



APPENDIX B5 SADDLE DAM 2 PHOTOGRAPHIC LOG



Photograph B5-5 Saddle Dam 3

Date: September 13, 2017

Photo Number: 579

Description: LLDPE stored directly on the ground on the downstream side of SD3.

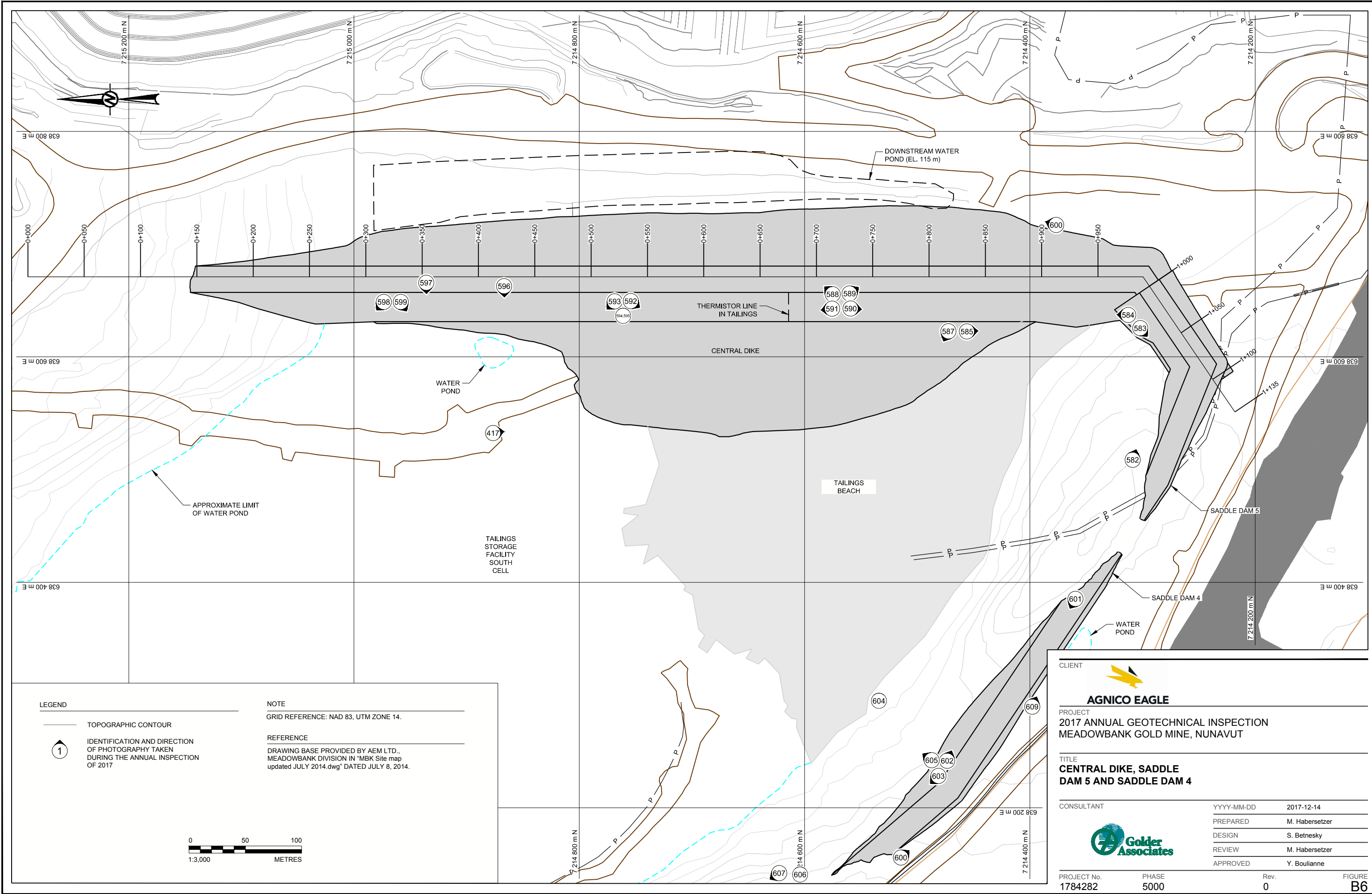
[https://golderassociates.sharepoint.com/sites/16104g/preparation of deliverables/rev0/annexes inspection 2017/appendix b - tsf/b5 saddle dam 3/b5 - saddle dam 3 photo log 2017.docx](https://golderassociates.sharepoint.com/sites/16104g/preparation%20of%20deliverables/rev0/annexes%20inspection%202017/appendix%20b%20-%20tsf/b5%20saddle%20dam%203/b5%20-%20saddle%20dam%203%20photo%20log%202017.docx)



APPENDIX B6

Saddle Dam 4 Photographic Log and Record of Inspection

Path: \\golder\gis\ag\montreal\SIG\CAD\PROJECTS\AGNICO EAGLE\MEADOWBANK\PRODUCT\1784282\5000-01.dwg | File Name: 1784282-5000-01.dwg



IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM A NS B 28 mm



APPENDIX B6 RECORD OF DAM INSPECTION

Client: AEM **By:** Yves Boulianne
Project: Meadowbank **Date:** September 13, 2017
Location: Saddle Dam 4 **Reviewed:** Yves Boulianne

GENERAL INFORMATION

Dam Type: Rockfill embankment with inverted filter on base, upstream filters, a geomembrane liner tied in a toe till plug and upstream till blanket.

Weather Conditions: Sunny **Temperature:** 8°C

INSPECTION ITEM	OBSERVATIONS DATA	PHOTO	COMMENTS & OTHER DATA
1. DAM CREST		601, 602, 603, 608, 609	
1.1 Crest elevation	145 m		Designed to be able to be raised to El. 150 m
1.2 Reservoir Level	136.76 m - water 137 m - tailings		
Current Freeboard	8 m		
1.3 Distance To Tailings Pond (if applicable)	Approx. 10 m		
1.4 Surface Cracking	None at time of inspection		
1.5 Unexpected Settlement	None observed		
1.6 Lateral Movement	Not apparent		
1.7 Other Unusual Conditions	None		
2. UPSTREAM SLOPE		601, 602, 603, 604	
2.1 Slope angle	3H:1V		
2.2 Signs of Erosion	None observed		
2.3 Signs of Movement (Deformation)	None observed		
2.4 Cracks	None observed		
2.5 Face liner condition (if applicable)	Good		
2.6 Other Unusual Conditions	None		
3. DOWNSTREAM SLOPE		608, 609	



APPENDIX B6

RECORD OF DAM INSPECTION

INSPECTION ITEM	OBSERVATIONS DATA	PHOTO	COMMENTS & OTHER DATA
3.1 Slope angle	1.5H:1V		
3.2 Signs of Erosion	None observed		
3.3 Signs of Movement (Deformation)	None observed		
3.4 Cracks	None observed		
3.5 Seepage or Wet Areas	None observed on slope		
3.6 Vegetation Growth	None observed		
3.7 Other Unusual Conditions	None		
4. DOWNSTREAM TOE AREA		608, 609	
4.1 Seepage from Dam	No		
4.2 Signs of Erosion	None observed		
4.3 Signs of Turbidity in Seepage Water	Not applicable		
4.4 Discoloration/staining	No		
4.5 Outlet operating problem (if applicable)	Not applicable		
4.6 Other Conditions	Yes		Runoff water accumulate at the downstream side of the structure. A sump will be required to control the water level so it does not exceed the elevation of the granular layer of the upstream toe liner tie-in.
5. ABUTMENTS		606, 607	
5.1 Seepage at contact zone (abutment/embankment)	None observed	607	Highly fractured bedrock observed at the western abutment.
5.2 Signs of Erosion	None observed		
5.3 Excessive Vegetation	No		
5.4 Presence of Rodent Burrows	None observed		
5.5 Other Unusual Conditions	None		
6. RESERVOIR		604, 605	
6.1 Stability of Slopes	Stable		
6.2 Distance to Nearest Slide (if applicable)	None observed		
6.3 Estimate of Slide Volume (if applicable)	Not applicable		
6.4 Floating debris	None observed		



