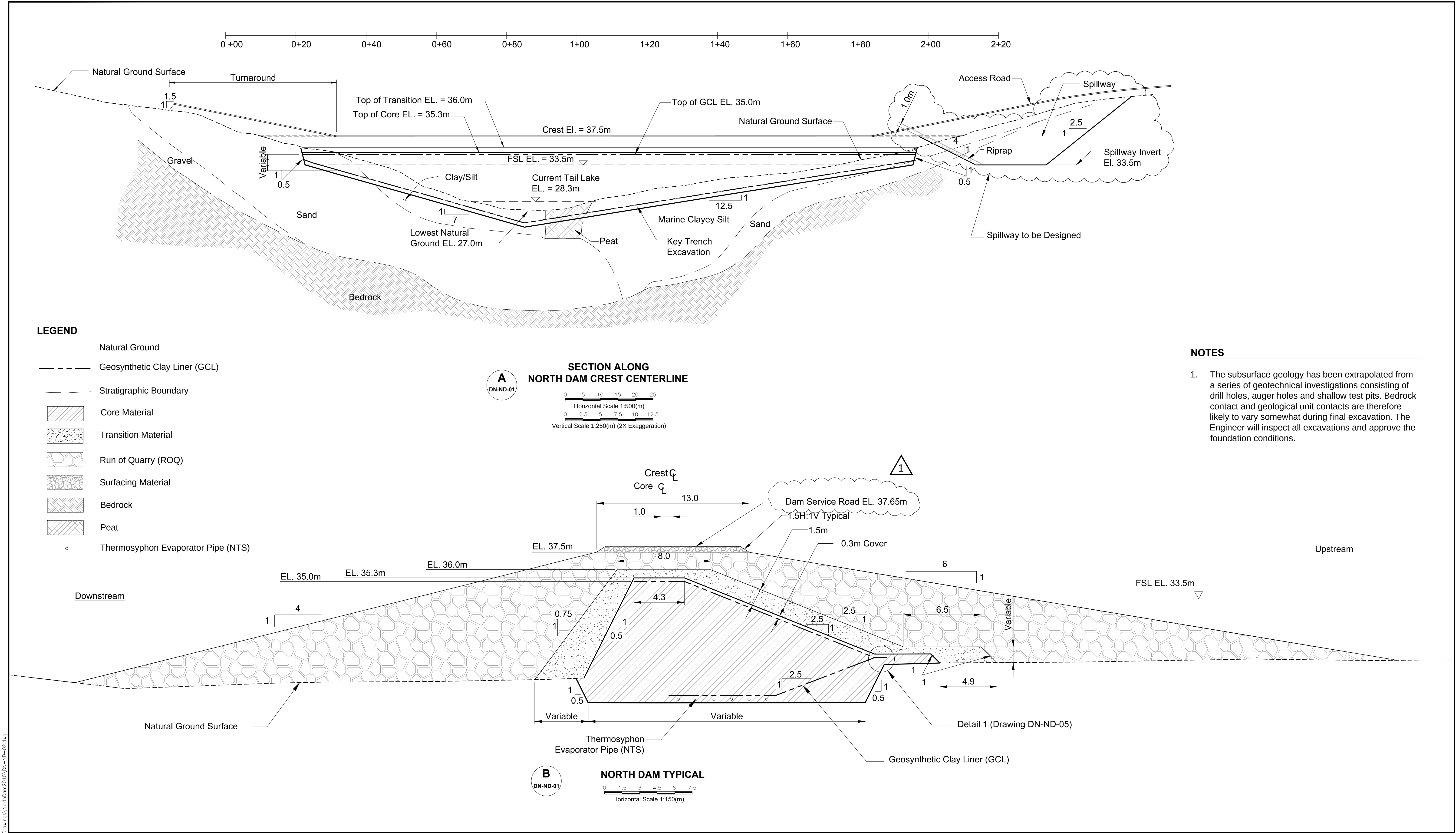
ACTIVE DRAWING STATUS

SRK DWG NUMBER	NEWMONT DWG NUMBER	DRAWING TITLE	REVISION	DATE	STATUS	OLD/REPLACED REVISIONS
DN-ND-00	HB+T-CIV-CIV-OND-0020	Engineering Drawings for North Dam	1	Feb. 4, 2011	Minor Revisions	Rev. 0, Dec. 3, 2010
DN-ND-01	HB+T-CIV-CIV-OND-0021	North Dam General Arrangement	0	Dec. 3, 2010	Issued for Construction	Rev. A, Oct. 22, 2010
DN-ND-02	HB+T-CIV-CIV-OND-0022	North Dam Geological Section and Typical Cross Section	1	Feb. 4, 2011	Updated Service Road Elev.	Rev. 0, Dec. 3, 2010
DN-ND-03	HB+T-CIV-CIV-OND-0023	North Dam Key Trench Layout & Vertical Ground Temperature Cable Drill Holes	0	Dec. 3, 2010	Issued for Construction	Rev. A, Oct. 22, 2010
DN-ND-04	HB+T-CIV-CIV-OND-0024	North Dam Thermosyphon Evaporator Pipe Layout	1	Feb. 4, 2011	Updated Stakeout Table	Rev. 0, Dec. 3, 2010
DN-ND-05	HB+T-CIV-CIV-OND-0025	North Dam Geosynthetic Clay Liner Lower and Upper Layout	1	Feb. 4, 2011	Minor Text Edits	Rev. 0, Dec. 3, 2010
DN-ND-06	HB+T-CIV-CIV-OND-0026	North Dam Core Layout	1	Feb. 4, 2011	Minor Text Edits	Rev. 0, Dec. 3, 2010
DN-ND-07	HB+T-CIV-CIV-OND-0027	North Dam Transition Material Layout	1	Feb. 4, 2011	Updated Radiator Layout	Rev. 0, Dec. 3, 2010
DN-ND-08	HB+T-CIV-CIV-OND-0028	North Dam Shell Access Road and Turnaround Layout	1	Feb. 4, 2011	Minor Text Edits	Rev. 0, Dec. 3, 2010
DN-ND-09	HB+T-CIV-CIV-OND-0029	North Dam Vertical Ground Temperature Cables Layout	0	Dec. 3, 2010	Issued for Construction	Rev. A, Oct. 22, 2010
DN-ND-10	HB+T-CIV-CIV-OND-0030	North Dam Horizontal Ground Temperature Cable Layout - Top of Liner	0	Dec. 3, 2010	Issued for Construction	Rev. A, Oct. 22, 2010
DN-ND-11	HB+T-CIV-CIV-OND-0031	North Dam Horizontal Ground Temperature Cable Layout - Middle Core	0	Dec. 3, 2010	Issued for Construction	Rev. A, Oct. 22, 2010
DN-ND-12	HB+T-CIV-CIV-OND-0032	North Dam Horizontal Ground Temperature Cable Layout - Upper Core	1	Feb. 4, 2011	Added Quantity Table	Rev. 0, Dec. 3, 2010
DN-ND-13	HB+T-CIV-CIV-OND-0033	North Dam Ground Temperature Cables on Layout of Shell	0	Dec. 3, 2010	Issued for Construction	Rev. A, Oct. 22, 2010
DN-ND-14	HB+T-CIV-CIV-OND-0034	North Dam Ground Temperature Cable Clusters at Chainage 0+40 and 0+60	1	Feb. 4, 2011	Minor Text Edits	Rev. 0, Dec. 3, 2010
DN-ND-15	HB+T-CIV-CIV-OND-0035	North Dam Ground Temperature Cable Clusters at Chainage 0+85 and 1+30	1	Feb. 4, 2011	Minor Text Edits	Rev. 0, Dec. 3, 2010
DN-ND-16	HB+T-CIV-CIV-OND-0036	North Dam Ground Temperature Cable Clusters at Chainage 1+75	1	Feb. 4, 2011	Minor Text Edits	Rev. 0, Dec. 3, 2010
DN-ND-17	HB+T-CIV-CIV-OND-0037	North Dam Sections 0+10 to 0+40	0	Dec. 3, 2010	Issued for Construction	Rev. A, Oct. 22, 2010
DN-ND-18	HB+T-CIV-CIV-OND-0038	North Dam Sections 0+45 to 0+55	0	Dec. 3, 2010	Issued for Construction	Rev. A, Oct. 22, 2010
DN-ND-19	HB+T-CIV-CIV-OND-0039	North Dam Sections 0+60 to 0+70	0	Dec. 3, 2010	Issued for Construction	Rev. A, Oct. 22, 2010
DN-ND-20	HB+T-CIV-CIV-OND-0040	North Dam Sections 0+75 to 0+85	0	Dec. 3, 2010	Issued for Construction	Rev. A, Oct. 22, 2010
DN-ND-21	HB+T-CIV-CIV-OND-0041	North Dam Sections 0+90 to 1+00	0	Dec. 3, 2010	Issued for Construction	Rev. A, Oct. 22, 2010
DN-ND-22	HB+T-CIV-CIV-OND-0042	North Dam Sections 1+05 to 1+15	0	Dec. 3, 2010	Issued for Construction	Rev. A, Oct. 22, 2010
DN-ND-23	HB+T-CIV-CIV-OND-0043	North Dam Sections 1+20 to 1+30	0	Dec. 3, 2010	Issued for Construction	Rev. A, Oct. 22, 2010
DN-ND-24	HB+T-CIV-CIV-OND-0044	North Dam Sections 1+35 to 1+55	0	Dec. 3, 2010	Issued for Construction	Rev. A, Oct. 22, 2010
DN-ND-25	HB+T-CIV-CIV-OND-0045	North Dam Sections 1+60 to 1+85	0	Dec. 3, 2010	Issued for Construction	Rev. A, Oct. 22, 2010
DN-ND-26	HB+T-CIV-CIV-OND-0046	North Dam Sections 1+90 to 2+10	0	Dec. 3, 2010	Issued for Construction	Rev. A, Oct. 22, 2010
DN-ND-27	HB+T-CIV-CIV-OND-0047	North Dam Thermosyphon Details	1	Feb. 4, 2011	Update Thermosyphon Layout	Rev. 0, Dec. 3, 2010
DN-ND-28	HB+T-CIV-CIV-OND-0048	North Dam Stake Out Coordinates for Instrument Clusters	0	Dec. 3, 2010	Issued for Construction	
DN-ND-29	HB+T-CIV-CIV-OND-0049	North Dam Percolation Test Borehole Locations	1	Feb. 4, 2011	Minor Text Edits	Rev. 0, Jan. 20, 2011

