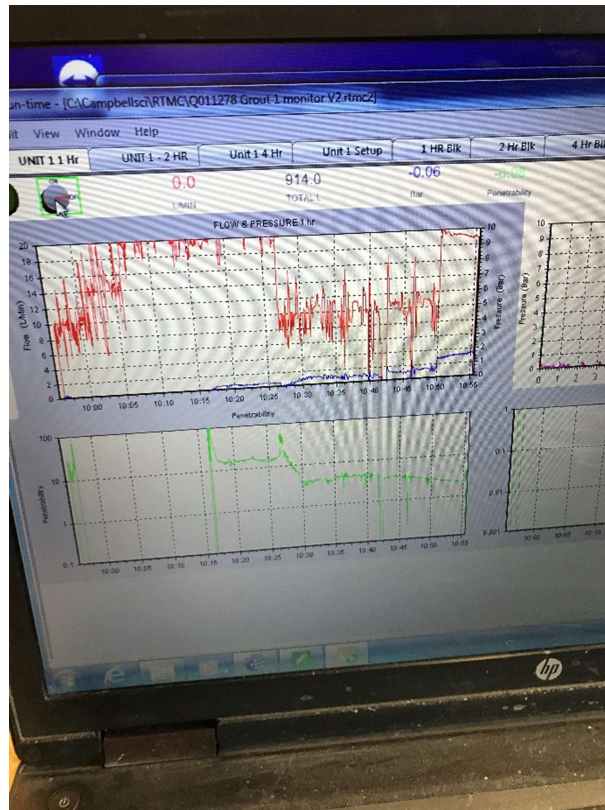


Screen shot of pressure and flow chart at T617.5 and T611.5 from left to right

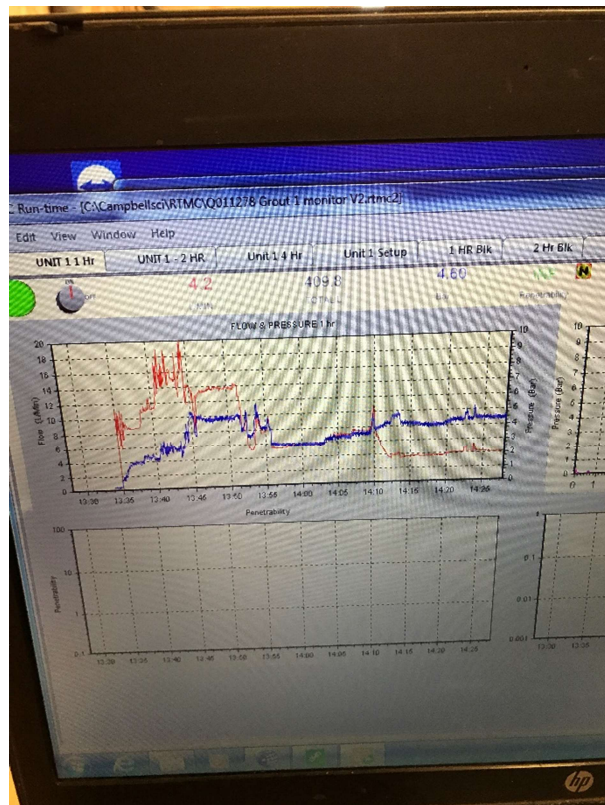


Packer installed at S614.5 while grouting T611.5

DAILY FIELD REPORT (Detailed)



Screen shot of pressure and flow chart at S602.5 when temporary grouting stopped



Screen shot of pressure and flow chart at S602.5 after grouting resumed

2020-01-22	6:30 am 6:30 pm	669034	Muhammad Saleem / Sebastien Viau
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☒ Light ☐ Moderate ☐ Strong, ☐ gusts Temperature: -35 °C

Comments: Blizzard like conditions in the afternoon

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder:

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.

Work Method and Plan

- Continue grouting Primary holes.
- S602.5 will be re-grouted using mix C with celbex by adding celbex through open throat pump.
- Celbex in the open throat pump will be added by visual observation and increased until pressure start building up and then keep the same amount (rate of adding Celbex) until refusal. Total celbex used for the total grout injected will be calculated after grouting completed.

P572.5 5 m stage

- Checked the depth and hole was open to 18.95 m with water at 6.54 m below ground surface.
- Packer was placed at the bottom of the casing.
- Prefilled 36 liters of Mix C grout to displace water and then after packer inflated, injected 450 liters of Mix C without celbex at pressure 0 bar.
- After 450 liters of Mix C injected, switched to Mix D.
- After Mix D started pressure building up slowly and stabilized at about 1.5 bar at 20 l/min flow rate.
- Flow rate reduced to 15 l/min and then 10 l/min to see if pressure build up at slow flow rate but no success.
- Total 2334 liters of grout injected (Mix C without celbex = 450 L + Mix D = 1884 L)
- The closing pressure was 1.55 bar at 15 l/min flow rate.
- No grout communication or leakage observed.

- Checked the grout elevation after about 5 hours and hole was open to the bottom. Will be re-grouted tomorrow by adding celbex through open throat pump as recommended by grouting committee.

S602.5.5 Re-grouting

- Checked the depth and hole was open to 19.5 m with water at 6.66 m below ground surface.
- Packer was placed at the bottom of the casing.
- Prefilled 53 liters of Mix C grout to displace water and then after packer inflated, injected a total of 200 liters of Mix C without celbex.
- After 200 liters of mix C without Celbex injected, switch to Mix C with celbex by adding through open throat pump.
- Celbex was added by observing the pressure to keep gradual increase of pressure. Pressure fluctuated a bit but on average the pressure was moving gradually up.
- In the last 15 minutes pressure was very much stable at 8 to 10 bars at the collar of the hole with flow rate of 15 liters per minute.
- Stopped grouting when pressure at the collar gauge reached 10 bar.
- In total 1175 liters of grout injected.
- Total 11.55 kg of celbex was added in total 975 liters of grout.
- Average approximately 1.4% of celbex was used by unit weight of dry cement.
- Grout level was checked after removing packer and found the grout level was 0.77 m above the bottom of the casing.
- **Hole backfilled after grouting.**

Grout Test

Mix C	Marsh Value = 60 sec.	S.G = 1.77	Temp. = 18.8 C	Bleeding = 1%
Mix D	Marsh Value = n/a.	S.G = 1.73	Temp. = 16.6 C	Bleeding = 0%
Mix D	Marsh Value = n/a.	S.G = 1.76	Temp. = 17.6 C	Bleeding =
Mix C	Marsh Value = 75 sec.	S.G = 1.73	Temp. = 20.0 C	Bleeding = 1%
Mix C	Marsh Value = 63 sec.	S.G = 1.75	Temp. = 19.3 C	Bleeding =

SITE GUIDELINES (guidelines, memos, modification proposals, etc.)

No	Subject	Given to

DAILY FIELD REPORT
(Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleed,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Muhammad Saleem / Sebastien Viau

Signature

22-01-2020

Date

Verified by:

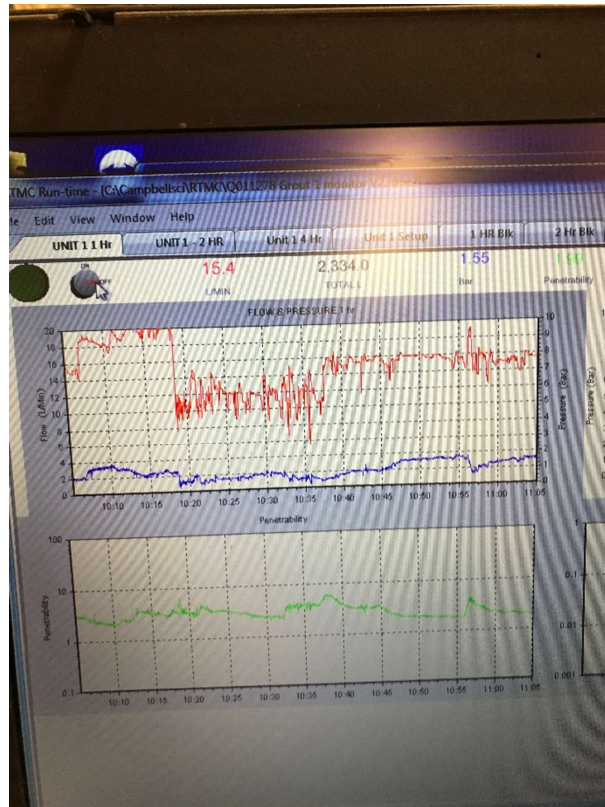
Tom Xue

Signature

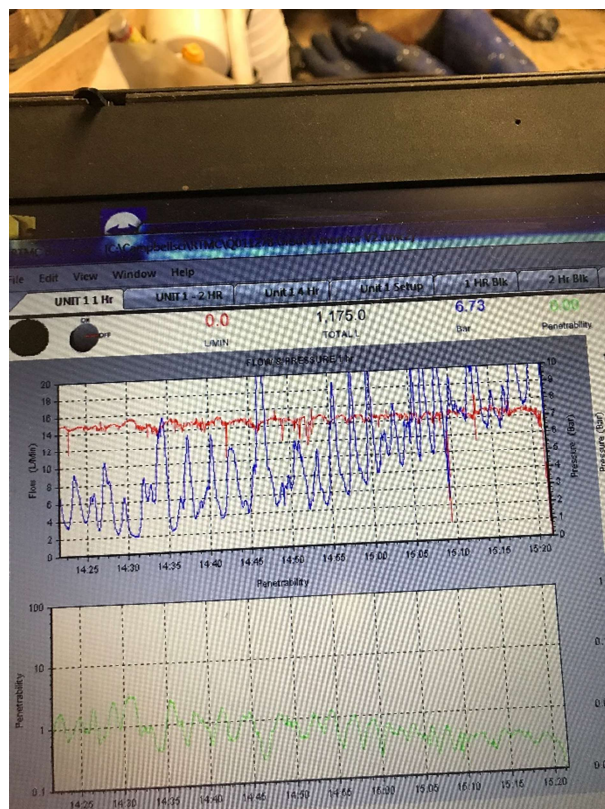
22-01-2020

Date

DAILY FIELD REPORT (Detailed)



Screen shot of pressure and flow chart at P572.5



Screen shot of pressure and flow chart at S602.5



Checking grout density



Adding celbex through open throat pump

2020-01-23	6:30 am 6:30 pm	669034	Muhammad Saleem / Sebastien Viau
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☐ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☒ Light ☐ Moderate ☐ Strong, ☐ gusts Temperature: -39 °C

Comments: _____

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Daily construction meeting will now be held at 7h am in order to get to the injection unit earlier in the morning.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.
- Attended weekly meeting - SNC injection work online.

Work Method and Plan

- Continue grouting Primary holes.
- S572.5 will be re-grouted using mix C with Celbex by adding celbex through open throat pump (if Celbex is required).
- When Celbex will be used, it will be added in the open throat pump by visual observation and increased until pressure start building up and then keep the same amount (rate of adding Celbex) until refusal. Total Celbex used for the total grout injected will be calculated after grouting completed.

P572.5 Re-grouting

- The depth of the hole was checked on January 22nd at the end of the day and the hole was open to 18.7 m.
- The QA team got to the injection unit after the daily construction meeting at around 8h am.
- There was about 200 L already injected and the pressure was building up so it was decided to continue the grouting process with the same grout mix (mix C without Celbex)
- Grouting was stopped when pressure reached Pmax (3.6 bar) for more than 5 min with grout flow of less than 3L/min.
- Total 386 liters of grout injected (mix C).
- The closing pressure was 3.6 bar at 0.6 l/min flow rate.

- No Celbex was required.
- **Hole backfilled after grouting.**

P560.5 5 m stage

- Packer was placed at the bottom of the casing.
- Prefilled 36 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pressure started to build up quickly from the beginning of the grouting process and reached Pmax within 20 min.
- Total 159 liters of grout injected (Mix C)
- The closing pressure was 3.0 bar at 0.5 l/min flow rate.
- No grout communication or leakage observed.
- **Hole backfilled after grouting.**

P548.5 5 m stage

- Packer was placed at the bottom of the casing.
- Prefilled 32 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pressure started to build up quickly from the beginning of the grouting process and reached Pmax within 15 min.
- Total 61 liters of grout injected (Mix C)
- The closing pressure was 3.0 bar at 0.4 l/min flow rate.
- No grout communication or leakage observed.
- **Hole backfilled after grouting.**

P536.5 5 m stage

- Packer was placed at the bottom of the casing.
- Prefilled 33 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pressure started to build up after 5 min after the beginning of the grouting process and reached Pmax after 10 min.
- Total 178 liters of grout injected (Mix C)
- The closing pressure was 3.0 bar at 0.7 l/min flow rate.
- No grout communication or leakage observed.
- **Hole backfilled after grouting.**

Grout Test

Mix C	Marsh Value = 63 sec.	S.G = 1.75	Temp. = 33.9 C	Bleeding = 1.5%
Mix C	Marsh Value = 52 sec.	S.G = 1.72	Temp. = 23.5 C	Bleeding = -
Mix C	Marsh Value = 61 sec.	S.G = 1.72	Temp. = 26.4 C	Bleeding = 1.0%

SITE GUIDELINES (guidelines, memos, modification proposals, etc.)

No	Subject	Given to
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

DAILY FIELD REPORT
(Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleeding,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Muhammad Saleem / Sebastien Viau

Signature

23-01-2020

Date

Verified by:

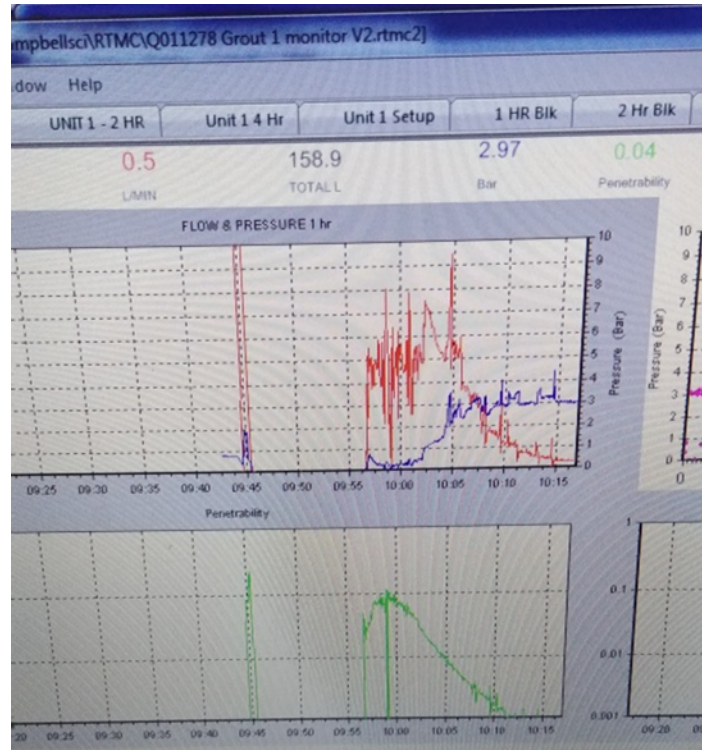
Tom Xue

Signature

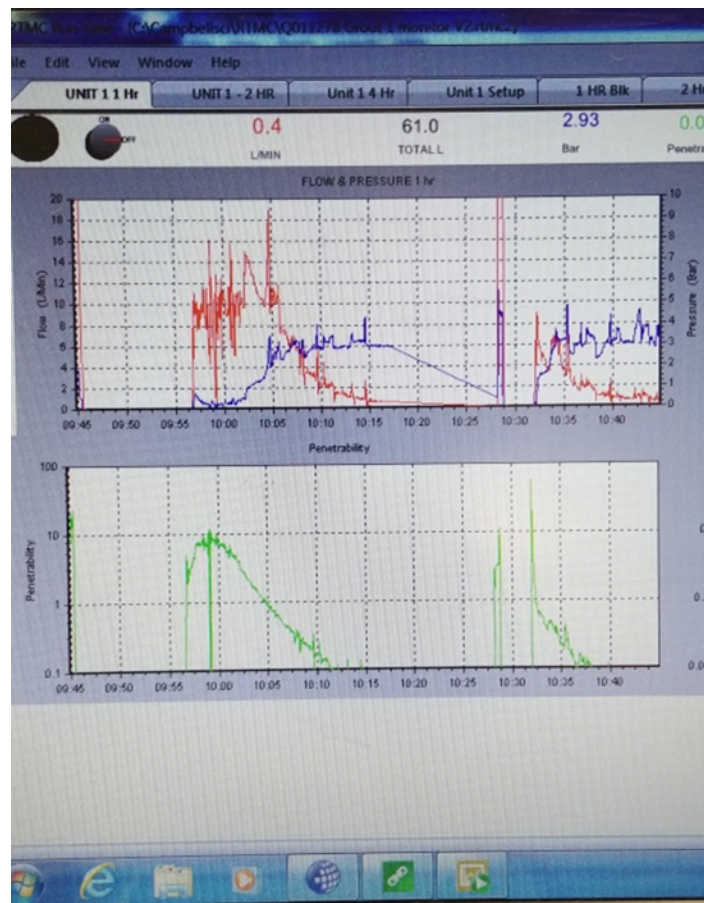
23-01-2020

Date

DAILY FIELD REPORT (Detailed)

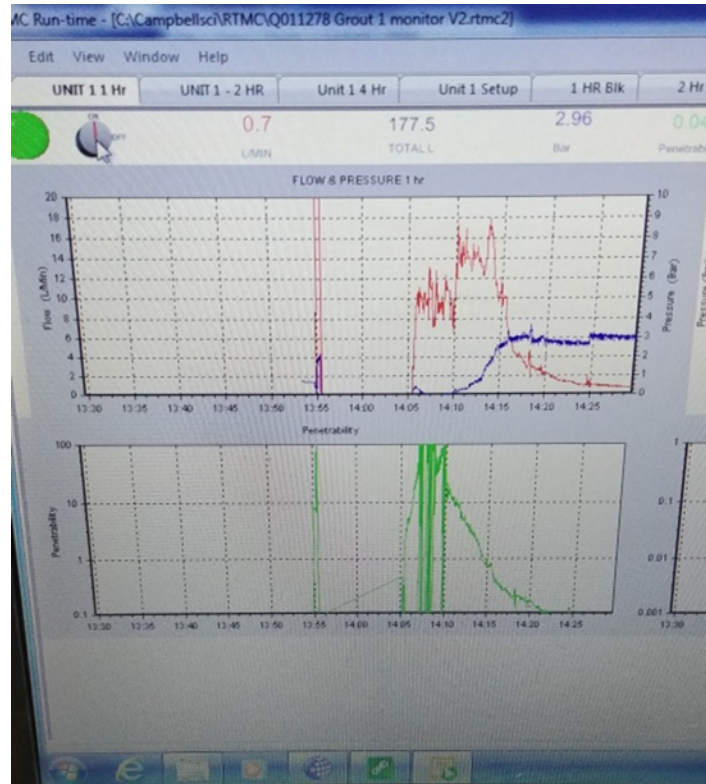


Screen shot of pressure and flow chart at P560.5



Screen shot of pressure and flow chart at P548.5

DAILY FIELD REPORT (Detailed)



Screen shot of pressure and flow chart at P536.5



Backfilling of hole P536.5

2020-01-24	6:30 am 6:30 pm	669034	Sebastien Viau
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☐ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☒ Light ☐ Moderate ☐ Strong, ☐ gusts Temperature: -35 °C

Comments: _____

Appendix: ☐ Yes ☒ No Pictures ☐ Yes ☒ No Inspection report or other: _____

Picture in the folder:

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor's trailer.
- No drilling or grouting activities today as the Contractor team left site for their rotation and the new crew arrived on site late in the afternoon.

Work Method and Plan

SITE GUIDELINES (guidelines, memos, modification proposals, etc.)

No	Subject	Given to
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

DAILY FIELD REPORT
(Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Sebastien Viau

Signature

24-01-2020

Date

Verified by:

Tom Xue

Signature

24-01-2020

Date

2020-01-25	6:30 am 6:30 pm	669034	Sebastien Viau
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☒ Light ☐ Moderate ☐ Strong, ☐ gusts Temperature: -32 °C

Comments: _____

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended to the Standard Operating Procedure (SOP) training from 7h to 9h am
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.

Work Method and Plan

- Continue grouting Primary holes in the second section.
- Resume drilling of Secondary holes in the second section
- Drilling of the last two Tertiary holes of the first section.
- For information, first section from sta. +-800 to +-600, second section from sta. +-600 to +-450.

P524.5 Grouting (5 m stage)

- The depth of the hole was checked on January 23rd at the end of the day and the hole was open to 15.80 m. Water level was measured at depth 6.97 m.
- The QA representative got to the injection unit after the Standard Operating Procedure (SOP) training at around 9h15 am.
- The grouting of the hole was already completed. However, the packer was stuck in the hole.
- The hole was grouted with Mix C without Celbex with a total volume of 468L.
- **Hole has not been backfilled and is still open. After confirmation from SLI designer, the Contractor can proceed to the backfilling of the hole.**

P512.5 Grouting (5 m stage)

- The depth of the hole was checked on January 23nd at the end of the day and the hole was open to 16.67 m. Water level was measured at depth 7.17 m.
- Packer was placed at the bottom of the casing.
- Prefilled 34 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- After a volume of +- 500 L of Mix C injected without significant pressure increasing, it was decided to switch to Mix D.
- The pressure started to build up when using Mix D and reached Pmax after a volume of 180 L of Mix D
- Total 680 liters of grout injected (500 L of Mix C and 180 L of Mix D)
- The closing pressure was 3.5 bar at 0.5 l/min flow rate.
- No grout communication or leakage observed.
- **Hole backfilled after grouting.**

P500.5 Grouting (5 m stage)

- The depth of the hole was checked on January 23nd at the end of the day and the hole was open to 15.35 m. Water level was measured at depth 7.29 m.
- Packer was placed at the bottom of the casing.
- Prefilled 33 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pressure started to build up quickly from the beginning of the grouting process and reached Pmax within 15 min.
- Total 59 liters of grout injected (Mix C)
- The closing pressure was 4.1 bar at 1.3 l/min flow rate.
- No grout communication or leakage observed.
- **Hole backfilled after grouting.**

Drilling

Tertiary holes T599.5 and T605.5 and secondary hole S590.5 were drilled. T599.5 and S590.5 should not have been drilled in the same sequence because the distance between these two holes is less than 12 m. This mistake originates from the fact that the grouting is performed in two sections. Tertiary holes T599.5 and T605.5 are located on both side of S602.5 which is grouted but not S590.5. Secondary hole S590.5 will be grouted before T599.5 and T605.5.

Communication between the secondary and the adjacent tertiary holes will be monitored during the grouting process.

Tertiary holes will be grouted after

Grout Test

Mix C (9h)	Marsh Value = 75 sec.	S.G = 1.81	Temp. = 28.5 C	Bleeding = 1.5%
Mix C (13h30)	Marsh Value = 93 sec.	S.G = 1.75	Temp. = 27.0 C	Bleeding = 1.0%
Mix D (14h20)	Marsh Value = n/a	S.G = 1.79	Temp. = 24.5 C	Bleeding = -
Mix C (15h00)	Marsh Value = 74 sec.	S.G = 1.78	Temp. = 23.0 C	Bleeding = -

SITE GUIDELINES (guidelines, memos, modification proposals, etc.)

No	Subject	Given to
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

DAILY FIELD REPORT
(Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleeding,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Sebastien Viau

Signature

25-01-2020

Date

Verified by:

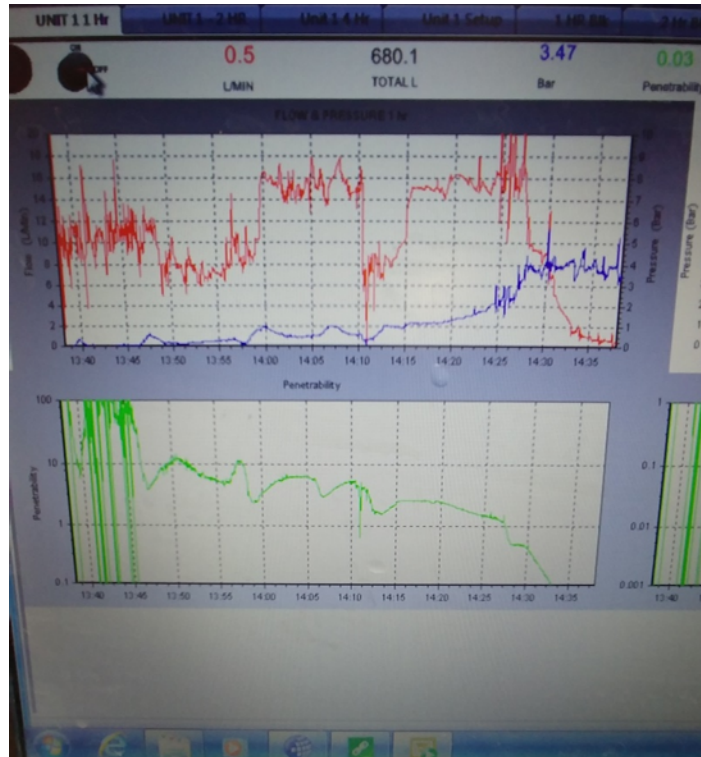
Tom Xue

Signature

25-01-2020

Date

DAILY FIELD REPORT (Detailed)



Screen shot of pressure and flow chart at P512.5



Specific Gravity testing

2020-01-26	6:30 am 6:30 pm	669034	Sebastien Viau
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☒ Light ☐ Moderate ☐ Strong, ☐ gusts Temperature: -22 °C

Comments: _____

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.

Work Method and Plan

- Continue grouting Primary holes.
- Continue drilling of Secondary holes.

P488.5 Grouting (5 m stage)

- The depth of the hole was checked on January 23nd and the hole was open to 15.17 m. Water level was measured at depth 6.65 m.
- Packer was placed at the bottom of the casing.
- Prefilled 34 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pressure started to build up and reached Pmax within 25 min.
- Total 314 liters of grout injected (Mix C)
- The closing pressure was 2.8 bar at 0.0 l/min flow rate.
- No grout communication or leakage observed.
- **Hole backfilled after grouting.**

Bedrock Drilling

- Total 5 secondary holes (S554.5, S542.5, S530.5, S518.5 and S506.5) drilled today.

DAILY FIELD REPORT (Detailed)

- All holes drilled into rock for 5 m grout length.
- Water loss observed at these depths:

Hole	Total depth (m)	Water loss depth below ground level(m)	Water loss above bottom of the hole (m)	Caving depth (m)
S554.5	16.3	-	-	No caving
S542.5	14.4	12.1	2.3	No caving
S530.5	15.4	12.8	2.6	No caving
S518.5	15.3	12.9	2.4	No caving
S506.5	15.7	-	-	No caving

2020-01-25

- 2 tertiary holes (T605.5 and T599.5) and 3 secondary holes (S590.5, S578.5 and S566.5) drilled on 2020-01-25.
- All holes drilled into rock for 5 m grout length.
- Water loss observed at these depths:

Hole	Total depth (m)	Water loss depth below ground level(m)	Water loss above bottom of the hole (m)	Caving depth (m)
T605.5	17.9	-	-	No caving
T599.5	18.3	-	-	No caving
S590.5	18.2	14.7	3.5	No caving
S578.5	17.3	14.1	3.2	No caving
S566.5	16.3	-	-	No caving

- Contractor was reminded that if caving or water loss occurs in the first 1.5 m in bedrock (3.5 m above bottom of the hole), drilling should be stop and two stages drilling/grouting will be carried out.
- All holes stayed open to the bottom of the hole.

We had to evacuate the site from 9h to 15h for drain pipe cleaning in the area. No grouting was performed after 9h.

