

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

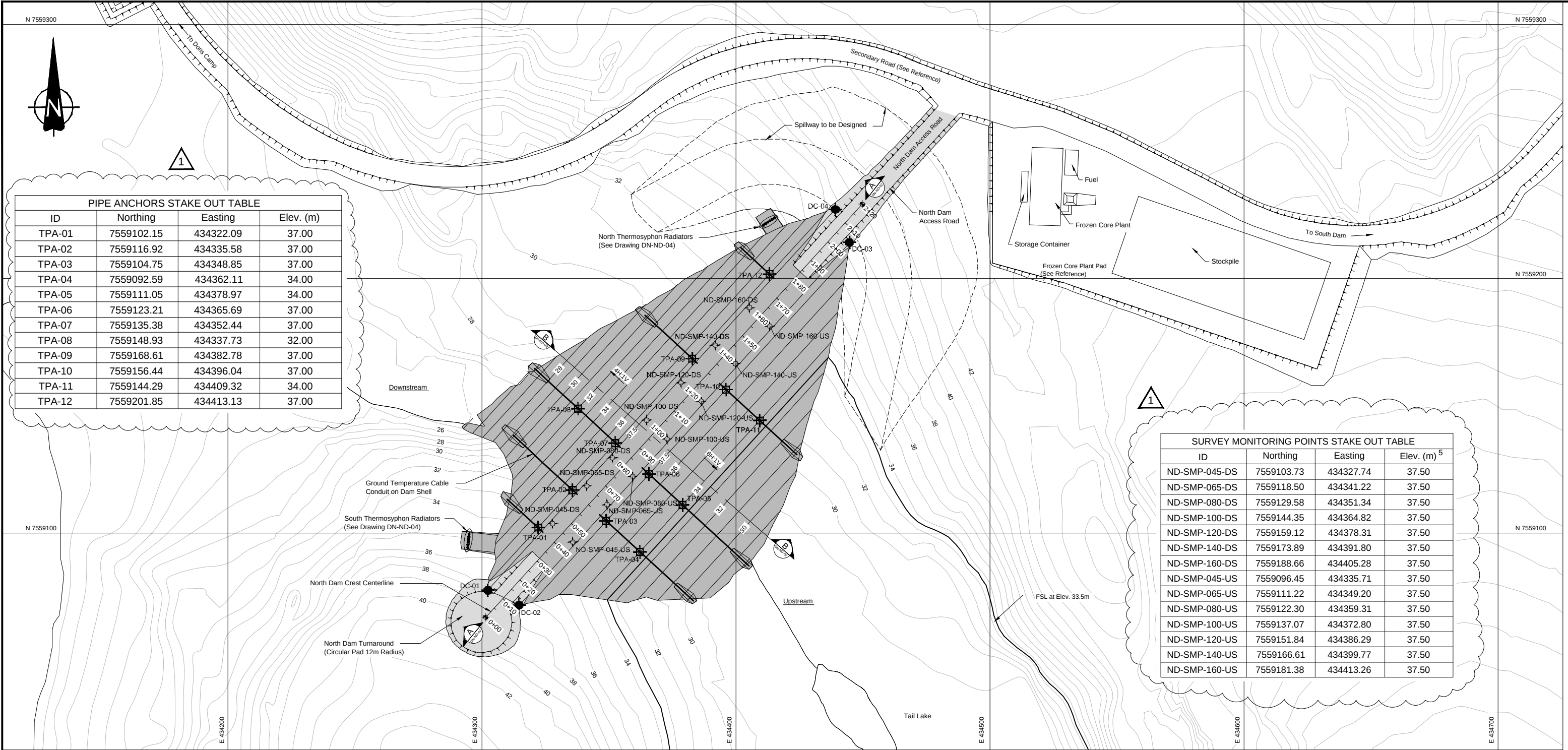
ACTIVE DRAWING STATUS

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	3	Mar. 31, 2011	Minor Revisions	Rev. 2, Feb. 16, 2011	Rev. 1, Feb. 4, 2011	Rev. 0, Dec. 3, 2010
DN-ND-01	HB+T-CIV-CIV-OND-0021	North Dam General Arrangement	1	Mar. 31, 2011	Updated Stake Out Tables	Rev. 0, Dec. 3, 2010	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	1	Dec. 3, 2010	Updated Stakeout Table	Rev. 0, Dec. 3, 2010	Rev. A, Oct. 22, 2010	
DN-ND-04	HB+T-CIV-CIV-OND-0024	North Dam Thermosyphon Evaporator Pipe Layout	3	Feb. 16, 2011	Minor Text Edit	Rev. 2, Feb. 9, 2011	Rev. 1, Feb. 4, 2011	Rev. 0, Dec. 3, 2010
DN-ND-05	HB+T-CIV-CIV-OND-0025	North Dam Geosynthetic Clay Liner Lower and Upper Layout	2	Feb. 9, 2011	Updated Stakeout Table	Rev. 1, Feb. 4, 2011	Rev. 0, Dec. 3, 2010	
DN-ND-06	HB+T-CIV-CIV-OND-0026	North Dam Core Layout	1	Feb. 9, 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	2	Mar. 31, 2011	Minor Edits	Rev. 1, Feb. 4, 2011	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	2	Feb. 9, 2011	Update Thermosyphon Layout	Rev. 1, Feb. 4, 2011	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 3
March 31, 2011
DN-ND-00 / HB+T-CIV-CIV-OND-0020



PIPE ANCHORS STAKE OUT TABLE			
ID	Northing	Easting	Elev. (m)
TPA-01	7559102.15	434322.09	37.00
TPA-02	7559116.92	434335.58	37.00
TPA-03	7559104.75	434348.85	37.00
TPA-04	7559092.59	434362.11	34.00
TPA-05	7559111.05	434378.97	34.00
TPA-06	7559123.21	434365.69	37.00
TPA-07	7559135.38	434352.44	37.00
TPA-08	7559148.93	434337.73	32.00
TPA-09	7559168.61	434382.78	37.00
TPA-10	7559156.44	434396.04	37.00
TPA-11	7559144.29	434409.32	34.00
TPA-12	7559201.85	434413.13	37.00