APPENDIX B6 RECORD OF DAM INSPECTION

INSPECTION ITEM	OBSERVATIONS DATA	PHOTO	COMMENTS & OTHER DATA
6.5 Other Unusual Conditions	Yes	605	Presence of sinkholes in the tailings, up to 2 m wide in diameter at the time of the inspection.
7. EMERGENCY SPILLWAY/ OUTLET STRUCTURE	No spillway or outlet structure exists, only dewatering pump.		
7.1 Surface Condition			
7.2 Signs of Erosion			
7.3 Signs of Movement (Deformation)			
7.4 Cracks			
7.5 Settlement			
7.6 Presence of Debris or Blockage			
7.7 Closure mechanism operational			
7.8 Slope Protection			
7.9 Instability of Side Slopes			
7.10 Other Unusual Conditions			
8. INSTRUMENTATION			
8.1 Piezometers	No		
8.2 Settlement Cells	No		
8.3 Thermistors	Yes		See Section 4.0 of the report
8.4 Settlement Monuments	No		
8.5 Seismograph	No		
8.6 Inclinator	No		
8.7 Weirs and Flow Monitors	No		Construction drawings indicate a seepage collection system is to be constructed.
8.8 Data logger(s)	No		
8.9 Other			
9. DOCUMENTATION			
9.1 Operation, Maintenance and Surveillance (OMS) Plan			
9.1.1 OMS Plan exists	Yes		
9.1.2 OMS Plan reflects current dam conditions	Yes		
9.1.3 Date of last revision	March 2017		



APPENDIX B6 RECORD OF DAM INSPECTION

INSPECTION ITEM	OBSERVATIONS DATA	PHOTO	COMMENTS & OTHER DATA
9.2 Emergency Preparedness Plan (EPP)			
9.2.1 EPP exists	Yes		Included within the OMS and ERP plan.
9.2.2 EPP reflects current conditions	Yes		
9.2.3 Date of last revision	June 2017		

10. NOTES :

Inspector's Signature		Date:	September 13, 2017
-----------------------	--	-------	--------------------

[https://golderassociates.sharepoint.com/sites/16104g/preparation of deliverables/rev0/annexes inspection 2017/appendix b - tsf/b6 saddle dam 4/b6 - saddle dam 4 inspection 2017.docx](https://golderassociates.sharepoint.com/sites/16104g/preparation%20of%20deliverables/rev0/annexes%20inspection%202017/appendix%20b%20-%20tsf/b6%20saddle%20dam%204/b6%20-%20saddle%20dam%204%20inspection%202017.docx)



APPENDIX B6 SADDLE DAM 2 PHOTOGRAPHIC LOG



Photograph B6-1 Saddle Dam 4

Date: September 13, 2017

Photo Number: 601

Description: From 40+200 approximately, looking northwest at the upstream slope.



Photograph B6-2 Saddle Dam 4

Date: September 13, 2017

Photo Number: 608

Description: From 40+150 approximately, looking southeast at the crest and the downstream slope.



APPENDIX B6

SADDLE DAM 2 PHOTOGRAPHIC LOG



Photograph B6-3 Saddle Dam 4

Date: September 13, 2017

Photo Number: 603

Description: From 40+250 approximately, looking northwest at the crest and the upstream slope.



Photograph B6-4 Saddle Dam 4

Date: September 13, 2017

Photo Number: 604

Description: From 40+250 approximately, looking northeast at the upstream toe and the South Cell towards Central Dike.



APPENDIX B6

SADDLE DAM 2 PHOTOGRAPHIC LOG



Photograph B6-5 Saddle Dam 4

Date: September 13, 2017

Photo Number: 602

Description: From 40+250 approximately, looking southeast at the crest and the upstream slope.



Photograph B6-6 Saddle Dam 4

Date: September 13, 2017

Photo Number: 609

Description: From 40+400 approximately, looking southeast at the crest and the downstream slope.



APPENDIX B6

SADDLE DAM 2 PHOTOGRAPHIC LOG



Photograph B6-7 Saddle Dam 4

Date: September 13, 2017

Photo Number: 605

Description: View of a depression in the tailings upstream of Saddle Dam 4, about 2 m wide in diameter.



Photograph B6-8 Saddle Dam 4

Date: September 13, 2017

Photo Number: 606

Description: View of the bedrock on the northwestern extremity Saddle Dam 4. Important surface cracks are visible.



APPENDIX B6 SADDLE DAM 2 PHOTOGRAPHIC LOG



Photograph B6-9 Saddle Dam 4

Date: September 13, 2017

Photo Number: 607

Description: From the northwestern extremity Saddle Dam 4, looking northwest at the South Cell towards Stormwater Dike.

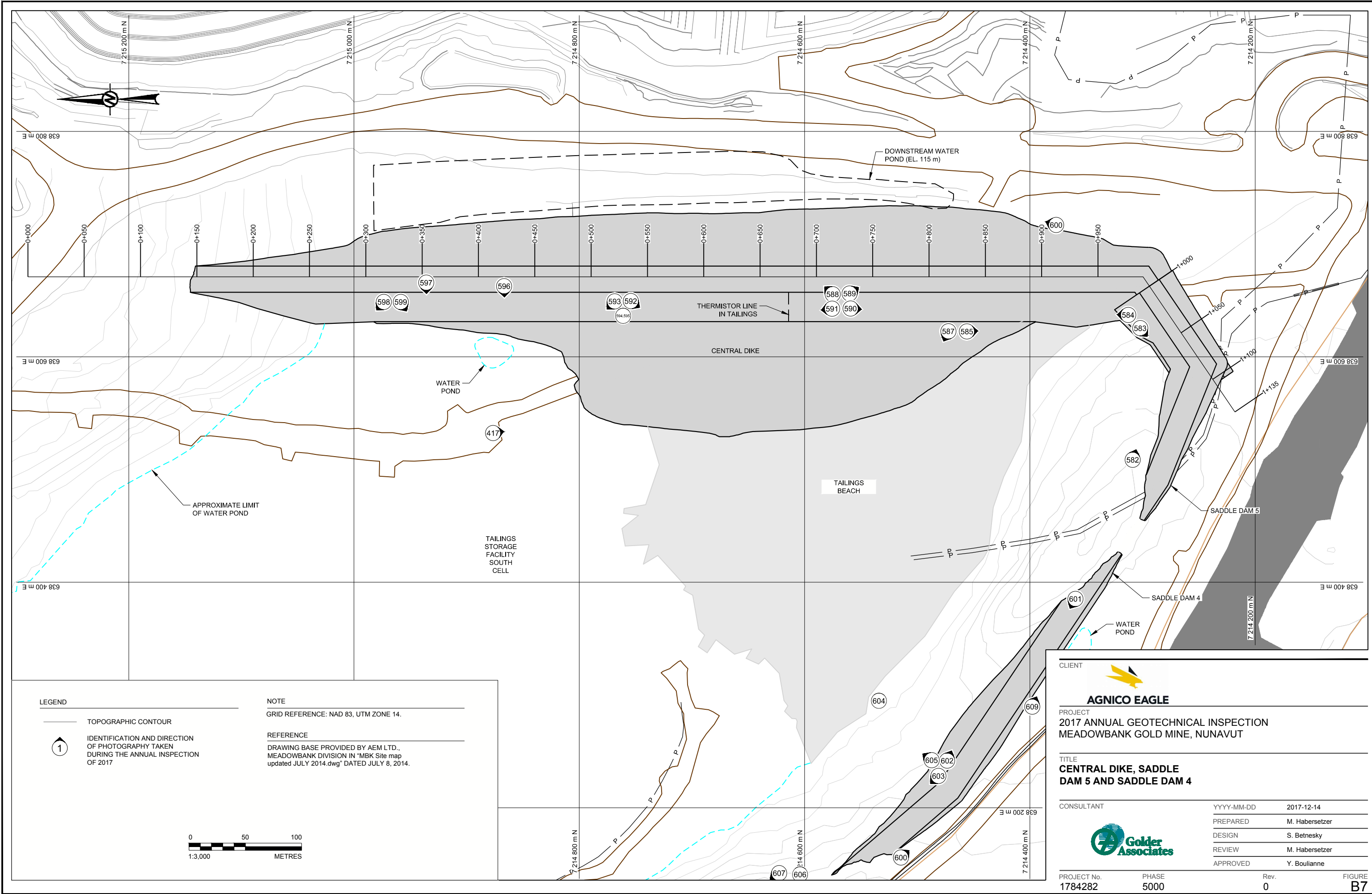
[https://golderassociates.sharepoint.com/sites/16104g/preparation of deliverables/rev0/annexes inspection 2017/appendix b - tsf/b6 saddle dam 4/b6 - saddle dam 4 photo log 2017.docx](https://golderassociates.sharepoint.com/sites/16104g/preparation%20of%20deliverables/rev0/annexes%20inspection%202017/appendix%20b%20-%20tsf/b6%20saddle%20dam%204/b6%20-%20saddle%20dam%204%20photo%20log%202017.docx)