Grout Test

Mix C (7h30) Marsh Value = 81 sec. S.G = 1.76 Temp. = 29.5 C Bleeding = -

No	Subject	Given to
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

DAILY FIELD REPORT
(Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleeding,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Sebastien Viau

Signature

26-01-2020

Date

Verified by:

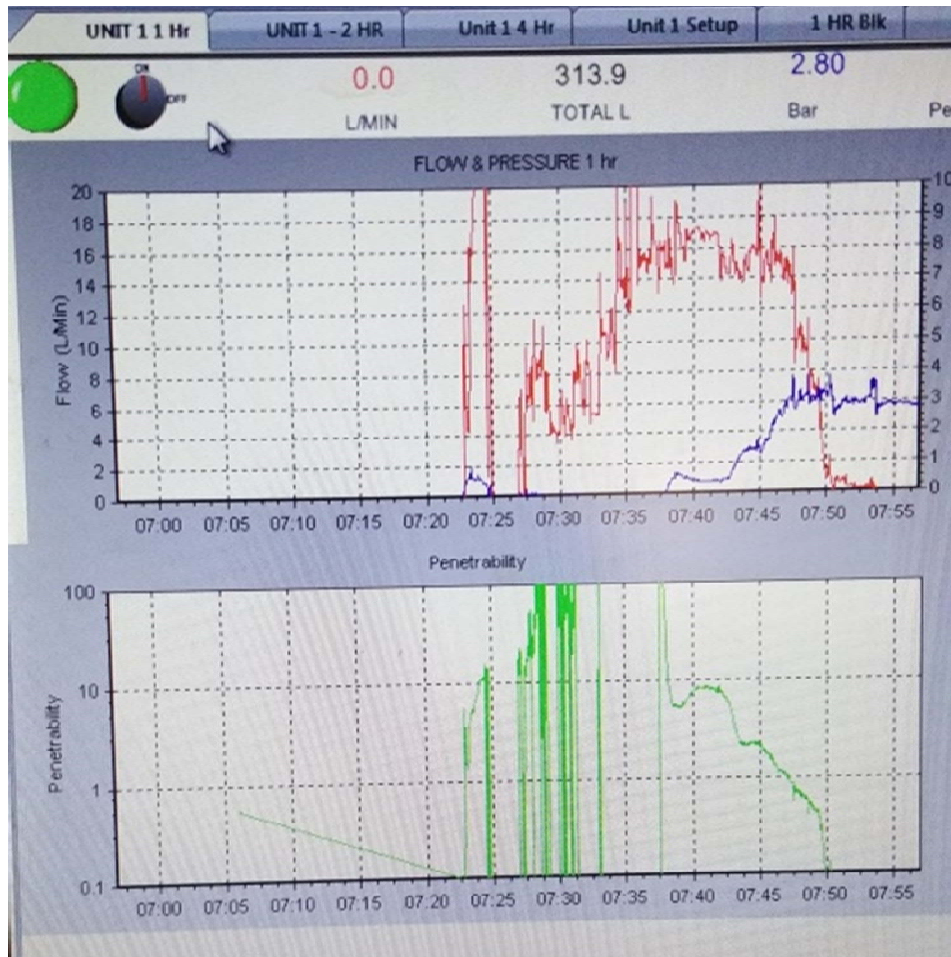
Tom Xue

Signature

26-01-2020

Date

DAILY FIELD REPORT
(Detailed)



Screen shot of pressure and flow chart at P488.5

2020-01-27	6:30 am 6:30 pm	669034	Sebastien Viau
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☐ Light ☒ Moderate ☒ Strong, ☐ gusts Temperature: -28 °C

Comments: _____

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.
- Prepare weekly report.

Work Method and Plan

- Finish Primary holes grouting in the second section.
- Start Secondary holes grouting in the second section.
- Casing plug for two holes (S447.5 and T461.5).
- Drilling of one Secondary hole (S494.5).
- After grouting, the depth of the grout is now measured in order to be sure that the grout is still in place and not washed away.

P476.5 Grouting (5 m stage)

- The depth of the hole was checked on January 26th and the hole was open to 15.07 m. Water level was measured at depth 7.42 m.
- Packer was placed at the bottom of the casing.
- When QA representative got to the grouting unit (7h30), the hole was already grouted.
- Total 76 liters of grout injected (Mix C).
- The closing pressure was 3.3 bar at 2.0 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 9.0 m after grouting operation and before backfilling.

- **Hole was backfilled after grouting but it tooks three times before the hole was completely backfilled. The grout was dropping about 1 m below top of casing.**

P464.5 Grouting (5 m stage)

- The depth of the hole was checked on January 26th and the hole was open to 15.14 m. Water level was measured at depth 7.68 m.
- Packer was placed at the bottom of the casing.
- Prefilled 35 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pressure started to build up quickly from the beginning of the grouting process and reached Pmax within 5 min.
- Total 66 liters of grout injected (Mix C).
- The closing pressure was 4.0 bar at 1.9 l/min flow rate.
- No grout communication or leakage observed.
- It was not possible to measure the grout depth for this hole.
- **Hole backfilled after grouting.**

P452.5 Grouting (5 m stage)

- The depth of the hole was checked on January 26th and the hole was open to 15.02 m. Water level was measured at depth 7.61 m.
- Packer was placed at the bottom of the casing.
- Prefilled 38 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pressure started to build up quickly from the beginning of the grouting process and reached Pmax within 5 min.
- Total 88 liters of grout injected (Mix C).
- The closing pressure was 3.0 bar at 0.0 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 9.7 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

S590.5 Grouting (5 m stage)

- The depth of the hole was checked on January 26th and the hole was open to 18.13 m. Water level was measured at depth 6.68 m.
- Packer was placed at the bottom of the casing.
- Prefilled 35 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pmax was reached after 10 min.
- Total 120 liters of grout injected (Mix C).
- The closing pressure was 3.5 bar at 0.0 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 11.0 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

S578.5 Grouting (5 m stage)

- The depth of the hole was checked on January 26th and the hole was open to 17.27 m. Water level was measured at depth 6.63 m.
- Packer was placed at the bottom of the casing.
- Prefilled 35 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pmax was reached after 15 min.
- Total 361 liters of grout injected (Mix C).

- The closing pressure was 3.4 bar at 0.0 l/min flow rate.
- No grout communication or leakage observed.
- **Hole backfilled after grouting.**

Casing Plug

2 casings plugged today using Mix C without Celbex.

Packer placed at about 2 m above the bottom of the casing. No prefill was injected prior to inflate packer. The contractor was informed that all casing plug must be prefilled before inflating packer.

T461.5 injected 4.2 liters grout @ 1.5 bar

S446.5 injected 16.3 liters grout @ +/- 2.0 bar

Waited for 5 minutes after flow rate reached below 1 l/min at Pmax.

Bedrock Drilling

- 1 secondary hole (S494.5) drilled today.
- The hole was drilled into rock for 5 m grout length.
- Water loss observed at these depths:

Hole	Total depth (m)	Water loss depth below ground level(m)	Water loss above bottom of the hole (m)	Caving depth (m)
S494.5	15.3	-	-	No caving

Grout Test

Mix	Marsh Cone (sec)	Specific Gravity	Temperature (°C)	Bleeding (%)
C	85	1.78	26.5	2.0
C	46	1.72	26.5	-
C (plug)	65	1.76	18.0	-
C	77	1.76	22.0	1.5
C	84	1.78	22.5	-

No	Subject	Given to
_____	_____	_____
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DAILY FIELD REPORT
(Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleeding,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Sebastien Viau

Signature

27-01-2020

Date

Verified by:

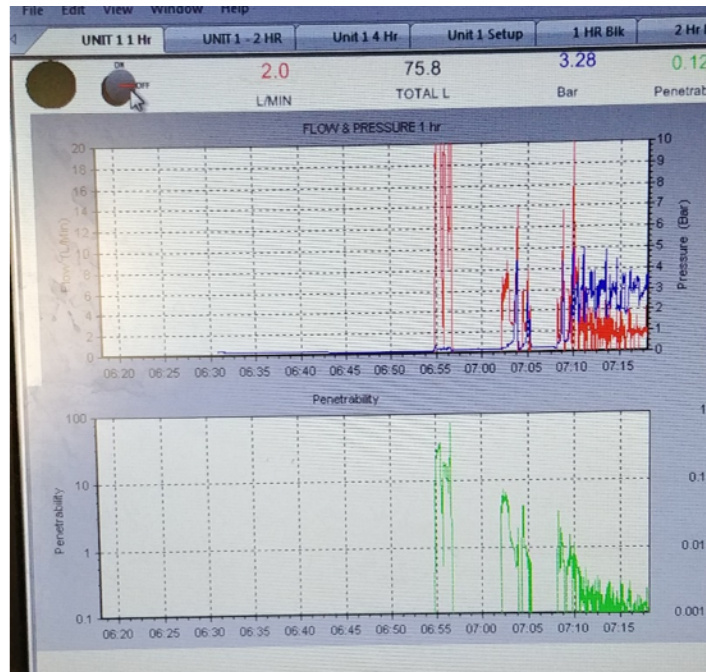
Tom Xue

Signature

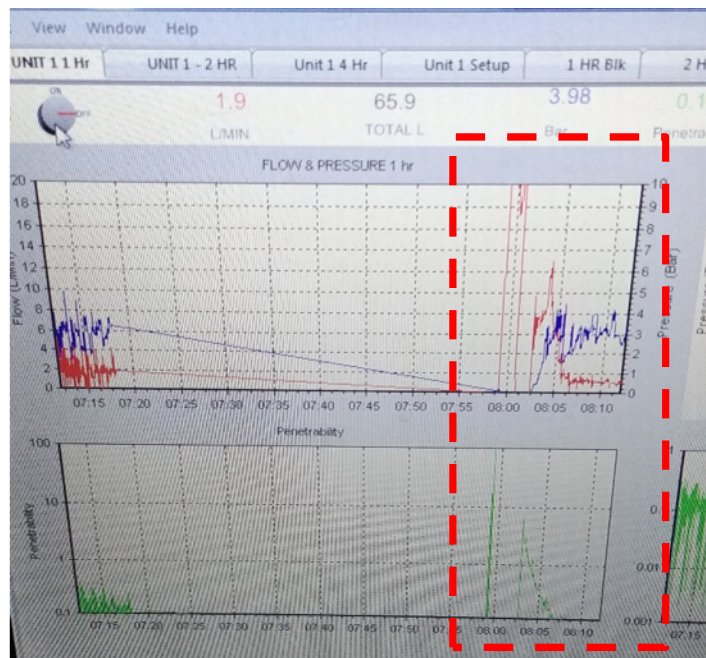
27-01-2020

Date

DAILY FIELD REPORT (Detailed)

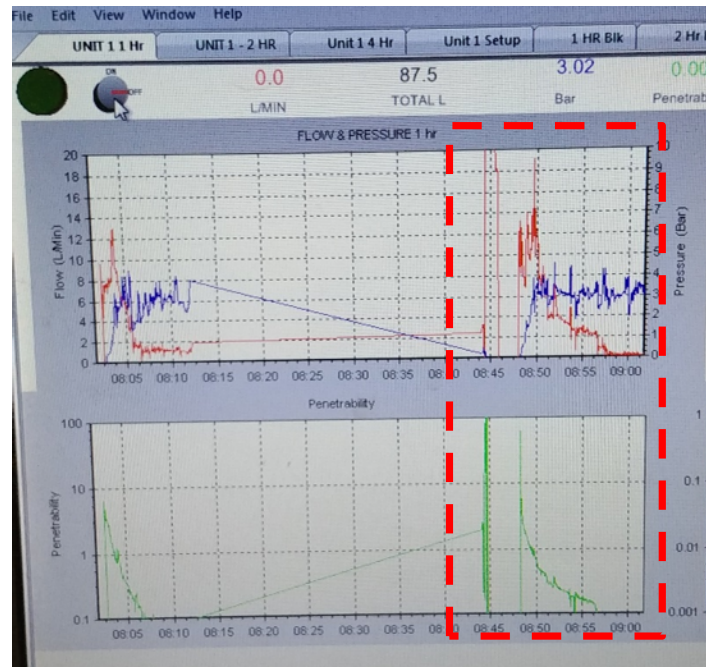


Screen shot of pressure and flow chart at P476.5

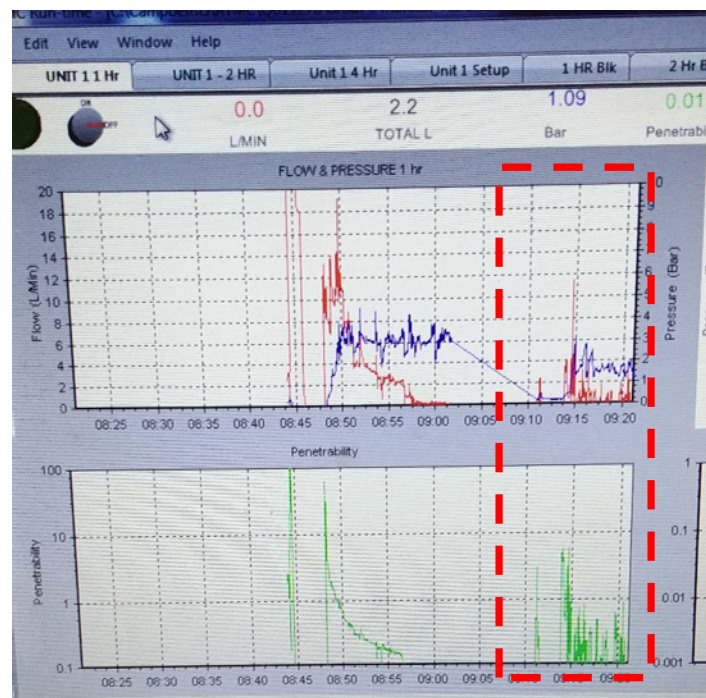


Screen shot of pressure and flow chart at P464.5

DAILY FIELD REPORT (Detailed)

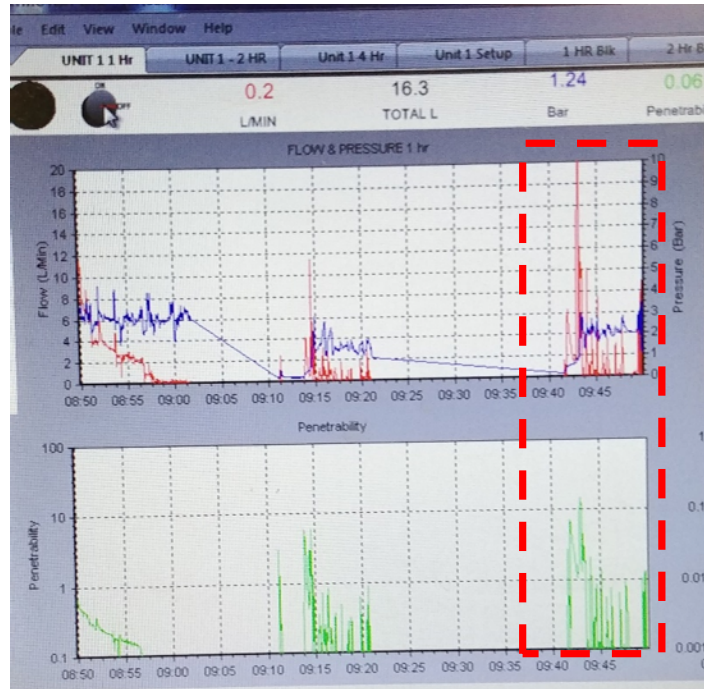


Screen shot of pressure and flow chart at P452.5

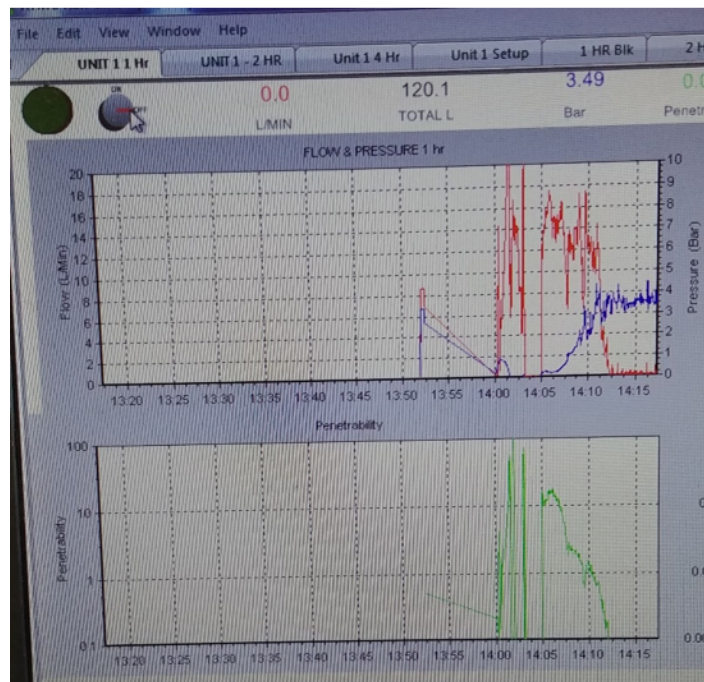


Screen shot of pressure and flow chart at T461.5 (casing plug)

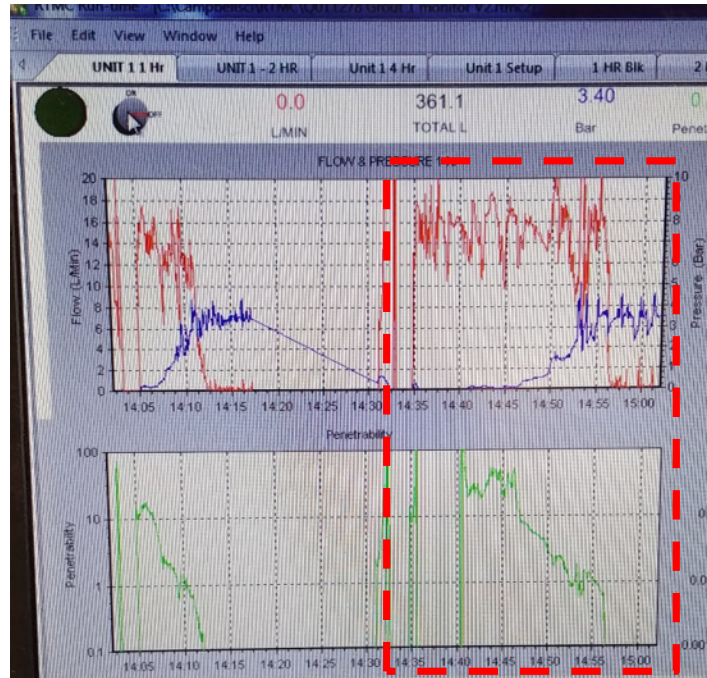
DAILY FIELD REPORT (Detailed)



Screen shot of pressure and flow chart at S446.5 (casing plug)



Screen shot of pressure and flow chart at S590.5



Screen shot of pressure and flow chart at S578.5

2020-01-28	6:30 am 6:30 pm	669034	Sebastien Viau
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☐ Sunny ☒ Cloudy ☐ Rain ☒ Storm ☒ Snow ☐ Glaze

Wind: ☐ None ☐ Light ☒ Moderate ☒ Strong, ☐ gusts Temperature: -13 °C

Comments: _____

Appendix: ☐ Yes ☒ No Pictures ☐ Yes ☒ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.
- Prepare weekly report.

Work Method and Plan

- Continue drilling of Secondary holes.
- No grouting activities today as blizzard conditions until 14h and waiting for water truck after until the end of the day.

Bedrock Drilling

- Total 3 secondary holes (S446.5, S458.5 and S470.5) drilled today.
- All holes drilled into rock for 5 m grout length.
- No water loss observed:

Hole	Total depth (m)	Water loss depth below ground level(m)	Water loss above bottom of the hole (m)	Caving depth (m)
S446.5	14.2	-	-	No caving
S458.5	15.1	-	-	No caving
S470.5	16.0	-	-	No caving

DAILY FIELD REPORT
(Detailed)



No	Subject	Given to
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SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
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SAFE AND SAFETY REMARKS

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- Dress up properly for extreme cold conditions
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Issued by:

Sebastien Viau

Signature

28-01-2020

Date

Verified by:

Tom Xue

Signature

28-01-2020

Date

2020-01-29	6:30 am 6:30 pm	669034	Sebastien Viau
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☐ Light ☒ Moderate ☐ Strong ☐ gusts Temperature: -20 °C

Comments: _____

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.

Work Method and Plan

- Four Secondary holes grouting and one Primary hole (P524.5) re-grouting.
- Drilling of two holes (one secondary hole (S446.5) and one tertiary hole (T593.5).
- Backfilling one Primary hole (P524.5) where packer was stuck in the casing.

S566.5 Grouting (5 m stage)

- The depth of the hole was checked on January 27th and the hole was open to 16.21 m. Water level was measured at depth 6.60 m.
- Packer was placed at the bottom of the casing.
- When QA representative got to the grouting unit (7h30), the hole was already grouted.
- Total 49 liters of grout injected (Mix C).
- The closing pressure was 3.18 bar at <3 l/min flow rate.
- No grout communication or leakage observed.
- Grout level was not possible to determine after the grouting.
- **Hole was backfilled after grouting and grout level remained at the same after 30 min.**

S554.5 Grouting (5 m stage)

- The depth of the hole was checked on January 27th and the hole was open to 16.25 m. Water level was measured at depth 6.82 m.
- Packer was placed at the bottom of the casing.
- When QA representative got to the grouting unit (7h30), the hole was already grouted.
- Total 53 liters of grout injected (Mix C).
- The closing pressure was 3.28 bar at <3 l/min flow rate.
- No grout communication or leakage observed.
- Grout level was not possible to determine after the grouting.
- **Hole was backfilled after grouting and grout level remained at the same after 30 min.**

S542.5 Grouting (5 m stage)

- The depth of the hole was checked on January 27th and the hole was open to 14.39 m. Water level was measured at depth 7.03 m.
- Packer was placed at the bottom of the casing.
- Prefilled 36 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pmax was reached within 20 min.
- Total 352 liters of grout injected (Mix C).
- The closing pressure was 3.2 bar at 0.0 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 8.3 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

S530.5 Grouting (5 m stage)

- The depth of the hole was checked on January 27th and the hole was open to 15.42 m. Water level was measured at depth 6.63 m.
- Packer was placed at the bottom of the casing.
- Prefilled 40 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pmax was reached within 15 min.
- Total 397 liters of grout injected (Mix C).
- The closing pressure was 3.5 bar at 0.0 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 9.7 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

P524.5 Backfilling and regrouting

On January 25th, Primary hole P524.5 was grouted. A volume of 468 L was grouted at a refusal pressure of 3.3 bar. After the grouting process, the packer got stuck in the hole. The hole was left open. On January 29th, the hole backfilling process began. After a few minutes and a considerable amount of grout take, it was decided to abandon the backfilling process and regrout the hole.

- The packer was installed just above the stuck packer and rod at a depth of +-2.0 m.
- A total of 2400 L were injected without pressure increase (+600 L Mix C and 1800 L Mix D).
- For the last 200 L of Mix D, Rheomac quantity was doubled without any pressure increase.
- The ending pressure was +- 2.5 bar at 15 l/min flow rate (most of the pressure came from head loss in the pipe).
- No grout communication or leakage observed.
- **Will be re-grouted tomorrow by adding celbex through open throat pump as recommended by grouting committee**

Bedrock Drilling

- Two holes (1 secondary and 1 tertiary) were drilled today.
- The holes were drilled into rock for 5 m grout length.
- Water loss observed at these depths:

Hole	Total depth (m)	Water loss depth below ground level(m)	Water loss above bottom of the hole (m)	Caving depth (m)
S446.5	16.3	14.1	2.2	No caving
T593.5	18.0	-	-	No caving

Grout Test

Mix	Marsh Cone (sec)	Specific Gravity	Temperature (°C)	Bleeding (%)
C	60	1.78	18.5	1.0
C	58	1.76	18.6	-
C	55	1.76	14.5	-
C	65	1.78	19.0	-
D	-	1.79	21.0	To come
D	-	1.81	18.0	-

No	Subject	Given to
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DAILY FIELD REPORT
(Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleeding,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Sebastien Viau

Signature

29-01-2020

Date

Verified by:

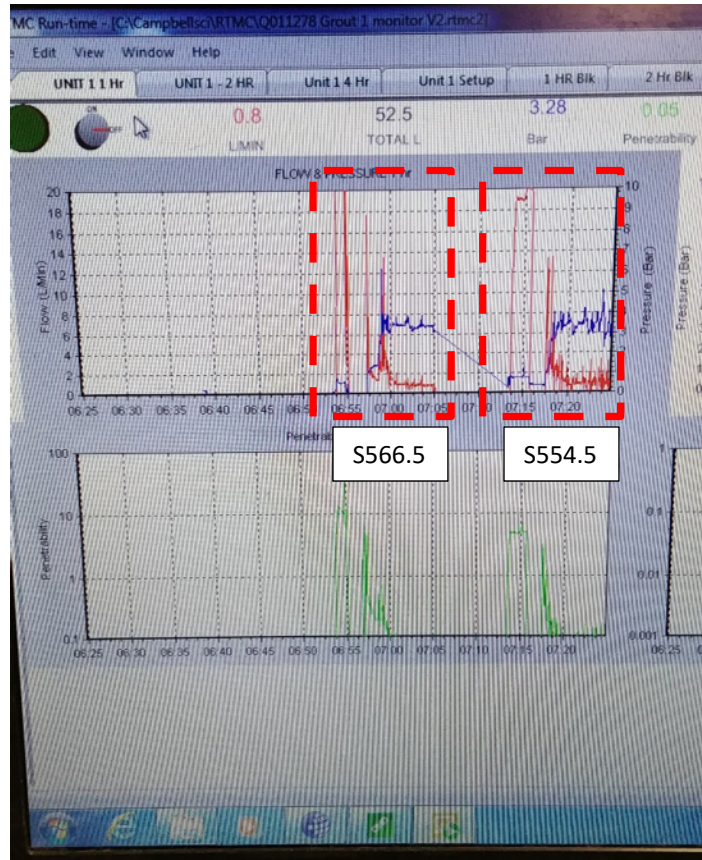
Tom Xue

Signature

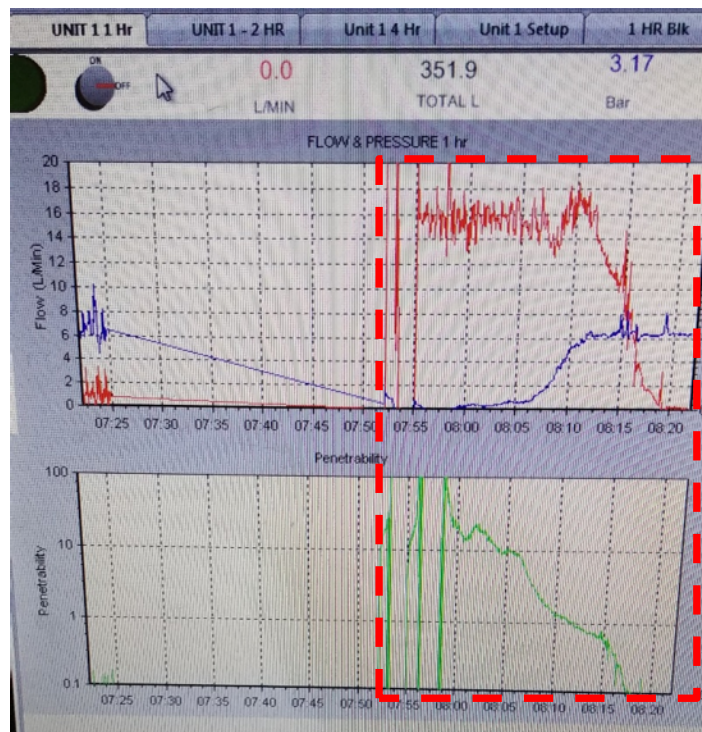
29-01-2020

Date

DAILY FIELD REPORT (Detailed)

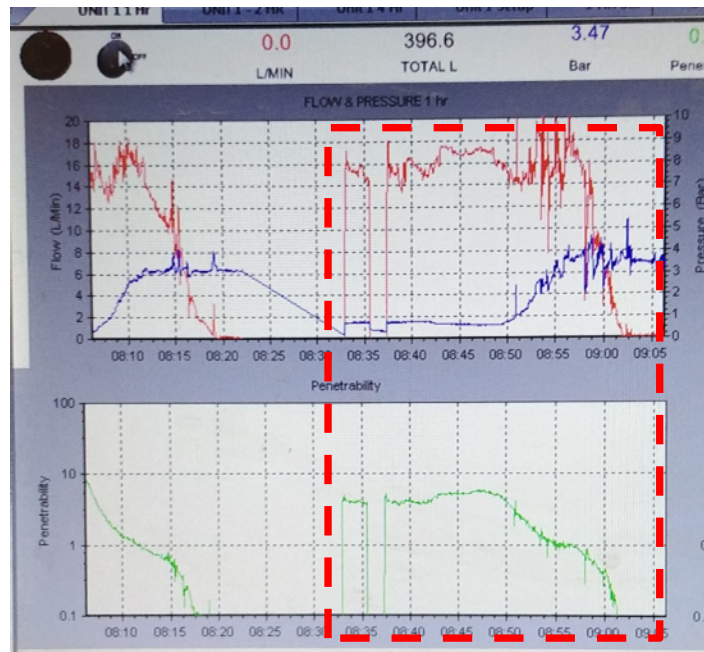


Screen shot of pressure and flow chart at S566.5 and S554.5

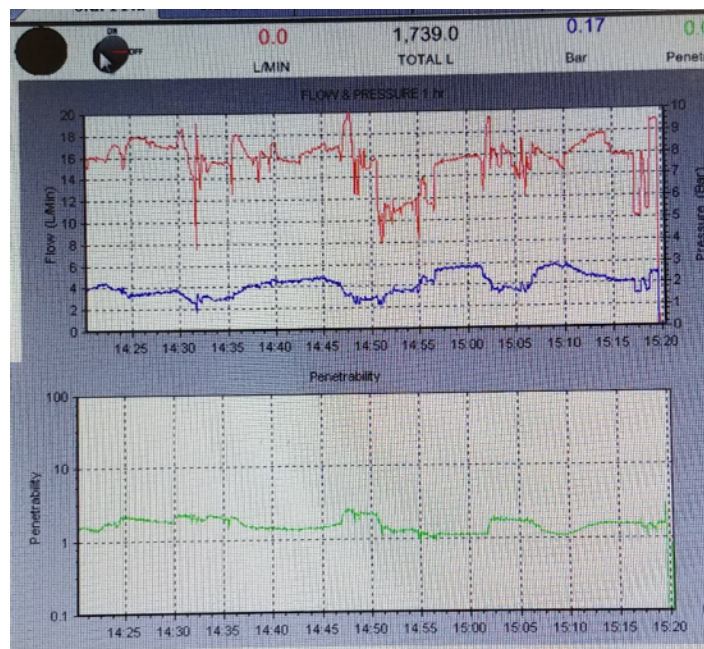


Screen shot of pressure and flow chart at S542.5

DAILY FIELD REPORT
(Detailed)



Screen shot of pressure and flow chart at S530.5



Screen shot of pressure and flow chart at P524.5

2020-01-30	6:30 am 6:30 pm	669034	Sebastien Viau
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☐ Sunny ☒ Cloudy ☐ Rain ☒ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☐ Light ☐ Moderate ☒ Strong, ☒ gusts Temperature: -20 °C

Comments: Blizzard condition

Appendix: ☐ Yes ☒ No Pictures ☐ Yes ☒ No Inspection report or other: _____

Picture in the folder:

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Attended AEM-SNC weekly meeting
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.