SURVEY MONITORING POINTS STAKE OUT TABLE			
ID	Northing	Easting	Elev. (m) ⁵
ND-SMP-045-DS	7559103.73	434327.74	37.50
ND-SMP-065-DS	7559118.50	434341.22	37.50
ND-SMP-080-DS	7559129.58	434351.34	37.50
ND-SMP-100-DS	7559144.35	434364.82	37.50
ND-SMP-120-DS	7559159.12	434378.31	37.50
ND-SMP-140-DS	7559173.89	434391.80	37.50
ND-SMP-160-DS	7559188.66	434405.28	37.50
ND-SMP-045-US	7559096.45	434335.71	37.50
ND-SMP-065-US	7559111.22	434349.20	37.50
ND-SMP-080-US	7559122.30	434359.31	37.50
ND-SMP-100-US	7559137.07	434372.80	37.50
ND-SMP-120-US	7559151.84	434386.29	37.50
ND-SMP-140-US	7559166.61	434399.77	37.50
ND-SMP-160-US	7559181.38	434413.26	37.50

NORTH DAM AXIS STAKE OUT POINTS			
ID	NORTHING	EASTING	
0+00	7559066.86	434301.38	
2+20	7559229.32	434449.73	

NORTH DAM CREST STAKE OUT POINTS			
ID	NORTHING	EASTING	ELEV.(m)
DC-01	7559077.49	434302.29	37.50
DC-02	7559071.63	434314.54	37.50
DC-03	7559214.31	434444.67	37.50
DC-04	7559227.29	434439.07	37.50

- LEGEND**
- Survey Monitoring Point
 - Ground Temperature Cable Pipe Anchor
 - North Dam Crest Stake Out Points
 - North Dam Axis Stake Out Points

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**
- Topographic contour data for the terrain model was provided by the Contractor.
 - The co-ordinate system is UTM NAD 83, Zone 13.
 - 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.
 - For details of survey monitoring points and ground temperature cables see Dwg DN-ND-16.
 - Stake out elevation in table is the design dam crest.

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DRAWING NO.

DRAWING TITLE

DRAWING NO.

DRAWING TITLE

REFERENCE DRAWINGS

1

UPDATED STAKE OUT TABLES

LW

EMR

31MAR11

0

ISSUED FOR CONSTRUCTION

LW

EMR

03DEC10

A

ISSUED FOR REVIEW

LW

EMR

22OCT10

NO.