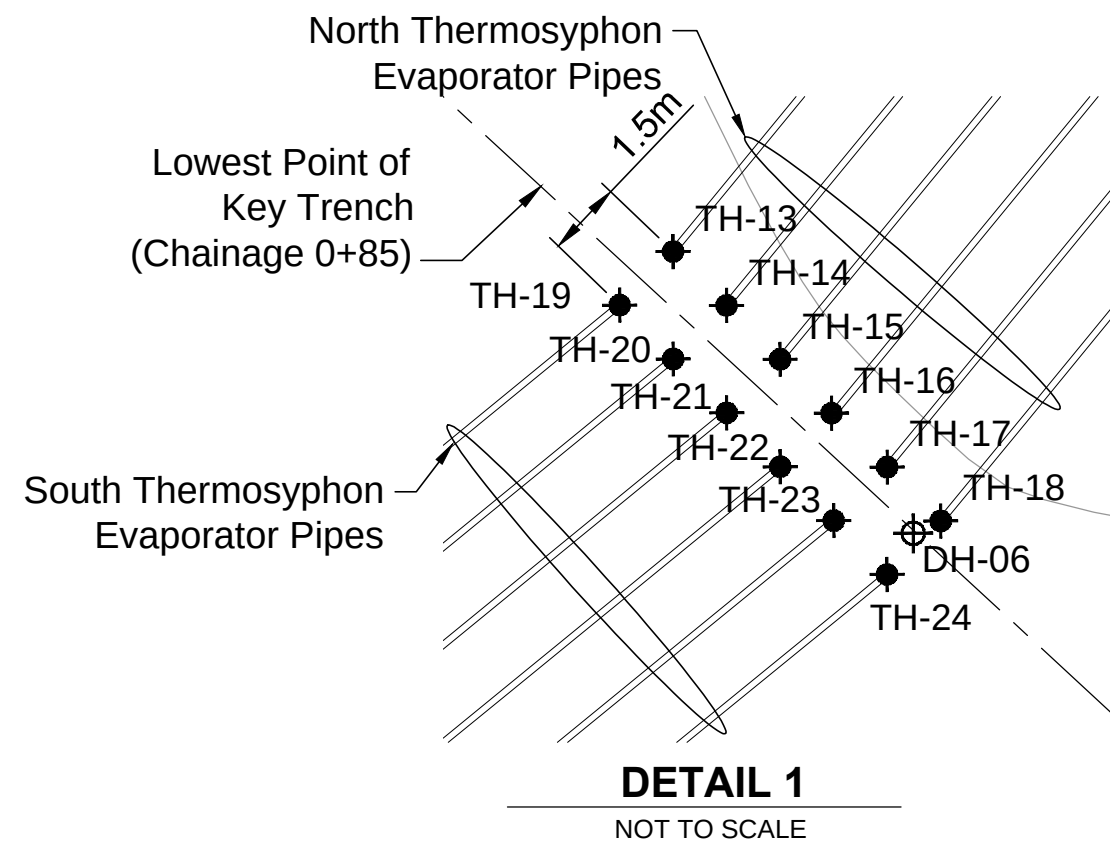
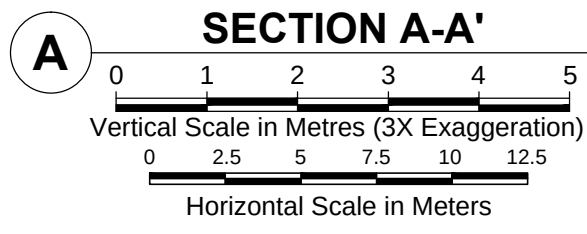
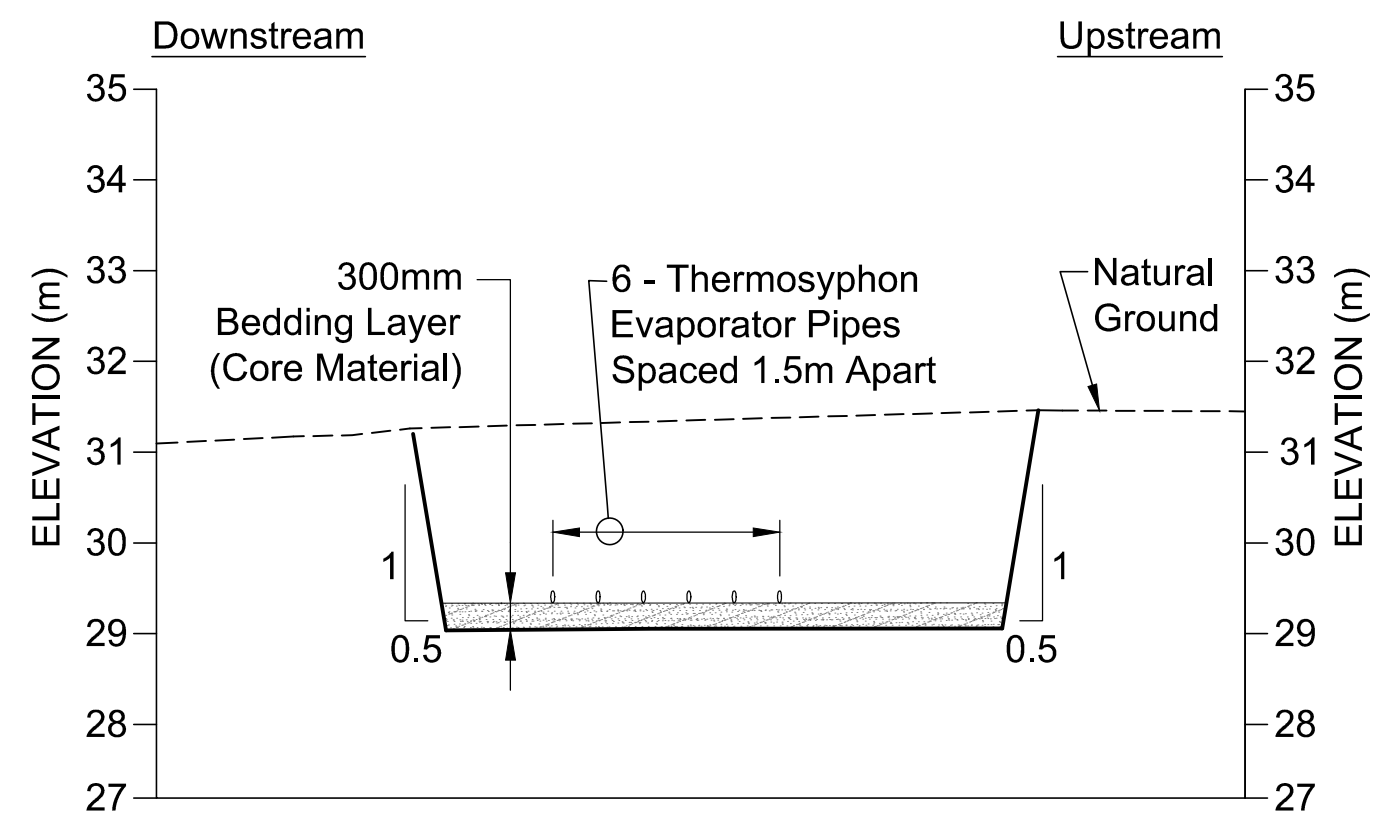
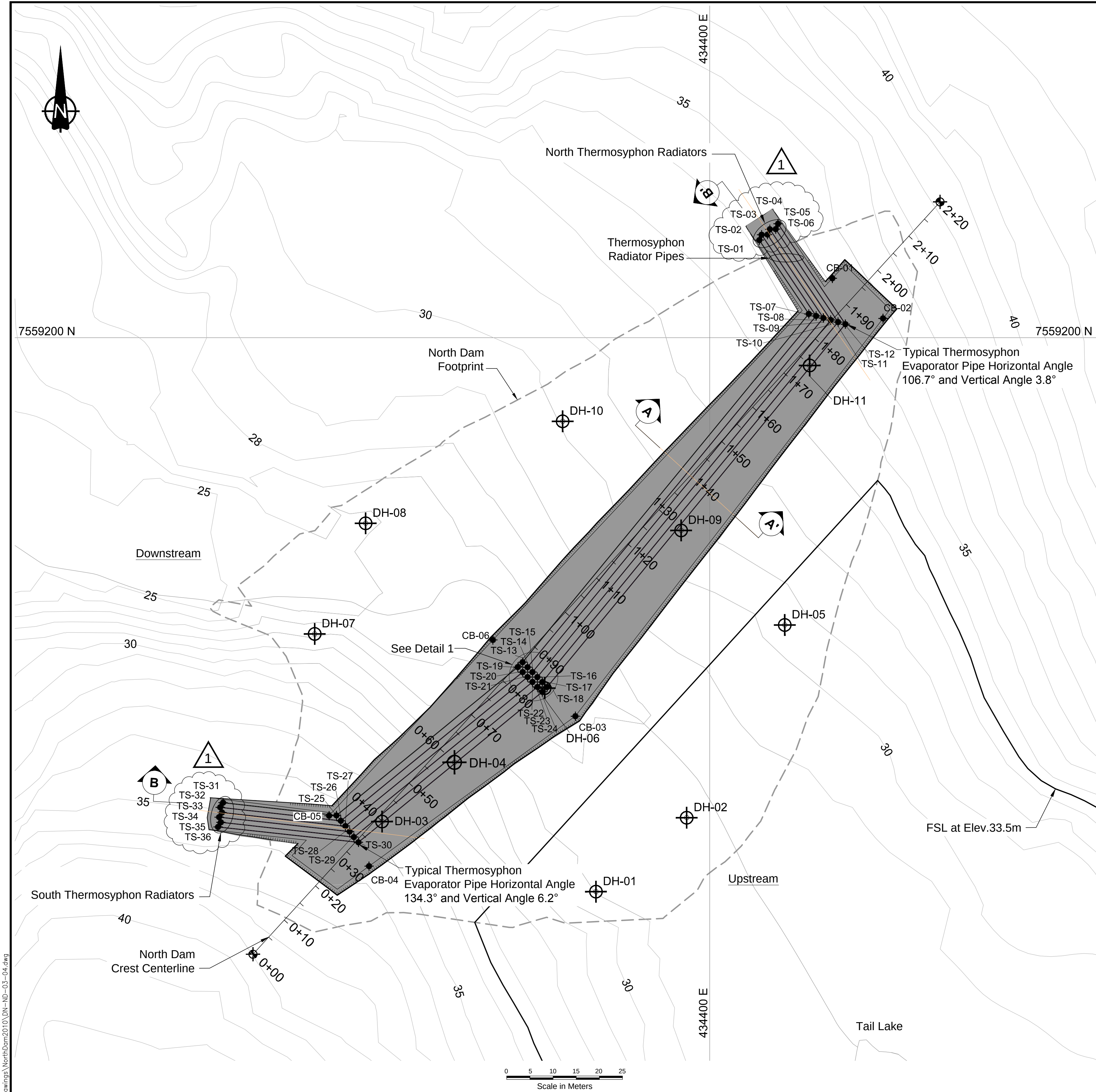
HOPE BAY MINING LTD.



PROJECT NO: 1CH008.027
Revision 1
February 4, 2011
DN-ND-00 / HB+T-CIV-CIV-OND-0020



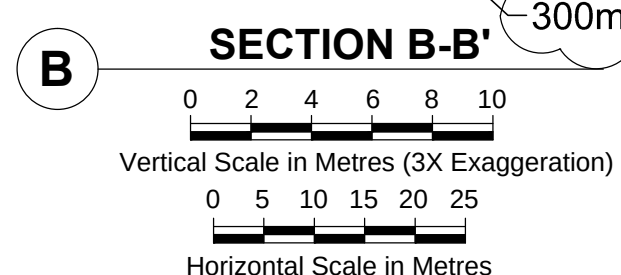
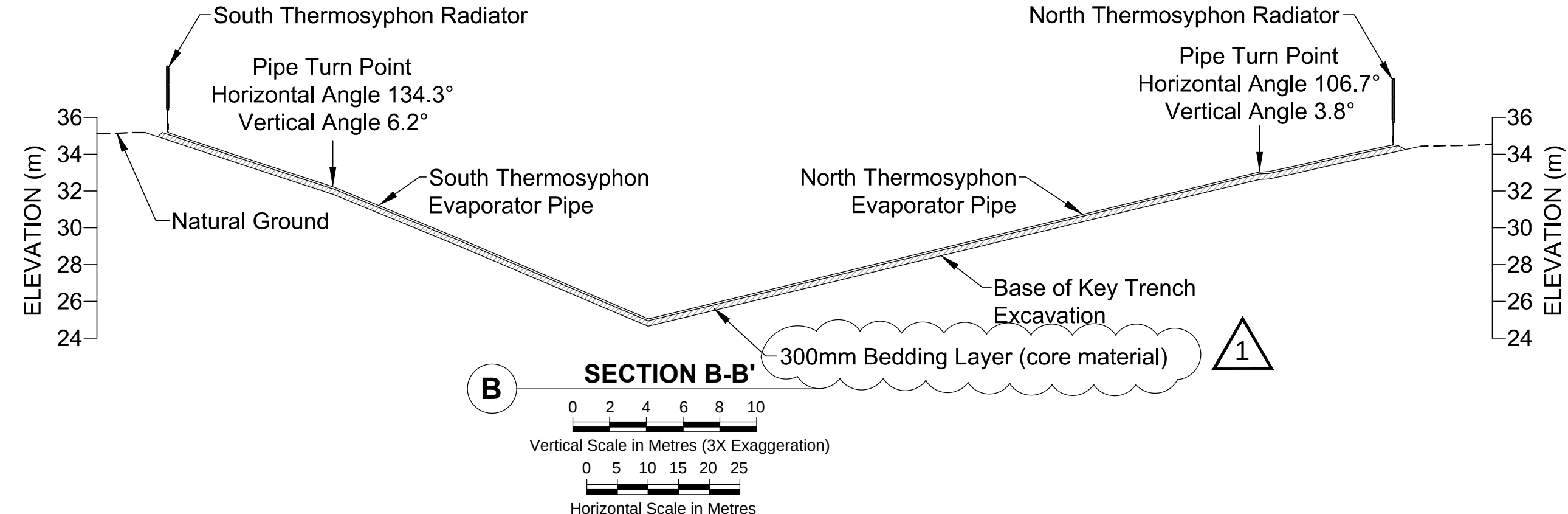
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



BEDDING LAYER STAKE OUT POINTS			
ID	NORTHING	EASTING	ELEV.(m)
CB-01	7559215.71	434429.18	33.80
CB-02	7559206.13	434438.94	33.80
CB-03	7559118.26	434370.99	25.00
CB-04	7559080.89	434319.58	33.80
CB-05	7559088.17	434309.80	33.80
CB-06	7559134.73	434353.17	25.00

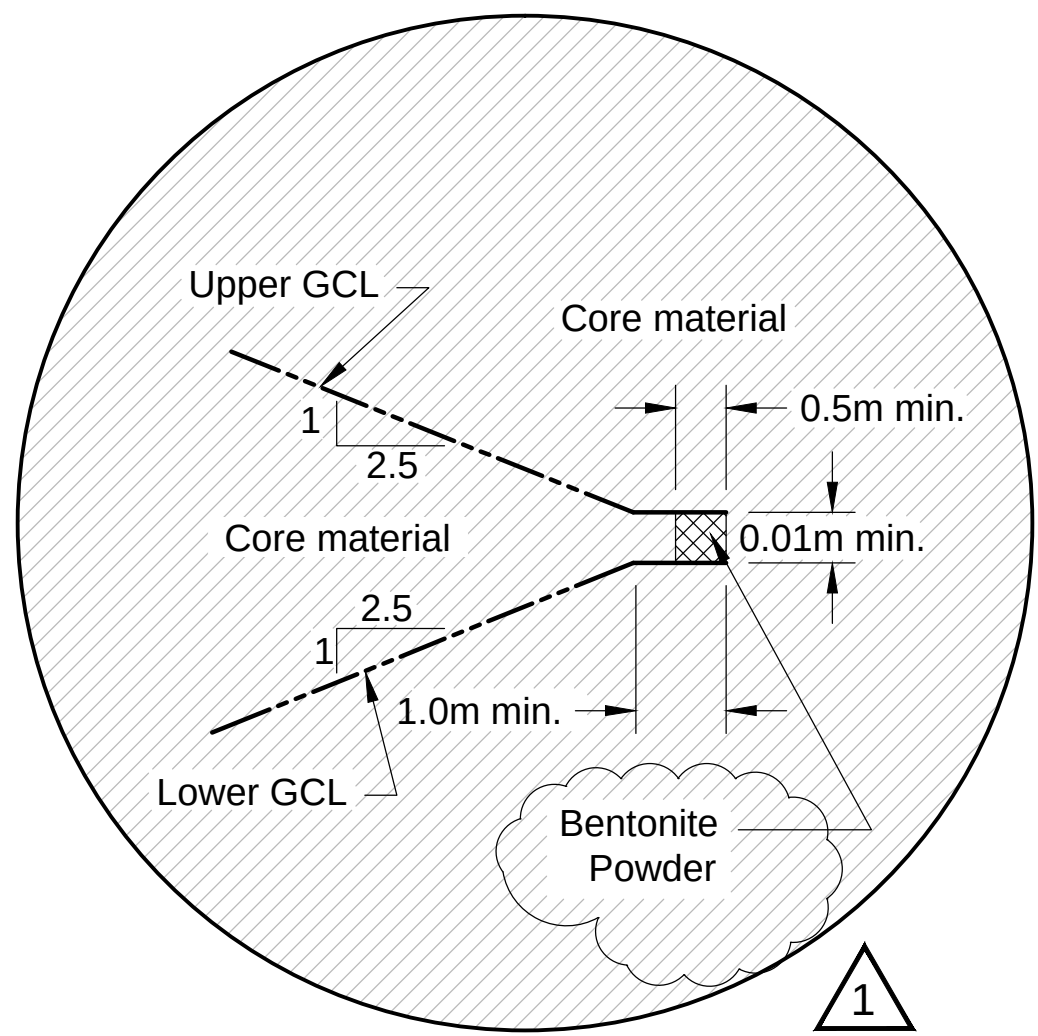
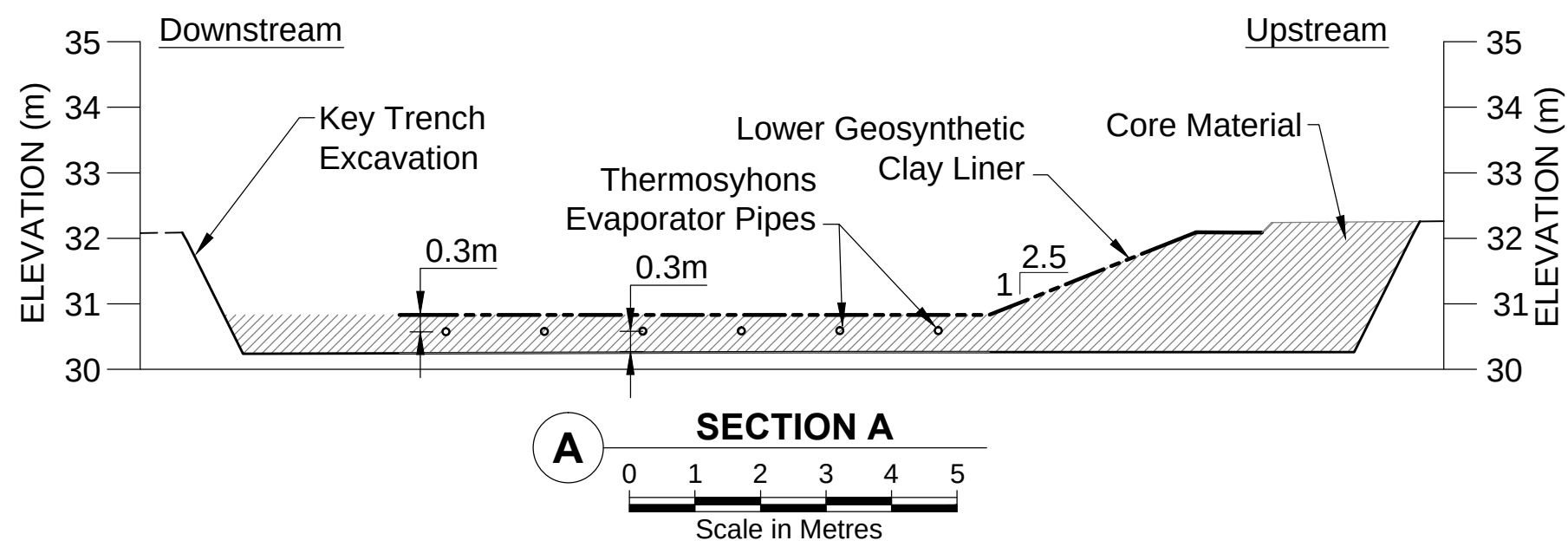
NORTH DAM QUANTITIES		
Item	Unit	Quantity
300mm Bedding Layer (core material)	m³	2,130
Thermosyphon Evaporator Pipes	m	1,260