No drilling and grouting activities due to Blizzard condition.

SITE GUIDELINES (guidelines, memos, modification proposals, etc.)

No	Subject	Given to
_____	_____	_____
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DAILY FIELD REPORT
(Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Sebastien Viau

Signature

30-01-2020

Date

Verified by:

Tom Xue

Signature

30-01-2020

Date

2020-01-31	6:30 am 6:30 pm	669034	Sebastien Viau
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☐ Light ☒ Moderate ☐ Strong ☐ gusts Temperature: -20 °C

Comments: _____

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.

Work Method and Plan

- P524.5 will be re-grouted using mix C with celbex by adding celbex through open throat pump.
- Celbex in the open throat pump will be added by visual observation and increased until pressure start building up and then keep the same amount (rate of adding Celbex) until refusal. Total celbex used for the total grout injected will be calculated after grouting completed.

P524.5 Re-grouting

- The depth of the hole and the water level could not be checked because there is a packer stuck in the casing from a previous grout operation.
- The packer was installed just above the stuck packer and rod at a depth of +-2.0 m.
- Prefilled 70 liters of Mix C grout to displace water and then after packer inflated, injected a total of 200 liters of Mix C without celbex.
- After about 200 liters of mix C without Celbex injected, switch to Mix C with celbex by adding through open throat pump.
- Celbex was added by observing the pressure to keep gradual increase of pressure. Pressure fluctuated a bit but on average the pressure was moving gradually up.
- In the last 10 minutes pressure was very much stable at 8 to 10 bars at the collar of the hole with flow rate of 15 liters per minute.

DAILY FIELD REPORT (Detailed)

- Stopped grouting when pressure at the collar gauge reached 10 bar.
- In total 1580 liters of grout injected (270 L of Mix C + 1310 L of Mix C with Celbex).
- Total 11.55 kg of celbex was added in total liters of grout.
- Average approximately 1.3% of celbex was used by unit weight of dry cement.
- It was not possible to check the grout level after the grouting due to the stuck packer in the casing. The hole will be backfilled tomorrow and we will see if the grout stay in the casing. If grout is going away, a regrout #2 will be performed. If not the hole will be backfilled.

Grout Test

Mix	Marsh Cone (sec)	Specific Gravity	Temperature (°C)	Bleeding (%)
C	65	1.77	19.5	To come
C	71	1.78	15.5	To come
C	66	1.78	17.0	To come
C	82	1.80	21.0	To come

No	Subject	Given to

DAILY FIELD REPORT (Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleeding,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Sebastien Viau

Signature

31-01-2020

Date

Verified by:

Tom Xue

Signature

31-01-2020

Date

DAILY FIELD REPORT (Detailed)



Screen shot of pressure and flow chart at P524.5



Adding celbex through open throat pump

2020-02-01	6:30 am 6:30 pm	669034	Sebastien Viau
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☐ Light ☒ Moderate ☐ Strong ☐ gusts Temperature: -28 °C

Comments: _____

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.
- Prepare the weekly report.

Work Method and Plan

- Seven (7) Secondary holes grouting.
- Casing plug for two holes (S434.5 and T425.5).
- Drilling of ten (10) holes (all tertiary holes).
- Backfilling one Primary hole (P524.5).

P524.5 Backfilling

- Before backfilling, grout level was measured at depth of 2.5 m. Grout was found above the stuck packer.
- No water level was found as grout was above water level.
- The exact amount of backfill was not measured but approximately 20 L was required to fill the hole (casing filling).

S518.5 Grouting (5 m stage)

- The depth of the hole was checked on January 29th and the hole was open to 15.25 m. Water level was measured at depth 6.97 m.
- Packer was placed at the bottom of the casing.

- Prefilled 35 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pmax was reached in less than 5 min.
- Total 95 liters of grout injected (Mix C).
- The closing pressure was 3.4 bar at 0.4 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 9.8 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

S506.5 Grouting (5 m stage)

- The depth of the hole was checked on January 29th and the hole was open to 15.71 m. Water level was measured at depth 7.20 m.
- Packer was placed at the bottom of the casing.
- Prefilled 40 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pmax was reached in about 10 min.
- Total 209 liters of grout injected (Mix C).
- The closing pressure was 3.0 bar at 0.2 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 9.5 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

S494.5 Grouting (5 m stage)

- The depth of the hole was checked on January 29th and the hole was open to 15.32 m. Water level was measured at depth 7.13 m.
- Packer was placed at the bottom of the casing.
- Prefilled 37 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pmax was reached in about 10 min.
- Total 121 liters of grout injected (Mix C).
- The closing pressure was 3.0 bar at 0.2 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 9.5 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

S482.5 Grouting (5 m stage)

- The depth of the hole was checked on January 29th and the hole was open to 14.16 m. Water level was measured at depth 7.44 m.
- Packer was placed at the bottom of the casing.
- Prefilled 37 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pmax was reached in about 5 min.
- Total 72 liters of grout injected (Mix C).
- The closing pressure was 3.0 bar at 1.3 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 8.0 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

S470.5 Grouting (5 m stage)

- The depth of the hole was checked on January 29th and the hole was open to 14.16 m. Water level was measured at depth 7.44 m.
- Packer was placed at the bottom of the casing.
- Prefilled 35 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pmax was reached in less 5 min.
- Total 70 liters of grout injected (Mix C).
- The closing pressure was 3.0 bar at 0.3 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 9.0 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

S458.5 Grouting (5 m stage)

- The depth of the hole was checked on January 29th and the hole was open to 16.02 m. Water level was measured at depth 7.70 m.
- Packer was placed at the bottom of the casing.
- Prefilled 38 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pmax was reached in less 5 min.
- Total 58 liters of grout injected (Mix C).
- The closing pressure was 2.9 bar at 0.0 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 10.2 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

S446.5 Grouting (5 m stage)

- The depth of the hole was checked on January 29th and the hole was open to 16.19 m. Water level was measured at depth 7.70 m.
- Packer was placed at the bottom of the casing.
- Prefilled 35 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pmax was reached in about 10 min.
- Total 73 liters of grout injected (Mix C).
- The closing pressure was 3.1 bar at 0.0 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 9.5 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

Casing Plug

2 casings plugged today using Mix C without Celbex.

Packer placed at about 2 m above the bottom of the casing and 15 liters grout injected prior to inflate packer.

S434.5 injected 20.7 liters grout @ 1.6 bar

S446.5 injected 185 liters grout @ a final pressure of 0.6 Bar. As specified in spec, will need to be regouted.

Waited for 5 minutes after flow rate reached below 1 l/min at Pmax.

DAILY FIELD REPORT (Detailed)

Bedrock Drilling

- Ten (10) holes (all tertiary) were drilled today.
- The holes were drilled into rock for 5 m grout length.
- No water loss was observed in the holes:

Hole	Total depth (m)	Water loss depth below ground level(m)	Water loss above bottom of the hole (m)	Caving depth (m)	Aditionnal casing (m)
T587.5	17.8	-	-	No caving	No
T581.5	17.2	-	-	No caving	No
T575.5	17.4	-	-	No caving	0.75m New casing depth = 12.83 m
T569.5	17.0	-	-	No caving	No
T563.5	16.2	-	-	No caving	No
T557.5	15.8	-	-	No caving	No
T551.5	15.4	-	-	No caving	No
T545.5	16.6	-	-	No caving	No
T539.5	15.2	-	-	No caving	No
T533.5	18.7	-	-	No caving	No

Grout Test

Mix	Marsh Cone (sec)	Specific Gravity	Temperature (°C)	Bleeding (%)
C	75	1.78	21.0	-
C	58	1.77	20.5	1%
C	77	1.79	23.0	-
C	55	1.76	24.5	-
C	82	1.79	21.5	-

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DAILY FIELD REPORT (Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleeding,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Sebastien Viau

Signature

01-02-2020

Date

Verified by:

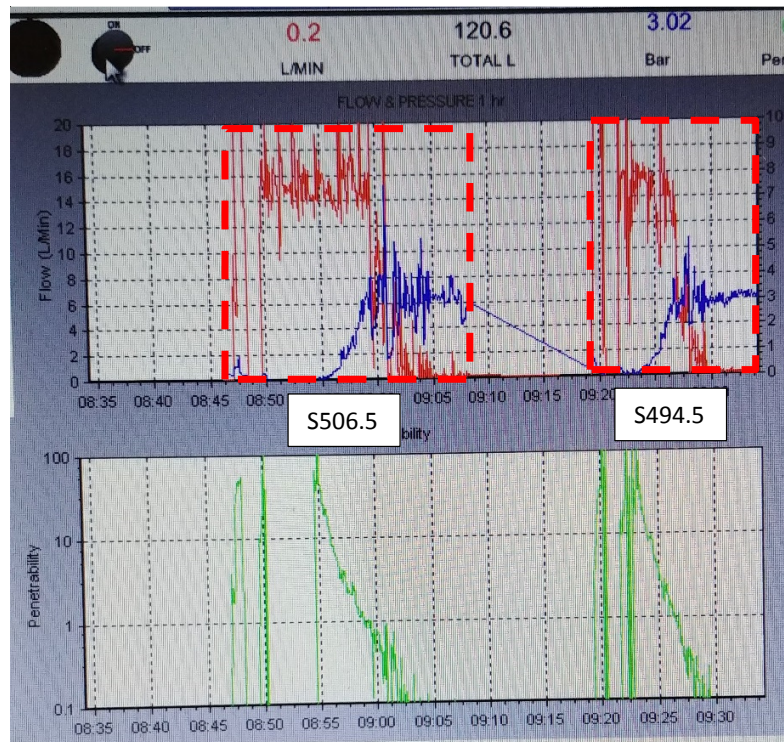
Tom Xue

Signature

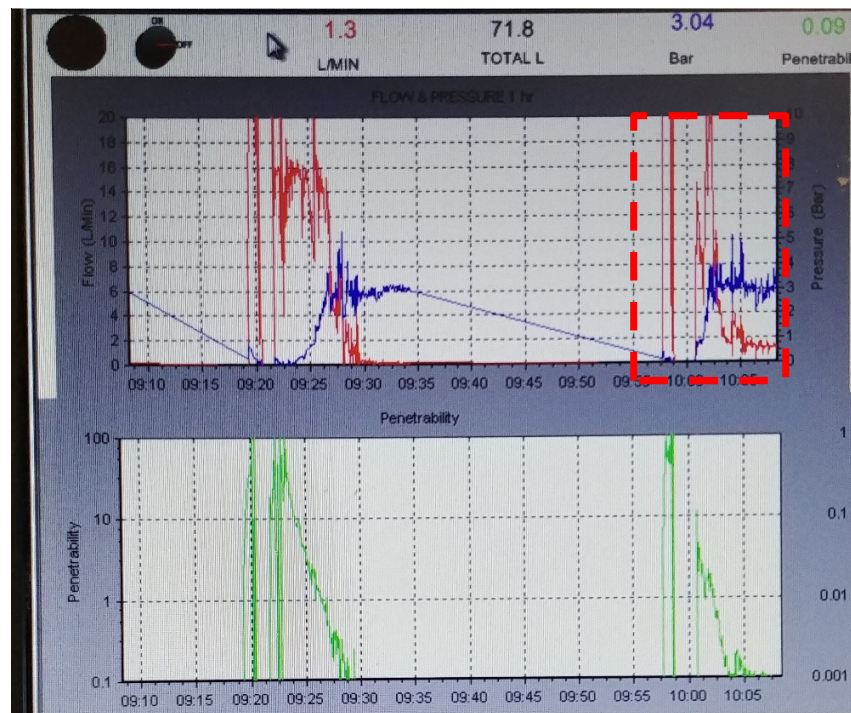
01-02-2020

Date

DAILY FIELD REPORT (Detailed)

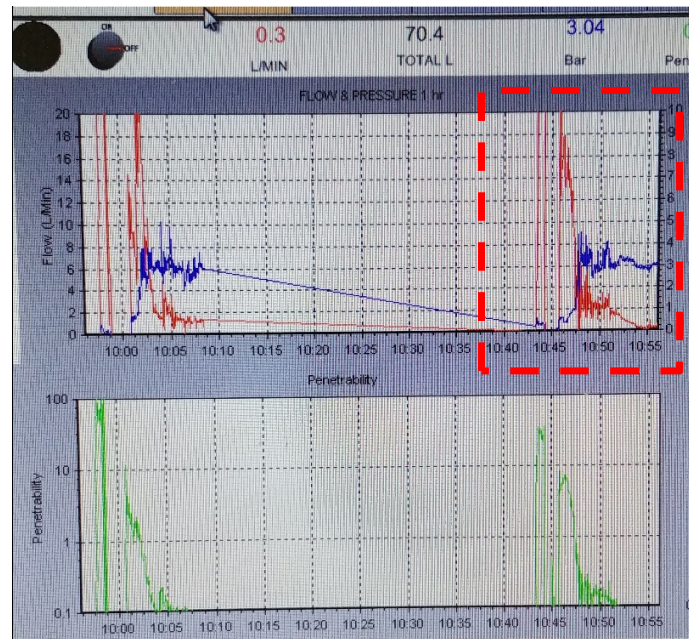


Screen shot of pressure and flow chart at S506.5 and S494.5

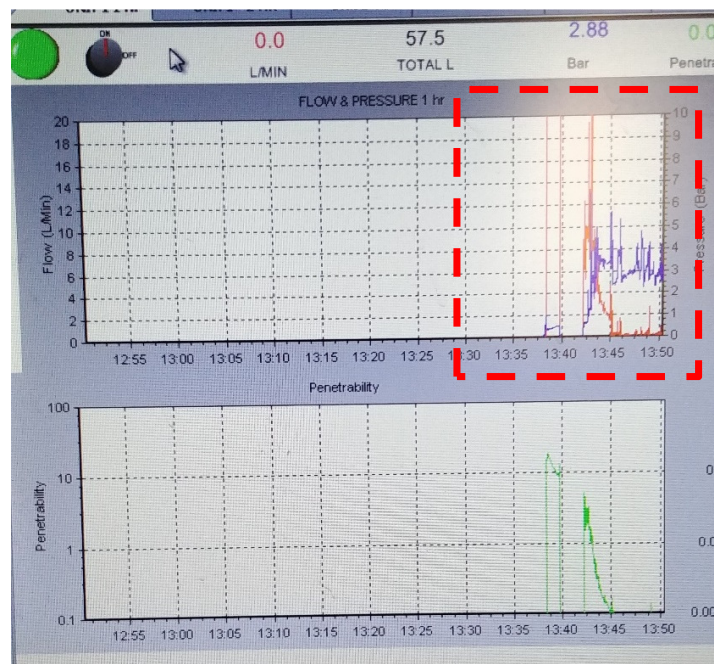


Screen shot of pressure and flow chart at S482.5

DAILY FIELD REPORT (Detailed)

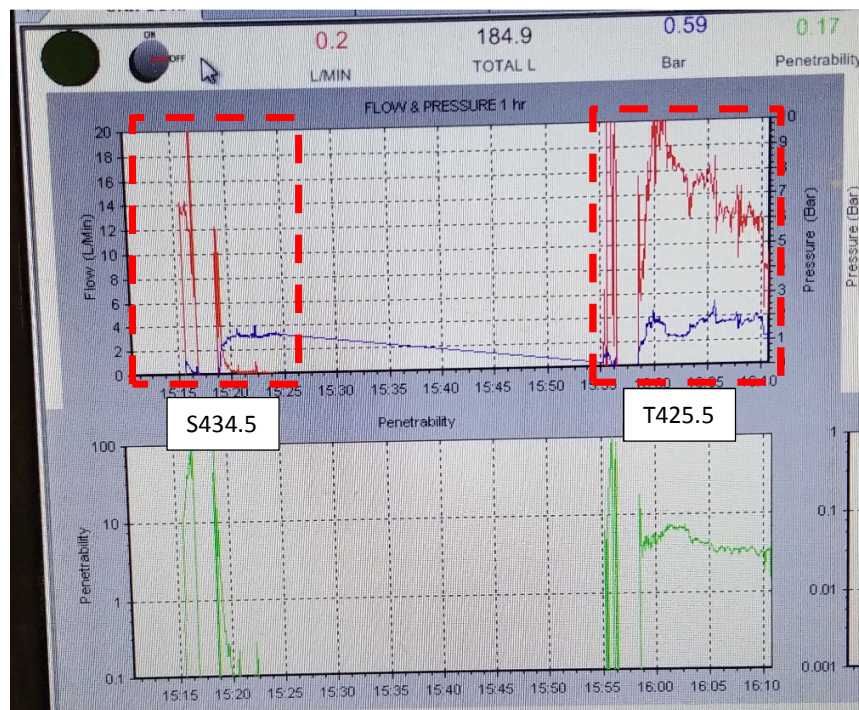
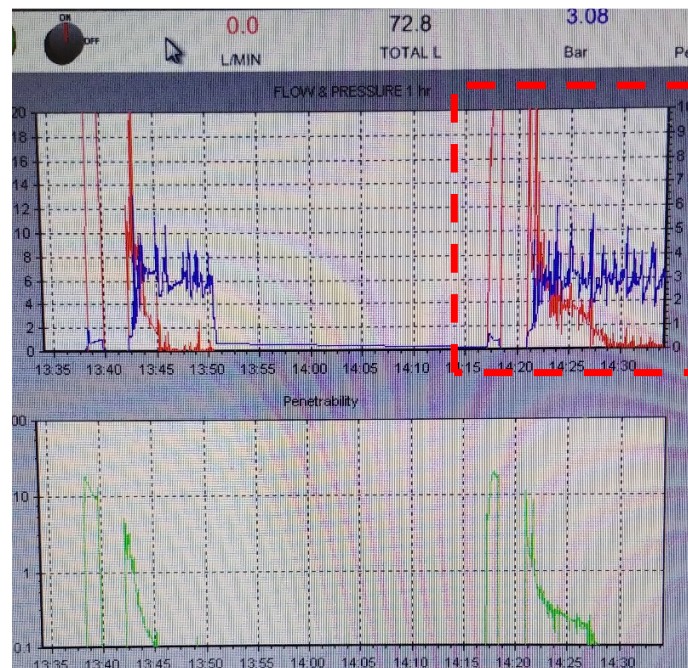


Screen shot of pressure and flow chart at S470.5



Screen shot of pressure and flow chart at P458.5

DAILY FIELD REPORT (Detailed)



2020-02-02	6:30 am 6:30 pm	669034	Sebastien Viau
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☐ Light ☒ Moderate ☐ Strong ☐ gusts Temperature: -28 °C

Comments: _____

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.
- Finalize the weekly report.

Work Method and Plan

- Casing plug for eleven (7) holes (from sta. 422.5 to 392.5).
- Drilling of fifteen (15) holes (all tertiary holes, from sta. 443.5 to 527.5).
- Casing plug for eleven (11) holes (from sta. 422.5 to 392.5).
- Casing clean-up

Casing Plug

Eleven (11) casings plugged today using Mix C without Celbex.

Packer placed at about 2 m above the bottom of the casing and 15 liters grout injected prior to inflate packer.

Hole Id	Grout take (L)	Closing pressure (bar)
S-422,5	40,2	1,8
T-419,5	32	1,74
P-416,5	23,5	1,84
T-413,5	18	1,82
S-410,5	47	1,84

DAILY FIELD REPORT (Detailed)

T-407,5	82,6	1,82
P-404,5	20,4	1,95
T-401,5	19,9	1,82
S-398,5	27,4	1,9
T-395,5	18	1,94
P-392,5	59,6	1,87

- Waited for 5 minutes after flow rate reached below 1 l/min at Pmax.
- S446.5 will not be regouted even if Vmax was reached on 2020-02-01.

Casing clean-up

Four (4) casings cleaned today (T371.5, T383.5, T401.5 and T413.5)

Bedrock Drilling

- Fifteen (15) holes (all tertiary) were drilled today.
- The holes were drilled into rock for 5 m grout length.
- No water loss was observed in the holes:

Hole	Total depth (m)	Water loss depth below ground level(m)	Water loss above bottom of the hole (m)	Caving depth (m)	Aditionnal casing (m)
T-443,5	15,8	-	-	No caving	No
T-449,5	16	-	-	No caving	No
T-455,5	15,8	-	-	No caving	No
T-461,5	15,8	-	-	No caving	No
T-467,5	15,5	-	-	No caving	No
T-473,5	15	-	-	No caving	No
T-479,5	15,4	-	-	No caving	No
T-485,5	15,1	-	-	No caving	No
T-491,5	15,1	-	-	No caving	No
T-497,5	16	-	-	No caving	No
T-503,5	15,3	-	-	No caving	No
T-509,5	16,4	-	-	No caving	No
T-515,5	16,2	-	-	No caving	No
T-521,5	15,2	-	-	No caving	No
T-527,5	15,4	-	-	No caving	No

Grout Test

Mix	Marsh Cone (sec)	Specific Gravity	Temperature (°C)	Bleeding (%)
C	52	1.75	24.0	1.5%
C	65	1.77	26.5	-
C	80	1.79	27.5	-

DAILY FIELD REPORT
(Detailed)

SITE GUIDELINES (guidelines, memos, modification proposals, etc.)