DESCRIPTION

CHK'D

APP'D

DATE

REVISIONS

Original Drawings
Stamped and
Signed by Engineer

This drawing is uncontrolled when printed
unless stamped and signed with original ink
and recorded on a Distribution Register.

PROFESSIONAL ENGINEER'S STAMP

DESIGN: EMR

DRAWN: VY/LR/NV/DC

REVIEWED: LW

CHECKED: LW

APPROVED: EMR

DATE: Mar. 31, 2011

FILE NAME: DN-ND-01.dwg

HOPE BAY MINING LTD.

SRK JOB NO.: 1CH008.027

SRK DWG NO.: DN-ND-01

Doris North Project

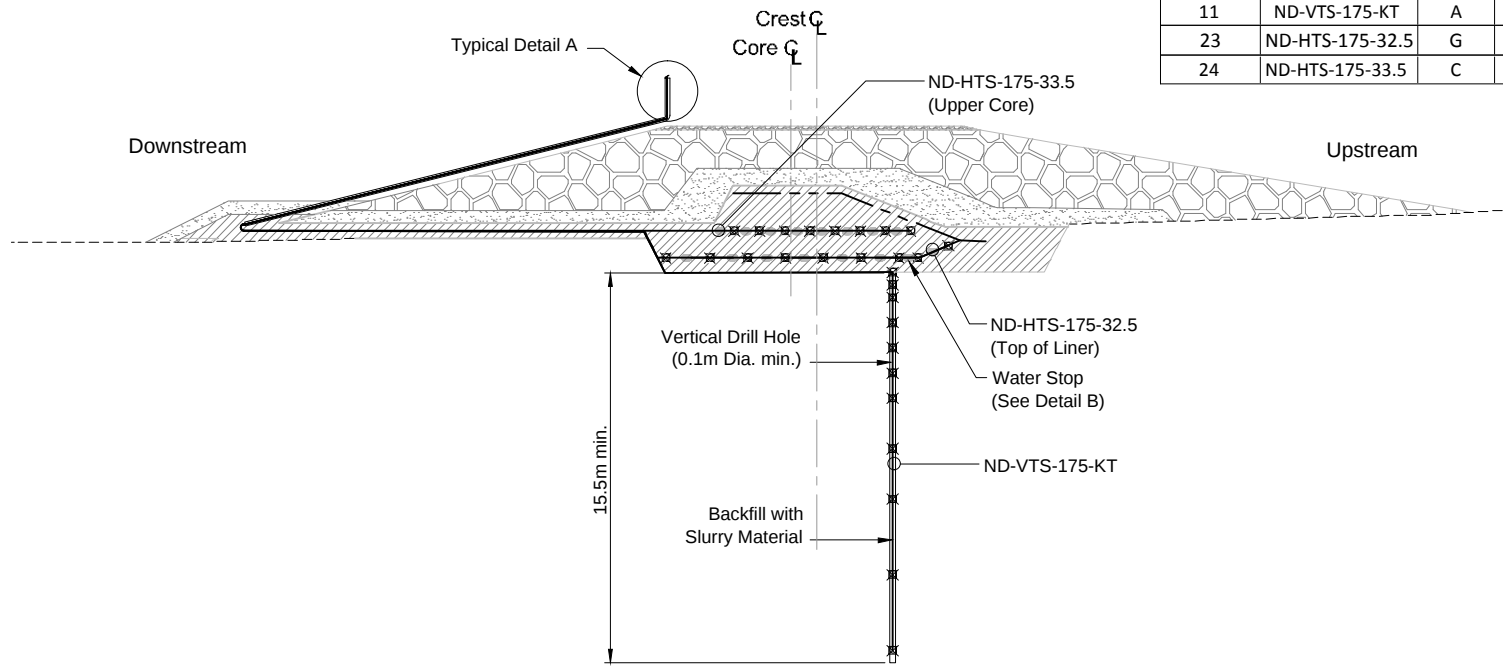
DRAWING TITLE:
North Dam
General Arrangement