THERMOSYPHON EVAPORATOR PIPE STAKE OUT POINTS			
ID	NORTHING	EASTING	ELEV.(m)
TS-01	7559221.07	434410.70	34.18
TS-02	7559222.23	434411.20	34.33
TS-03	7559222.25	434412.47	34.39
TS-04	7559223.42	434412.98	34.54
TS-05	7559223.44	434414.24	34.59
TS-06	7559224.61	434414.75	34.74
TS-07	7559205.14	434421.39	32.78
TS-08	7559204.70	434422.97	32.85
TS-09	7559204.26	434424.55	32.91
TS-10	7559203.82	434426.13	32.98
TS-11	7559203.37	434427.71	33.04
TS-12	7559202.93	434429.29	33.10
TS-13	7559129.92	434359.60	25.00
TS-14	7559128.85	434360.66	25.00
TS-15	7559127.78	434361.72	25.00
TS-16	7559126.71	434362.78	25.00
TS-17	7559125.64	434363.84	25.00
TS-18	7559124.57	434364.91	25.00
TS-19	7559128.86	434358.54	25.00
TS-20	7559127.79	434359.60	25.00
TS-21	7559126.72	434360.66	25.00
TS-22	7559125.65	434361.72	25.00
TS-23	7559124.58	434362.79	25.00
TS-24	7559123.51	434363.85	25.00
TS-25	7559096.83	434319.40	32.07
TS-26	7559095.67	434320.35	32.11
TS-27	7559094.54	434321.34	32.14
TS-28	7559093.35	434322.25	32.19
TS-29	7559092.16	434323.16	32.24
TS-30	7559091.03	434324.14	32.28
TS-31	7559099.59	434294.92	34.76
TS-32	7559098.59	434294.30	34.97
TS-33	7559097.47	434294.68	35.07
TS-34	7559096.47	434294.06	35.28
TS-35	7559095.35	434294.44	35.38
TS-36	7559094.35	434293.83	35.58

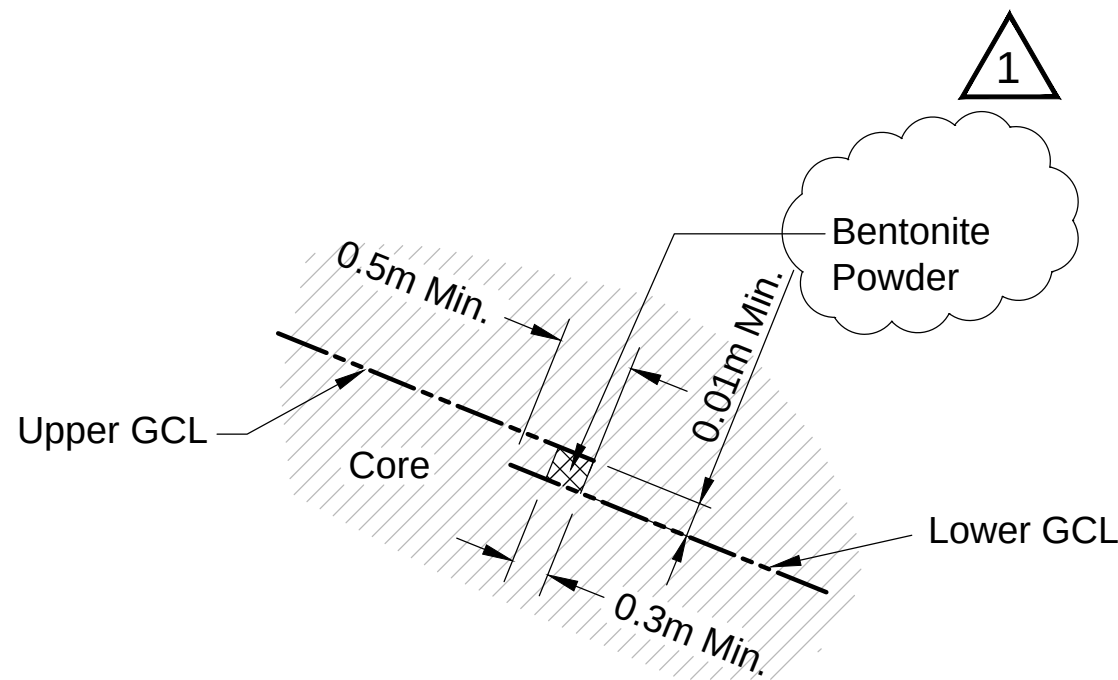


J:\A01 - SITE'S Hope Bay\A010 - Drawings\NorthDam2010\DN-ND-03-04.dwg

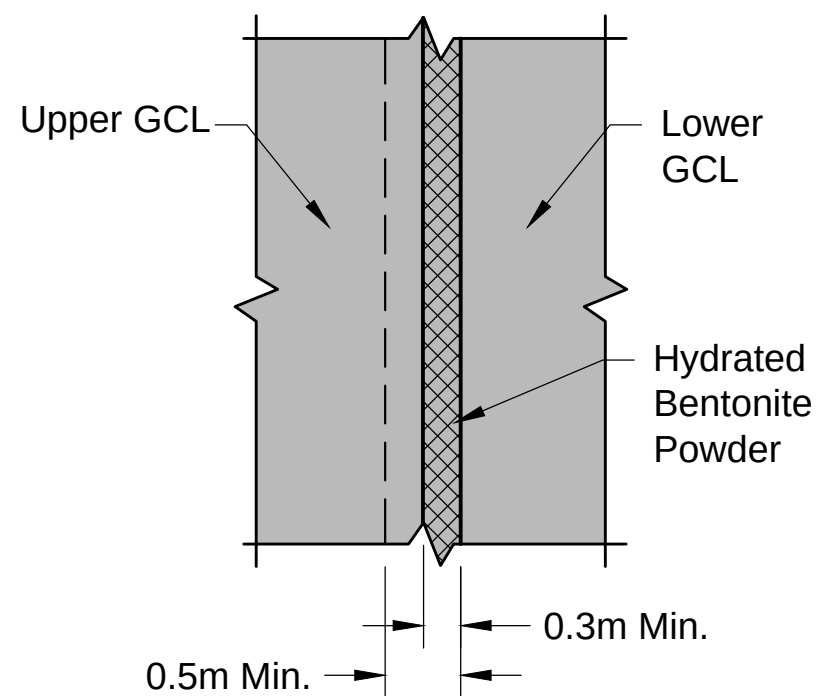
DRAWING NO.				DRAWING TITLE				DRAWING NO.				DRAWING TITLE			
REFERENCE DRAWINGS				REVISIONS				PROFESSIONAL ENGINEER'S STAMP				FILE NAME: DN-ND-03-04.dwg			



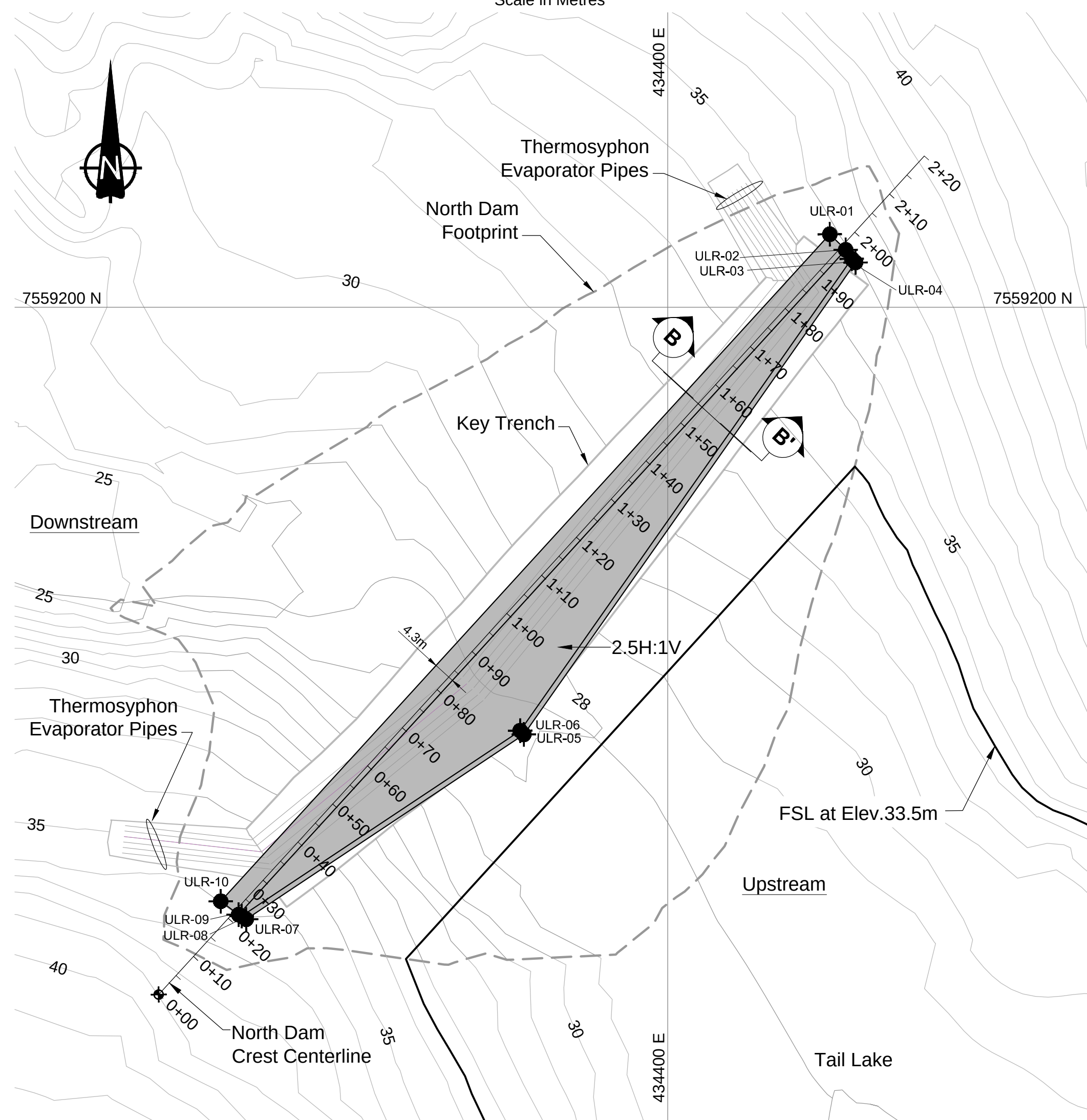
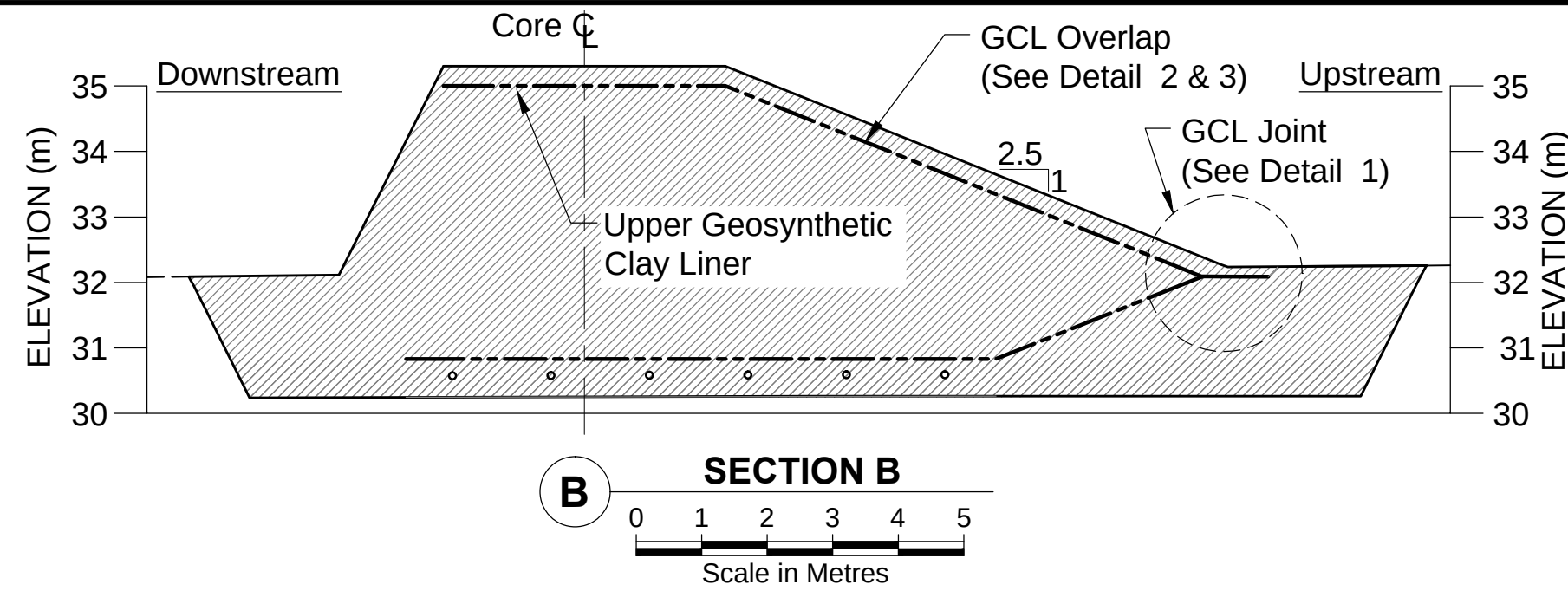
1
TYPICAL UPPER AND LOWER GCL JOINT
NOT TO SCALE