No	Subject	Given to

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleeding,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Sebastien Vian

Signature

02-02-2020

Date

Verified by:

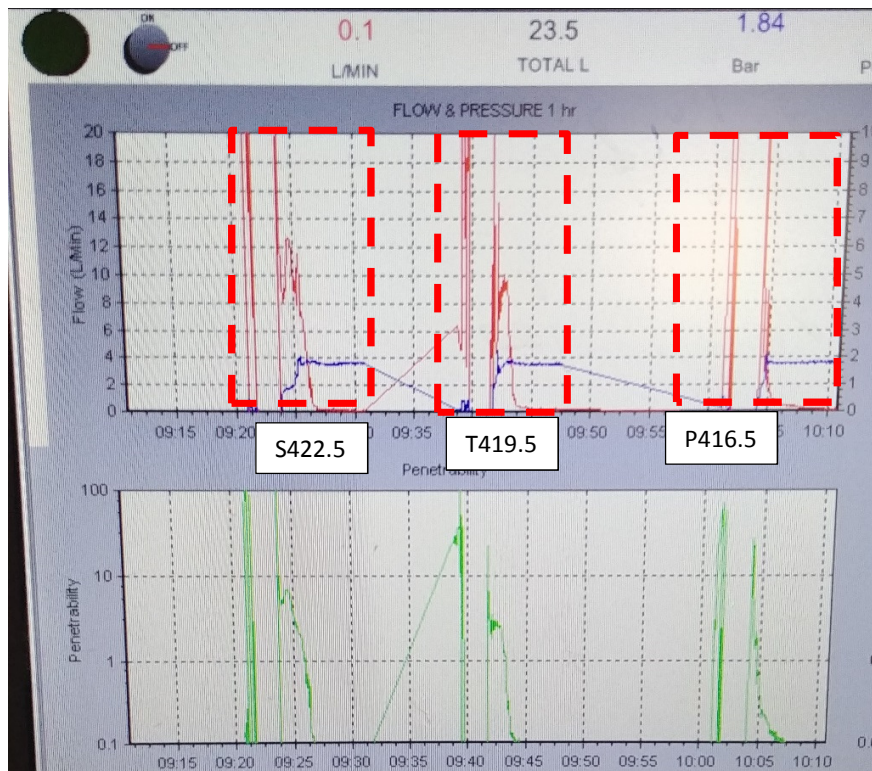
Tom Xue

Signature

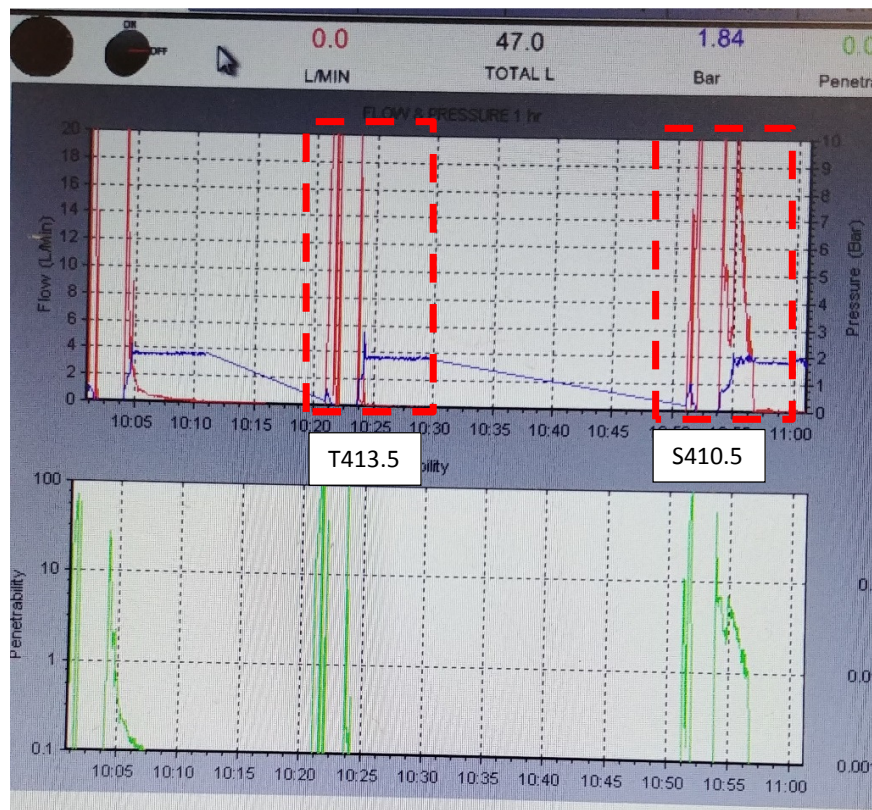
02-02-2020

Date

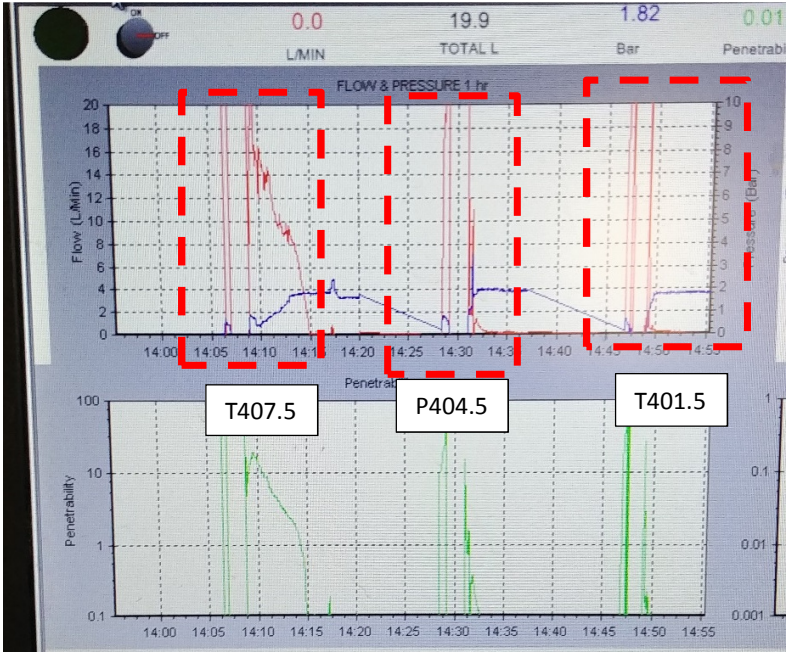
DAILY FIELD REPORT (Detailed)



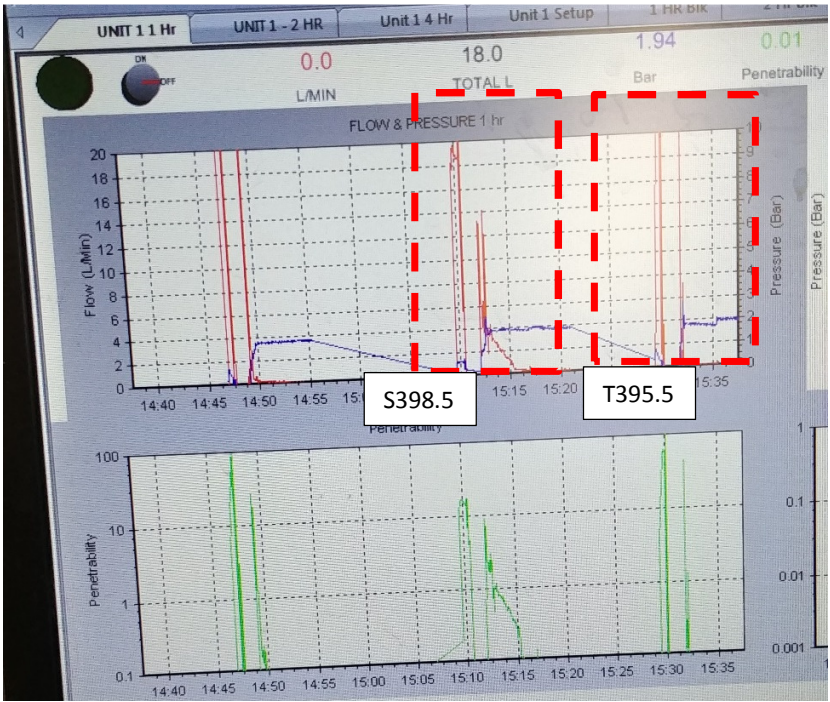
Screen shot of pressure and flow chart at S422.5, T419.5 and P416.5



Screen shot of pressure and flow chart at T413.5 and S410.5



Screen shot of pressure and flow chart at T407.5, P404.5 and T401.5



Screen shot of pressure and flow chart at S398.5 and T395.5

2020-02-03	6:30 am 6:30 pm	669034	Sebastien Viau
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☐ Light ☒ Moderate ☐ Strong ☐ gusts Temperature: -36 °C

Comments: _____

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.

Work Method and Plan

- Five (5) tertiary holes grouting.
- Casing plug for seven (7) holes.
- Drilling of three (3) holes (all primary holes).

T605.5 Grouting (5 m stage)

- The depth of the hole was checked on February 3rd and the hole was open to 17.85 m. Water level was measured at depth 6.00 m.
- Packer was placed at the bottom of the casing.
- Prefilled 38 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pmax was reached in less than 5 min.
- Total 78 liters of grout injected (Mix C).
- The closing pressure was 4.0 bar at 0.2 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 12.2 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

T599.5 Grouting (5 m stage)

- The depth of the hole was checked on February 3rd and the hole was open to 18.25 m. Water level was measured at depth 6.96 m.
- Packer was placed at the bottom of the casing.
- Prefilled 37 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pmax was reached in less than 5 min.
- Total 151 liters of grout injected (Mix C).
- The closing pressure was 3.9 bar at 0.1 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 12.5 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

T593.5 Grouting (5 m stage)

- The depth of the hole was checked on February 3rd and the hole was open to 18.12 m. Water level was measured at depth 7.15 m.
- Packer was placed at the bottom of the casing.
- Prefilled 35 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pmax was reached in about 10 min.
- Total 206 liters of grout injected (Mix C).
- The closing pressure was 3.4 bar at 0.0 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 12.7 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

T587.5 Grouting (5 m stage)

- The depth of the hole was checked on February 3rd and the hole was open to 17.91 m. Water level was measured at depth 6.95 m.
- Packer was placed at the bottom of the casing.
- Prefilled 37 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pmax was reached in less than 5 min.
- Total 79 liters of grout injected (Mix C).
- The closing pressure was 3.7 bar at 0.0 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 11.1 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

T581.5 Grouting (5 m stage)

- The depth of the hole was checked on February 3rd and the hole was open to 17.20 m. Water level was measured at depth 7.02 m.
- Packer was placed at the bottom of the casing.
- Prefilled 37 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pmax was reached in about 10 min.
- Total 214 liters of grout injected (Mix C).
- The closing pressure was 3.4 bar at 0.0 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 11.1 m after grouting operation and before backfilling.

- Hole backfilled after grouting.

Casing Plug

Seven (7) casings plugged today using Mix C without Celbex.

Packer placed at about 2 m above the bottom of the casing and 15 liters grout injected prior to inflate packer.

Hole Id	Grout take (L)	Closing pressure (bar)
T-371.5	216.3	0.95
S-374.5	38.6	1.66
T-377.5	22.0	1.67
P-380.5	31.2	1.91
T-383.5	21.3	2.48
S-386.5	27.0	2.25
T-389.5	63.0	2.00

- Waited for 5 minutes after flow rate reached below 1 l/min at Pmax.
- T371.5 reached Vmax.

Casing clean-up

Three (3) casings cleaned today (P368.5, T341.5 and S338.5)

Bedrock Drilling

- Three (3) holes (all primary) were drilled today.
- The holes were drilled into rock for 5 m grout length.
- No water loss was observed in the holes:

Hole	Total depth (m)	Water loss depth below ground level(m)	Water loss above bottom of the hole (m)	Caving depth (m)	Aditionnal casing (m)
P-404,5	19,8	-	-	No caving	No
P-416,5	16,2	-	-	No caving	No
P-428,5	15,7	-	-	No caving	No

Grout Test

Mix	Marsh Cone (sec)	Specific Gravity	Temperature (°C)	Bleeding (%)
C	54	1.76	25.5	1.5
C	65	1.78	28.5	-
C	63	1.78	29.0	1.5
C	65	1.79	26.5	-

DAILY FIELD REPORT (Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleeding,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Sebastien Viau

Signature

03-02-2020

Date

Verified by:

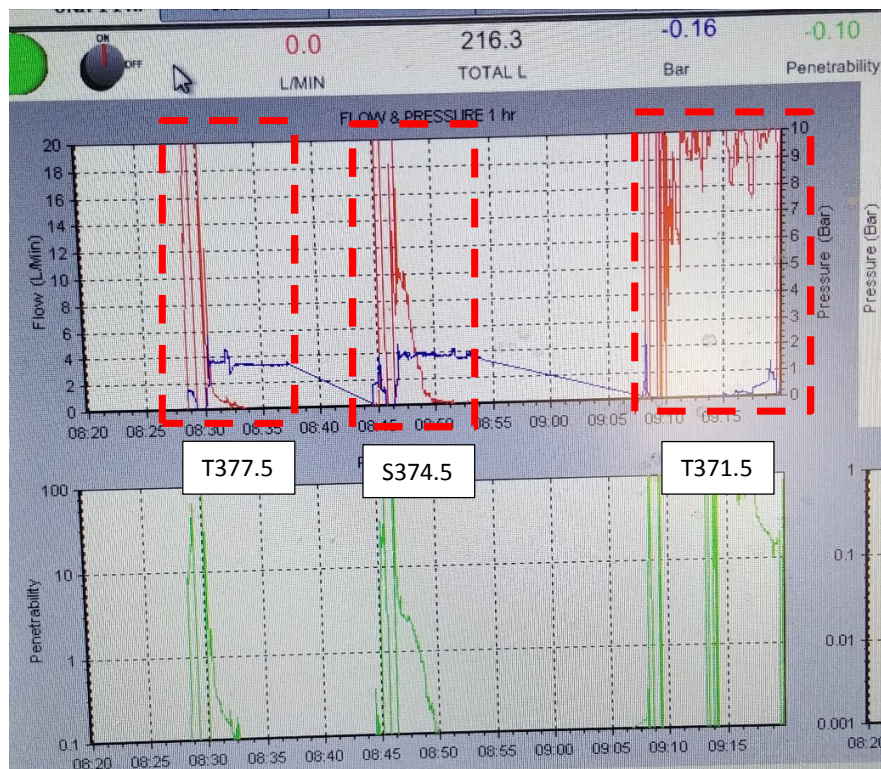
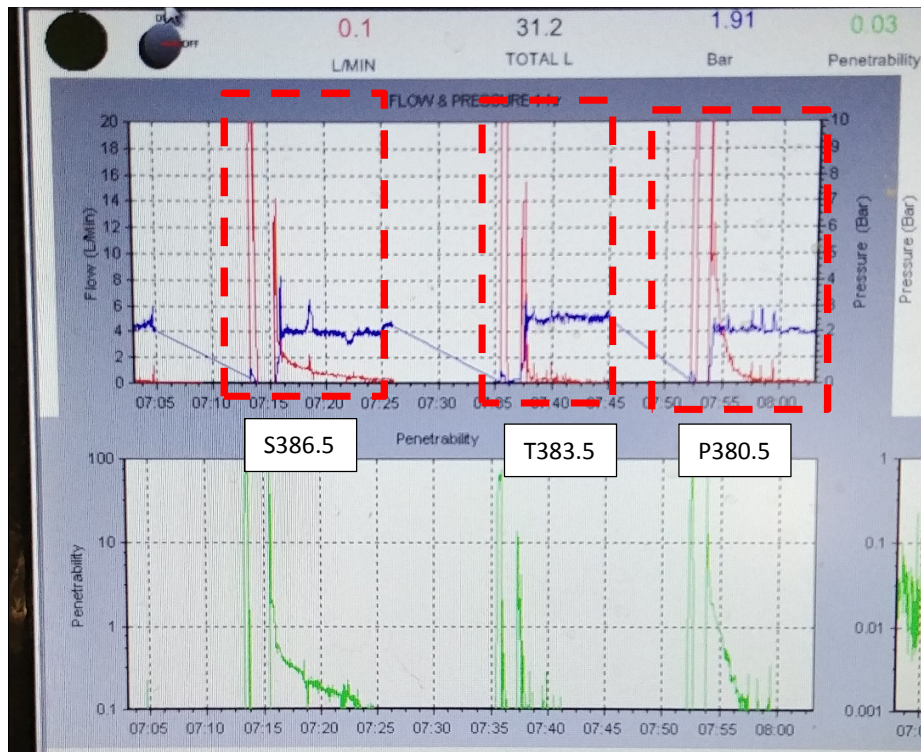
Tom Xue

Signature

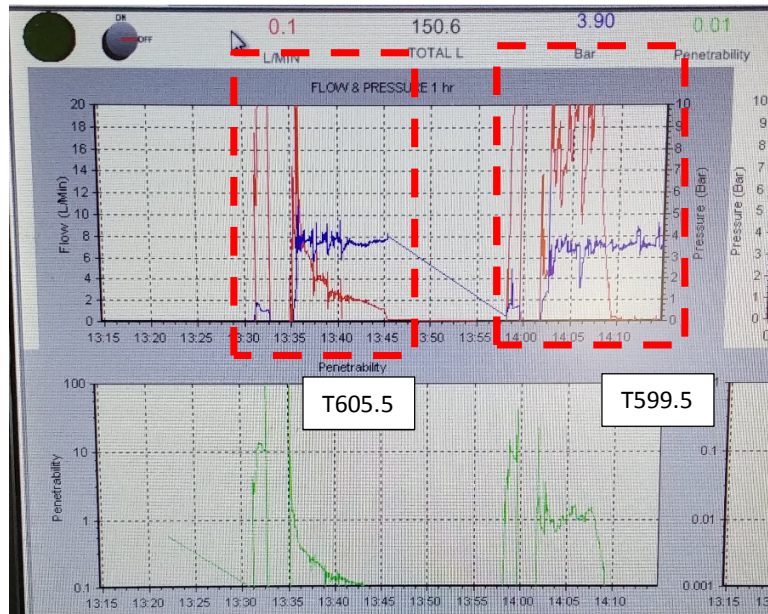
03-02-2020

Date

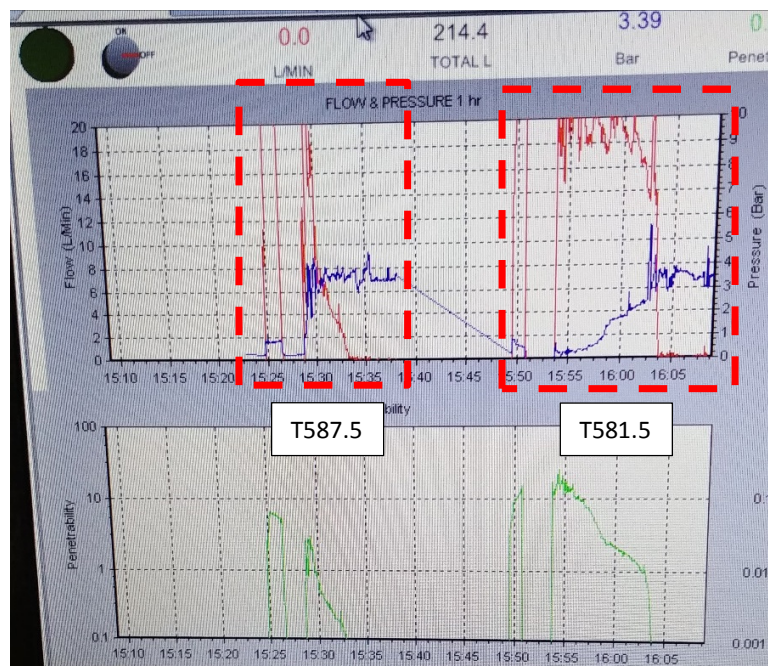
DAILY FIELD REPORT (Detailed)



DAILY FIELD REPORT (Detailed)



Screen shot of pressure and flow chart at T605.5 and T599.5



Screen shot of pressure and flow chart at T587.5 and T581.5

2020-02-04	6:30 am 6:30 pm	669034	Sebastien Viau
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☐ Light ☒ Moderate ☒ Strong ☐ gusts Temperature: -34 °C

Comments: _____

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.

Work Method and Plan

- Five (5) tertiary holes grouting.
- Drilling of two (2) holes (both primary holes).

T575.5 Grouting (5 m stage)

- The depth of the hole was checked on February 3rd and the hole was open to 17.41 m. Water level was measured at depth 6.90 m.
- Packer was placed at the bottom of the casing.
- Prefilled 34 liters of Mix C grout to displace water and then after packer inflated, started injection with Mix C grout without Celbex.
- Pmax was reached after 15 min.
- Total 251 liters of grout injected (Mix C).
- The closing pressure was 3.4 bar at 0.0 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 12.0 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

T569.5 Grouting (5 m stage)

- The depth of the hole was checked on February 3rd and the hole was open to 17.14 m. Water level was measured at depth 6.91 m.
- Packer was placed at the bottom of the casing.
- Prefilled 37 liters of Mix C grout to displace water and then after packer inflated, started injection with Mix C grout without Celbex.
- Pmax was reached in about 10 min.
- Total 57 liters of grout injected (Mix C).
- The closing pressure was 3.0 bar at 0.3 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 11.4 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

T563.5 Grouting (5 m stage)

- The depth of the hole was checked on February 4th and the hole was open to 16.81 m. Water level was measured at depth 6.94 m.
- Packer was placed at the bottom of the casing.
- Prefilled 37 liters of Mix C grout to displace water and then after packer inflated, started injection with Mix C grout without Celbex.
- After a volume of ± 400 L of Mix C injected without significant pressure increasing, it was decided to switch to Mix D.
- After a total volume of ± 1000 L, the Pmax was reached but the flow stayed at 7 L/min for ± 30 min. After 30 min, it was decided to double the quantity of Rheomac.
- The flow started to decrease at 1580 L (Pmax).
- Total 1633 liters of grout injected (400 L of Mix C and 1233 L of Mix D)
- The closing pressure was 4.0 bar at 0.9 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 9.7 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

T557.5 Grouting (5 m stage)

- The depth of the hole was checked on February 4th and the hole was open to 16.19 m. Water level was measured at depth 7.19 m.
- Packer was placed at the bottom of the casing.
- Prefilled 34 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.
- Pmax was reached in less than 5 min.
- Total 53 liters of grout injected (Mix C).
- The closing pressure was 3.4 bar at 0.9 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 11.35 m after grouting operation. Considering that grout level was found below bottom of casing, a regrouting was attempted. Pmax was reached immediately with no grout take so this hole was backfilled.

T551.5 Grouting (5 m stage)

- The depth of the hole was checked on February 4th and the hole was open to 15.52 m. Water level was measured at depth 7.32 m.
- Packer was placed at the bottom of the casing.
- Prefilled 41 liters of Mix C grout to displace water and then after packer inflated, started injection with mix C grout without Celbex.

DAILY FIELD REPORT (Detailed)

- Pmax was reached in about 20 min.
- Total 361 liters of grout injected (Mix C).
- The closing pressure was 3.1 bar at 0.0 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 10.1 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

Bedrock Drilling

- Two (2) holes (all primary) were drilled today.
- The holes were drilled into rock for 5 m grout length.
- No water loss was observed in the holes:

Hole	Total depth (m)	Water loss depth below ground level(m)	Water loss above bottom of the hole (m)	Caving depth (m)	Additional casing (m)
P392.5	19,8	-	-	No caving	No
P380.5	17.0	-	-	No caving	No

Grout Test

Mix	Marsh Cone (sec)	Specific Gravity	Temperature (°C)	Bleeding (%)
C	75	1.80	29.0	1.0
C	77	1.78	27.0	-
D	-	1.81	25.5	-
D	-	1.81	19.5	-
C	66	1.77	24.5	0
C	71	1.78	19.5	-

DAILY FIELD REPORT (Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleeding,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Sebastien Viau

Signature

04-02-2020

Date

Verified by:

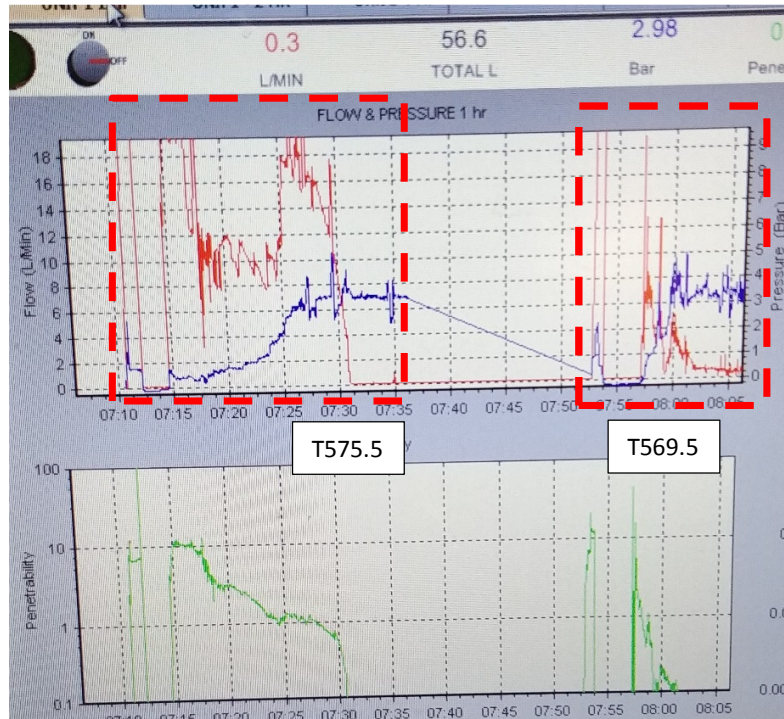
Tom Xue

Signature

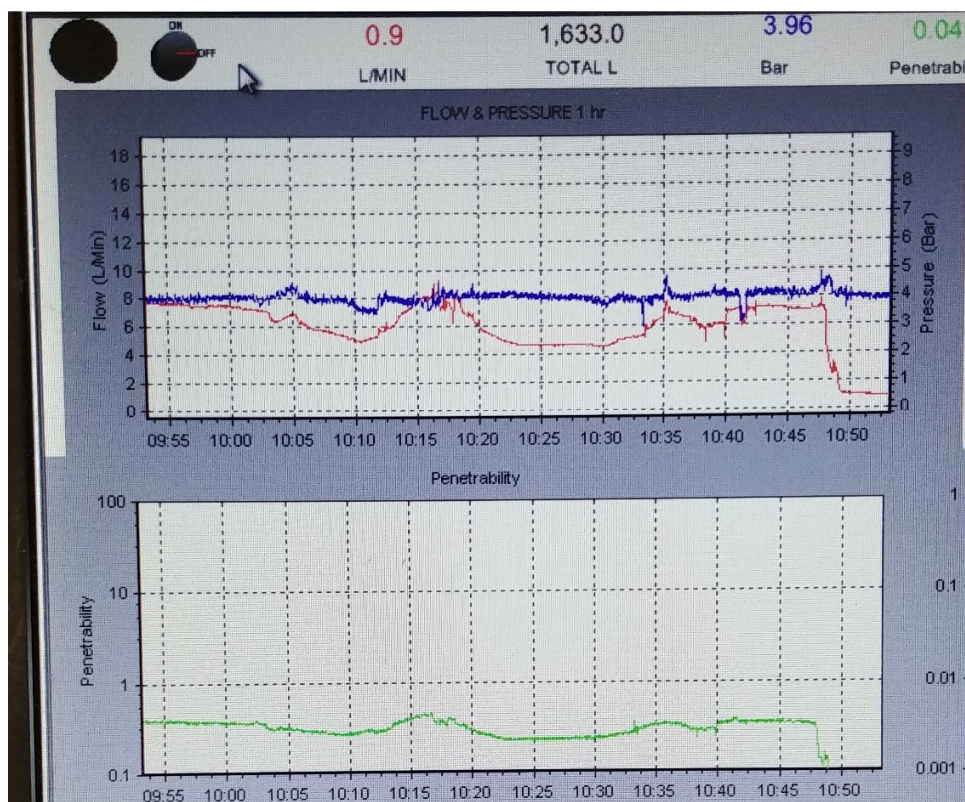
04-02-2020

Date

DAILY FIELD REPORT (Detailed)

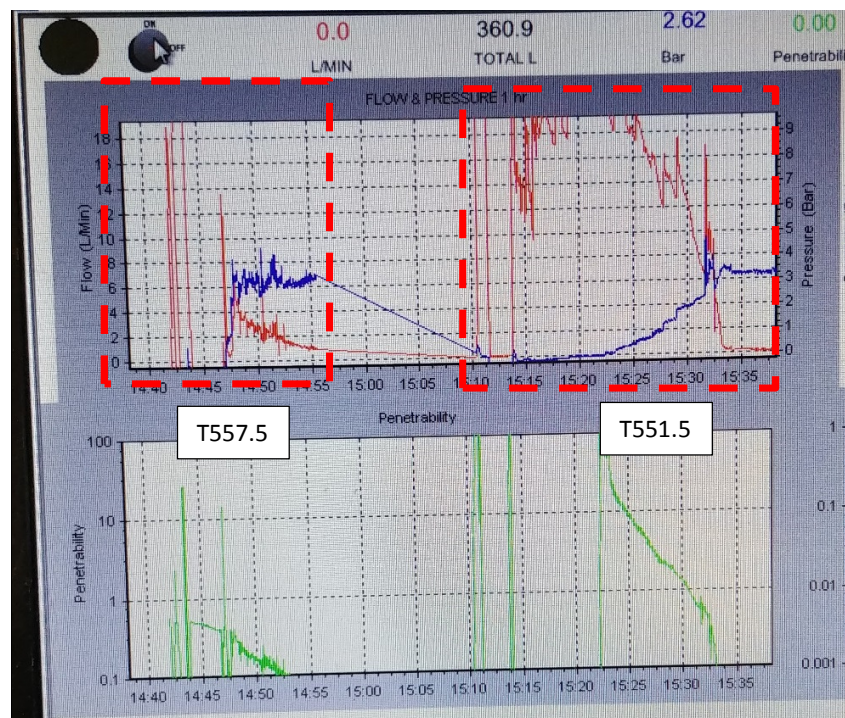


Screen shot of pressure and flow chart at T575.5 and T569.5



Screen shot of pressure and flow chart at T563.5 (last portion of grouting operation)

DAILY FIELD REPORT
(Detailed)



Screen shot of pressure and flow chart at T557.5 and T551.5

2020-02-05	6:30 am 6:30 pm	669034	Sebastien Viau
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☐ Light ☒ Moderate ☒ Strong ☐ gusts Temperature: -37 °C

Comments: _____

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.