NEWMONT DRAWING NO.
HB+T-CIV-CIV-OND-0021

SHEET
2 OF 29

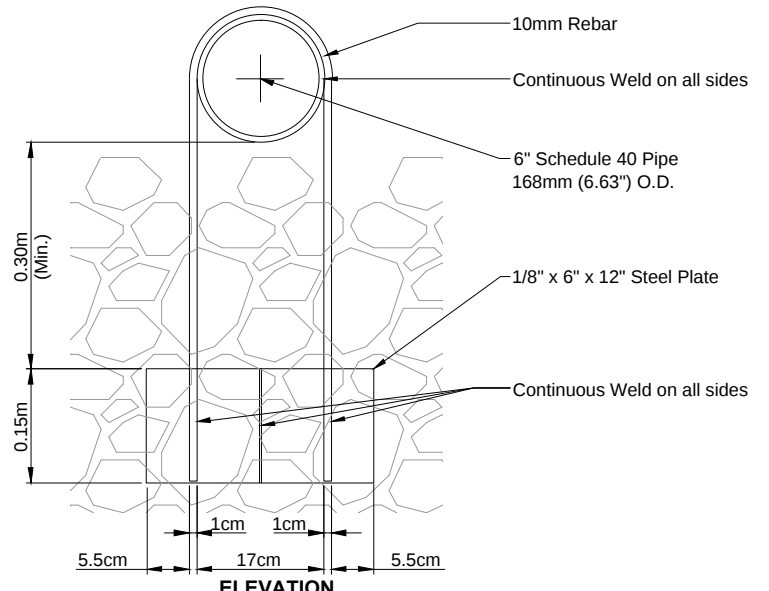
REVISION NO.
1

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	-	-	-	-	-	-	-	-

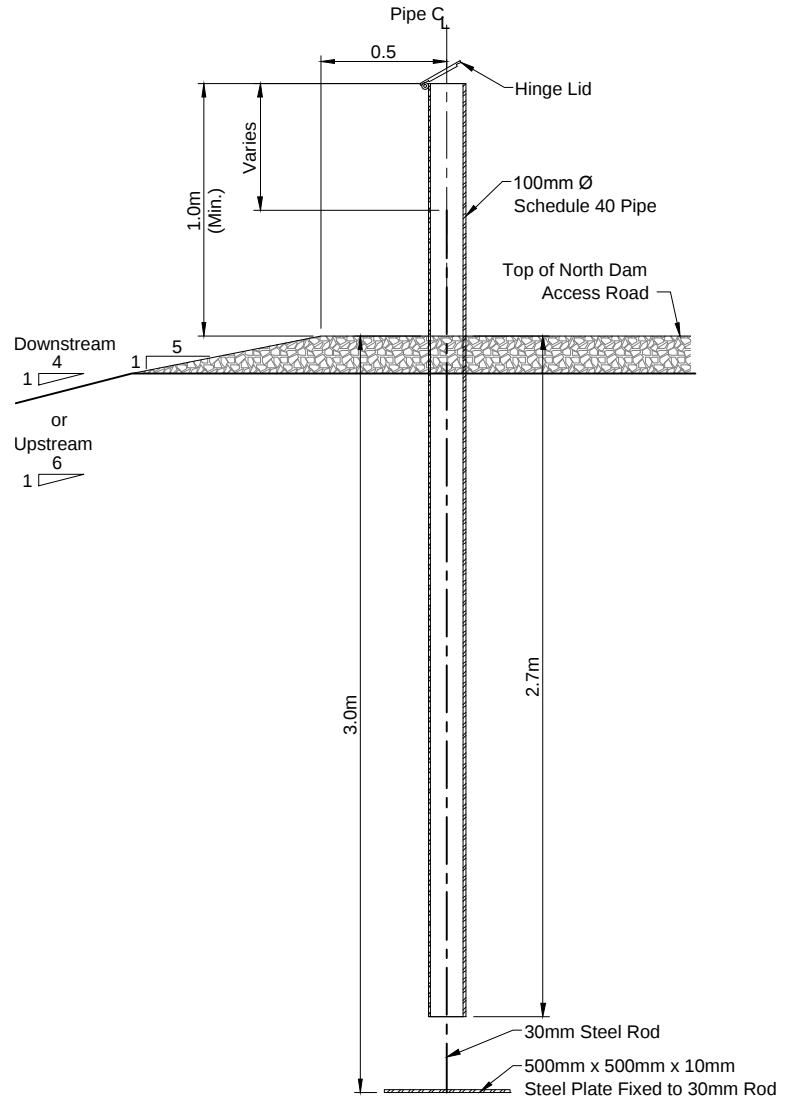


5
GROUND TEMPERATURE CABLE SECTION AT CHAINAGE 1+75
DN-ND-09
Scale in Meters
0 1.5 3 4.5 6 7.5

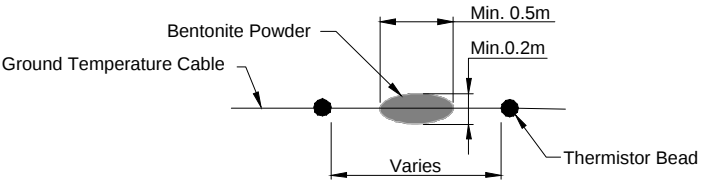
- LEGEND**
- Ground Temperature Cable
 - Thermistor Bead Location
 - Bentonite Water Stop
 - Natural ground
 - Geosynthetic Clay Liner (GCL)
 - Thermosyphon Evaporator Pipes
 - Core Material
 - Transition Material
 - Run of Quarry (ROQ) Material
 - Surfacing Material



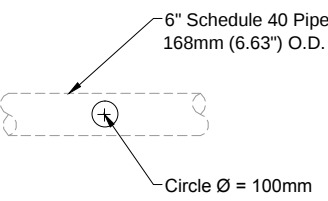
2
C
GROUND TEMPERATURE CABLE PIPE ANCHOR TYPICAL DETAIL
Not to Scale



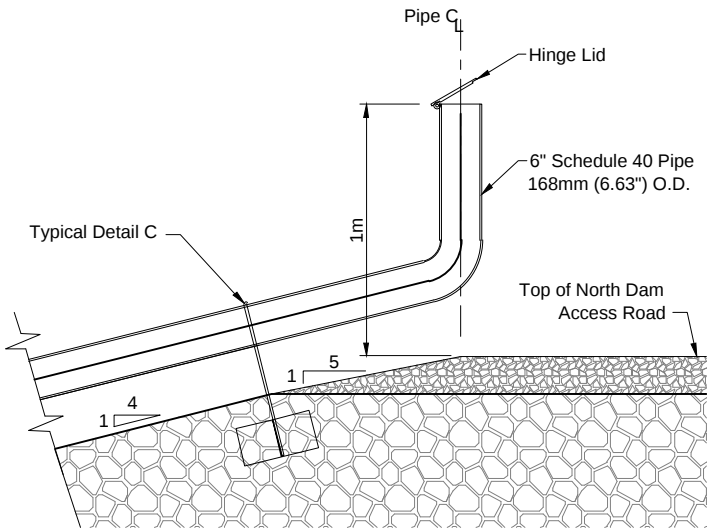
E
SURVEY MONITORING POINT DETAIL
DN-ND-08
Not to Scale



B
TYPICAL WATER STOP DETAIL
Not to Scale



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



A
THERMISTOR TYPICAL DETAIL
Not to Scale

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DRAWING NO.				DRAWING TITLE				DRAWING NO.				DRAWING TITLE			