2
TYPICAL GCL OVERLAP - SECTION
NOT TO SCALE



3
TYPICAL GCL OVERLAP - PERPENDICULAR VIEW
NOT TO SCALE



GEOSYNTHETIC CLAY LINER
UPPER PLAN

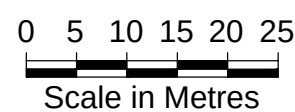
NORTH DAM QUANTITIES		
Item	Unit	Quantity
Geosynthetic Clay Liner (Lower)	m ²	2,441
Geosynthetic Clay Liner (Upper)	m ²	2,597
Bentonite Powder (163mX0.01mX0.5m)	m ³	8.15

UPPER GCL LINER STAKE OUT POINTS			
ID	NORTHING	EASTING	Elev. (m)
ULR-01	7559214.16	434431.41	35.00
ULR-02	7559211.14	434434.48	35.00
ULR-03	7559209.40	434435.66	34.18
ULR-04	7559208.68	434436.38	34.17
ULR-05	7559117.26	434372.13	28.50
ULR-06	7559117.99	434371.42	28.50
ULR-07	7559081.44	434318.33	34.71
ULR-08	7559082.06	434317.46	34.75
ULR-09	7559082.35	434316.87	35.00
ULR-10	7559084.92	434313.41	35.00

LEGEND

- Geosynthetic Clay Liner (Plan View)
- Geosynthetic Clay Liner (Section View)
- Core Material
- Bentonite Powder
- Thermosyphon Evaporator Pipe

GEOSYNTHETIC CLAY LINER
LOWER PLAN



LOWER GCL LINER STAKE OUT POINTS			
ID	NORTHING	EASTING	Elev. (m)
LLR-01	7559215.72	434429.18	34.11
LLR-02	7559130.18	434358.87	25.28
LLR-03	7559095.64	434316.75	32.72
LLR-04	7559088.17	434309.75	34.17
LLR-05	7559083.45	434316.09	34.15
LLR-06	7559123.78	434365.26	25.25
LLR-07	7559209.41	434435.62	34.13
LLR-08	7559208.68	434436.38	34.17
LLR-09	7559117.26	434372.13	28.50
LLR-10	7559117.99	434371.42	28.50
LLR-11	7559081.44	434318.33	34.71
LLR-12	7559082.06	434317.46	34.75

Original Drawings
Stamped and
Signed by Engineer



DESIGN: EMR
CHECKED: LW
DRAWN: VY/LR/NV/DC
APPROVED: EMR
REVIEWED: EMR
DATE: Feb. 4, 2011

FILE NAME: DN-ND-05.dwg



HOPE BAY MINING LTD.