APPENDIX B7

Central Dike and Saddle Dam 5 Photographic Log and Record of Inspection

Path: \\golder\gis\ag\montreal\SIG\CAD\PROJECTS\AGNICO EAGLE\MEADOWBANK\PRODUCT\1784282-5000-01.dwg | File Name: 1784282-5000-01.dwg



IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM A NS B 28 mm



APPENDIX B7 RECORD OF DAM INSPECTION

Client: AEM **By:** Yves Boulianne
Project: Meadowbank **Date:** September 13, 2017
Location: Central Dike and Saddle Dam 5 **Reviewed:** Yves Boulianne

GENERAL INFORMATION

Dam Type: Rockfill embankment with inverted filter on base, key trench, upstream filters, a geomembrane liner tied in a toe till plug and protective cover.
Weather Conditions: Sunny **Temperature:** 8°C

INSPECTION ITEM	OBSERVATIONS DATA	PHOTO	COMMENTS & OTHER DATA
1. DAM CREST		586, 588, 589, 590, 591, 592, 593	
1.1 Crest Elevation	Cofferdam Crest = 110 m Rockfill crest = 143 m (existing part of Central Dike) and 145 m (north abutment of Central Dike and SD5)		
1.2 Reservoir Level	136.76 m - water 139 m - tailings		
Current Freeboard	4 m from the crest		
1.3 Distance To Tailings Pond (if applicable)	Variable		Adequate tailings beach against the whole length of the Central Dike and SD5.
1.4 Surface Cracking	None at time of inspection		
1.5 Unexpected Settlement	None observed		
1.6 Lateral Movement	Not apparent		
1.7 Other Unusual Conditions			
2. UPSTREAM SLOPE		584, 585, 586, 587, 592, 593, 595, 596, 597, 598, 599	
2.1 Slope angle	3:1V up to El. 130 m and 2H:1V above		
2.2 Signs of Erosion	None observed		
2.3 Signs of Movement (Deformation)	None observed		
2.4 Cracks	None observed		



APPENDIX B7

RECORD OF DAM INSPECTION

INSPECTION ITEM	OBSERVATIONS DATA	PHOTO	COMMENTS & OTHER DATA
2.5 Face liner condition (if applicable)			Liner covered by a granular protection layer up to El. 128 m and well protected underneath deposition fingers.
2.6 Other Unusual Conditions	None		
3. DOWNSTREAM SLOPE		588, 589, 590, 591, 600	
3.1 Slope angle	1.5H		
3.2 Signs of Erosion	None observed		
3.3 Signs of Movement (Deformation)	None observed		
3.4 Cracks	None observed		
3.5 Seepage or Wet Areas			
3.6 Vegetation Growth	None observed		
3.7 Other Unusual Conditions	None		
4. DOWNSTREAM TOE AREA		588, 589, 600	
4.1 Seepage from Dam	Yes		Presence of a water pond formed by seepage on the downstream side between the downstream toe and West Road (0+300 to 0+830 approximately). The pond is pumped back to the South Cell and maintained at El. 115 m. The pumping rate was 550 m ³ /hr at the time of the inspection.
4.2 Signs of Erosion	None observed		
4.3 Signs of Turbidity in Seepage Water	Yes		High turbidity events observed in the pond and an orange coloration was observed recently.
4.4 Discoloration/staining	No		
4.5 Outlet operating problem (if applicable)	Not applicable		
4.6 Other Unusual Conditions			
5. ABUTMENTS			
5.1 Seepage at contact zone (abutment/embankment)	None observed		
5.2 Signs of Erosion	None observed		
5.3 Excessive Vegetation	No		
5.4 Presence of Rodent Burrows	None observed		
5.5 Other Unusual Conditions	None		



APPENDIX B7 RECORD OF DAM INSPECTION

INSPECTION ITEM	OBSERVATIONS DATA	PHOTO	COMMENTS & OTHER DATA
6. RESERVOIR		587, 594, 595, 596, 597	
6.1 Stability of Slopes	Stable		
6.2 Distance to Nearest Slide	None observed		
6.3 Estimate of Slide Volume (if applicable)	Not applicable		
6.4 Floating debris	None observed		
6.5 Other Unusual Conditions	Yes	596	A small pond of orange water is present on the surface of the tailings, against the structure.
7. EMERGENCY SPILLWAY/ OUTLET STRUCTURE	No spillway or outlet structure exists, only dewatering pump.		
7.1 Surface Condition			
7.2 Signs of Erosion			
7.3 Signs of Movement (Deformation)			
7.4 Cracks			
7.5 Settlement			
7.6 Presence of Debris or Blockage			
7.7 Closure mechanism operational			
7.8 Slope Protection			
7.9 Instability of Side Slopes			
7.10 Other Unusual Conditions			
8. INSTRUMENTATION			
8.1 Piezometers	Yes		See section 4.0
8.2 Settlement Cells	No		
8.3 Thermistors	Yes		See section 4.0
8.4 Settlement Monuments	No		
8.5 Seismograph	No		
8.6 Inclinator	No		
8.7 Weirs and Flow Monitors	No		
8.8 Data logger(s)	No		
8.9 Other			
9. DOCUMENTATION			



APPENDIX B7 RECORD OF DAM INSPECTION

INSPECTION ITEM	OBSERVATIONS DATA	PHOTO	COMMENTS & OTHER DATA
9.1 Operation, Maintenance and Surveillance (OMS) Plan			
9.1.1 OMS Plan exists	Yes		
9.1.2 OMS Plan reflects current dam conditions	Yes		
9.1.3 Date of last revision	March 2017		
9.2 Emergency Preparedness Plan (EPP)			
9.2.1 EPP exists	Yes		Included within the OMS and ERP plan.
9.2.2 EPP reflects current conditions	Yes		
9.2.3 Date of last revision	June 2017		

10. NOTES :

Inspector's Signature		Date:	September 13, 2017
-----------------------	--	-------	--------------------

[https://golderassociates.sharepoint.com/sites/16104g/preparation of deliverables/rev0/annexes inspection 2017/appendix b - tsf/b7 central dike-sd5/b7 - central dike and saddle dam 5 inspection 2017.docx](https://golderassociates.sharepoint.com/sites/16104g/preparation%20of%20deliverables/rev0/annexes%20inspection%202017/appendix%20b%20-%20tsf/b7%20central%20dike-sd5/b7%20-%20central%20dike%20and%20saddle%20dam%205%20inspection%202017.docx)



APPENDIX B7 CENTRAL DIKE PHOTOGRAPHIC LOG



Photograph B7-1 Central Dike and Saddle Dam 5

Date: September 13, 2017

Photo Number: 599

Description: From approximately Sta. 0+325 looking southwest. View of the upstream slope of Central Dike.



Photograph B7-2 Central Dike and Saddle Dam 5

Date: September 13, 2017

Photo Number: 598

Description: From approximately Sta. 0+325 looking west at the South Cell.



APPENDIX B7 CENTRAL DIKE PHOTOGRAPHIC LOG

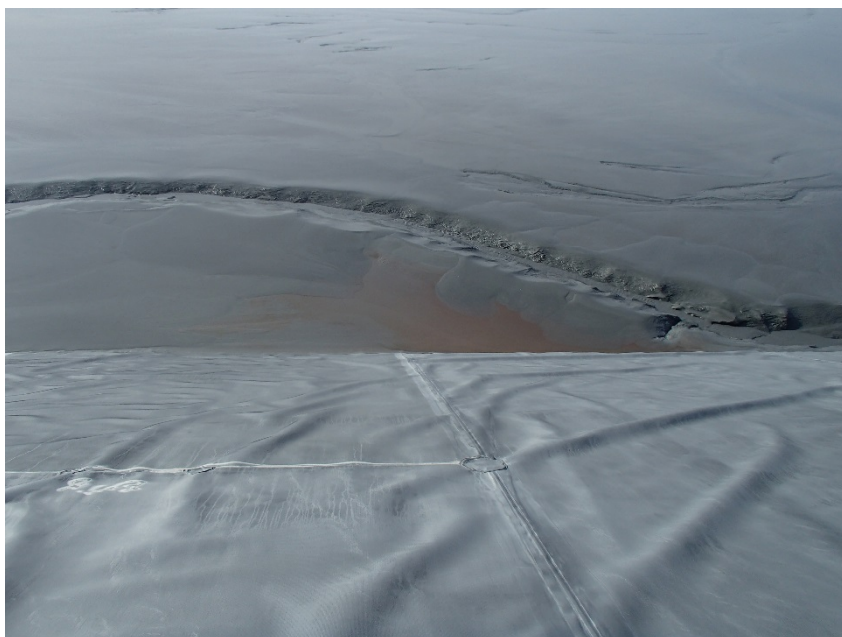


Photograph B7-3 Central Dike and Saddle Dam 5

Date: September 13, 2017

Photo Number: 597

Description: From approximately Sta. 0+370 looking west at one of the deposition points. The Teranap is damaged and some material has been eroded. The LLDPE liner has not been affected.