REFERENCE DRAWINGS				REVISIONS				PROFESSIONAL ENGINEER'S STAMP				FILE NAME: DN-ND-14-16.dwg			
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DATE				DATE				DATE				DATE			
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CHECKED: LW				APPROVED: EMR				DATE: Mar. 31, 2011				DATE: Mar. 31, 2011			
SRK JOB NO.: 1CH008.027				SRK DWG NO.: DN-ND-16				SRK JOB NO.: 1CH008.027				SRK DWG NO.: DN-ND-16			
DORIS NORTH PROJECT				DORIS NORTH PROJECT				DORIS NORTH PROJECT				DORIS NORTH PROJECT			
DRAWING TITLE: North Dam				DRAWING TITLE: North Dam				DRAWING TITLE: North Dam				DRAWING TITLE: North Dam			
Ground Temperature Cable Clusters at Chainage 1+75				Ground Temperature Cable Clusters at Chainage 1+75				Ground Temperature Cable Clusters at Chainage 1+75				Ground Temperature Cable Clusters at Chainage 1+75			
NEWMONT DRAWING NO. HB+T-CIV-CIV-OND-0036				NEWMONT DRAWING NO. HB+T-CIV-CIV-OND-0036				NEWMONT DRAWING NO. HB+T-CIV-CIV-OND-0036				NEWMONT DRAWING NO. HB+T-CIV-CIV-OND-0036			
SHEET 17 OF 29				SHEET 17 OF 29				SHEET 17 OF 29				SHEET 17 OF 29			
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