Work Method and Plan

- Three (3) tertiary holes grouting.
- Activities were suspended between 8h and 10h am because of a code 1 (emergency) on site.

T545.5 Grouting (5 m stage)

- The depth of the hole was checked on February 4th and the hole was open to 16.82 m. Water level was measured at depth 7.10 m.
- Packer was placed at the bottom of the casing.
- Prefilled 52 liters of Mix C grout to displace water and then after packer inflated, started injection with Mix C grout without Celbex.
- Pmax was reached within 10 min.
- Total 231 liters of grout injected (Mix C).
- The closing pressure was 3.9 bar at 0.7 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 8.9 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

T539.5 Grouting (5 m stage)

- The depth of the hole was checked on February 4th and the hole was open to 15.29 m. Water level was measured at depth 7.12 m.
- Packer was placed at the bottom of the casing.
- Prefilled 38 liters of Mix C grout to displace water and then after packer inflated, started injection with Mix C grout without Celbex.
- Pmax was reached in about 15 min.
- Total 241 liters of grout injected (Mix C).
- The closing pressure was 2.9 bar at 0.1 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 7.0 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

T533.5 Grouting (5 m stage)

- The depth of the hole was checked on February 4th and the hole was open to 19.01 m. Water level was measured at depth 7.24 m.
- Packer was placed at the bottom of the casing.
- Prefilled 40 liters of Mix C grout to displace water and then after packer inflated, started injection with Mix C grout without Celbex.
- After ± 30 min, the pressure started to build up and reached ± 3 bar at a flow of ± 20 L/min.
- After a volume of ± 400 L of Mix C injected without significant pressure increasing (± 3 bar), it was decided to switch to Mix D.
- After ± 120 min, Pmax was reached and the flow started to decrease.
- Total 1288 liters of grout injected (400 L of Mix C and 888 L of Mix D).
- The closing pressure was 4.5 bar at 0.9 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 11.1 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**
- **This hole had been redrilled off the original location twice due to broken shoes.**
- **The rock grouting length is about 7.4 m.**

Grout Test

Mix	Marsh Cone (sec)	Specific Gravity	Temperature (°C)	Bleeding (%)
C	53	1.76	18.5	-
C	64	1.78	19.5	1.0
C	62	1.78	14.5	-
D	-	1.81	14.0	-
D	-	1.82	16.5	-

DAILY FIELD REPORT (Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleeding,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Sebastien Viau

Signature

05-02-2020

Date

Verified by:

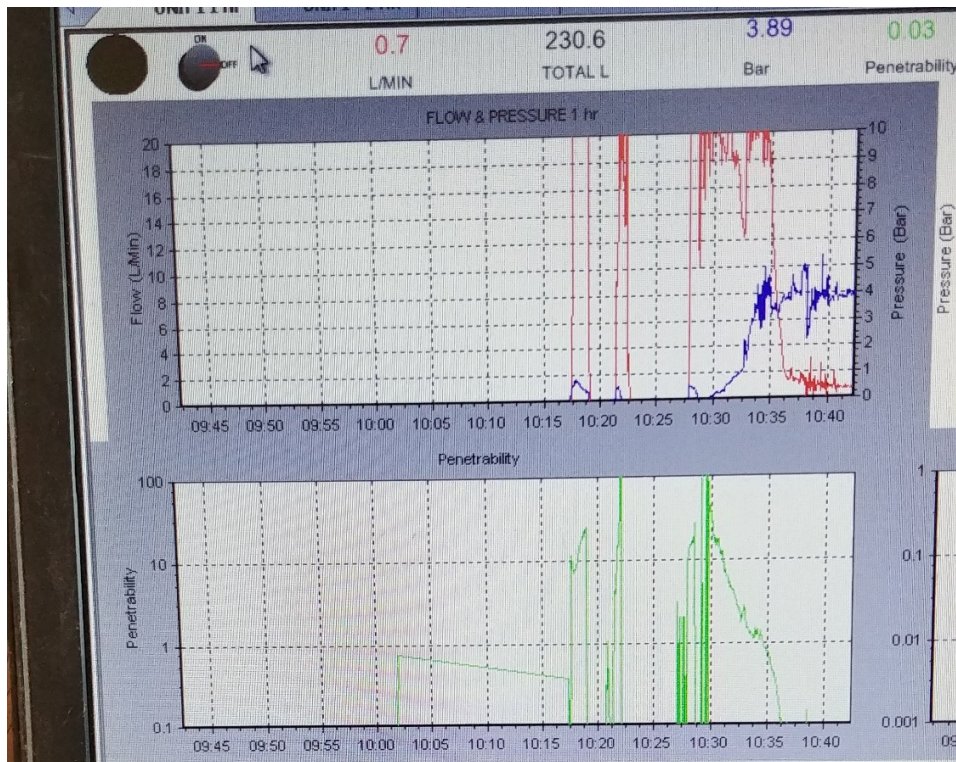
Tom Xue

Signature

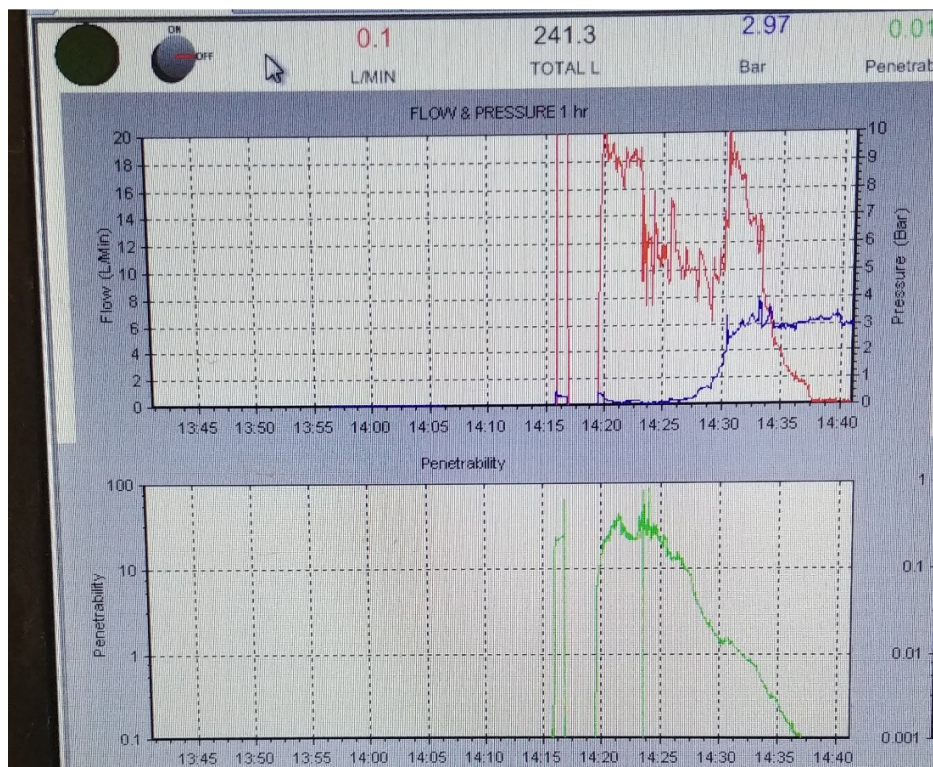
05-02-2020

Date

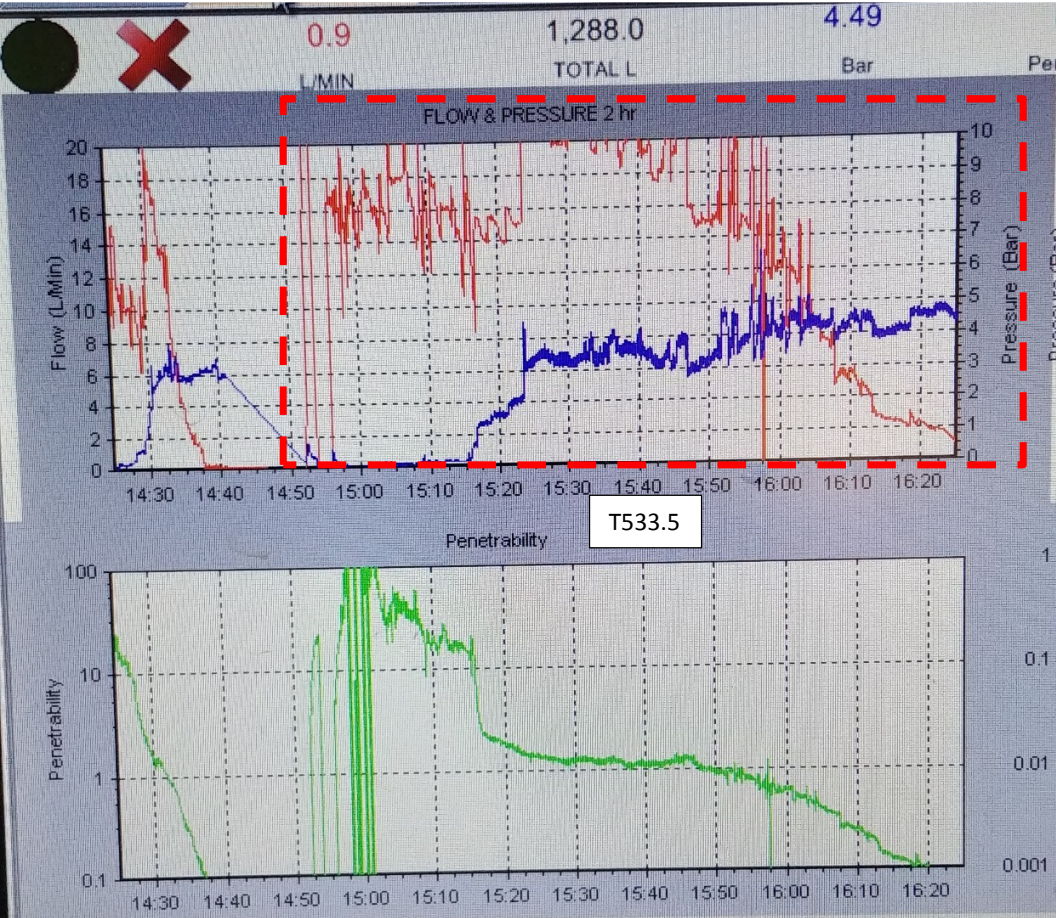
DAILY FIELD REPORT (Detailed)



Screen shot of pressure and flow chart at T545.5



Screen shot of pressure and flow chart at T539.5



Screen shot of pressure and flow chart at T533.5

2020-02-06	6:30 am 6:30 pm	669034	Sebastien Viau
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☒ Light ☐ Moderate ☐ Strong ☐ gusts Temperature: -36 °C

Comments: _____

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Attended AEM-SNC weekly meeting
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.
- Prepare weekly report.

Work Method and Plan

- Grouting primary holes for the next section instead of closing the tertiary holes of the second section.
- Casing plug for primary holes in the next section.

P428.5 Grouting (5 m stage)

- The depth of the hole was checked on February 6th and the hole was open to 15.78 m. Water level was measured at depth 7.20 m.
- Packer was placed at the bottom of the casing.
- Prefilled 35 liters of Mix C grout to displace water and then after packer inflated, started injection with Mix C grout without Celbex.
- Pmax was reached after about 10 min.
- Total 68 liters of grout injected (Mix C).
- The closing pressure was 3.3 bar at 0.9 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 10.8 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

P416.5 Grouting (5 m stage)

- The depth of the hole was checked on February 6th and the hole was open to 16.20 m. Water level was measured at depth 7.50 m.
- Packer was placed at the bottom of the casing.
- Prefilled 36 liters of Mix C grout to displace water and then after packer inflated, started injection with Mix C grout without Celbex.
- Pmax was reached within 5 min.
- Total 69 liters of grout injected (Mix C).
- The closing pressure was 3.2 bar at 1.1 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 11.0 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

P404.5 Grouting (5 m stage)

- The depth of the hole was checked on February 6th and the hole was open to 19.65 m. Water level was measured at depth 10.00 m.
- Packer was placed at the bottom of the casing.
- Prefilled 36 liters of Mix C grout to displace water and then after packer inflated, started injection with Mix C grout without Celbex.
- Pmax was reached within 10 min.
- Total 141 liters of grout injected (Mix C).
- The closing pressure was 3.4 bar at 0.0 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 14.1 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

P392.5 Grouting (5 m stage)

- The depth of the hole was checked on February 6th and the hole was open to 18.49 m. Water level was measured at depth 9.42 m.
- Packer was placed at the bottom of the casing.
- Prefilled 34 liters of Mix C grout to displace water and then after packer inflated, started injection with Mix C grout without Celbex.
- Pmax was reached after about 5 min.
- Total 116 liters of grout injected (Mix C).
- The closing pressure was 3.7 bar at 0.0 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 12.0 m after grouting operation and before backfilling.
- **Hole backfilled after grouting.**

P380.5 Grouting (5 m stage)

- The depth of the hole was checked on February 6th and the hole was open to 17.28 m. Water level was measured at depth 8.80 m.
- Packer was placed at the bottom of the casing.
- Prefilled 36 liters of Mix C grout to displace water and then after packer inflated, started injection with Mix C grout without Celbex.
- Pmax was reached after about 5 min.
- Total 181 liters of grout injected (Mix C).
- The closing pressure was 3.4 bar at 0.0 l/min flow rate.
- No grout communication or leakage observed.
- Grout was observed at a depth of 11.2 m after grouting operation and before backfilling.

- **Hole backfilled after grouting.**

Casing Plug

One (1) casing plugged today using Mix C without Celbex.

Packer placed at about 2 m above the bottom of the casing and 15 liters grout injected prior to inflate packer.

Hole Id	Grout take (L)	Closing pressure (bar)
P-368.5	106	2.16

- Waited for 5 minutes after flow rate below 1 l/min at Pmax.

Grout Test

Mix	Marsh Cone (sec)	Specific Gravity	Temperature (°C)	Bleeding (%)
C	64	1.78	19.5	1.5
C	59	1.77	18.0	-
C	71	1.78	18.5	1.5
C	60	1.76	16.5	-

DAILY FIELD REPORT (Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleeding,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Sebastien Viau

Signature

06-02-2020

Date

Verified by:

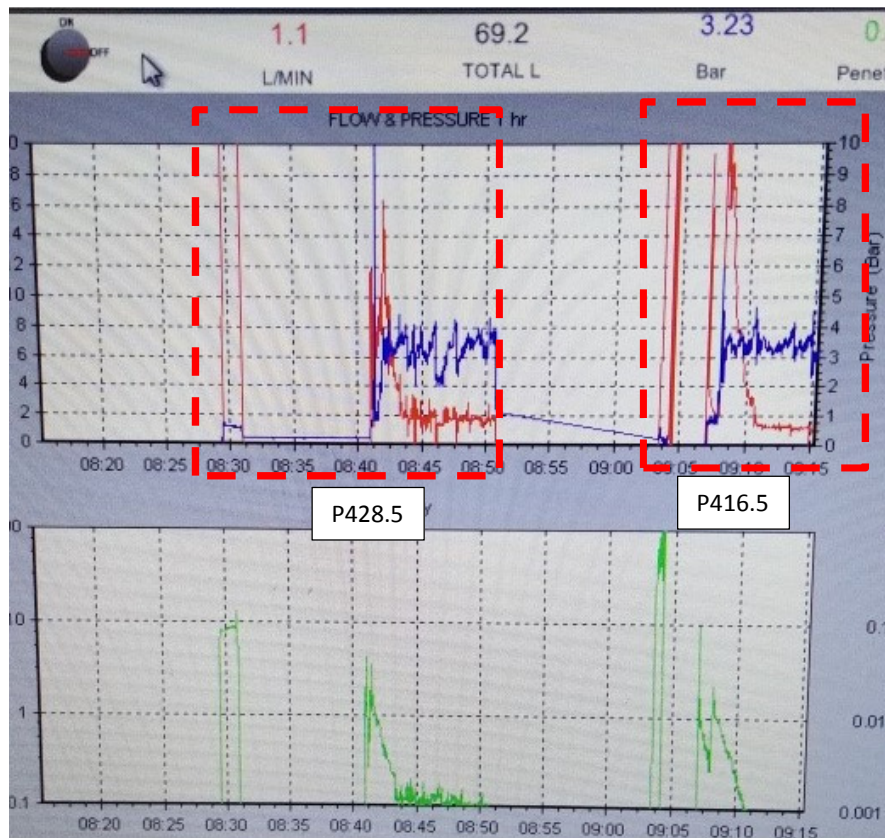
Tom Xue

Signature

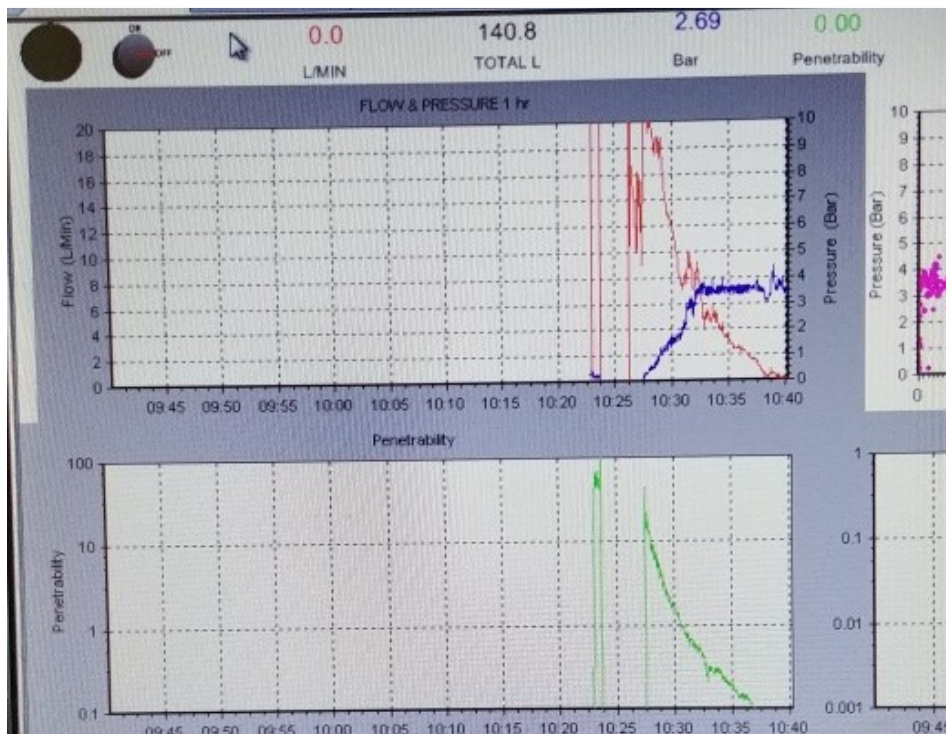
06-02-2020

Date

DAILY FIELD REPORT (Detailed)

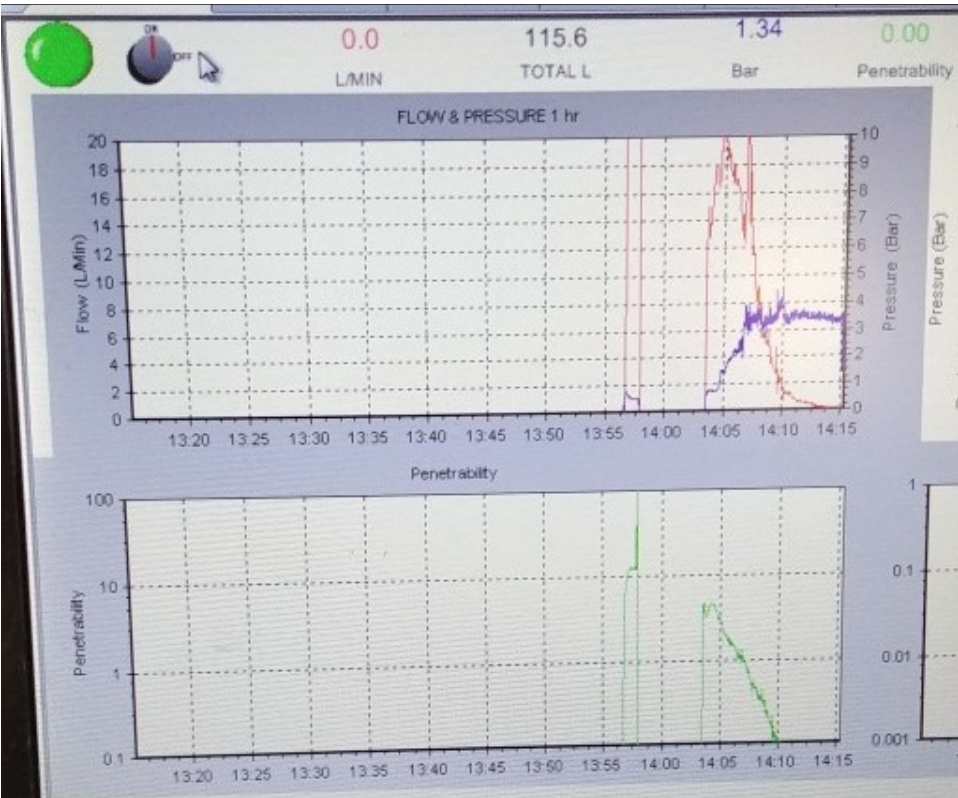


Screen shot of pressure and flow chart at P428.5 and P416.5

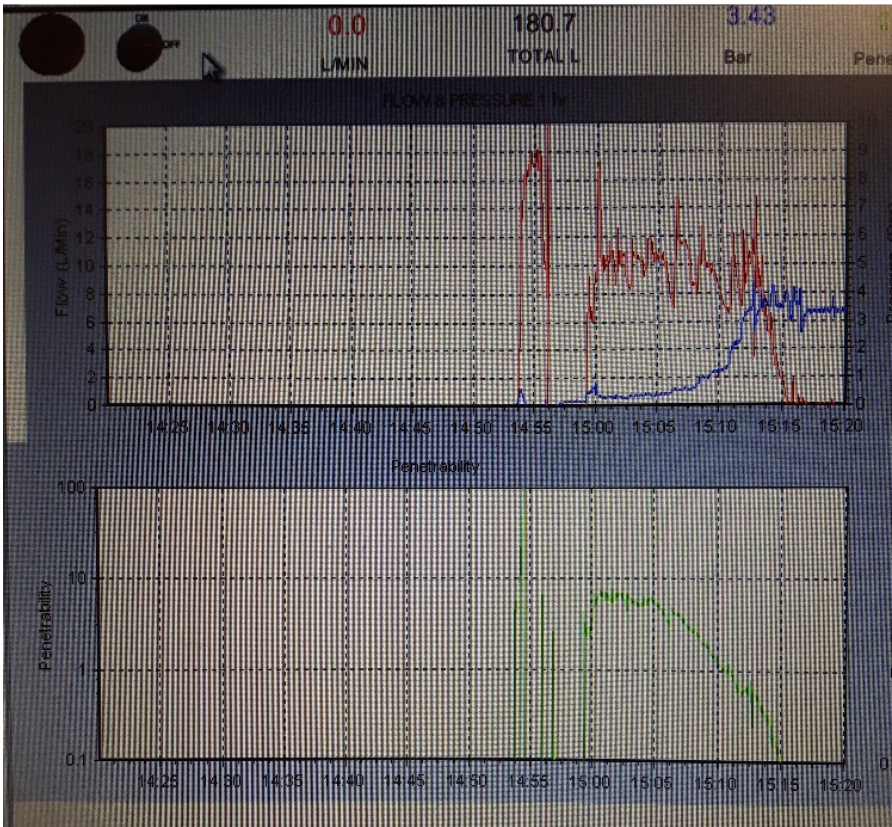


Screen shot of pressure and flow chart at P404.5

DAILY FIELD REPORT
(Detailed)



Screen shot of pressure and flow chart at P392.5



Screen shot of pressure and flow chart at P380.5

20200207

Document number

2020-02-07	6:30 am 6:30 pm	669034	Sebastien Viau / Muhammad Saleem
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☐ Light ☒ Moderate ☐ Strong, ☐ gusts Temperature: -34 °C

Comments: Blizzard condition

Appendix: ☐ Yes ☒ No Pictures ☐ Yes ☒ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.

No drilling and grouting activities due to crew rotation.

SITE GUIDELINES (guidelines, memos, modification proposals, etc.)

No	Subject	Given to

DAILY FIELD REPORT
(Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Sebastien Viau / Muhammad Saleem

Signature

07-02-2020

Date

Verified by:

Tom Xue

Signature

07-02-2020

Date

2020208

Document number

2020-02-08	6:30 am 6:30 pm	669034	Muhammad Saleem
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☒ Light ☐ Moderate ☐ Strong, ☐ gusts Temperature: -34 °C

Comments: Blizzard like conditions in the afternoon

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.

Work Method and Plan

- Continue casing plug grouting to plug remaining casings on the downstream side.

Casing Plug

Ten (10) casings plugged today using Mix C without Celbex.

Packer placed at about 2 m above the bottom of the casing and 15 liters grout injected prior to inflate packer.

P-332,5	injected 28.4 liters grout @ 1.63 bar
S-338,5	injected 21.8 liters grout @ 2.01 bar
T-341,5	injected 43.8 liters grout @ 2.70 bar
P-344,5	injected 32.7 liters grout @ 1.71 bar
T-347,5	injected 24.5 liters grout @ 1.74 bar
S-350,5	injected 24.3 liters grout @ 1.95 bar
T-353,5	injected 22.0 liters grout @ 1.94 bar
P-356,5	injected 173.9 liters grout @ 2.14 bar
S-362,5	injected 32.3 liters grout @ 2.26 bar
T-365,5	injected 25.5 liters grout @ 2.20 bar

At all casings injected grout until reach less than 1 liters/ min grout flow at Pmax and wait for 5 minutes.

Grout Test

Mix C Marsh Value = 61 sec. S.G = 1.75 Temp. = 24 C Bleeding = 1%
Mix C Marsh Value = 72 sec. S.G = 1.74 Temp. = 20 C Bleeding = 1%

SITE GUIDELINES (guidelines, memos, modification proposals, etc.)