Photograph B7-4 Central Dike and Saddle Dam 5

Date: September 13, 2017

Photo Number: 596

Description: From approximately Sta. 0+425 looking west at the South Cell. A small pond with an orange colour is present in the tailings.



APPENDIX B7 CENTRAL DIKE PHOTOGRAPHIC LOG



Photograph B7-5 Central Dike and Saddle Dam 5

Date: September 13, 2017

Photo Number: 593

Description: From approximately Sta. 0+525 looking northwest at the upstream slope. Adequate tailings beach against the south section of the structure.



Photograph B7-6 Central Dike and Saddle Dam 5

Date: September 13, 2017

Photo Number: 592

Description: From approximately Sta. 0+525 looking southwest at the upstream slope. Adequate tailings beach against the south section of the structure.



APPENDIX B7 CENTRAL DIKE PHOTOGRAPHIC LOG



Photograph B7-7 Central Dike and Saddle Dam 5

Date: September 13, 2017

Photo Number: 594

Description: From approximately Sta. 0+525 looking at the deposition finger. The LLDPE liner is well protected and the tailing beach against the structure is adequate.



Photograph B7-8 Central Dike and Saddle Dam 5

Date: September 13, 2017

Photo Number: 595

Description: From approximately Sta. 0+525 looking at the deposition finger. The LLDPE liner is well protected and the tailing beach against the structure is adequate.



APPENDIX B7 CENTRAL DIKE PHOTOGRAPHIC LOG



Photograph B7-9 Central Dike and Saddle Dam 5

Date: September 13, 2017

Photo Number: 589

Description: From approximately Sta. 0+720 looking southeast at the downstream slope and toe. View of the downstream pond and pumping system.



Photograph B7-10 Central Dike and Saddle Dam 5

Date: September 13, 2017

Photo Number: 588

Description: From approximately Sta. 0+720 looking northeast at the downstream slope and toe. View of the downstream pond and pumping system.



APPENDIX B7 CENTRAL DIKE PHOTOGRAPHIC LOG



Photograph B7-11 Central Dike and Saddle Dam 5

Date: September 13, 2017

Photo Number: 590

Description: From approximately Sta. 0+720 looking south at the crest.



Photograph B7-12 Central Dike and Saddle Dam 5

Date: September 13, 2017

Photo Number: 591

Description: From approximately Sta. 0+720 looking north at the crest.



APPENDIX B7 CENTRAL DIKE PHOTOGRAPHIC LOG



Photograph B7-13 Central Dike and Saddle Dam 5

Date: September 13, 2017

Photo Number: 586

Description: From approximately Sta. 0+800 on the crest, looking northwest at the upstream slope.



Photograph B7-14 Central Dike and Saddle Dam 5

Date: September 13, 2017

Photo Number: 587

Description: From approximately Sta. 0+800 on the crest, looking west at the upstream slope and a tailings deposition finger



APPENDIX B7 CENTRAL DIKE PHOTOGRAPHIC LOG

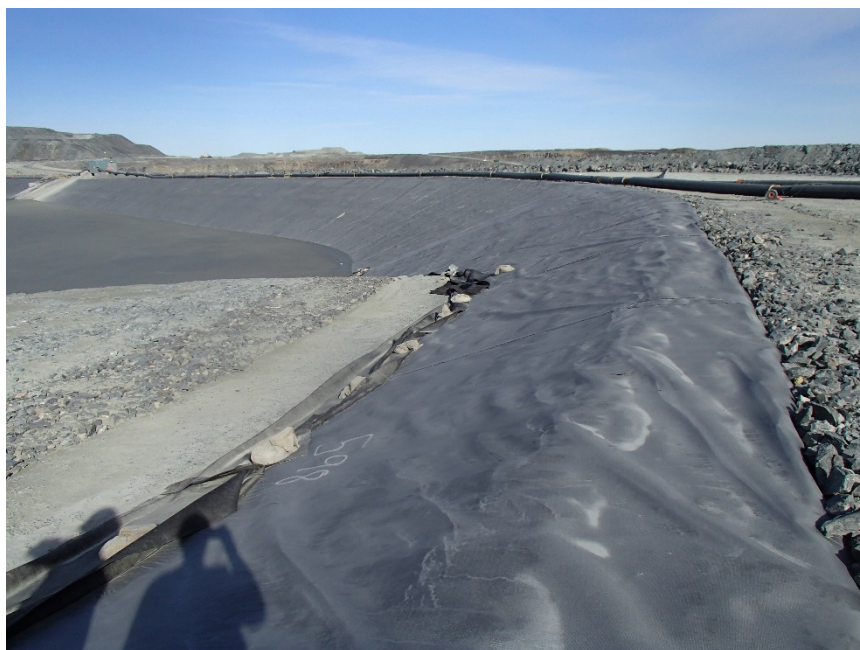


Photograph B7-15 Central Dike and Saddle Dam 5

Date: September 13, 2017

Photo Number: 585

Description: From approximately Sta. 0+800 on the crest, looking south at the upstream slope and a tailings deposition finger



Photograph B7-16 Central Dike and Saddle Dam 5

Date: September 13, 2017

Photo Number: 584

Description: From approximately Sta. 1+000 looking north at the upstream slope of Central Dike and SD5.



APPENDIX B7 CENTRAL DIKE PHOTOGRAPHIC LOG



Photograph B7-17 Central Dike and Saddle Dam 5

Date: September 13, 2017

Photo Number: 583

Description: From approximately Sta. 1+000 looking southwest at the upstream slope of SD5.



Photograph B7-18 Central Dike and Saddle Dam 5

Date: September 13, 2017

Photo Number: 600

Description: From approximately Sta. 0+925 downstream of Central Dike, looking northeast at the downstream slope. View of the downstream pond and pumping



APPENDIX B7 CENTRAL DIKE PHOTOGRAPHIC LOG



Photograph B7-19 Central Dike and Saddle Dam 5

Date: September 13, 2017

Photo Number: 582

Description: From 40+620 upstream, looking southeast at the upstream toe area.

[https://golderassociates.sharepoint.com/sites/16104g/preparation of deliverables/rev0/annexes inspection 2017/appendix b - tsf/b7 central dike-sd5/b7 - central dike photo log 2017.docx](https://golderassociates.sharepoint.com/sites/16104g/preparation%20of%20deliverables/rev0/annexes%20inspection%202017/appendix%20b%20-%20tsf/b7%20central%20dike-sd5/b7%20-%20central%20dike%20photo%20log%202017.docx)