SRK JOB NO.: 1CH008.027
SRK DWG NO.: DN-ND-05

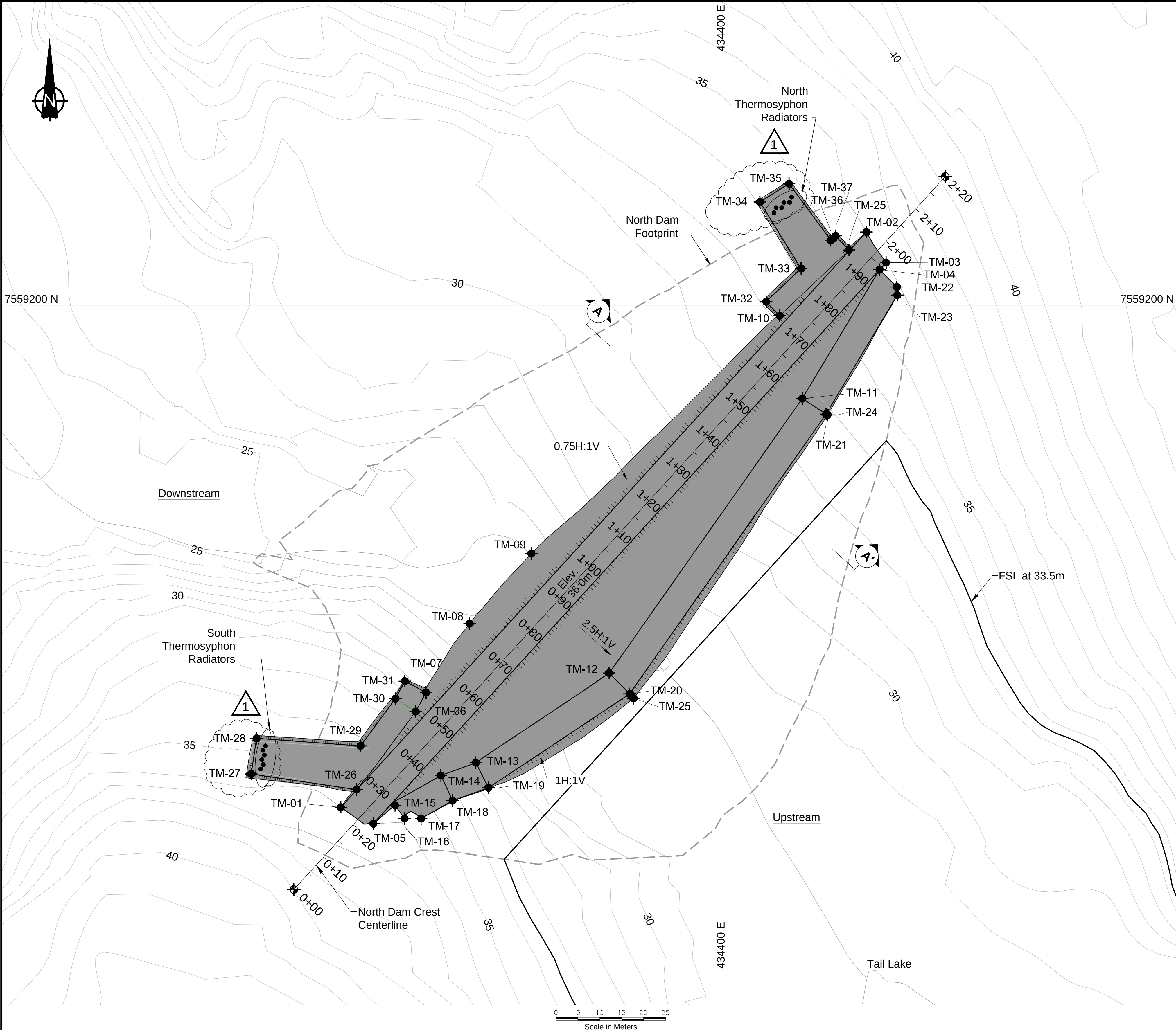
Doris North Project

DRAWING TITLE:
North Dam
Geosynthetic Clay Liner
Lower and Upper Layout

NEWMONT DRAWING NO.
HB+T-CIV-CIV-OND-0025

SHEET
6 OF 29

1

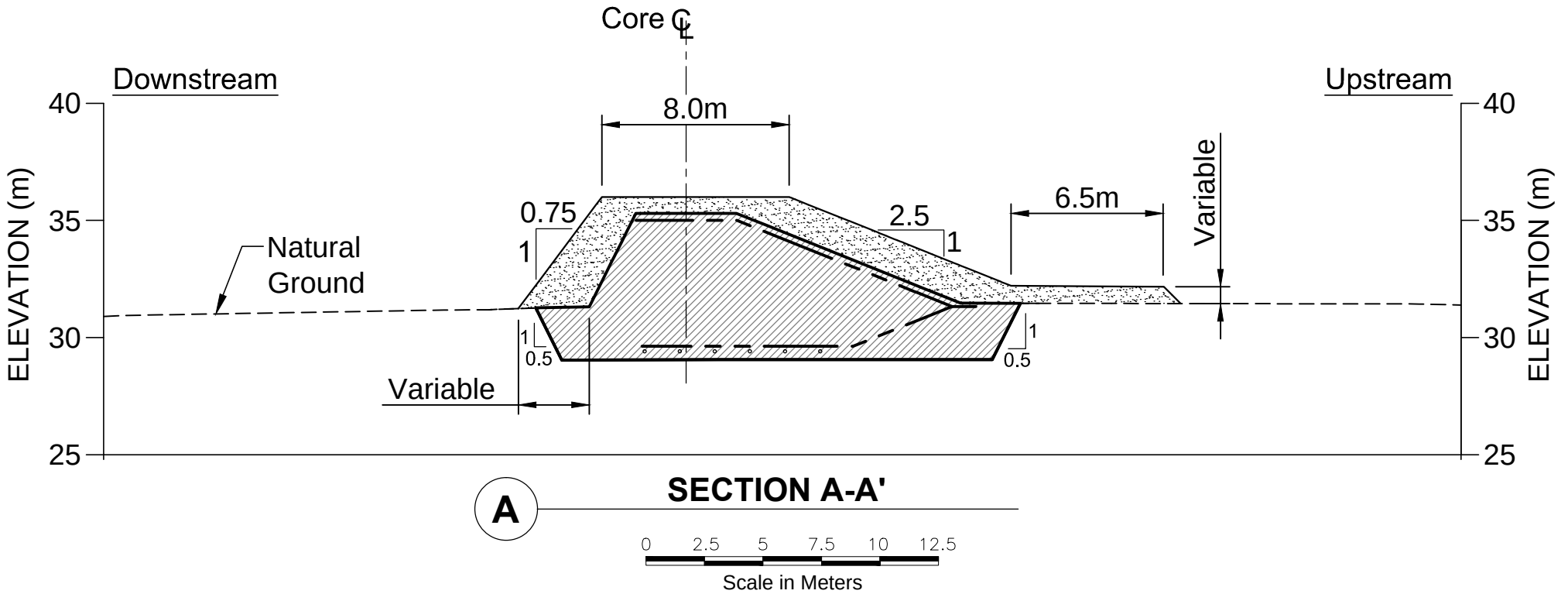


LEGEND

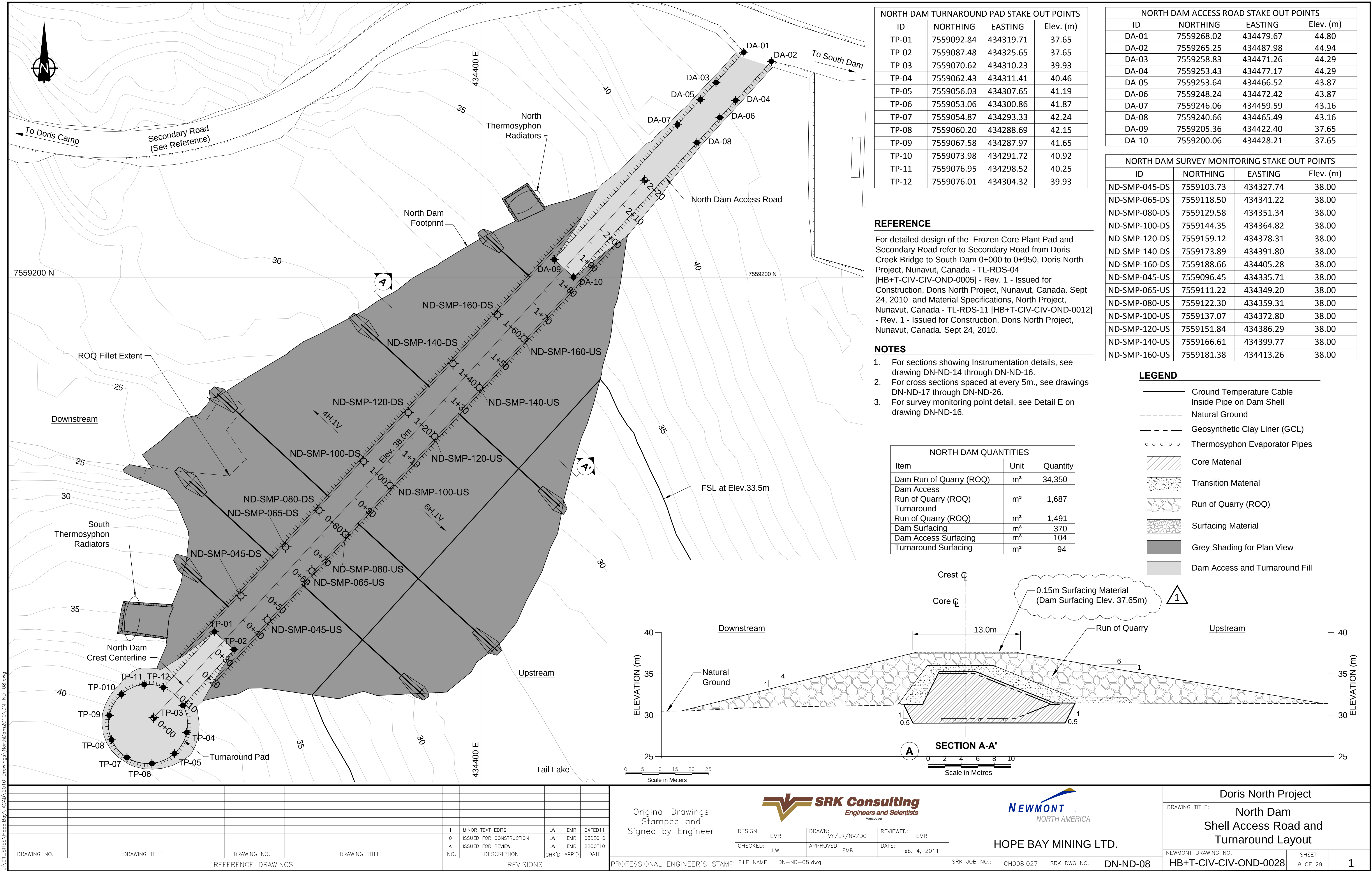
- Natural Ground
- - - - - Geosynthetic Clay Liner (GCL)
- Thermosyphon Evaporator Pipes
- [Hatched Box] Core Material
- [Dotted Box] Transition Material
- [Grey Box] Grey Shading for Plan View

NORTH DAM TRANSITION MATERIAL STAKE OUT POINTS			
ID	NORTHING	EASTING	ELEV.(m)
TM-01	7559085.62	434312.08	36.00
TM-02	7559216.68	434431.76	36.00
TM-03	7559209.74	434436.24	36.00
TM-04	7559208.09	434434.77	35.99
TM-05	7559081.86	434319.48	36.00
TM-06	7559107.42	434329.13	33.19
TM-07	7559111.75	434331.48	31.61
TM-08	7559127.46	434341.41	27.27
TM-09	7559143.43	434355.47	26.75
TM-10	7559197.58	434412.00	33.72
TM-11	7559178.73	434417.16	33.28
TM-12	7559116.20	434373.17	29.40
TM-13	7559095.77	434342.83	32.86
TM-14	7559092.85	434334.87	34.42
TM-15	7559086.06	434324.41	35.67
TM-16	7559083.06	434326.58	35.94
TM-17	7559083.03	434330.34	35.51
TM-18	7559087.11	434337.52	34.42
TM-19	7559090.07	434345.69	32.86
TM-20	7559111.44	434377.82	29.40
TM-21	7559175.20	434422.58	33.27
TM-22	7559204.16	434438.68	35.89
TM-23	7559202.31	434438.80	35.77
TM-24	7559174.99	434422.92	32.88
TM-25	7559212.58	434427.79	35.79
TM-25	7559110.47	434378.76	28.07
TM-26	7559089.64	434315.68	35.93
TM-27	7559093.20	434291.67	36.81
TM-28	7559101.33	434292.89	35.22
TM-29	7559099.58	434316.56	35.08
TM-30	7559110.35	434324.51	33.19
TM-31	7559114.35	434326.67	31.61
TM-32	7559200.81	434408.94	33.72
TM-33	7559208.36	434416.89	34.76
TM-34	7559223.52	434407.52	34.66
TM-35	7559227.71	434414.14	35.39
TM-36	7559214.79	434423.66	35.65
TM-37	7559215.81	434424.73	35.79

NORTH DAM QUANTITIES		
Item	Unit	Quantity
Total Transition Material	m³	6,600



DRAWING NO.		DRAWING TITLE		DRAWING NO.		DRAWING TITLE	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	
NO.		DESCRIPTION		CHK'D		APP'D	
1		UPDATED RADIATOR LAYOUT		LW		EMR	
0		ISSUED FOR CONSTRUCTION		LW		EMR	
A		ISSUED FOR REVIEW		LW		EMR	



NORTH DAM TURNAROUND PAD STAKE OUT POINTS			
ID	NORTHING	EASTING	Elev. (m)
TP-01	7559092.84	434319.71	37.65
TP-02	7559087.48	434325.65	37.65
TP-03	7559070.62	434310.23	39.93
TP-04	7559062.43	434311.41	40.46
TP-05	7559056.03	434307.65	41.19
TP-06	7559053.06	434300.86	41.87
TP-07	7559054.87	434293.33	42.24
TP-08	7559060.20	434288.69	42.15
TP-09	7559067.58	434287.97	41.65
TP-10	7559073.98	434291.72	40.92
TP-11	7559076.95	434298.52	40.25
TP-12	7559076.01	434304.32	39.93

NORTH DAM ACCESS ROAD STAKE OUT POINTS			
ID	NORTHING	EASTING	Elev. (m)
DA-01	7559268.02	434479.67	44.80
DA-02	7559265.25	434487.98	44.94
DA-03	7559258.83	434471.26	44.29
DA-04	7559253.43	434477.17	44.29
DA-05	7559253.64	434466.52	43.87
DA-06	7559248.24	434472.42	43.87
DA-07	7559246.06	434459.59	43.16
DA-08	7559240.66	434465.49	43.16
DA-09	7559205.36	434422.40	37.65
DA-10	7559200.06	434428.21	37.65

NORTH DAM SURVEY MONITORING STAKE OUT POINTS			
ID	NORTHING	EASTING	Elev. (m)
ND-SMP-045-DS	7559103.73	434327.74	38.00
ND-SMP-065-DS	7559118.50	434341.22	38.00
ND-SMP-080-DS	7559129.58	434351.34	38.00
ND-SMP-100-DS	7559144.35	434364.82	38.00
ND-SMP-120-DS	7559159.12	434378.31	38.00
ND-SMP-140-DS	7559173.89	434391.80	38.00
ND-SMP-160-DS	7559188.66	434405.28	38.00
ND-SMP-045-US	7559096.45	434335.71	38.00
ND-SMP-065-US	7559111.22	434349.20	38.00
ND-SMP-080-US	7559122.30	434359.31	38.00
ND-SMP-100-US	7559137.07	434372.80	38.00
ND-SMP-120-US	7559151.84	434386.29	38.00
ND-SMP-140-US	7559166.61	434399.77	38.00
ND-SMP-160-US	7559181.38	434413.26	38.00

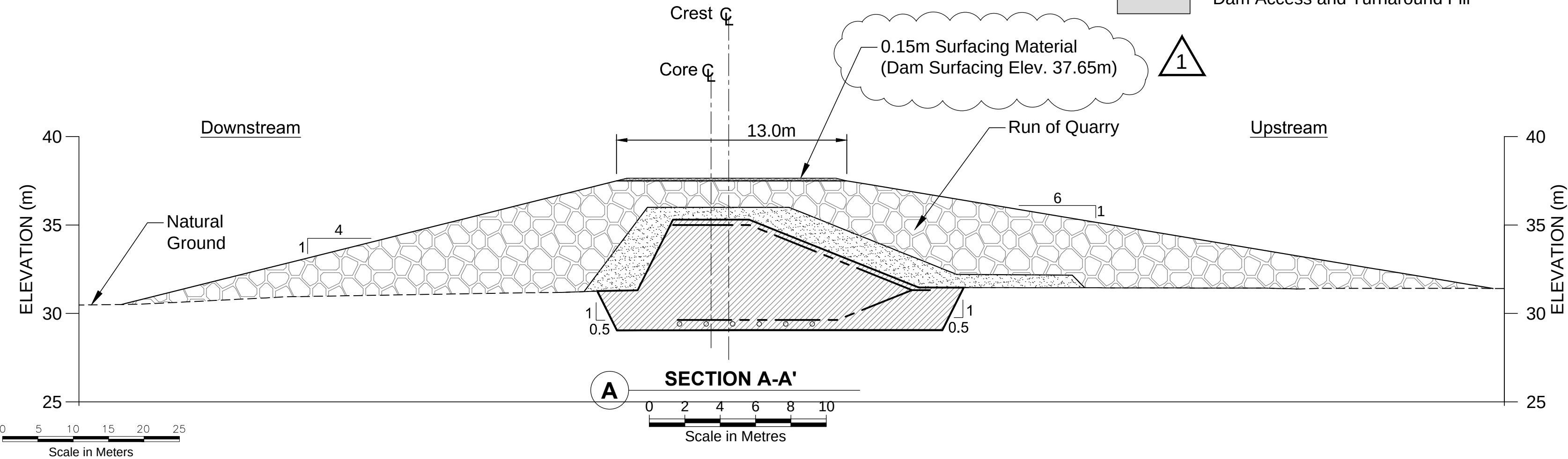
REFERENCE

For detailed design of the Frozen Core Plant Pad and Secondary Road refer to Secondary Road from Doris Creek Bridge to South Dam 0+000 to 0+950, Doris North Project, Nunavut, Canada - TL-RDS-04 [HB+T-CIV-CIV-OND-0005] - Rev. 1 - Issued for Construction, Doris North Project, Nunavut, Canada. Sept 24, 2010 and Material Specifications, North Project, Nunavut, Canada - TL-RDS-11 [HB+T-CIV-CIV-OND-0012] - Rev. 1 - Issued for Construction, Doris North Project, Nunavut, Canada. Sept 24, 2010.

- NOTES**
- For sections showing Instrumentation details, see drawing DN-ND-14 through DN-ND-16.
 - For cross sections spaced at every 5m., see drawings DN-ND-17 through DN-ND-26.
 - For survey monitoring point detail, see Detail E on drawing DN-ND-16.