No	Subject	Given to

DAILY FIELD REPORT
(Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleed,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Muhammad Saleem

Signature

08-02-2020

Date

Verified by:

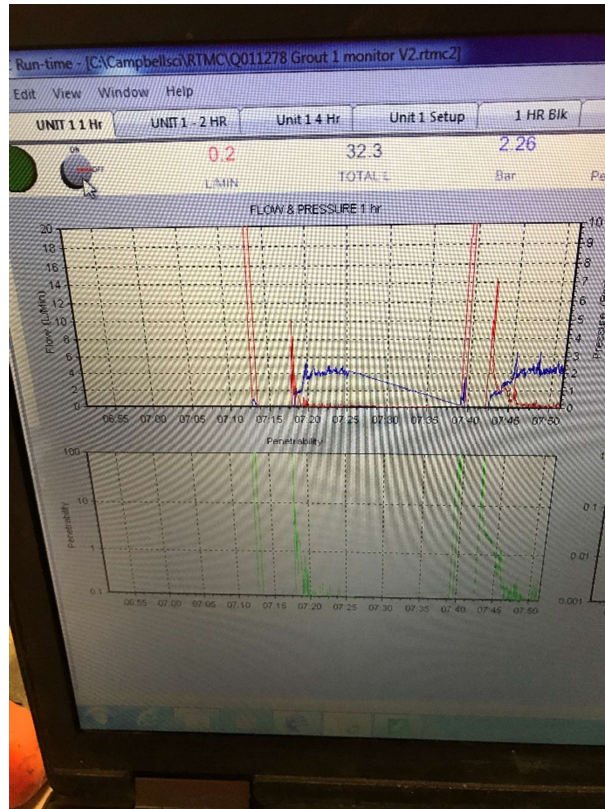
Tom Xue

Signature

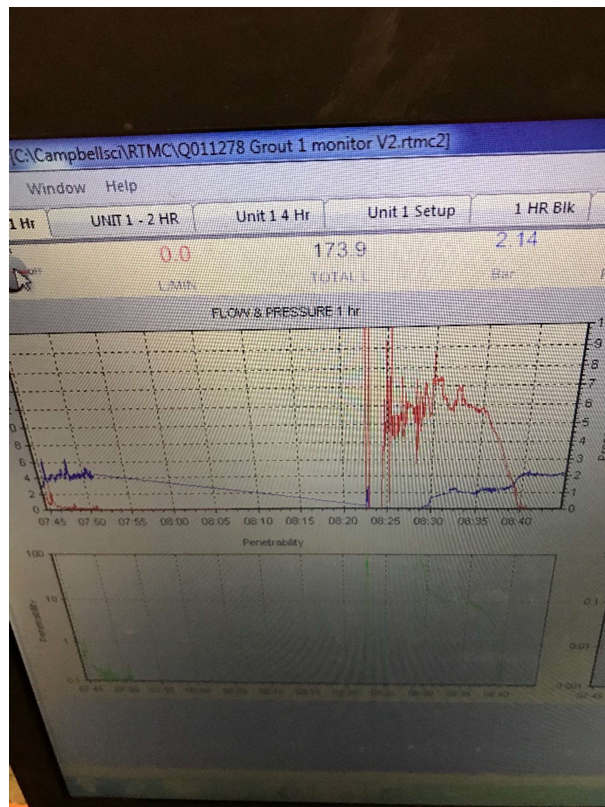
08-02-2020

Date

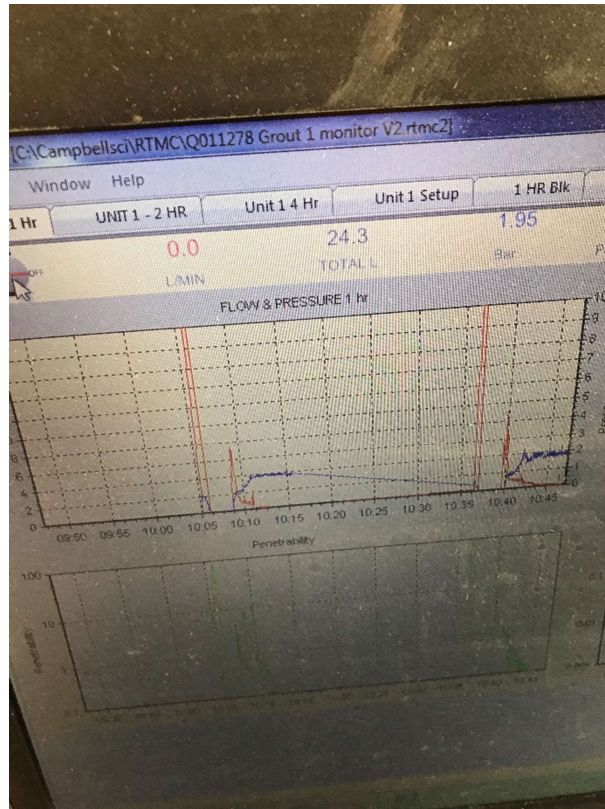
DAILY FIELD REPORT (Detailed)



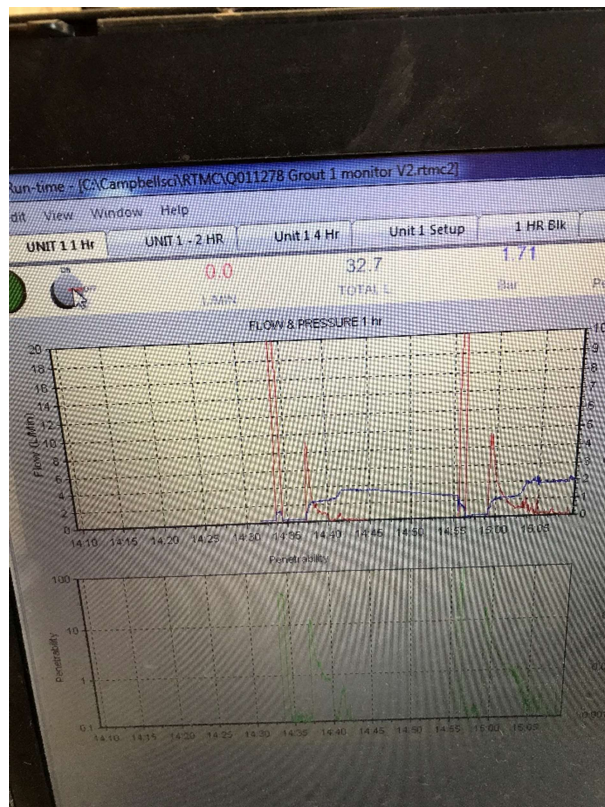
Screen shot of pressure and flow chart at T3652.5 and S362.5 from left to right



Screen shot of pressure and flow chart at P356.5

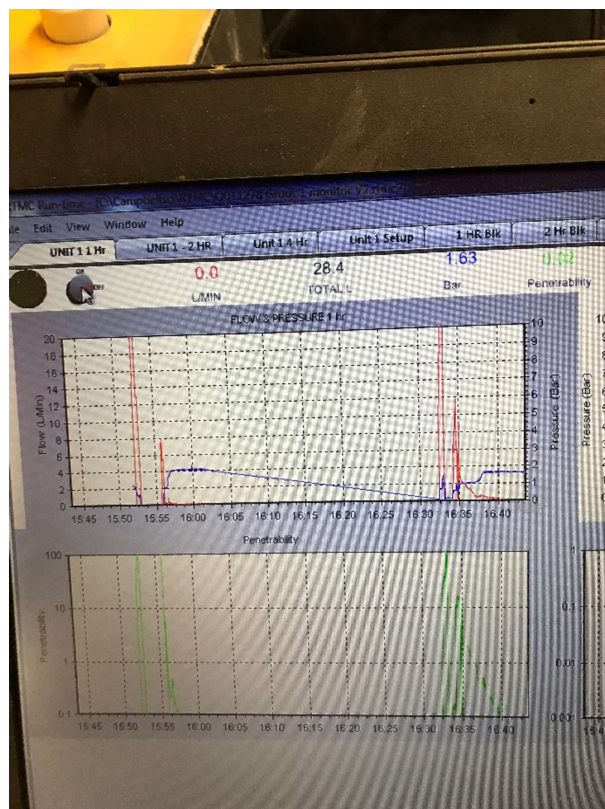
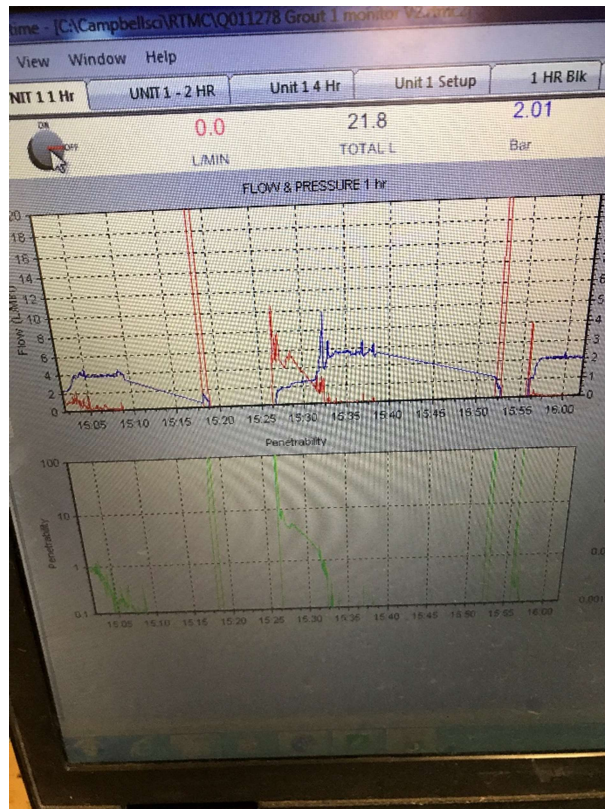


Screen shot of pressure and flow chart at T353.5 and S350.5 from left to right



Screen shot of pressure and flow chart at T347.5 and P344.5 from left to right

DAILY FIELD REPORT (Detailed)



2020209

Document number

2020-02-09	6:30 am 6:30 pm	669034	Muhammad Saleem
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☒ Light ☐ Moderate ☐ Strong, ☐ gusts Temperature: -33 °C

Comments: Blizzard like conditions in the afternoon

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Signed NCR prepared by TCG, one for drilled tertiary holes prior to grouting adjacent Secondary (S614.5 and S626.5) hole and other for packer stuck at T719.5
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.

Work Method and Plan

- Continue casing plug grouting to plug remaining casings on the downstream side.

Bedrock Drilling

No drilling today as the rig was down for the whole day.

Casing Plug

Fourteen (14) casings plugged today using Mix C without Celbex.

Packer placed at about 2 m above the bottom of the casing and 15 liters grout injected prior to inflate packer.

T-329,5	injected 60.3 liters grout @ 1.66 bar (Pressure refusal)
S-326,5	injected 184.1 liters grout @ 0.2 bar (Vmax)
T-323,5	injected 25.5 liters grout @ 1.70 bar (Pressure refusal)
P-320,5	injected 23.9 liters grout @ 2.04 bar (Pressure refusal)
T-317,5	injected 31.3 liters grout @ 1.57 bar (Pressure refusal)
S-314,5	injected 23.4 liters grout @ 1.44 bar (Pressure refusal)

DAILY FIELD REPORT (Detailed)

T-311,5 injected 24.9 liters grout @ 1.50 bar (Pressure refusal)
 P-308,5 injected 38.2 liters grout @ 1.55 bar (Pressure refusal)
 T-305,5 injected 28.3 liters grout @ 1.51 bar (Pressure refusal)
 S-302,5 injected 18.6 liters grout @ 1.95 bar (Pressure refusal)
 T-299,5 injected 22,0 liters grout @ 2.02 bar (Pressure refusal)
 P-296,5 injected 26.4 liters grout @ 2.01 bar (Pressure refusal)
 T-293,5 injected 151.2 liters grout @ 0.3 bar (Vmax)
 S-290,5 injected 28.8 liters grout @ 1.45 bar (Pressure refusal)
 S-326.5 and T293.5 ended at Vmax while rest of all casings injected grout until reach less than 1 liters/ min grout flow at Pmax and wait for 5 minutes.

At S302.5, piece of steel attached with measuring tape was left in the hole during hole depth measurement. Casing was plugged while piece of steel still inside the hole, this may casue problem while drilling in the rock.

Grout Test

Mix C	Marsh Value = 65 sec.	S.G = 1.78	Temp. = 23 C	Bleeding = 1%
Mix C	Marsh Value = 42 sec.	S.G = 1.66	Temp. = - C	Bleeding =
Mix C	Marsh Value = 48 sec.	S.G = 1.74	Temp. = 24 C	Bleeding = 1%

SITE GUIDELINES (guidelines, memos, modification proposals, etc.)

No	Subject	Given to

DAILY FIELD REPORT
(Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleed,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Muhammad Saleem

Signature

09-02-2020

Date

Verified by:

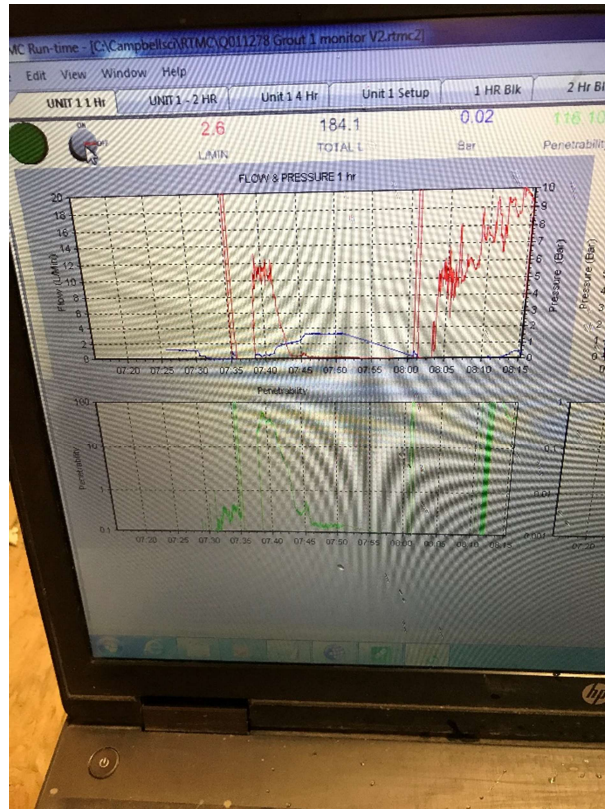
Tom Xue

Signature

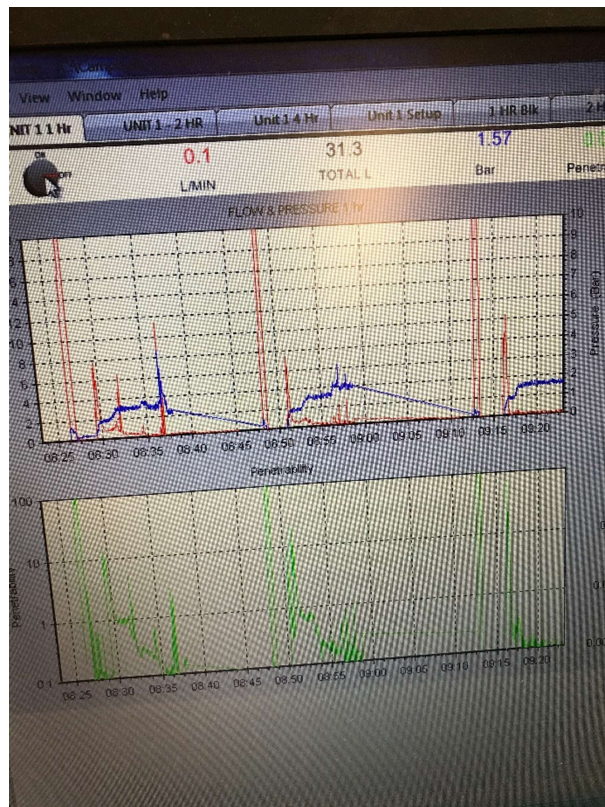
09-02-2020

Date

DAILY FIELD REPORT (Detailed)

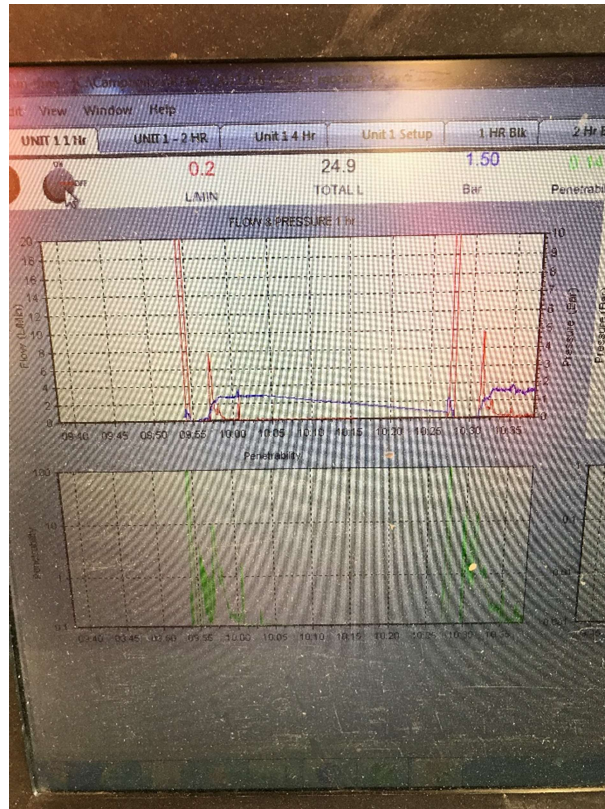


Screen shot of pressure and flow chart at T3292.5 and S326.5 from left to right



Screen shot of pressure and flow chart at T323.5 and P320.5 and T317.5 from left to right

DAILY FIELD REPORT (Detailed)



Screen shot of pressure and flow chart at S314.5 and T311.5 from left to right

2020210

Document number

2020-02-10	6:30 am 6:30 pm	669034	Muhammad Saleem
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☒ Light ☐ Moderate ☐ Strong, ☐ gusts Temperature: -39 °C

Comments: Blizzard like conditions in the afternoon

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.

Work Method and Plan

- Continue casing plug grouting to plug remaining casings on the downstream side.
- Continue drilling Secondary and Primary holes

Bedrock Drilling

- Three (3) Secondary holes drilled yesterday and Two (2) Secondary and Two (2) Primary holes drilled today.
- The holes were drilled into rock for 5 m grout length.
- No water loss was observed in the holes:

Hole	Total depth (m)	Water loss depth below ground level(m)	Water loss above bottom of the hole (m)	Caving depth (m)	Additional casing (m)
S434.5	15.0	-	-	No caving	No
S422.5	15.5	-	-	No caving	No
S410.5	15.5	-	-	No caving	No
S398.5	16	-	-	No caving	No
S386.5	18	-	-	No caving	No
P368.5	20.7	-	-	No caving	No
P356.5	20.3	-	-	No caving	No

Casing Plug

Thirteen (13) casings plugged today using Mix C without Celbex.

Packer placed at about 2 m above the bottom of the casing and 15 liters grout injected prior to inflate packer.

T-287,5	injected 20.4 liters grout @ 1.77 bar (Pressure refusal)
P-284,5	injected 28.7 liters grout @ 1.75 bar (Pressure refusal)
T-281,5	injected 27.8 liters grout @ 1.51 bar (Pressure refusal)
S-278,5	injected 26.6 liters grout @ 1.46 bar (Pressure refusal)
T-275,5	injected 27.5 liters grout @ 1.58 bar (Pressure refusal)
P-272,5	injected 32.8 liters grout @ 1.32 bar (Pressure refusal)
T-269,5	injected 75.3 liters grout @ 1.53 bar (Pressure refusal)
S-266,5	injected 30.5 liters grout @ 1.76 bar (Pressure refusal)
T-263,5	injected 38.7 liters grout @ 2.16 bar (Pressure refusal)
P-260,5	injected 162.6 liters grout @ 0.0 bar (Vmax)
T-257,5	injected 19.3 liters grout @ 0.3 bar (Pressure refusal)
S-254,5	injected 156.9 liters grout @ 0.3 bar (Vmax)
T-251,5	injected 20.1 liters grout @ 2.04 bar (Pressure refusal)

P-260.5 and S254.5 ended at Vmax while rest of all casings injected grout until reach less than 1 liters/ min grout flow at Pmax and wait for 5 minutes.

Grout Test

Mix C	Marsh Value = 150 sec.	S.G = 1.80	Temp. = 24.5 C	Bleeding = 1%
Mix C	Marsh Value = 52 sec.	S.G = 1.77	Temp. = 18 C	Bleeding = 1%

SITE GUIDELINES (guidelines, memos, modification proposals, etc.)

No	Subject	Given to

DAILY FIELD REPORT
(Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleed,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Muhammad Saleem

Signature

10-02-2020

Date

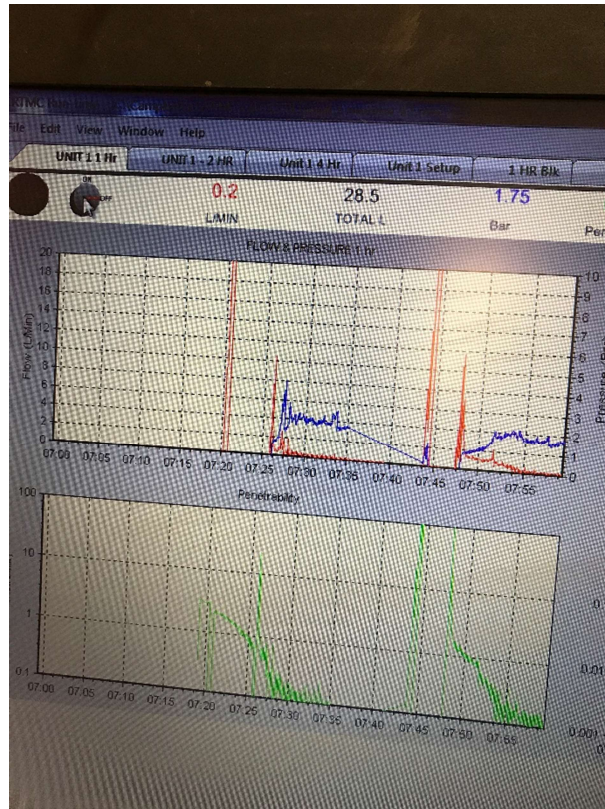
Verified by:

Tom Xue

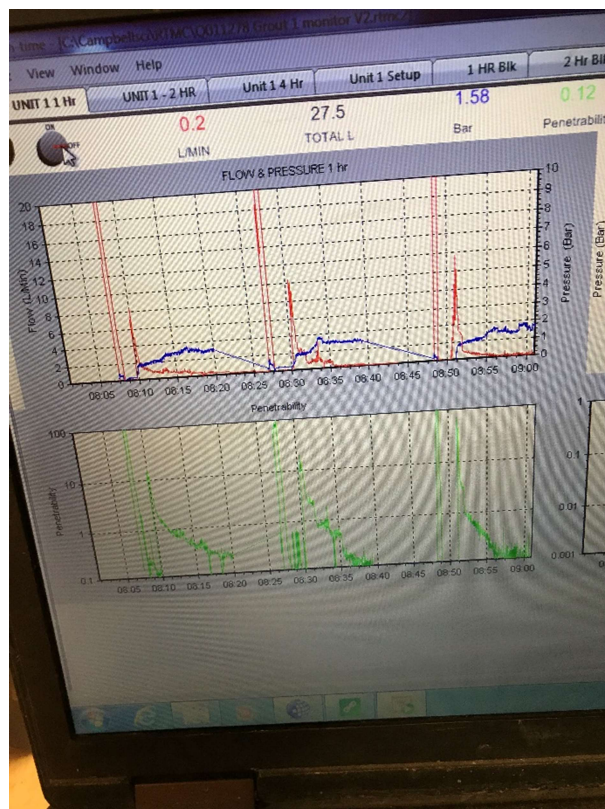
Signature

10-02-2020

Date

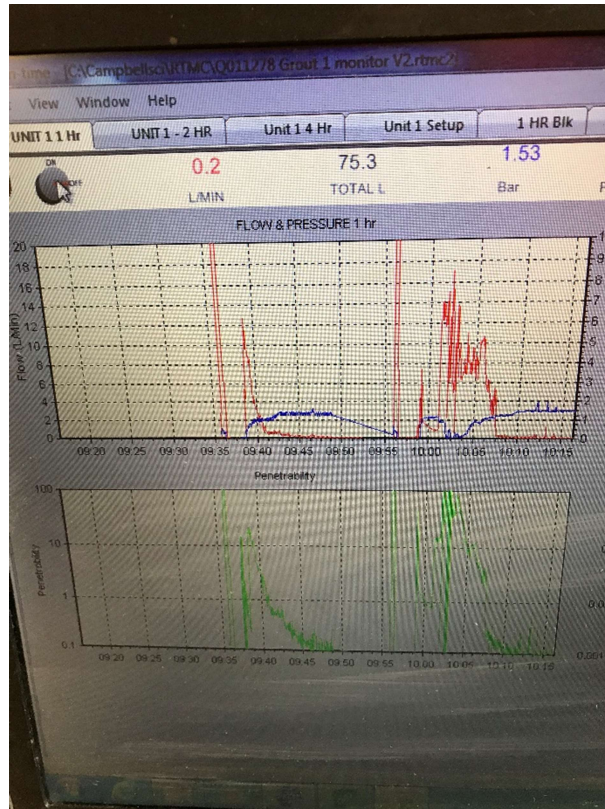


Screen shot of pressure and flow chart at T287.5 and S284.5 from left to right

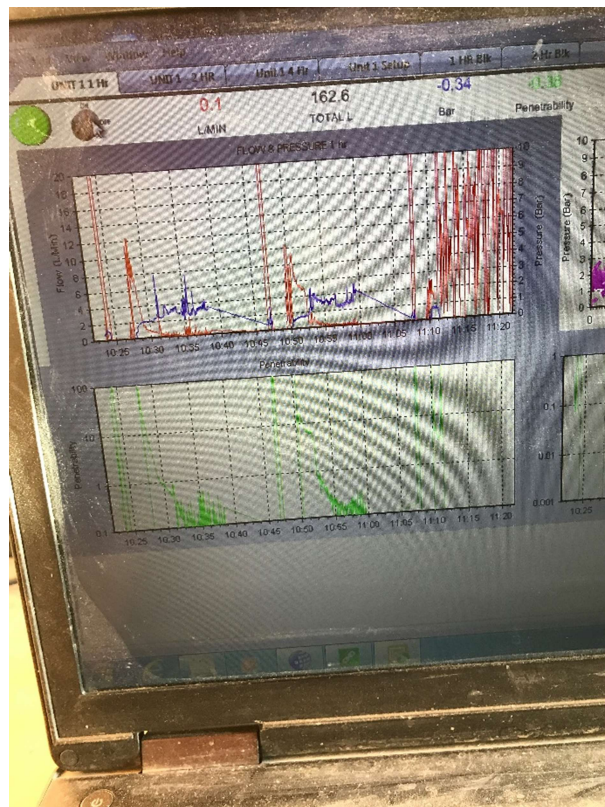


Screen shot of pressure and flow chart at T281.5 and S278.5 and T275.5 from left to right

DAILY FIELD REPORT (Detailed)

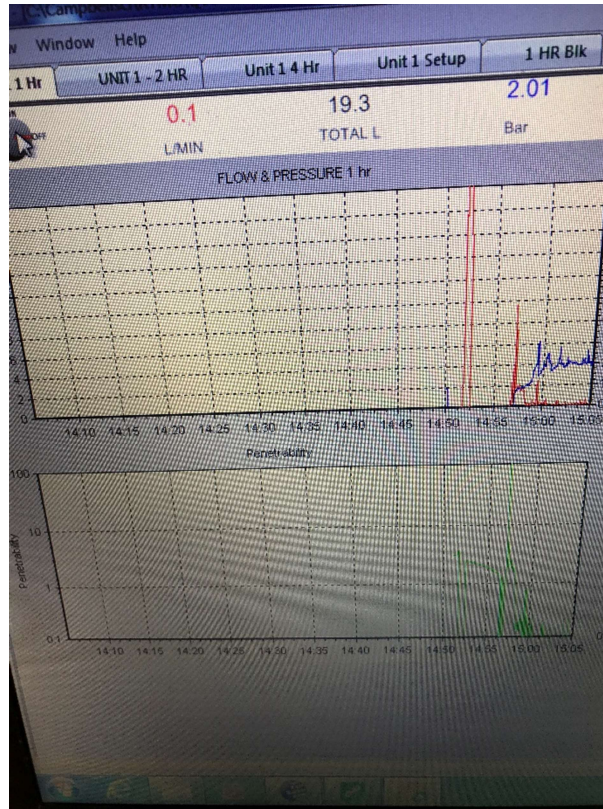


Screen shot of pressure and flow chart at P272.5 and T269.5 from left to right

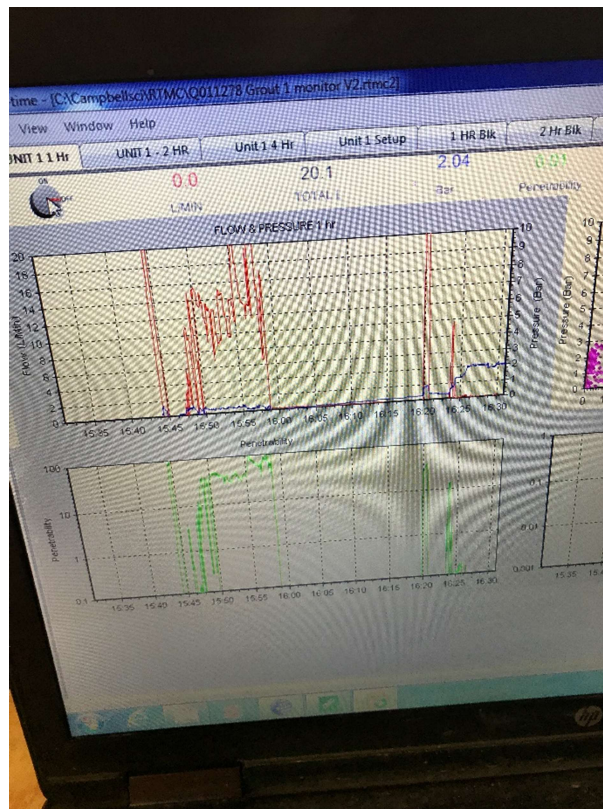


Screen shot of pressure and flow chart at S266.5 and T263.5 and P260.5 from left to right

DAILY FIELD REPORT (Detailed)



Screen shot of pressure and flow chart at T257.5



Screen shot of pressure and flow chart at S254.5 and T251.5 from left to right

2020211

Document number

2020-02-11	6:30 am 6:30 pm	669034	Muhammad Saleem
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☒ Light ☒ Moderate ☐ Strong, ☐ gusts Temperature: -42 °C

Comments: Late start due to extreme cold weather -63°C with windchill

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder:

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.
- Revised weekly report.