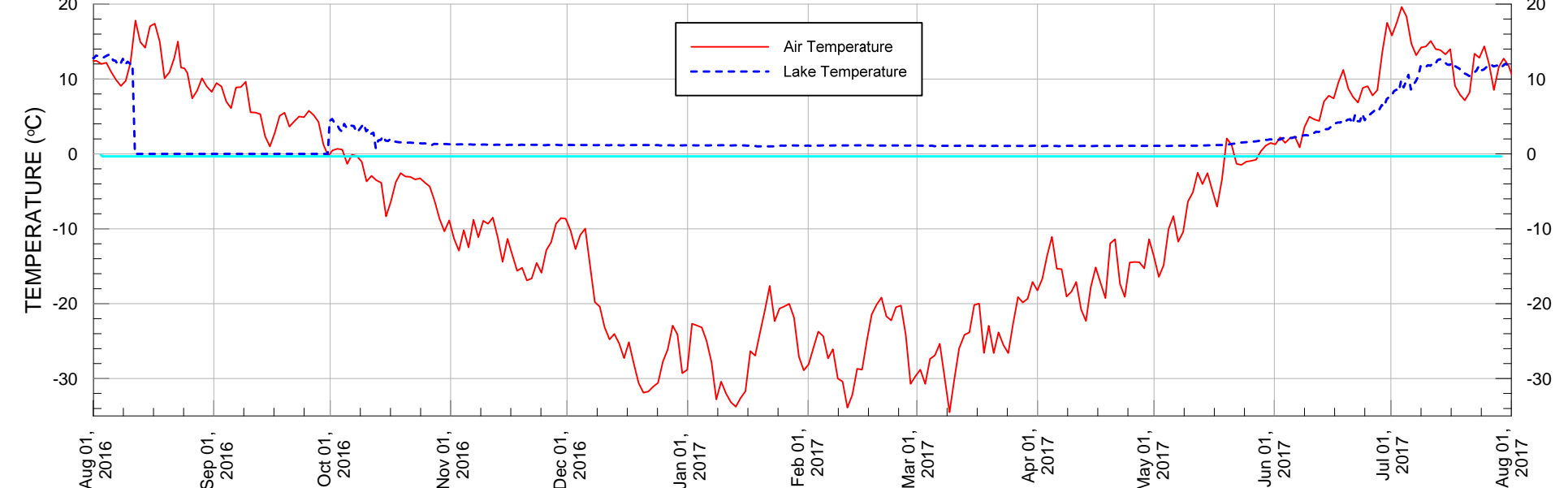
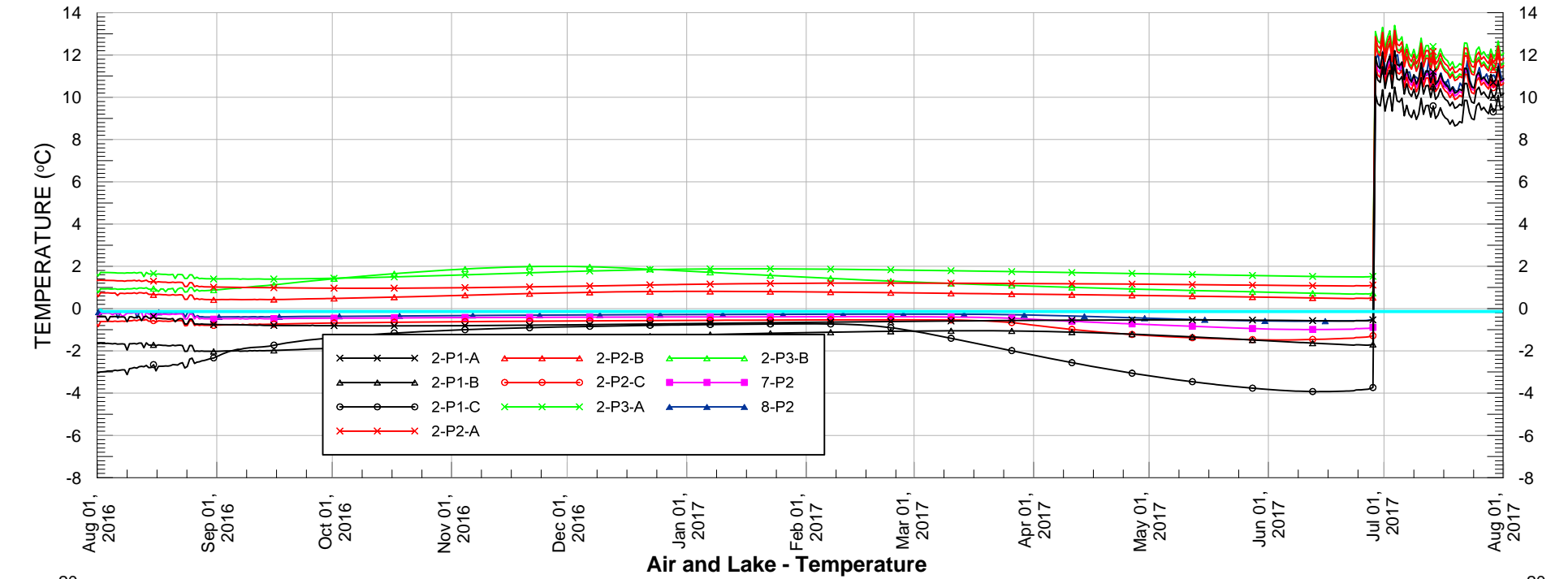
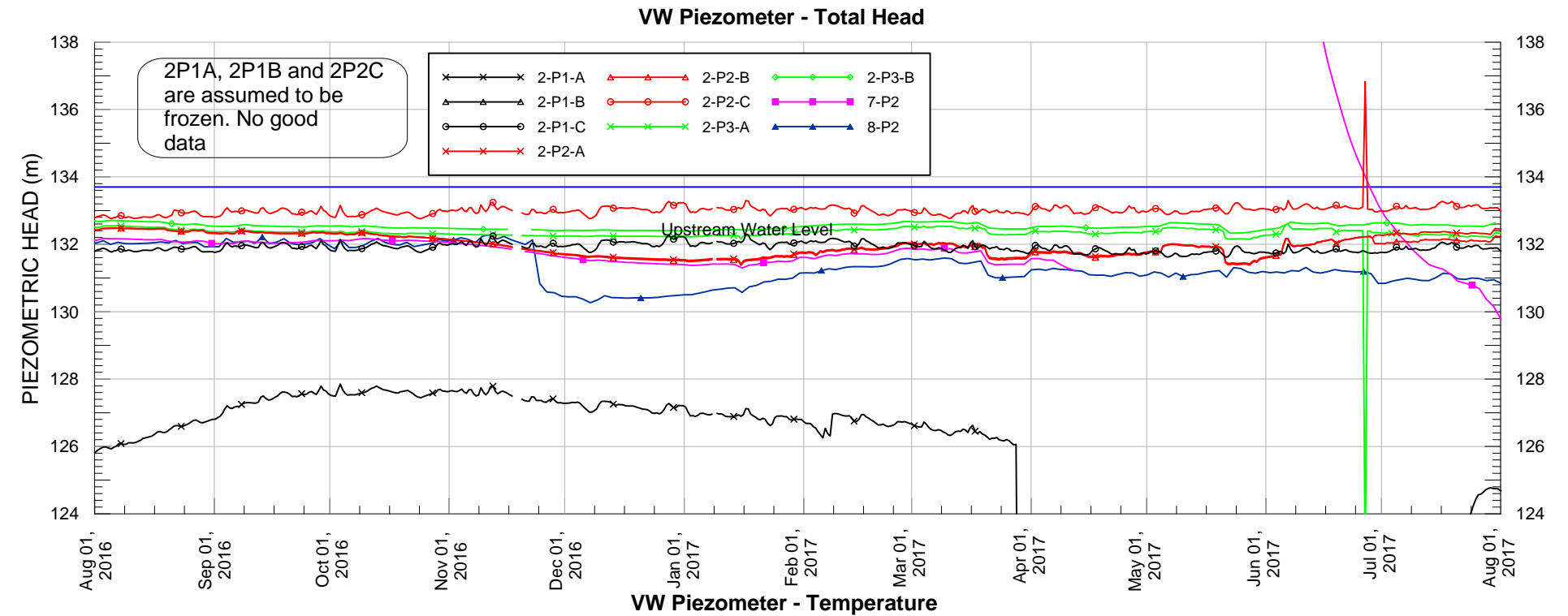
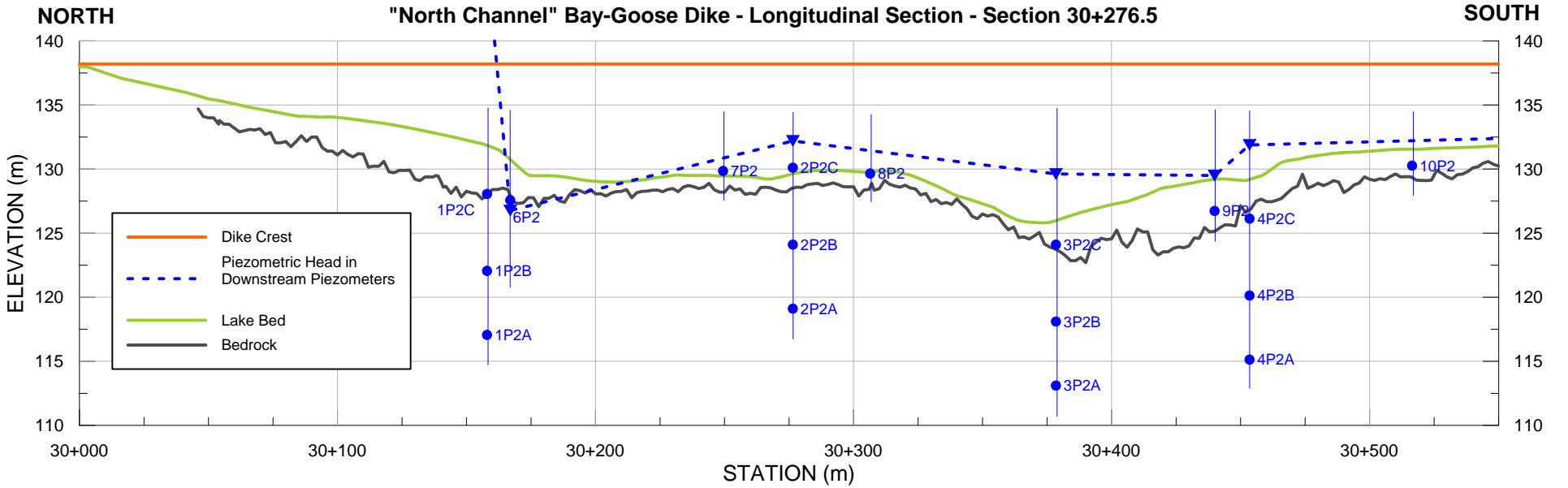
APPENDIX C