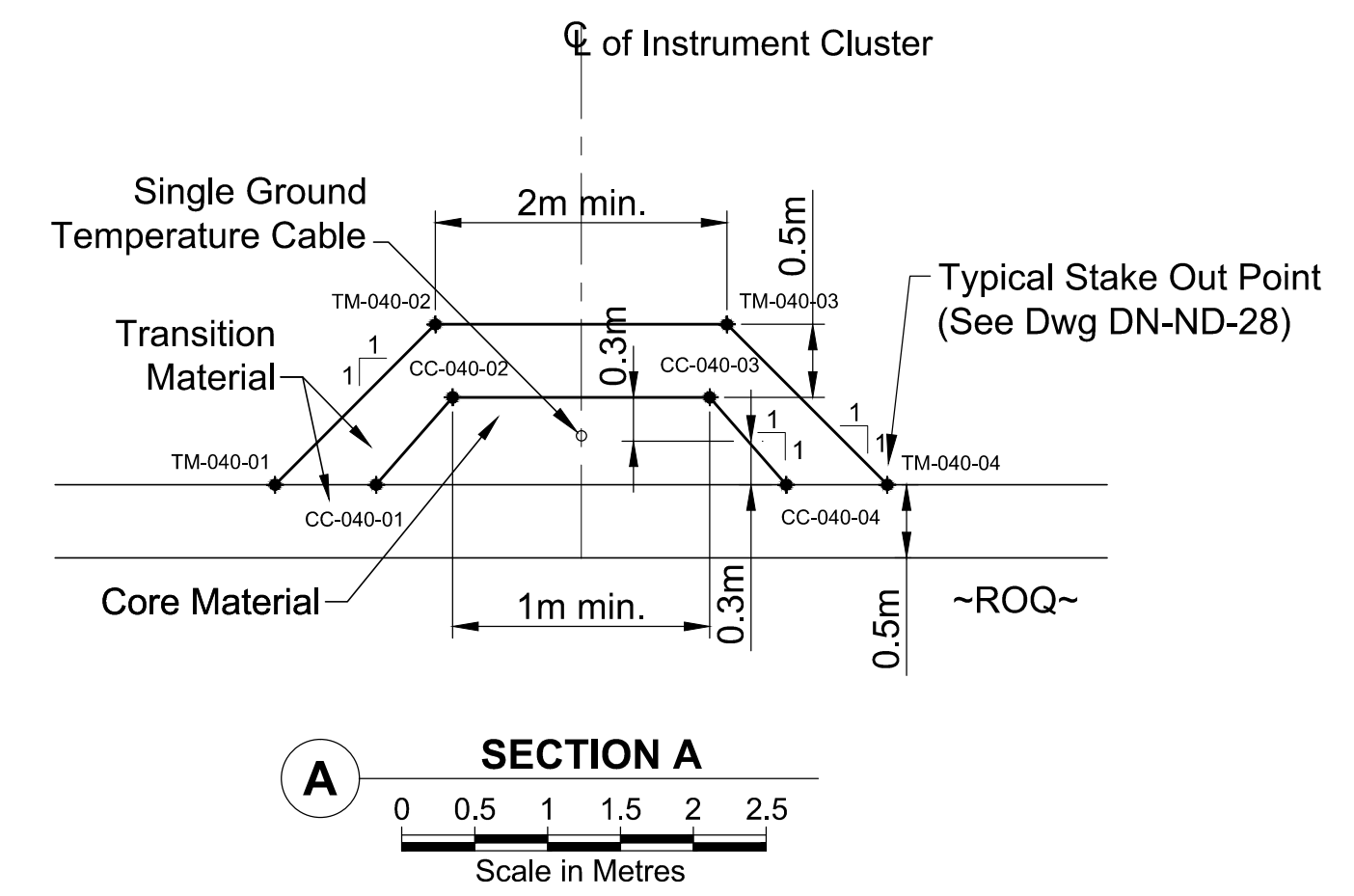
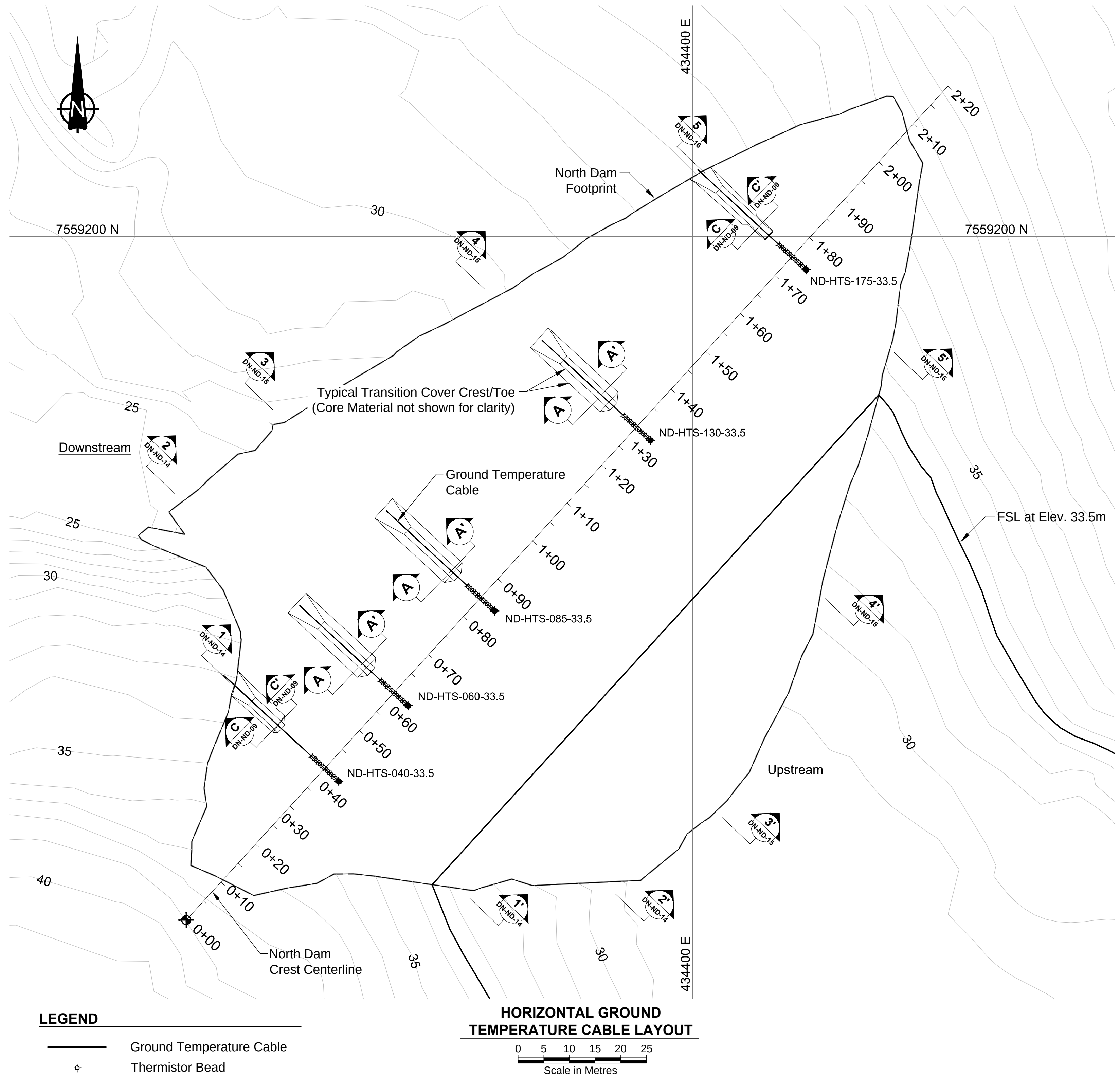
NORTH DAM QUANTITIES		
Item	Unit	Quantity
Dam Run of Quarry (ROQ)	m³	34,350
Dam Access Run of Quarry (ROQ)	m³	1,687
Turnaround Run of Quarry (ROQ)	m³	1,491
Dam Surfacing	m³	370
Dam Access Surfacing	m³	104
Turnaround Surfacing	m³	94

- LEGEND**
- Ground Temperature Cable Inside Pipe on Dam Shell
 - Natural Ground
 - Geosynthetic Clay Liner (GCL)
 - Thermosyphon Evaporator Pipes
 - Core Material
 - Transition Material
 - Run of Quarry (ROQ)
 - Surfacing Material
 - Grey Shading for Plan View
 - Dam Access and Turnaround Fill



J:\01 - LITEST\Hope\Box\ACAD\2010 Drawings\NorthDam\2010\DN-ND-08.dwg

												Doris North Project			
								Original Drawings Stamped and Signed by Engineer				DRAWING TITLE: North Dam Shell Access Road and Turnaround Layout			
								DESIGN: EMR CHECKED: LW FILE NAME: DN-ND-08.dwg				DRAWN: VY/LR/NV/DC APPROVED: EMR SRK JOB NO.: 1CH008.027 SRK DWG NO.: DN-ND-08			
								REVIEWED: EMR DATE: Feb. 4, 2011				HOPE BAY MINING LTD.			
								PROFESSIONAL ENGINEER'S STAMP				NEWMONT DRAWING NO. HB+T-CIV-CIV-OND-0028			
												SHEET 9 OF 29			
												1			



HORIZONTAL UPPER CORE GROUND TEMPERATURE CABLE STAKE OUT POINTS			
ID	NORTHING	EASTING	Elev. (m)
ND-HTS-040-33.5	7559093.85	434331.08	33.50
ND-HTS-060-33.5	7559108.62	434344.57	33.50
ND-HTS-085-33.5	7559127.07	434361.44	33.50
ND-HTS-130-33.5	7559160.30	434391.79	33.50
ND-HTS-175-33.5	7559193.53	434422.12	33.50

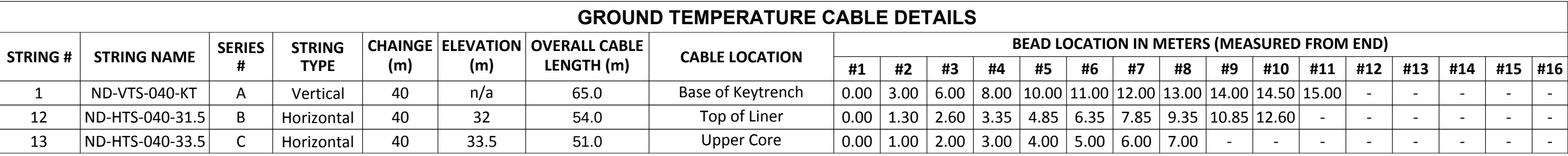
1

NORTH DAM QUANTITIES:

Total Core Material for Embedded Ground Temperature Cable Leads	264m ³
Total Transition Material for Embedded Ground Temperature Cable Leads	914m ³

I:\01_SITES\Hope Bay\ACAD\2010 Drawings\North Dam\2010 DN-ND-12-13.dwg

								Original Drawings Stamped and Signed by Engineer			 Engineers and Scientists Vancouver			 NORTH AMERICA			Doris North Project		
											DESIGN: EMR CHECKED: LW			DRAWN: VY/LR/NV/DC APPROVED: EMR			REVIEWED: EMR DATE: Feb. 4, 2011		
											FILE NAME: DN-ND-12-13.dwg			SRK JOB NO.: 1CH008.027 SRK DWG NO.: DN-ND-12			HOPE BAY MINING LTD.		
																	DRAWING TITLE: North Dam Horizontal Ground Temperature Cable Layout - Upper Core		
																	NEWMONT DRAWING NO. HB+T-CIV-CIV-OND-0032		
																	SHEET 13 OF 29		
																	1		



1
DN-ND-09

LEGEND

- | | |
|---|-------------------------------|
|  | Ground Temperature Cable |
|  | Thermistor Bead Location |
|  | Bentonite Water Stop |
|  | Natural ground |
|  | Geosynthetic Clay Liner (GCL) |
|  | Thermosyphon Evaporator Pipes |
|  | Core Material |
|  | Transition Material |
|  | Run of Quarry (ROQ) Material |
|  | Surfacing Material |



GROUND TEMPERATURE CABLE DETAILS																							
STRING #	STRING NAME	SERIES #	STRING TYPE	CHAINGE (m)	ELEVATION (m)	OVERALL CABLE LENGTH (m)	CABLE LOCATION	BEAD LOCATION IN METERS (MEASURED FROM END)															
								#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16
2	ND-VTS-060-KT	A	Vertical	60	n/a	98.0	Base of Keytrench	0.00	3.00	6.00	8.00	10.00	11.00	12.00	13.00	14.00	14.50	15.00	-	-	-	-	
3	ND-VTS-060-US	A	Vertical	60	n/a	78.0	Upstream Foundation	0.00	3.00	6.00	8.00	10.00	11.00	12.00	13.00	14.00	14.50	15.00	-	-	-	-	
4	ND-VTS-060-DS	A	Vertical	60	n/a	57.0	Downstream Foundation	0.00	3.00	6.00	8.00	10.00	11.00	12.00	13.00	14.00	14.50	15.00	-	-	-	-	
14	ND-HTS-060-28.8	B	Horizontal	60	28.8	89.0	Top of Liner	0.00	1.30	2.60	3.35	4.85	6.35	7.85	9.35	10.85	12.60	-	-	-	-		
15	ND-HTS-060-31.0	D	Horizontal	60	31.0	75.0	Middle Core	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	-	-	-	-	-	-		
16	ND-HTS-060-33.5	C	Horizontal	60	33.5	48.0	Upper Core	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	-	-	-	-	-	-		

[illegible]

Original Drawings
Stamped and
Signed by Engineer



DESIGN: EMR	DRAWN: VY/LR/NV/DC	REVIEWED: EMR
CHECKED: LW	APPROVED: EMR	DATE: Feb. 4, 2011



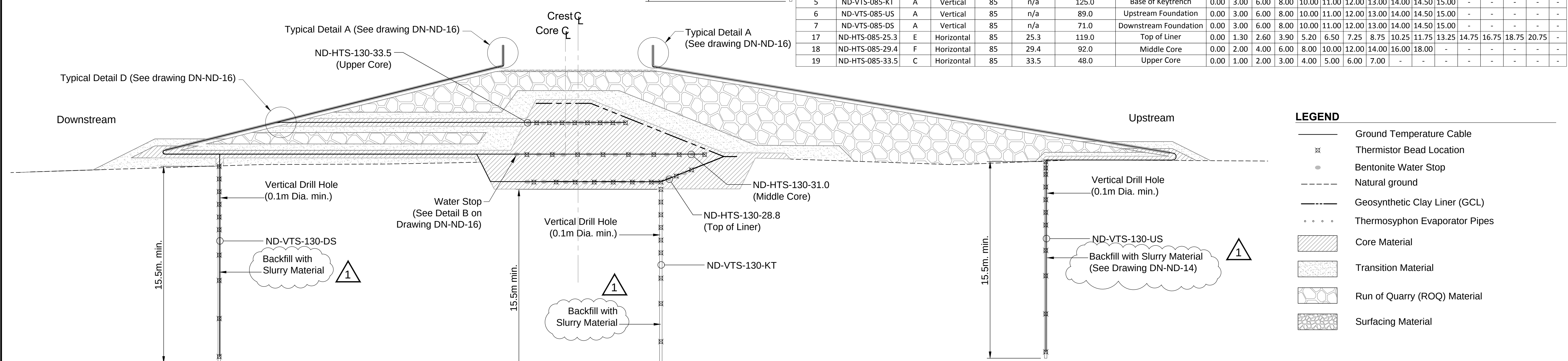
HOPE BAY MINING LTD.

Doris North Project

DRAWING TITLE: North Dam
Ground Temperature Cable Clusters
at Chainage 0+40 and 0+60