Work Method and Plan

- Continue grouting Tertiary holes for 5 m stage length.
- Continue drilling Secondary and Primary holes.

Bedrock Drilling

- Three (3) Primary holes drilled today.
- The holes were drilled into rock for 5 m grout length.
- No water loss was observed in the holes:

Hole	Total depth (m)	Water loss depth below ground level(m)	Water loss above bottom of the hole (m)	Caving depth (m)	Additional casing (m)
P344.5	18.4	-	-	No caving	No
P332.5	16.5	-	-	No caving	No
P320.5	15.2	-	-	No caving	No

Bedrock Grouting.

T527.5 5m stage

- The depth of the hole was checked and the hole was open to 15.8 m. Water level was measured at depth 6.97 m
- Packer was placed at the bottom of the casing.
- Prefilled 37 liters of Mix C grout to displace water and then after packer inflated, injected total of 261 liters of Mix C without celbex.
- After the grouting started pressure build up gradually and reached Pmax within twenty minutes.
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.
- The closing pressure was 3.14 bar at 0.3 l/min.
- **Hole backfilled after grouting.**

T521.5 5m stage

- The depth of the hole was checked and the hole was open to 15.2 m. Water level was measured at depth 6.82 m
- Packer was placed at the bottom of the casing.
- Prefilled 36 liters of Mix C grout to displace water and then after packer inflated, injected total of 133.3 liters of Mix C without celbex.
- After the grouting started pressure build up gradually and reached Pmax within fifteen (15) minutes.
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.
- The closing pressure was 3.1 bar at 0.3 l/min.
- **Hole backfilled after grouting.**

T515.5 5m stage

- The depth of the hole was checked and the hole was open to 16.48 m. Water level was measured at depth 6.95 m
- Packer was placed at the bottom of the casing.
- Prefilled 39 liters of Mix C grout to displace water and then after packer inflated, injected total of 467.6 liters of Mix C without celbex.
- After about 200 liters of grout injected pressure started pressure build up gradually and reached Pmax within twenty (20) minutes.
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.
- The closing pressure was 3.42 bar at 0.2 l/min.
- **Hole backfilled after grouting.**

T509.5 5m stage

- The depth of the hole was checked and the hole was open to 16.4 m. Water level was measured at depth 6.14 m
- Packer was placed at the bottom of the casing.
- Prefilled 37 liters of Mix C grout to displace water and then after packer inflated, injected total of 75.8 liters of Mix C without celbex.
- After the grouting started pressure build up quickly and reached Pmax within five minutes
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.
- The closing pressure was 3.36 bar at 0.6 l/min.
- **Hole backfilled after grouting.**

T503.5 5m stage

- The depth of the hole was checked and the hole was open to 15.3 m. Water level was measured at depth 7.1 m
- Packer was placed at the bottom of the casing.

DAILY FIELD REPORT (Detailed)

- Prefilled 36 liters of Mix C grout to displace water and then after packer inflated, injected total of 123.2 liters of Mix C without celbex.
- After the grouting started pressure build up gradually and reached Pmax within ten minutes and flow rate dropped below 3 l /min.
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.
- The closing pressure was 3.11 bar at 0.2 l/min.
- **Hole backfilled after grouting.**

Grout Test

Mix C	Marsh Value = 96 sec.	S.G = 1.79	Temp. = 15.0 C	Bleeding = 1%
Mix C	Marsh Value = 57 sec.	S.G = 1.77	Temp. = 15.4 C	Bleeding = -
Mix C	Marsh Value = 82 sec.	S.G = 1.79	Temp. = 11.0 C	Bleeding = 1%

Some fluctuation with Marsh value, possible issue with cement from different bulk bags, also some chunks found in the grout causing fluctuation in pressure and flow rate during grouting.

KCG was advised to better control the screening and filling of 20 KG buckets.

SITE GUIDELINES (guidelines, memos, modification proposals, etc.)

No	Subject	Given to
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

DAILY FIELD REPORT
(Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleed,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Muhammad Saleem

Signature

11-02-2020

Date

Verified by:

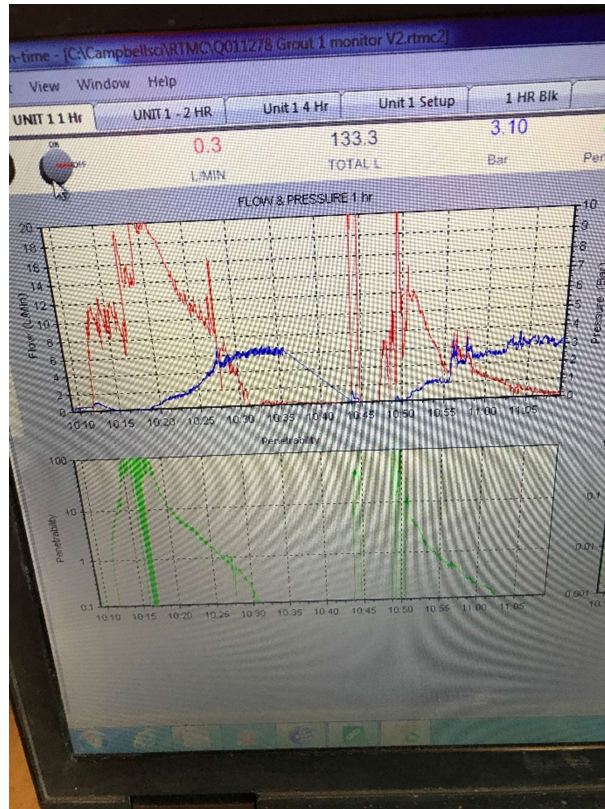
Tom Xue

Signature

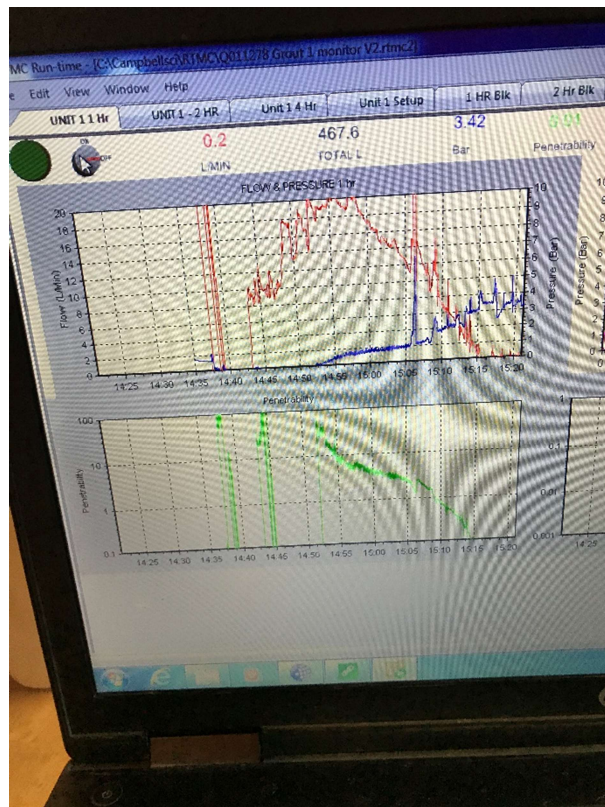
11-02-2020

Date

DAILY FIELD REPORT (Detailed)

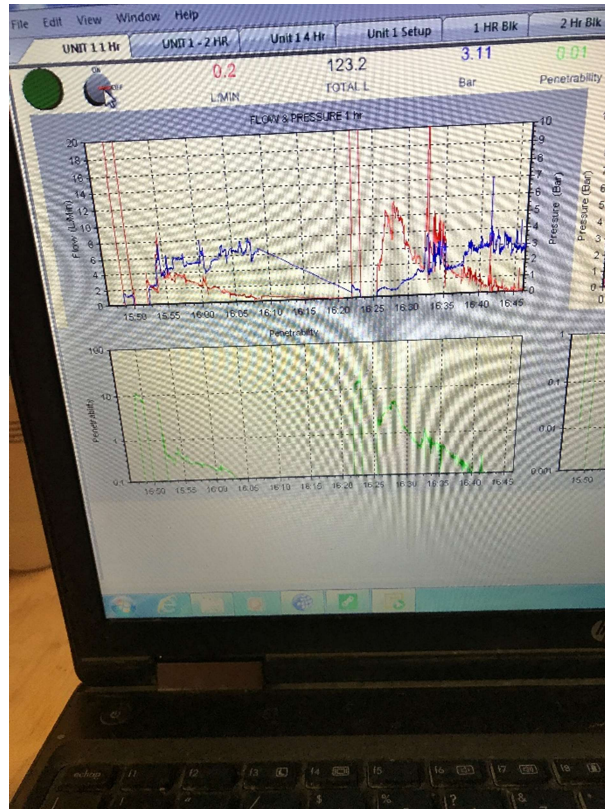


Screen shot of pressure and flow chart at T527.5 and T521.5 from left to right



Screen shot of pressure and flow chart at T515.5

DAILY FIELD REPORT (Detailed)



Screen shot of pressure and flow chart at T509.5 and T503.5 from left to right

2020-02-12	6:30 am 6:30 pm	669034	Muhammad Saleem
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☐ Light ☒ Moderate ☒ Strong, ☐ gusts Temperature: -35 °C

Comments: Blizzard like condition

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder:

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Discuss the inconsistency in grout Marsh value possible due to cement.
- Updated spread sheet and other QA related activities.
- Reviewed KCG As Built report.

Work Method and Plan

- Continue grouting Tertiary holes for 5 m stage length.
- Continue drilling Primary holes.

Bedrock Drilling

- Five (5) Primary holes drilled today.
- The holes were drilled into rock for 5 m grout length.
- No water loss was observed in the holes:

Hole	Total depth (m)	Water loss depth below ground level(m)	Water loss above bottom of the hole (m)	Caving depth (m)	Additional casing (m)
P308.5	13	-	-	No caving	No
P296.5	13.4	-	-	No caving	No
P284.5	14.1	-	-	No caving	No
P272.5	13.8	-	-	No caving	No
P260.5	14.3	-	-	No caving	No

Bedrock Grouting.

T497.5 5m stage

- The depth of the hole was checked on Feb 10, 2020 and the hole was open to 16.0 m. Water level was measured at depth 7.05 m
- Packer was placed at the bottom of the casing.
- Prefilled 36 liters of Mix C grout to displace water and then after packer inflated, injected total of 63.3 liters of Mix C without celbex.
- Pressure build up quickly after injection started. Noticed fluctuation in pressure, possible some impurities in grout.
- Waited for 5 minutes after flow rate came below 3 l/min and pressure stabilized at Pmax.
- The closing pressure was 3.34 bar at 0.5 l/min.
- **Hole will be backfilled later.**

T491.5 5m stage

- The depth of the hole was checked on Feb 10, 2020 and the hole was open to 15.1 m. Water level was measured at depth 7.2 m
- Packer was placed at the bottom of the casing.
- Prefilled 37 liters of Mix C grout to displace water and then after packer inflated, injected total of 371.8 liters of Mix C without celbex.
- After about 300 liters of grout injected, pressure build up gradually and reached Pmax within fifteen (15) minutes.
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.
- The closing pressure was 3.04 bar at 0.0 l/min.
- **Hole will be backfilled later.**

T485.5 5m stage

- The depth of the hole was checked on Feb 10, 2020 and the hole was open to 15.1 m. Water level was measured at depth 6.5m
- Packer was placed at the bottom of the casing.
- Prefilled 37 liters of Mix C grout to displace water and then after packer inflated, injected total of 45.6 liters of Mix C without celbex.
- After the grouting started, pressure build up quickly and reached Pmax within few minutes
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.
- The closing pressure was 3.08 bar at 0.0 l/min.
- **Hole backfilled after grouting.**

T479.5 5m stage

- The depth of the hole was checked on February 11, 2020 and the hole was open to 15.4 m. Water level was measured at depth 6.11 m.
- Packer was placed at the bottom of the casing.
- Prefilled 36 liters of Mix C grout to displace water and then after packer inflated, injected total of 610 liters of Mix C without Celbex at pressure 0 to 0.5 bar at flow rate of about 15 to 20 l/min.
- Switched to Mix D after about 610 liters of Mix C injected.
- With Mix D pressure start building up slowly but didn't go above 2 bar at 15 l/min of flow rate.
- After 1600 liters of grout injected, increased the Rheomac 450 from 500 ml to 1000 ml per batch of 120 kg cement and 60 liters water.
- After 1700 liters of grout injected pressure reached to Pmax but flowrate stayed around 15 l/min.
- After 2150 liters of grout injected, flow rate start decreasing but stabilize at about 7 liters/min.
- Grouting stopped after 2300 liters (Mix C = 610 l + Mix D = 1690 l) of grout injected.
- No grout communication or grout bypass observed.

DAILY FIELD REPORT (Detailed)

- The closing pressure was 3.82 bar at 7.7 l/min.
- Grout elevation will be checked tomorrow morning, if grout level falls below bottom of the casing re-grouting will be done using Celbex with open throat pump.

Grout Test

Mix C	Marsh Value = 62 sec.	S.G = 1.77	Temp. = 20.0 C	Bleeding = 1%
Mix C	Marsh Value = 78 sec.	S.G = 1.75	Temp. = 20.5 C	Bleeding = 1%
Mix D	Marsh Value = n/a	S.G = 1.78	Temp. = 25.8 C	Bleeding = 0%
Mix D	Marsh Value = n/a	S.G = 1.77	Temp. = 15.2 C	Bleeding = -

SITE GUIDELINES (guidelines, memos, modification proposals, etc.)

No	Subject	Given to

DAILY FIELD REPORT
(Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleed,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Muhammad Saleem

Signature

12-02-2020

Date

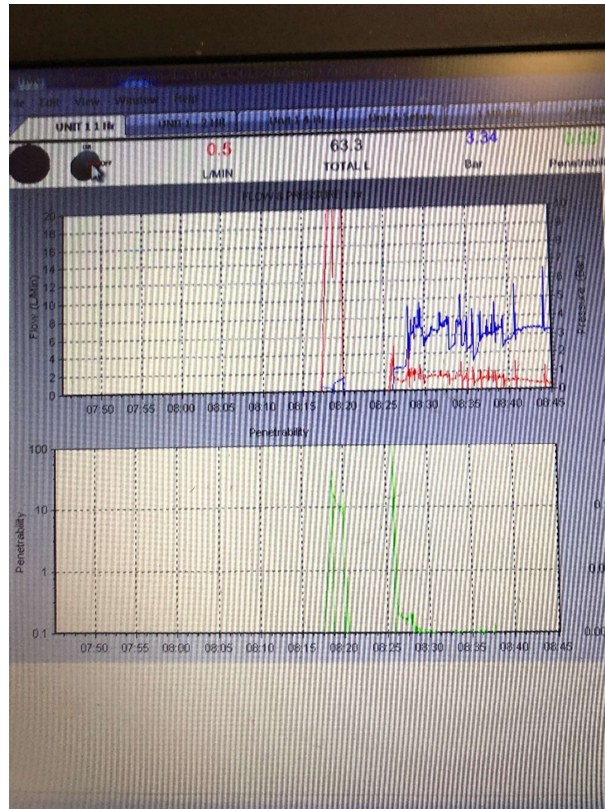
Verified by:

Tom Xue

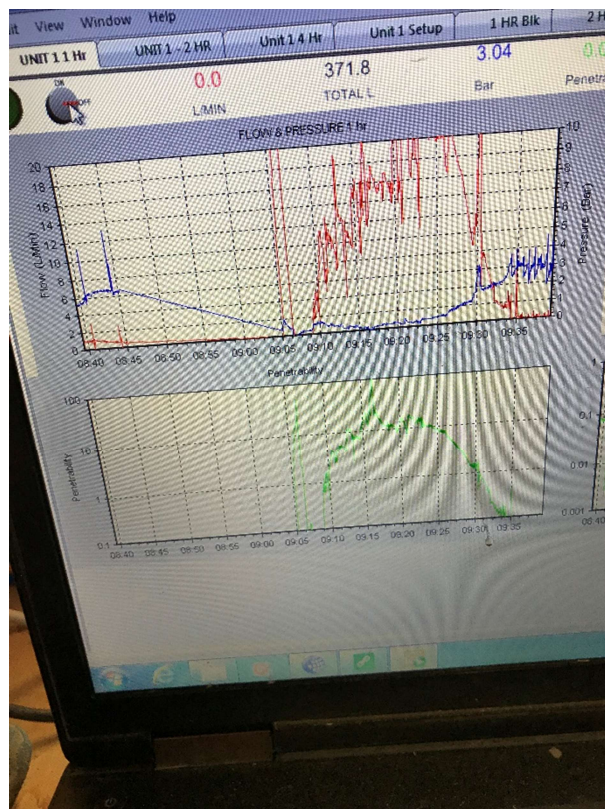
Signature

12-02-2020

Date

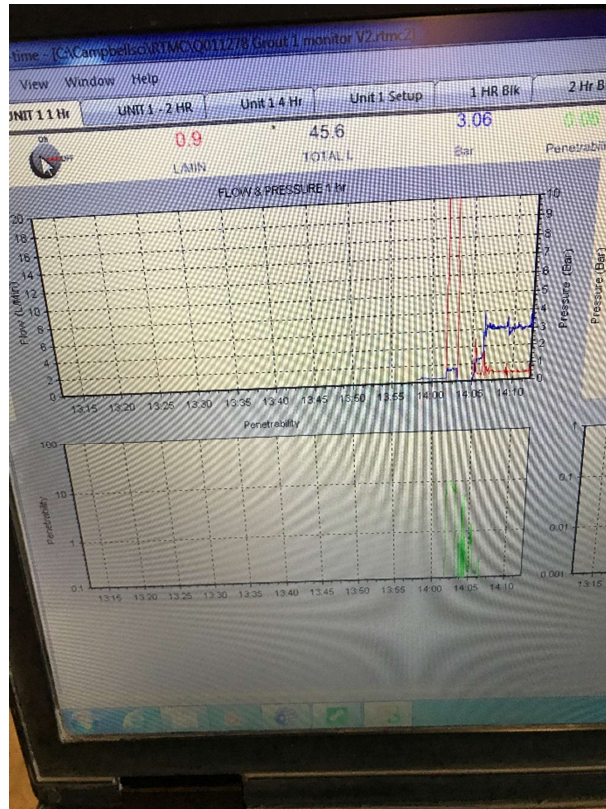


Screen shot of pressure and flow chart at T489.5

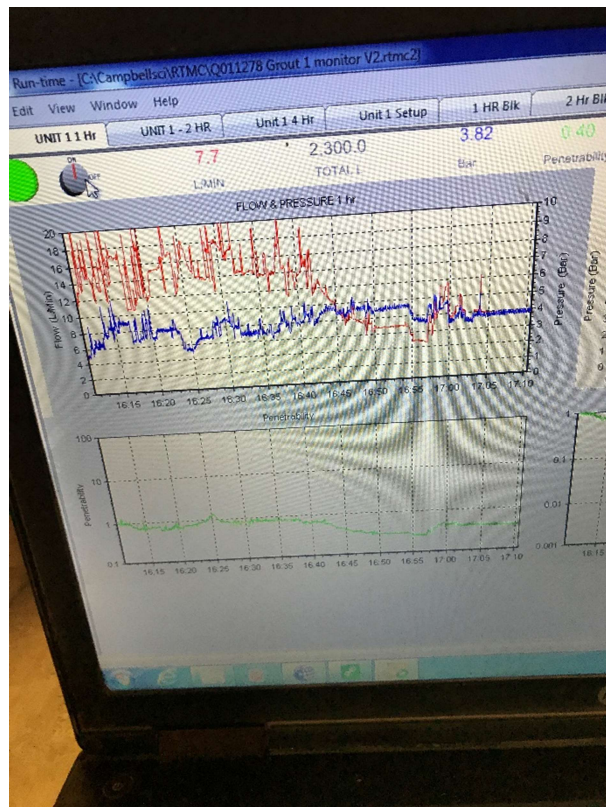


Screen shot of pressure and flow chart at T491.5

DAILY FIELD REPORT (Detailed)



Screen shot of pressure and flow chart at T485.5



Screen shot of pressure and flow chart at T479.5

2020-02-13	6:30 am 6:30 pm	669034	Muhammad Saleem
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☐ Light ☒ Moderate ☐ Strong, ☐ gusts Temperature: -35 °C

Comments: _____

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.
- Attended AEM-SNC coordination meeting.

Work Method and Plan

- Continue grouting Tertiary holes for 5 m stage length.
- After reviewing the grout take in tertiary holes AEM decided to grout all tertiary holes for the downstream blanket.
- AEM and SNC agreed to the KCG proposal of starting grouting for Tertiary holes with Mix B.

Bedrock Drilling

- No bedrock drilling today

Bedrock Grouting.

T479.5

- This was grouted yesterday and reached maximum volume.
- Grout level was checked this morning and found at about 0.35 m above the bottom of the casing.
- **Hole backfilled after confirmation of the grout elevation inside the casing.**

T473.5 5m stage

- The depth of the hole was checked on Feb 11, 2020 and the hole was open to 15.0 m. Water level was measured at depth 7.75 m
- Packer was placed at the bottom of the casing.
- Prefilled 36 liters of Mix C grout to displace water and then after packer inflated, injected total of 211.9 liters of Mix C without celbex.
- After about 100 liters of grout injected, pressure build up gradually and reached Pmax within ten (10) minutes.
- Waited for 5 minutes after flow rate came below 3 l/min and pressure stabilized at Pmax.
- The closing pressure was 2.99 bar at 0.5 l/min.
- **Hole backfilled after grouting.**

T467.5 5m stage

- The depth of the hole was checked on Feb 11, 2020 and the hole was open to 15.5 m. Water level was measured at depth 7.85 m
- Packer was placed at the bottom of the casing.
- Prefilled 38 liters of Mix C grout to displace water and then after packer inflated, injected total of 70.6 liters of Mix C without celbex.
- After the grouting started, pressure build up quickly and reached Pmax within few minutes
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.
- The closing pressure was 3.05 bar at 0.4 l/min.
- **Hole backfilled after grouting.**

T461.5 5m stage

- The depth of the hole was checked on Feb 11, 2020 and the hole was open to 15.8 m. Water level was measured at depth 7.9 m
- Packer was placed at the bottom of the casing.
- Prefilled 36 liters of Mix C grout to displace water and then after packer inflated, injected total of 423.9 liters of Mix C without celbex.
- After about 270 liters of grout injected, pressure build up gradually and reached Pmax within fifteen (15) minutes.
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.
- The closing pressure was 3.06 bar at 0.2 l/min.
- **Hole backfilled after grouting.**

T455.5 5m stage

- The depth of the hole was checked on Feb 11, 2020 and the hole was open to 15.8 m. Water level was measured at depth 7.9 m
- Packer was placed at the bottom of the casing.
- Prefilled 36 liters of Mix B grout to displace water and then after packer inflated, injected total of 66.4 liters of Mix B.
- After the grouting started, pressure build up quickly and reached Pmax within few minutes
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.
- The closing pressure was 2.59 bar at 1.7 l/min.
- **Hole backfilled after grouting.**

T449.5 5m stage

- The depth of the hole was checked on Feb 11, 2020 and the hole was open to 16.0 m. Water level was measured at depth 7.0 m
- Packer was placed at the bottom of the casing.

- Prefilled 36 liters of Mix B grout to displace water and then after packer inflated, injected total of 73.5 liters of Mix B.
- After the grouting started, pressure build up quickly and reached Pmax within few minutes
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.
- The closing pressure was 2.72 bar at 0.9 l/min.
- **Hole backfilled after grouting.**

T443.5 5m stage

- The depth of the hole was checked on February 11, 2020 and the hole was open to 15.8 m. Water level was measured at depth 7.5 m.
- Packer was placed at the bottom of the casing.
- Prefilled 36 liters of Mix B grout to displace water and then after packer inflated, injected total of 200 liters of Mix B at pressure 0 to 0.2 bar at flow rate of about 15 to 20 l/min.
- Switched to Mix C after about 200 liters of Mix B injected.
- With Mix C pressure start building up gradually and reached Pmax within ten (10) minutes.
- Total 271.3 liters (200 L Mix B + 71.3 L Mix C) injected.
- The closing pressure was 3.02 bar at 0.0 l/min.
- **Hole backfilled after grouting.**

Grout Test

Mix C	Marsh Value = 62 sec.	S.G = 1.76	Temp. = 25.0 C	Bleeding = 1%
Mix C	Marsh Value = 60 sec.	S.G = 1.74	Temp. = 30.0 C	Bleeding =
Mix B	Marsh Value = 44 sec.	S.G = 1.67	Temp. = 23.0 C	Bleeding = 2%
Mix C	Marsh Value = 84 sec.	S.G = 1.76	Temp. = 23.0 C	Bleeding =

SITE GUIDELINES (guidelines, memos, modification proposals, etc.)