Geotechnical Instrumentation Data



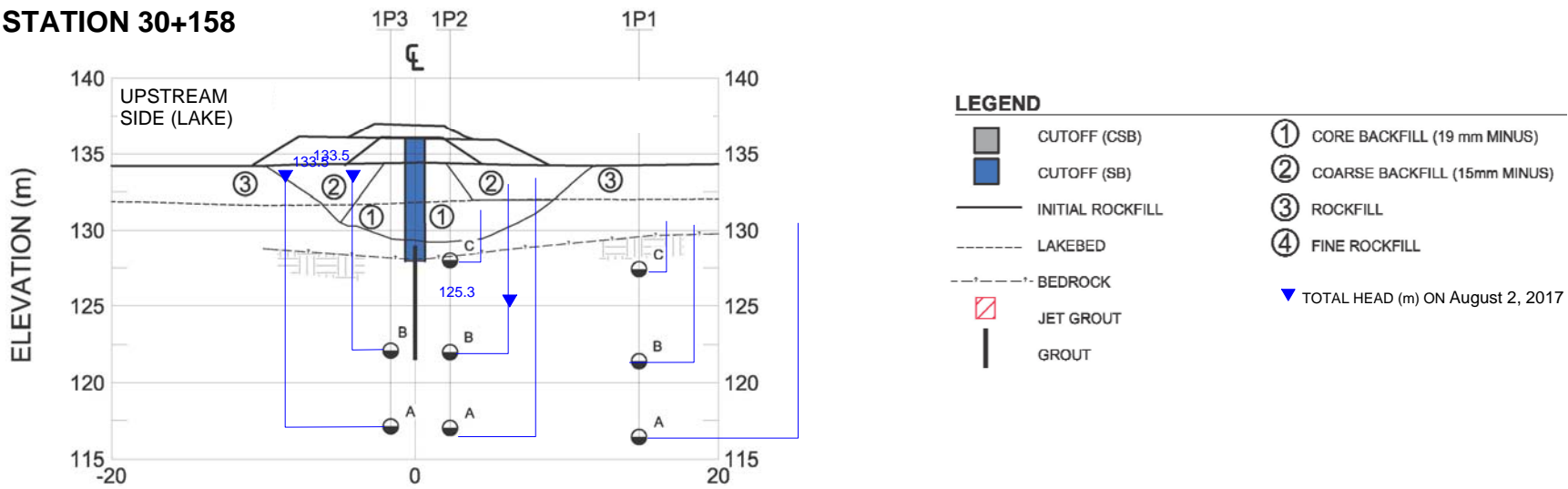
APPENDIX C1

Dewatering Dikes Instrumentation Data

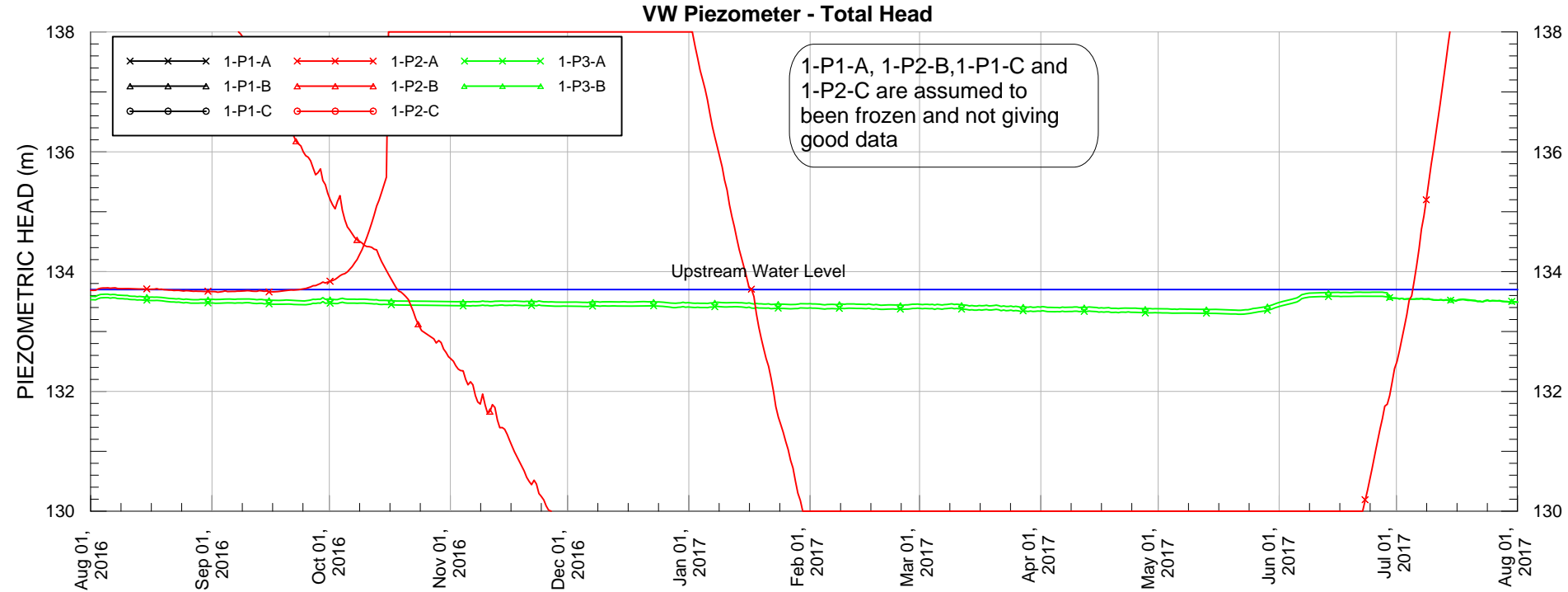


PROJECT	AGNICO EAGLE MINES LIMITED MEADOWBANK GOLD PROJECT NUNAVUT				
TITLE	BAYGOOSE DIKE Section 30+276.5 - PIEZOMETRIC DATA (Aug 1/16 to Aug 1/17)				
 AGNICO EAGLE MEADOWBANK	PROJECT No.			PHASE No.	
	DESIGN	TD	28AUG14	SCALE	AS SHOWN
	CADD	TD	28AUG14	REV.	
	CHECK	PG	28AUG14	FIGURE 3	
	REVIEW				