NEWMONT DRAWING NO.
HB+T-CIV-CIV-OND-0034

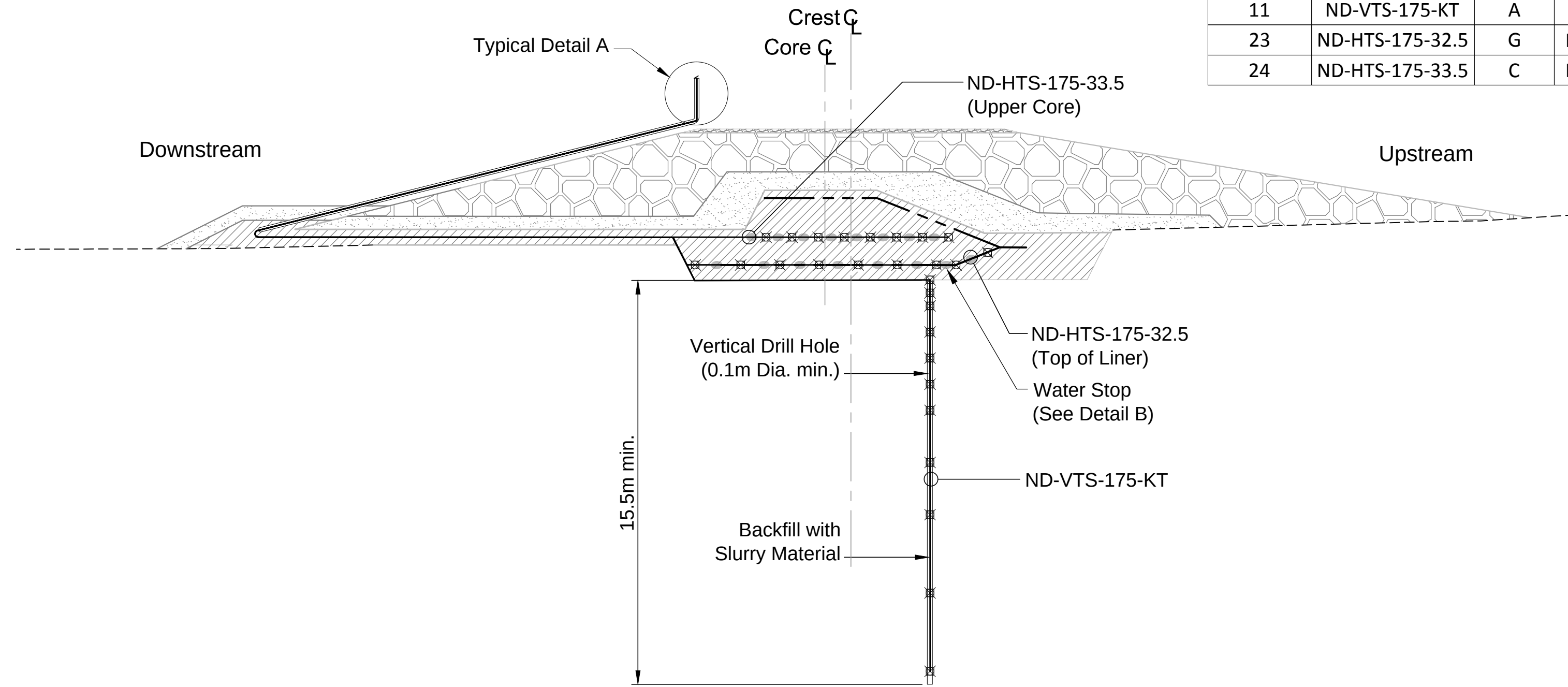
15 OF



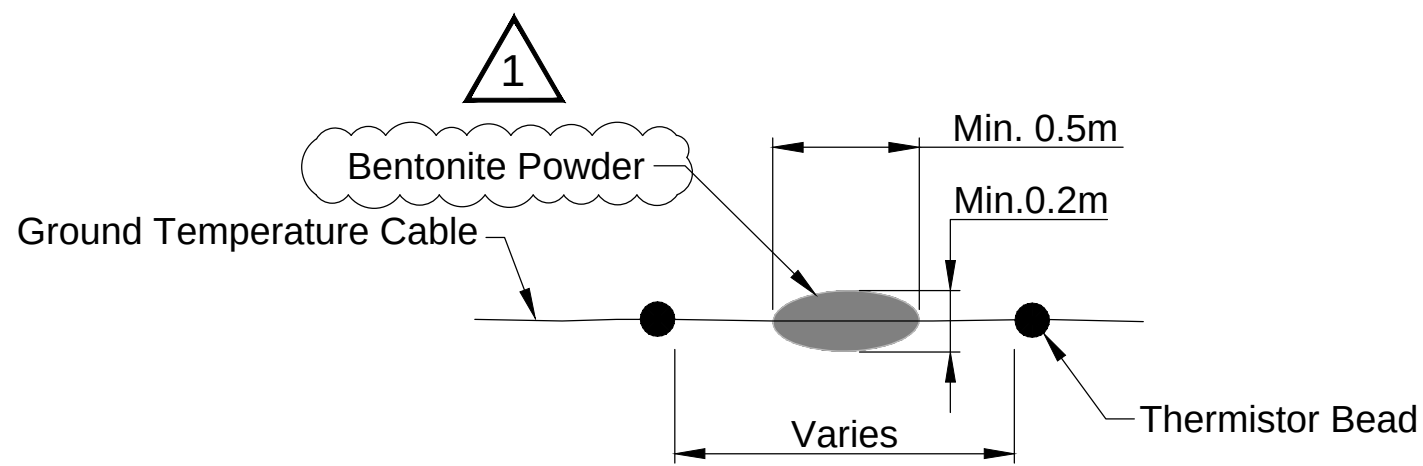
GROUND TEMPERATURE CABLE DETAILS																							
STRING #	STRING NAME	SERIES #	STRING TYPE	CHAINGE (m)	ELEVATION (m)	OVERALL CABLE LENGTH (m)	CABLE LOCATION	BEAD LOCATION IN METERS (MEASURED FROM END)															
								#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16
8	ND-VTS-130-KT	A	Vertical	130	n/a	88.0	Base of Keytrench	0.00	3.00	6.00	8.00	10.00	11.00	12.00	13.00	14.00	14.50	15.00	-	-	-	-	-
9	ND-VTS-130-US	A	Vertical	130	n/a	70.0	Upstream Foundation	0.00	3.00	6.00	8.00	10.00	11.00	12.00	13.00	14.00	14.50	15.00	-	-	-	-	-
10	ND-VTS-130-DS	A	Vertical	130	n/a	52.0	Downstream Foundation	0.00	3.00	6.00	8.00	10.00	11.00	12.00	13.00	14.00	14.50	15.00	-	-	-	-	-
20	ND-HTS-130-28.8	B	Horizontal	130	28.8	77.0	Top of Liner	0.00	1.30	2.60	3.35	4.85	6.35	7.85	9.35	10.85	12.60	-	-	-	-	-	
21	ND-HTS-130-31.0	D	Horizontal	130	31.0	75.0	Middle Core	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	-	-	-	-	-	-	-	
22	ND-HTS-130-33.5	C	Horizontal	130	33.5	48.0	Upper Core	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	-	-	-	-	-	-	-	

[illegible]

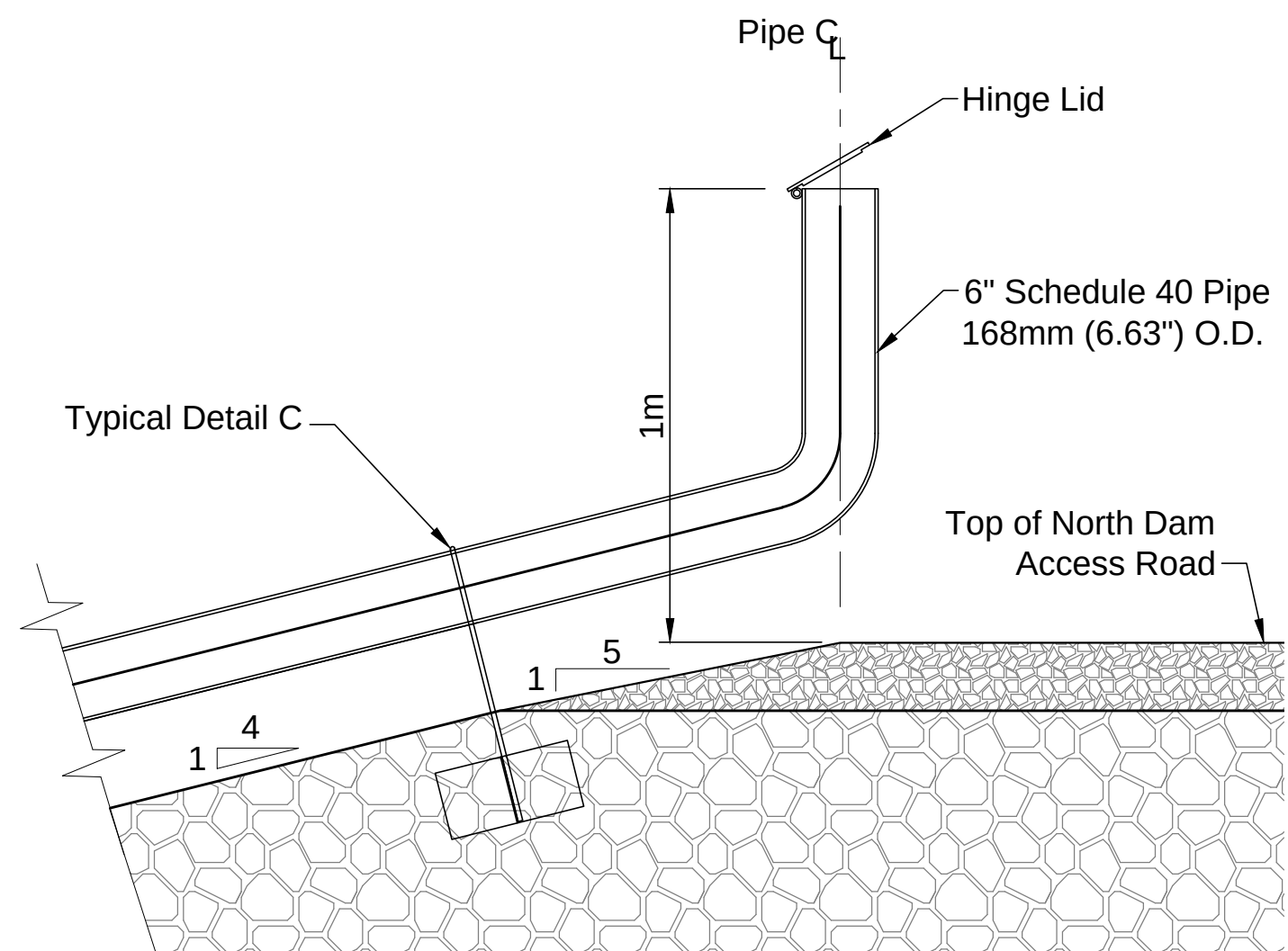
GROUND TEMPERATURE CABLE DETAILS																							
STRING #	STRING NAME	SERIES #	STRING TYPE	CHAINGE (m)	ELEVATION (m)	OVERALL CABLE LENGTH (m)	CABLE LOCATION	BEAD LOCATION IN METERS (MEASURED FROM END)															
								#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16
11	ND-VTS-175-KT	A	Vertical	175	n/a	65.0	Base of Keytrench	0.00	3.00	6.00	8.00	10.00	11.00	12.00	13.00	14.00	14.50	15.00	-	-	-	-	-
23	ND-HTS-175-32.5	G	Horizontal	175	32.5	52.0	Top of Liner	0.00	1.30	2.05	3.55	5.05	6.55	8.05	9.55	11.30	-	-	-	-	-	-	-
24	ND-HTS-175-33.5	C	Horizontal	175	33.5	49.0	Upper Core	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	-	-	-	-	-	-	-	-



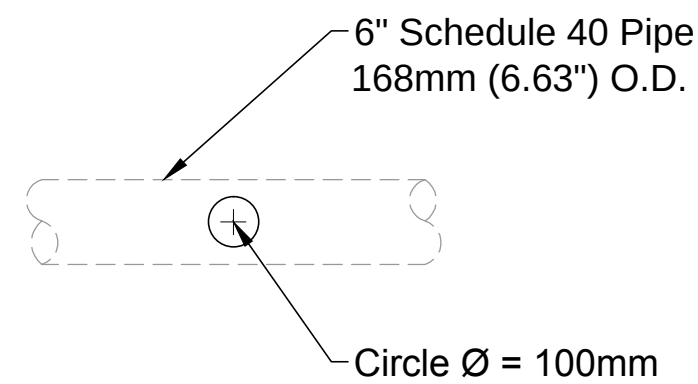
5
GROUND TEMPERATURE CABLE SECTION AT CHAINAGE 1+75
DN-ND-09
Scale in Meters
0 1.5 3 4.5 6 7.5



B
TYPICAL WATER STOP DETAIL
Not to Scale



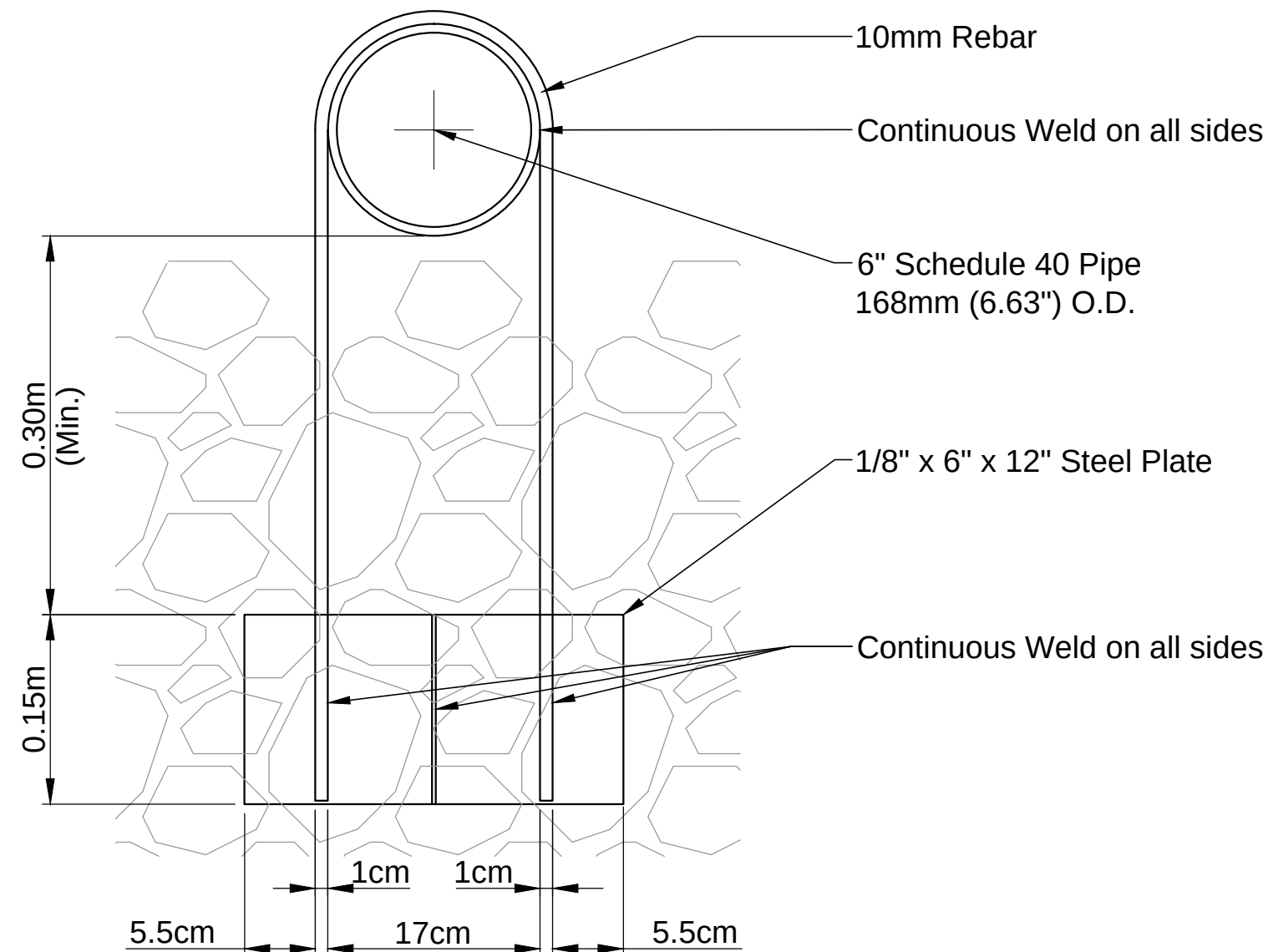
A
THERMISTOR TYPICAL DETAIL
Not to Scale



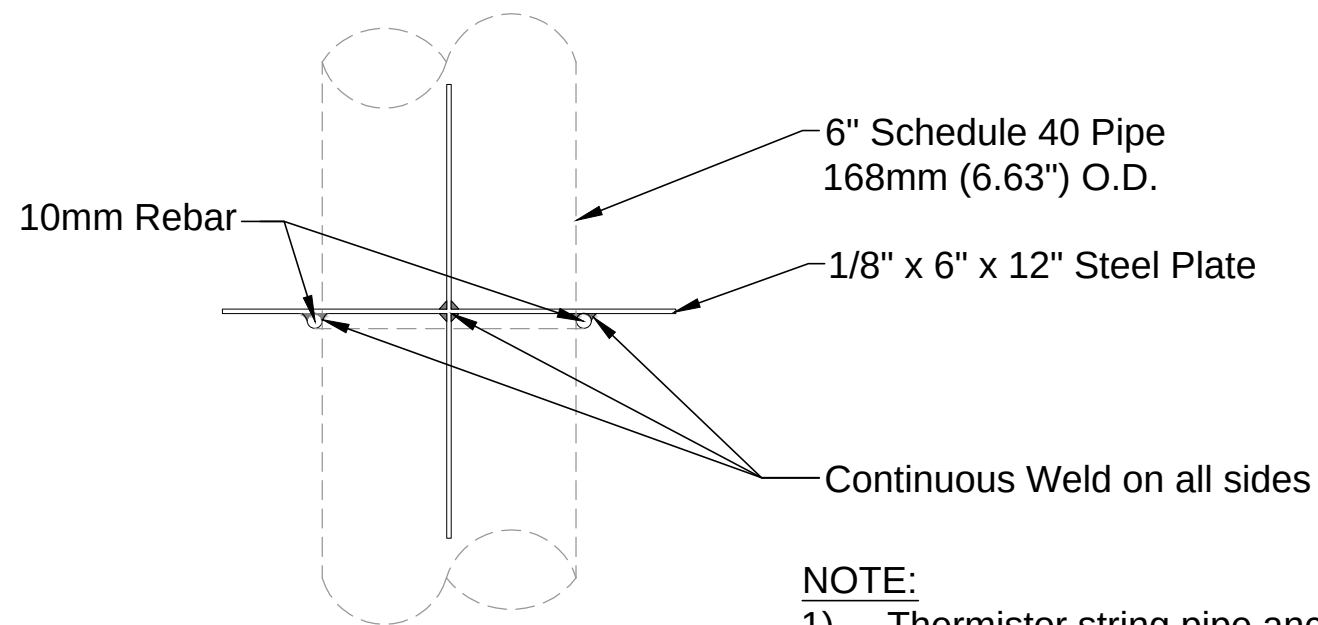
D
SLOT FOR GROUND TEMPERATURE CABLE
Not to Scale
DN-ND-14
DN-ND-15

LEGEND

- Ground Temperature Cable
- Thermistor Bead Location
- Bentonite Water Stop
- Natural ground
- Geosynthetic Clay Liner (GCL)
- Thermosyphon Evaporator Pipes
- Core Material
- Transition Material
- Run of Quarry (ROQ) Material
- Surfacing Material



ELEVATION

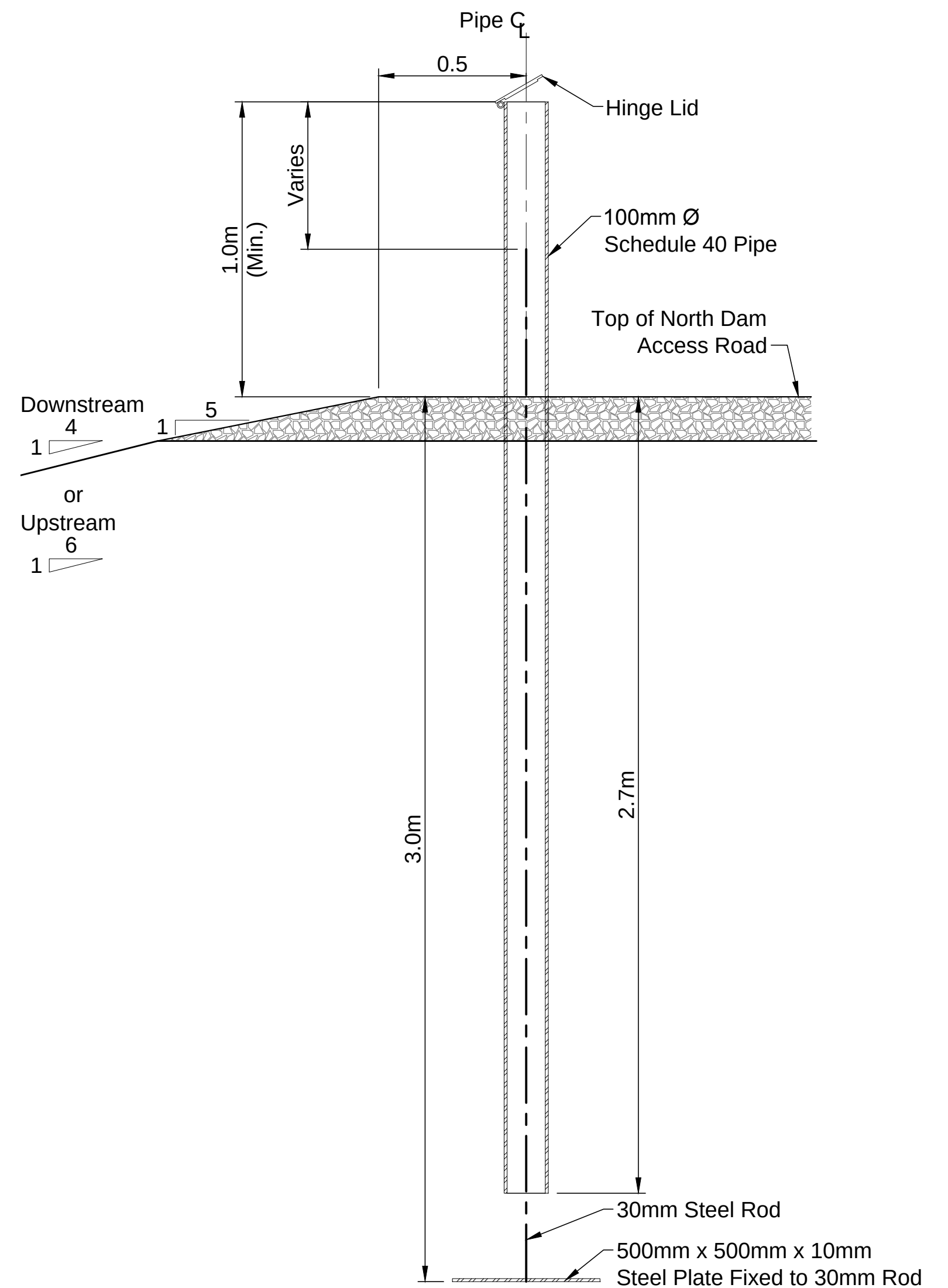


PLAN

C
THERMISTOR STRING PIPE ANCHOR TYPICAL DETAIL
Not to Scale

NOTE:

- 1) Thermistor string pipe anchor shall be spaced at every 2m.



E
SURVEY MONITORING POINT DETAIL
Not to Scale
DN-ND-08

J:\01 - SITES\Hope Bay\ACAD\2010 Drawings\NorthDam2010\DN-ND-14-16.dwg

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE	NO.	DESCRIPTION	CHK'D	APP'D	DATE
				1	MINOR TEXT EDITS	LW	EMR	04FEB11
				0	ISSUED FOR CONSTRUCTION	LW	EMR	03DEC10
				A	ISSUED FOR REVIEW	LW	EMR	23OCT10

Original Drawings
Stamped and
Signed by Engineer

PROFESSIONAL ENGINEER'S STAMP

SRK Consulting
Engineers and Scientists

DESIGN: EMR
CHECKED: LW
FILE NAME: DN-ND-14-16.dwg

DRAWN: VV/LR/KV/DC
APPROVED: EMR

REVIEWED: EMR
DATE: Feb. 4, 2011

NEWMONT
NORTH AMERICA

HOPE BAY MINING LTD.

SRK JOB NO.: 1CH008.027
SRK DWG NO.: DN-ND-16

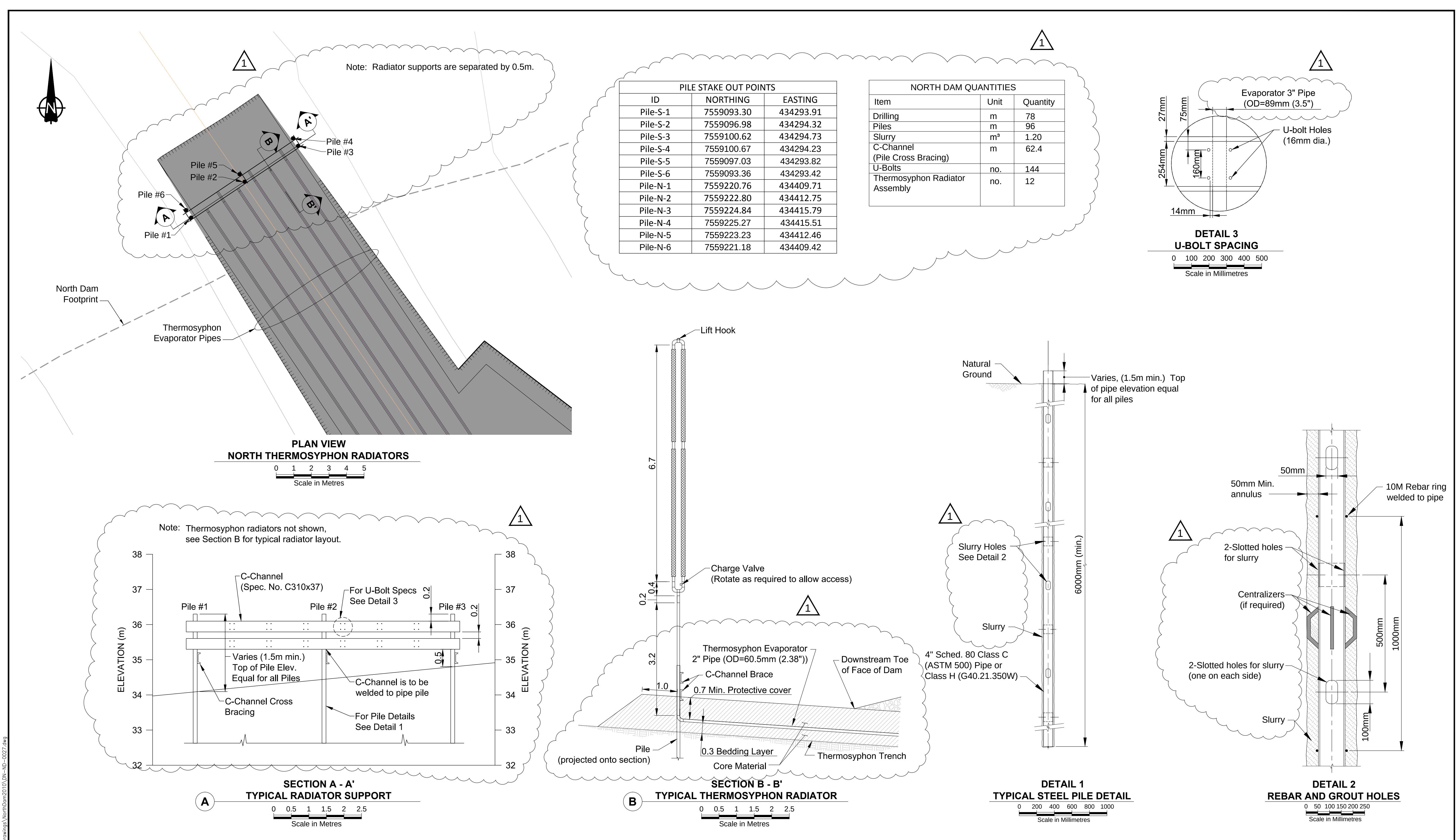
Doris North Project

DRAWING TITLE:
**North Dam
Ground Temperature Cable Clusters
at Chainage 1+75**

NEWMONT DRAWING NO.
HB+T-CIV-CIV-OND-0036

SHEET
17 OF 29

1



										Original Drawings Stamped and Signed by Engineer				SRK Consulting Engineers and Scientists VERACORE <table><tr><td>DESIGN:</td><td>EMR</td><td>DRAWN:</td><td>VY/LR/NV/DC</td><td>REVIEWED:</td><td>EMR</td></tr><tr><td>CHECKED:</td><td>LW</td><td>APPROVED:</td><td>EMR</td><td>DATE:</td><td>Feb. 4, 2011</td></tr></table> FILE NAME: DN-ND-0027.dwg				DESIGN:	EMR	DRAWN:	VY/LR/NV/DC	REVIEWED:	EMR	CHECKED:	LW	APPROVED:	EMR	DATE:	Feb. 4, 2011	NEWMONT NORTH AMERICA HOPE BAY MINING LTD. <table><tr><td>SRK JOB NO.:</td><td>1CH008.027</td><td>SRK DWG NO.:</td><td>DN-ND-27</td></tr></table>				SRK JOB NO.:	1CH008.027	SRK DWG NO.:	DN-ND-27	Doris North Project			
DESIGN:	EMR	DRAWN:	VY/LR/NV/DC	REVIEWED:	EMR																																				
CHECKED:	LW	APPROVED:	EMR	DATE:	Feb. 4, 2011																																				
SRK JOB NO.:	1CH008.027	SRK DWG NO.:	DN-ND-27																																						
DRAWING TITLE:																																									
North Dam Thermosyphon Details																																									
NEWMONT DRAWING NO.				SHEET		REVISION NO.																																			
HB+T-CIV-CIV-OND-0047				28 OF 29		1																																			