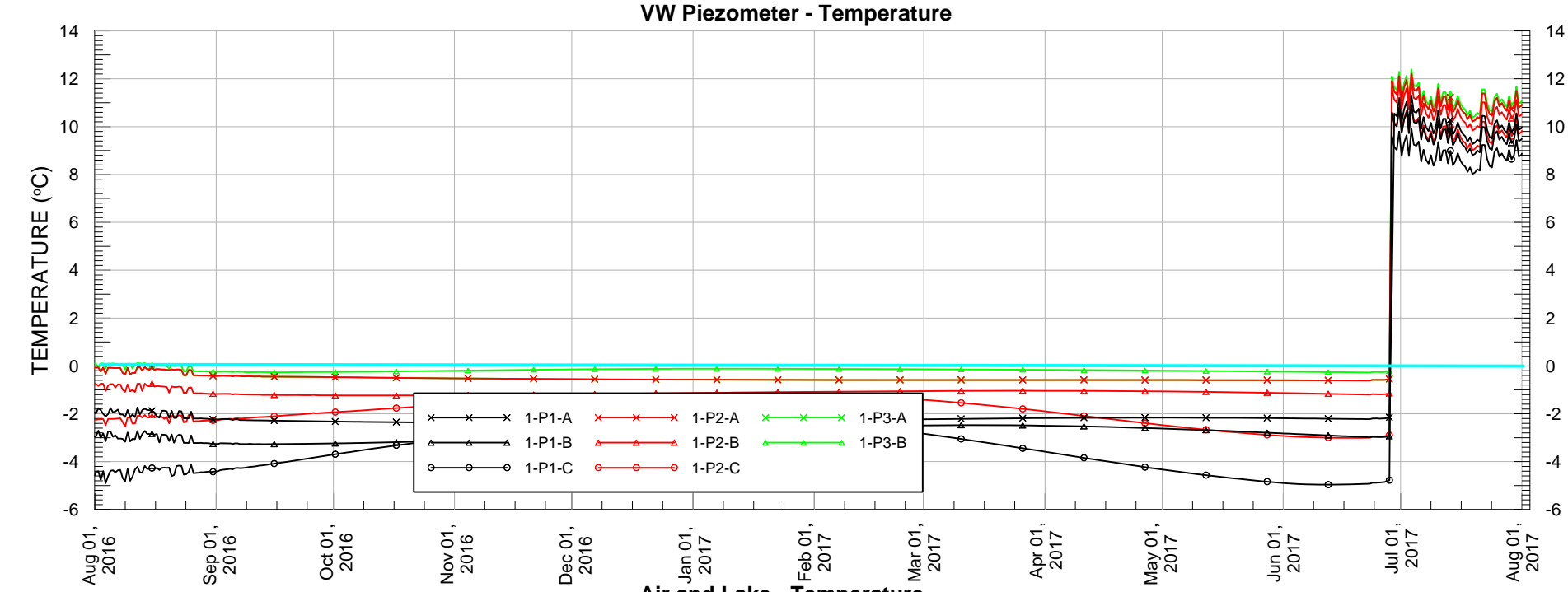
STATION 30+158



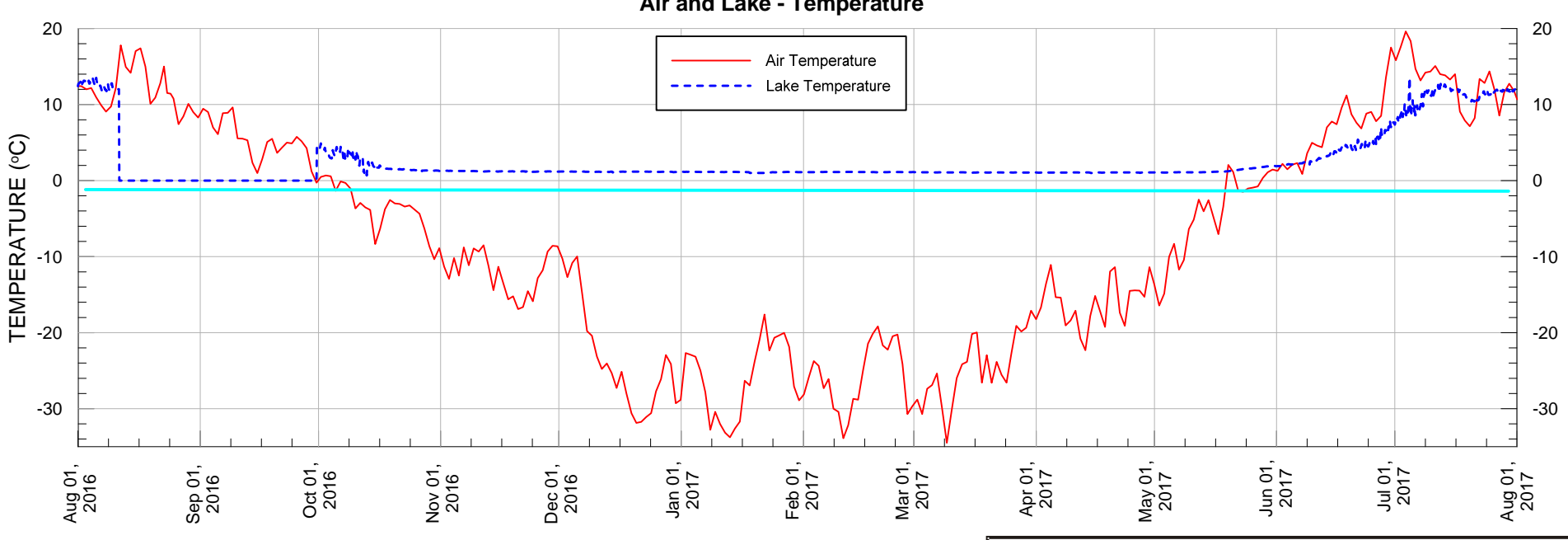
VW Piezometer - Total Head




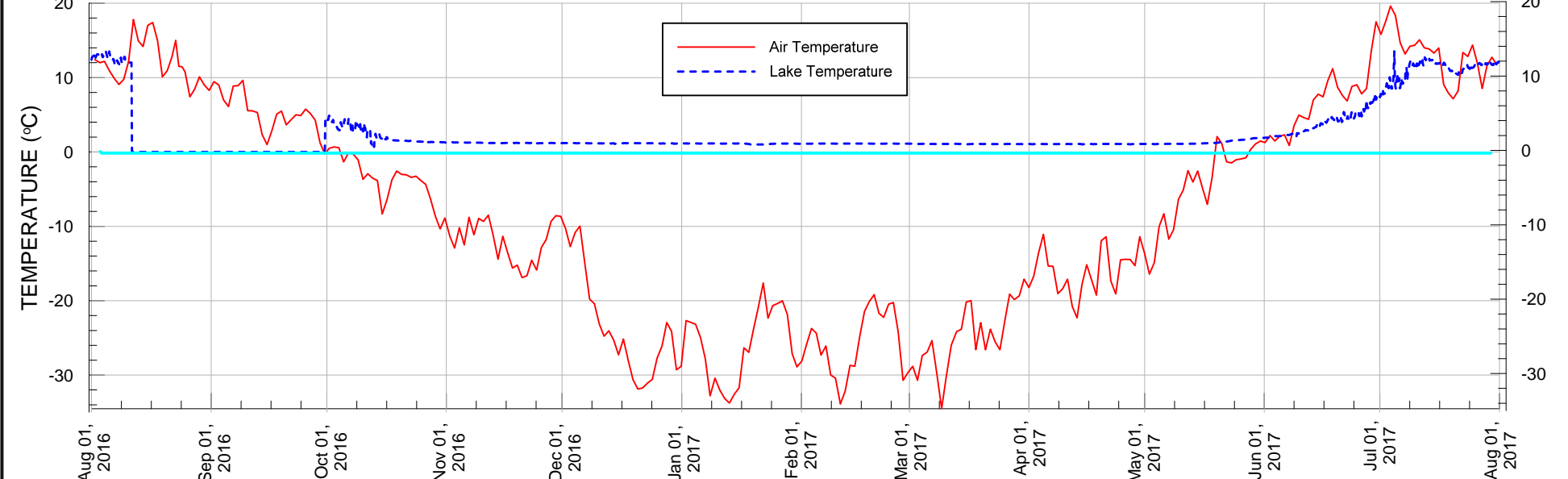
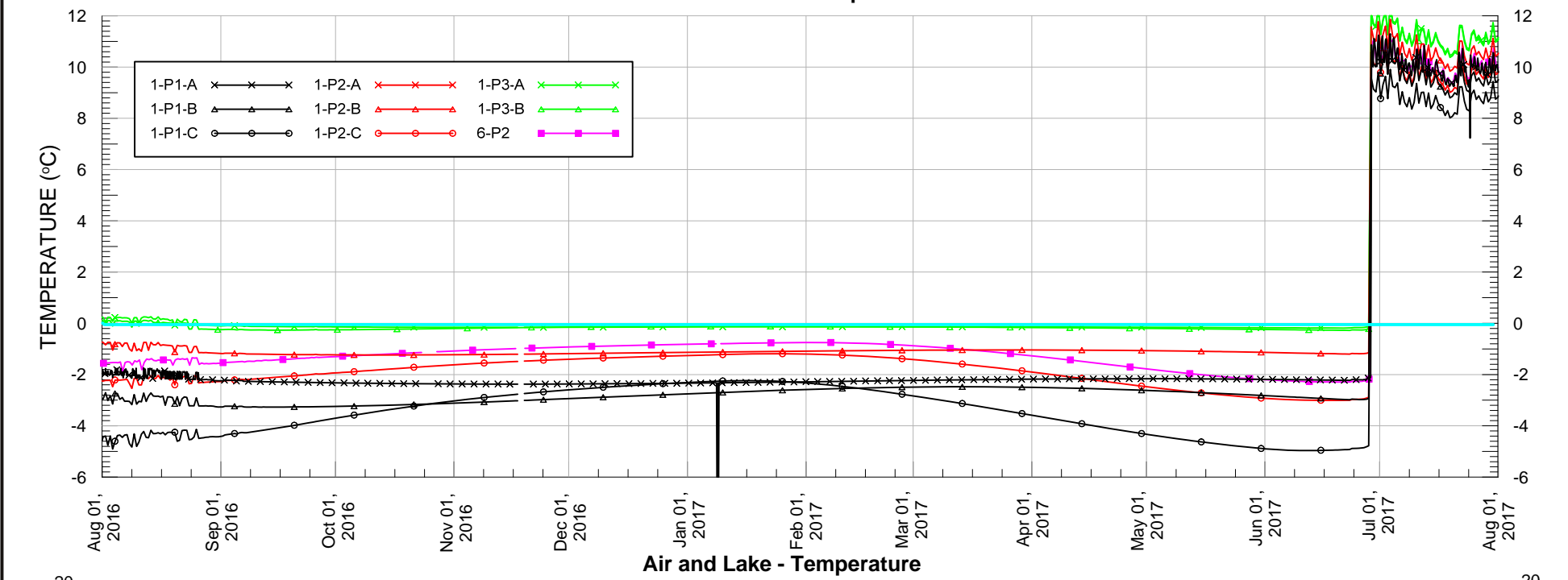
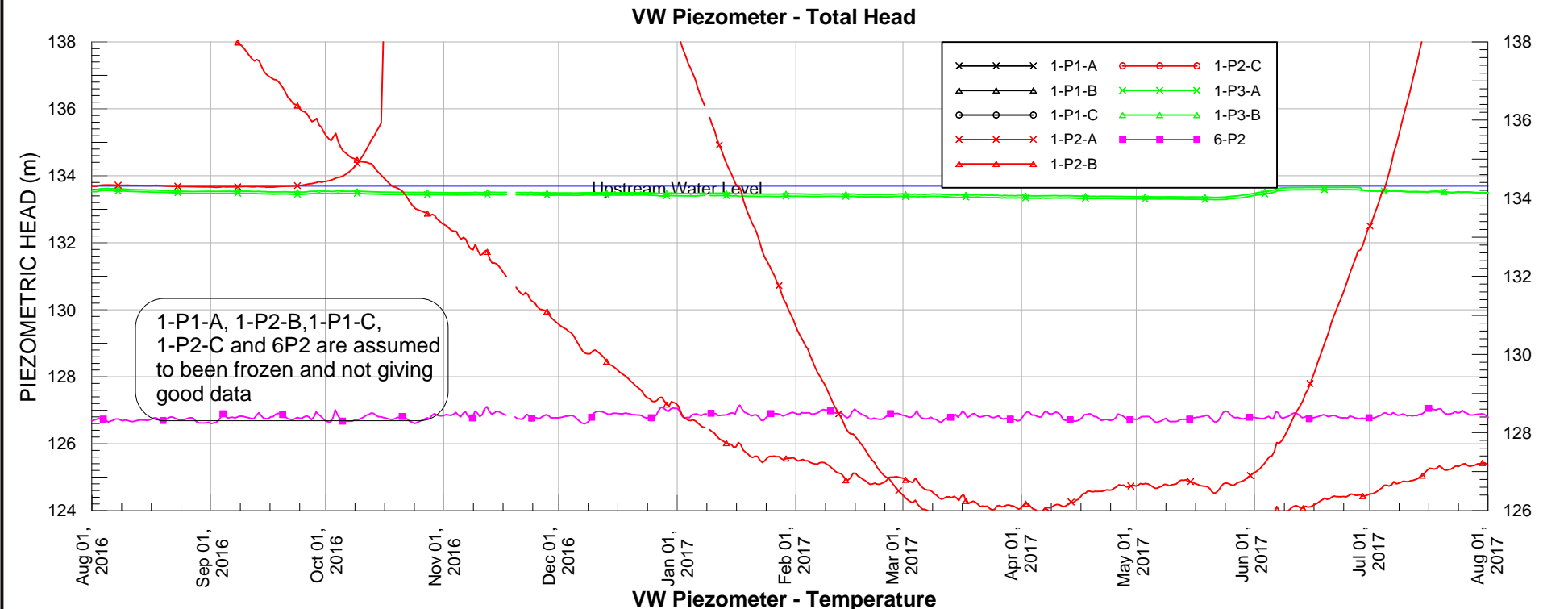
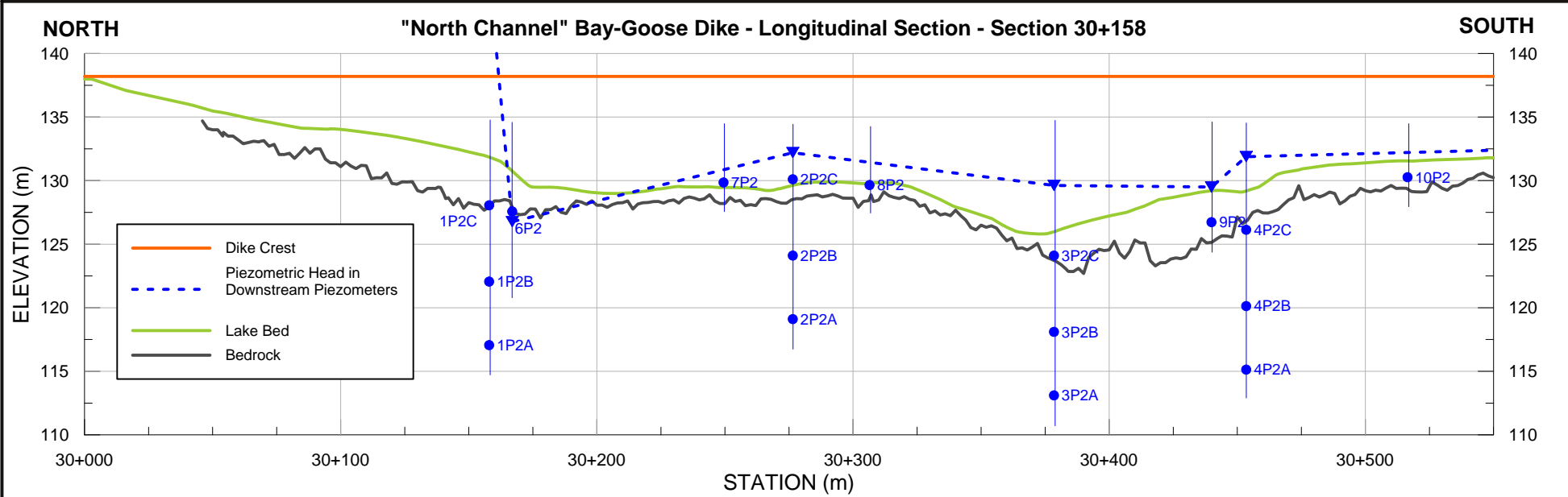
VW Piezometer - Temperature




Air and Lake - Temperature



PROJECT		AGNICO EAGLE MINES LIMITED MEADOWBANK GOLD PROJECT NUNAVUT			
TITLE		BAYGOOSE DIKE - SECTION 30+158 PIEZOMETRIC DATA (Aug 1/16 to Aug 1/17)			
 AGNICO EAGLE <small>MEADOWBANK</small>	PROJECT No.		PHASE No.		
	DESIGN	TD	31AUG14	SCALE	AS SHOWN
	CADD	TD	31AUG14	REVIEW	
	CHECK	PG	28AUG14	FIGURE 2	
	REVIEW				



PROJECT	AGNICO EAGLE MINES LIMITED MEADOWBANK GOLD PROJECT NUNAVUT					
TITLE	BAYGOOSE DIKE Section 30+158 - PIEZOMETRIC DATA (Aug 1/16 to Aug 1/17)					
	PROJECT No.			PHASE No.		
	DESIGN	TD	30/8/14	SCALE	AS SHOWN	REV.
	CADD	TD	30/8/14	FIGURE 1		
	CHECK	PG	31/8/14			
	REVIEW					