No	Subject	Given to

DAILY FIELD REPORT
(Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleed,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Muhammad Saleem

Signature

13-02-2020

Date

Verified by:

Tom Xue

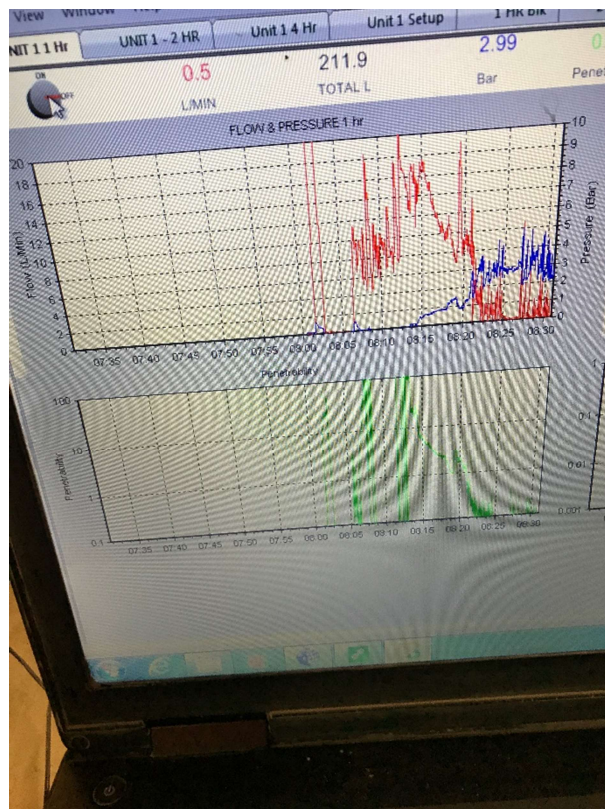
Signature

13-02-2020

Date

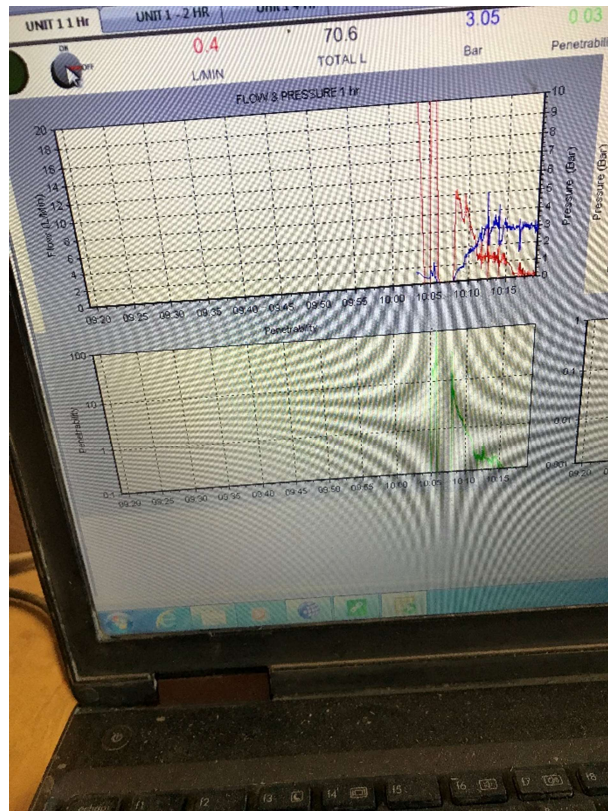


Backfilling T479.5 after confirming grout elevation within the casing

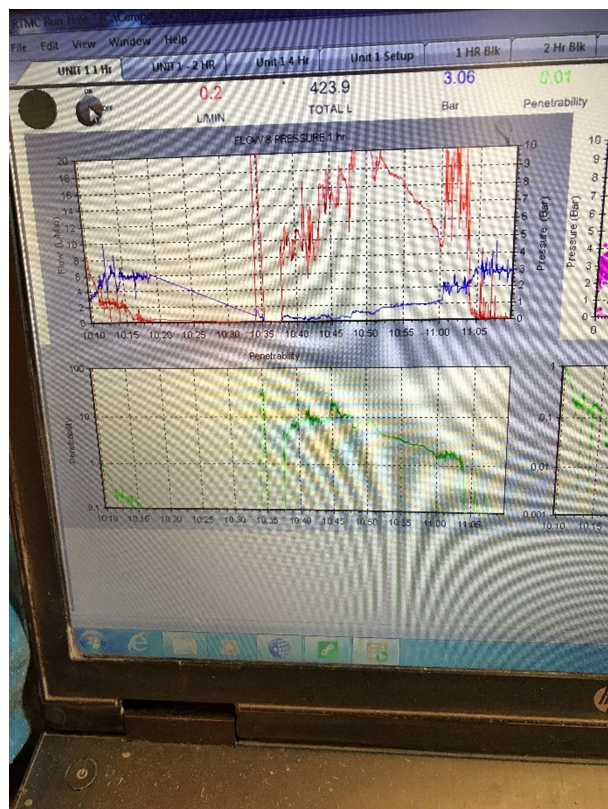


Screen shot of pressure and flow chart at T473.5

DAILY FIELD REPORT (Detailed)

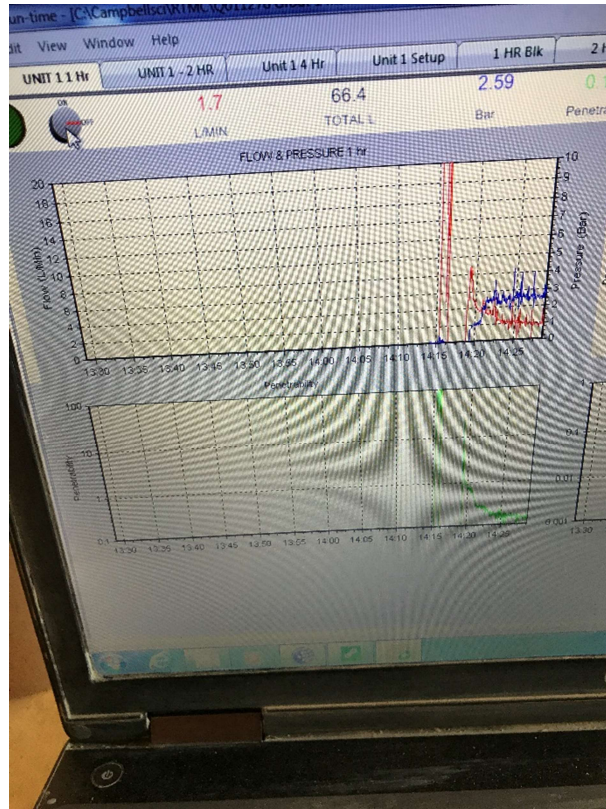


Screen shot of pressure and flow chart at T467.5

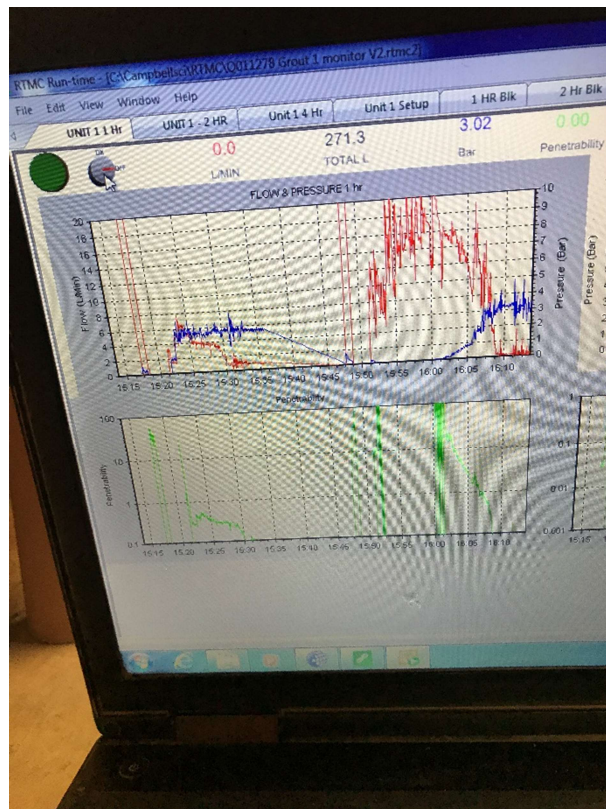


Screen shot of pressure and flow chart at T461.5

DAILY FIELD REPORT (Detailed)



Screen shot of pressure and flow chart at T455.5



Screen shot of pressure and flow chart at T449.5 and T443.5 from left to right

2020-02-14	6:30 am 6:30 pm	669034	Muhammad Saleem
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☐ Light ☒ Moderate ☐ Strong, ☐ gusts Temperature: -36 °C

Comments: _____

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.
- Completed QA weekly report.
- Received KCG As Built report. No comments has been incorporated from the previous weekly report.
- Genset broke last night, so no grouting until genset fixed. Baker Lake will be installed in the morning.

Casing Inclination Check

- Inclination check has been completed for the downstream blanket casing.
- The data showed deviations from the vertical of many holes are larger than 0.5% which is required in the specifications.
- Average deviation for downstream casings found 0.82% and the maximum value found is 3.53%.

Bedrock Drilling

- No bedrock drilling today

Bedrock Grouting.

- No grouting today, Genset stop working during the last night.

SITE GUIDELINES (guidelines, memos, modification proposals, etc.)

No	Subject	Given to

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:	<i>Muhammad Saleem</i>	14-02-2020
	Signature	Date
Verified by:	<i>Tom Xue</i>	14-02-2020
	Signature	Date

2020-02-15	6:30 am 6:30 pm	669034	Muhammad Saleem
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☐ Light ☒ Moderate ☐ Strong, ☐ gusts Temperature: -40 °C

Comments: Extreme cold weather conditions

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.
- AEM wanted to wait for GC comments on last weekly as built profile prior to incorporate SNC comments.

Casing Inclination Check

- KGC will prepare in general NCR for all casings with higher inclination (this will be discussed in the next AEM-SNC coordination meeting).

Bedrock Drilling

- No bedrock drilling today

Bedrock Grouting.

- No grouting today
- In the morning Boom truck was down and later on after boom truck fixed they installed the generator to get the injection unit ready just before lunch break.
- In the afternoon loader broke down and they could not move the injection unit.
- If loader fixed tonight, injection will be resumed in the morning.

SITE GUIDELINES (guidelines, memos, modification proposals, etc.)

No	Subject	Given to

DAILY FIELD REPORT
(Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Muhammad Saleem

Signature

15-02-2020

Date

Verified by:

Tom Xue

Signature

15-02-2020

Date

2020-02-17	6:30 am 6:30 pm	669034	Muhammad Saleem
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☐ Light ☒ Moderate ☐ Strong, ☐ gusts Temperature: -29 °C

Comments: _____

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.
- Discuss GC comments on the weekly report received last night during the construction meeting.
- Measuring grout depth after pressure refusal right after the packer removed is not possible because grout too fresh. If wait for grout to set to measure grout elevation it will delay grouting activities by additional move of grout injection unit to backfill those holes. Ken (KCG) proposed to measure depth of grout after refusal for only those holes with more than 1000 liters grout taken otherwise backfill after pressure refusal, this will be discussed in the construction meeting tomorrow morning.

Work Method and Plan

- Continue grouting Secondary and Primary holes for 5 m stage length.
- Continue drilling Tertiary and Secondary holes.

Bedrock Drilling

- Ten (10) Tertiary and (3) Secondary holes drilled today.
- The holes were drilled into rock for 5 m grout length.
- No water loss or caving was observed in the holes:

DAILY FIELD REPORT (Detailed)

Hole	Total depth (m)	Water loss depth below ground level(m)	Water loss above bottom of the hole (m)	Caving depth (m)	Additional casing (m)
T437.5	15.8	-	-	No caving	No
T431.5	15.4	-	-	No caving	No
T425.5	15.8	-	-	No caving	No
T425.5	15.8	-	-	No caving	No
T419.5	15.7	-	-	No caving	No
T413.5	16.4	-	-	No caving	No
T407.5	17.4	-	-	No caving	No
T401.5	16.5	-	-	No caving	No
T395.5	17.4	-	-	No caving	No
T389.5	18.2	-	-	No caving	No
T383.5	17.3	-	-	No caving	No
T383.5	17.3	-	-	No caving	No
T383.5	17.3	-	-	No caving	No
T383.5	17.3	-	-	No caving	No

Bedrock Grouting.

P332.5 5m stage

- The depth of the hole was checked on Feb 14, 2020 and the hole was open to 16.5 m. Water level was measured at depth 8.85 m
- Packer was placed at the bottom of the casing.
- Prefilled 34 liters of Mix C grout to displace water and then after packer inflated, injected total of 38.1 liters of Mix C without celbex.
- After the grouting started, pressure build up quickly and reached Pmax within a minute.
- Waited for 5 minutes after flow rate came below 3 l/min and pressure stabilized at Pmax.
- The closing pressure was 3.14 bar at 0.6 l/min.
- **Hole backfilled after grouting.**

P320.5 5m stage

- The depth of the hole was checked on Feb 14, 2020 and the hole was open to 15.2 m. Water level was measured at depth 6.8 m
- Packer was placed at the bottom of the casing.
- Prefilled 34 liters of Mix C grout to displace water and then after packer inflated, injected total of 61.2 liters of Mix C without celbex.
- After the grouting started, pressure build up quickly and reached Pmax within few minutes
- Waited for more than 10 minutes after flow rate came below 3 l/min at Pmax but most of the time flow rate stayed around 2l/min.
- The closing pressure was 3.67 bar at 1.6 l/min.
- **Hole backfilled after grouting.**

P308.5 5m stage

- The depth of the hole was checked on Feb 14, 2020 and the hole was open to 13.0 m. Water level was measured at depth 7.9 m
- Packer was placed at the bottom of the casing.
- Prefilled 36 liters of Mix C grout to displace water and then after packer inflated, injected total of 85.9 liters of Mix C without celbex.
- After the grouting started, pressure build up gradually and reached Pmax within ten (10) minutes
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.

- The closing pressure was 2.8 bar at 0.1 l/min.
- **Hole backfilled after grouting.**

P296.5 5m stage

- The depth of the hole was checked on Feb 14, 2020 and the hole was open to 13.4 m. Water level was measured at depth 7.75 m
- Packer was placed at the bottom of the casing.
- Prefilled 35 liters of Mix C grout to displace water and then after packer inflated, injected total of 54.6 liters of Mix C without celbex.
- After the grouting started, pressure build up gradually and reached Pmax within five (5) minutes.
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.
- The closing pressure was 2.81 bar at 1 l/min.
- **Hole backfilled after grouting.**

P284.5 5m stage

- The depth of the hole was checked on Feb 16, 2020 and the hole was open to 14.2 m. Water level was measured at depth 7.8 m
- Packer was placed at the bottom of the casing.
- Prefilled 36 liters of Mix C grout to displace water and then after packer inflated, injected total of 101.6 liters of Mix C without celbex.
- After the grouting started, pressure build up gradually and reached Pmax within ten (10) minutes
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.
- The closing pressure was 2.97 bar at 0.5 l/min.
- **Hole backfilled after grouting.**

P356.5 5m stage

- The depth of the hole was checked on Feb 16, 2020 and the hole was open to 14 m. Water level was measured at depth 7 m
- Packer was placed at the bottom of the casing.
- Prefilled 35 liters of Mix C grout to displace water and then after packer inflated, injected total of 205.6 liters of Mix C without celbex.
- After about 140 liters of grout injected, pressure started building up gradually and reached Pmax within ten (10) minutes
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.
- The closing pressure was 2.94 bar at 0.0 l/min.
- **Hole backfilled after grouting.**

Grout Test

Mix C	Marsh Value = 58 sec.	S.G = 1.74	Temp. = 30.8 C	Bleeding = 1%
Mix C	Marsh Value = 72 sec.	S.G = 1.76	Temp. = 32.0 C	Bleeding = 1%
Mix C	Marsh Value = 54 sec.	S.G = 1.76	Temp. = 22.5 C	Bleeding = 1%

SITE GUIDELINES (guidelines, memos, modification proposals, etc.)

No	Subject	Given to
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

DAILY FIELD REPORT
(Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleed,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Muhammad Saleem

Signature

17-02-2020

Date

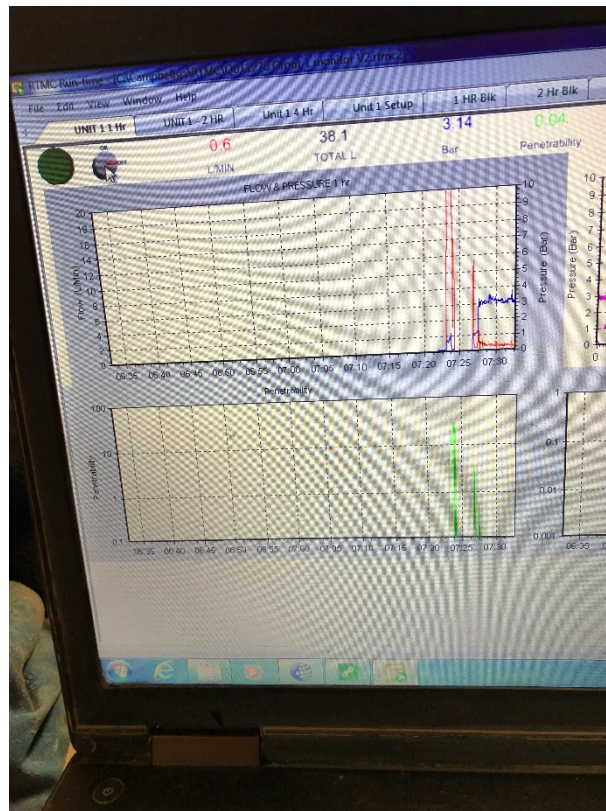
Verified by:

Tom Xue

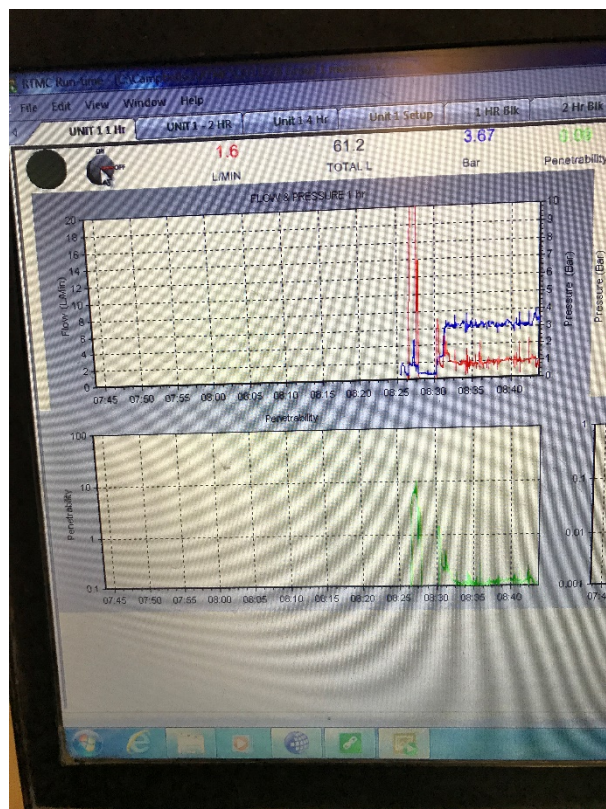
Signature

17-02-2020

Date

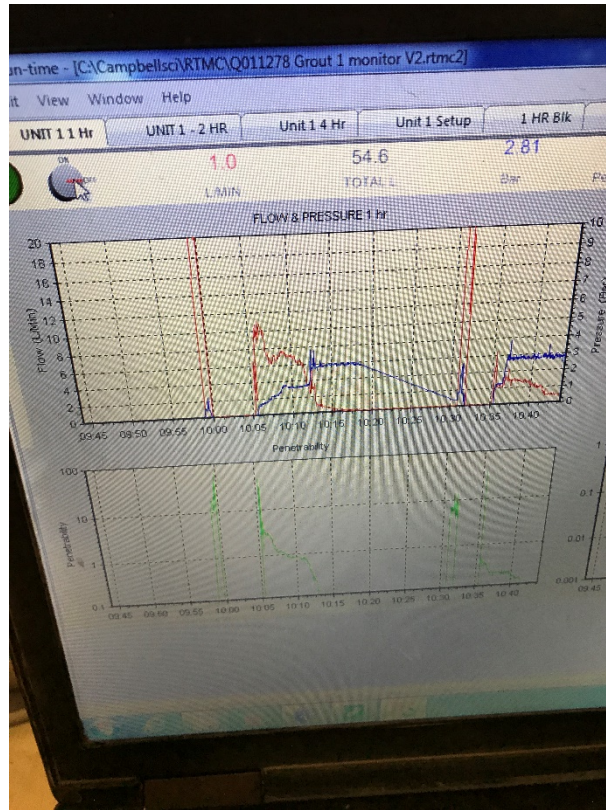


Screen shot of pressure and flow chart at P332.5

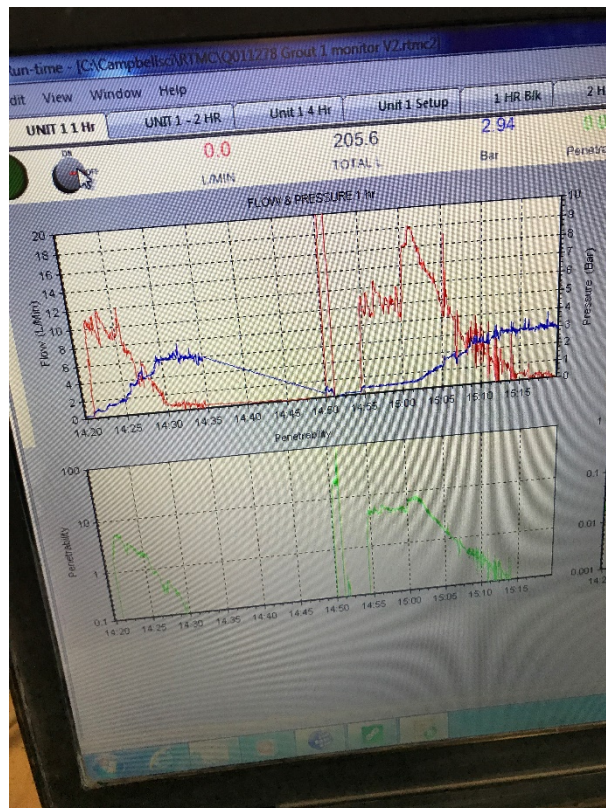


Screen shot of pressure and flow chart at P320.5

DAILY FIELD REPORT (Detailed)



Screen shot of pressure and flow chart at P308.5 and P296.5 from left to right



Screen shot of pressure and flow chart at P284.5 and P272.5 from left to right

2020-02-16	6:30 am 6:30 pm	669034	Muhammad Saleem
Date	Time (Start/End)	Project No.	Prepared by
Whale Tail Dike Remedial Drilling and Grouting Works		Agnico Eagle	
Project		Client	
SNC-Lavalin		TCG(KCG)	
Consultant		Contractor	

Weather: ☒ Sunny ☒ Cloudy ☐ Rain ☐ Storm ☐ Snow ☐ Glaze

Wind: ☐ None ☐ Light ☒ Moderate ☐ Strong, ☐ gusts Temperature: -29 °C

Comments: _____

Appendix: ☐ Yes ☒ No Pictures ☒ Yes ☐ No Inspection report or other: _____

Picture in the folder: _____

ACTIVITIES (indicate if test forms were used)

SNC-Lavalin' Activities

- Attended daily construction meeting at the Contractor trailer.
- Reviewed GHD reports.
- Updated spread sheet and other QA related activities.
- AEM (Patrice) thought NCR for out of spec. casing inclination should come from SNC and he also think the 0.5 % accuracy is not realistic and should be revised in the spec. This will be discussed in the next AEM-SNC coordination meeting.
- AEM decided to install the four (4) missing casings (P608.5, P440.5, T359.5 and T335.5) for downstream blanket grouting.

Work Method and Plan

- Continue grouting Secondary and Primary holes for 5 m stage length.

Bedrock Drilling

- No bedrock drilling today

Bedrock Grouting.

S434.5 5m stage

- The depth of the hole was checked on Feb 12, 2020 and the hole was open to 15.0 m. Water level was measured at depth 7.9 m
- Packer was placed at the bottom of the casing.
- Prefilled 34 liters of Mix C grout to displace water and then after packer inflated, injected total of 301.6 liters of Mix C without celbex.

- After about 250 liters of grout injected, pressure build up gradually and reached Pmax within ten (10) minutes.
- Waited for 5 minutes after flow rate came below 3 l/min and pressure stabilized at Pmax.
- The closing pressure was 2.99 bar at 0.5 l/min.
- **Hole backfilled after grouting.**

S422.5 5m stage

- The depth of the hole was checked on Feb 12, 2020 and the hole was open to 15.5 m. Water level was measured at depth 7.9 m
- Packer was placed at the bottom of the casing.
- Prefilled 34 liters of Mix C grout to displace water and then after packer inflated, injected total of 45.4 liters of Mix C without celbex.
- After the grouting started, pressure build up quickly and reached Pmax within few minutes
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.
- The closing pressure was 3.08 bar at 0.1 l/min.
- **Hole backfilled after grouting.**

S410.5 5m stage

- The depth of the hole was checked on Feb 12, 2020 and the hole was open to 15.5 m. Water level was measured at depth 7.8 m
- Packer was placed at the bottom of the casing.
- Prefilled 30 liters of Mix C grout to displace water and then after packer inflated, injected total of 67.9 liters of Mix C without celbex.
- After the grouting started, pressure build up quickly and reached Pmax within few minutes
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.
- The closing pressure was 3.19 bar at 0.1 l/min.
- **Hole backfilled after grouting.**

S398.5 5m stage

- The depth of the hole was checked on Feb 12, 2020 and the hole was open to 16 m. Water level was measured at depth 9.4 m
- Packer was placed at the bottom of the casing.
- Prefilled 34 liters of Mix C grout to displace water and then after packer inflated, injected total of 89.3 liters of Mix C without celbex.
- After the grouting started, pressure build up gradually and reached Pmax within five (5) minutes.
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.
- The closing pressure was 2.75 bar at 0.8 l/min.
- **Hole backfilled after grouting.**

S386.5 5m stage

- The depth of the hole was checked on Feb 12, 2020 and the hole was open to 18.0 m. Water level was measured at depth 9.3 m
- Packer was placed at the bottom of the casing.
- Prefilled 36 liters of Mix C grout to displace water and then after packer inflated, injected total of 152.6 liters of Mix C without celbex.
- Grout flowrate kept around 10 liters /min due to zoom boom busy somewhere else and not immediately available to bring cement.
- After about 110 liters of grout injected, pressure build up gradually and reached Pmax within five (5) minutes.
- Waited for 5 minutes after flow rate came below 3 l/min and pressure stabilized at Pmax.
- The closing pressure was 3.02 bar at 0.1 l/min.
- **Hole backfilled after grouting.**

P368.5 5m stage

- The depth of the hole was checked on Feb 13, 2020 and the hole was open to 20.7 m. Water level was measured at depth 9.5 m
- Packer was placed at the bottom of the casing.
- Prefilled 36 liters of Mix C grout to displace water and then after packer inflated, injected total of 75.1 liters of Mix C without celbex.
- After the grouting started, pressure build up quickly and reached Pmax within few minutes
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.
- The closing pressure was 3.71 bar at 0.8 l/min.
- **Hole backfilled after grouting.**

P356.5 5m stage

- The depth of the hole was checked on Feb 13, 2020 and the hole was open to 20.3 m. Water level was measured at depth 9.7 m
- Packer was placed at the bottom of the casing.
- Prefilled 38 liters of Mix C grout to displace water and then after packer inflated, injected total of 98.1 liters of Mix C without celbex.
- After the grouting started, pressure build up quickly and reached Pmax within five (5) minutes
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.
- The closing pressure was 3.5 bar at 0.3 l/min.
- **Hole backfilled after grouting.**

P344.5 5m stage

- The depth of the hole was checked on Feb 13, 2020 and the hole was open to 18.4 m. Water level was measured at depth 8.9 m
- Packer was placed at the bottom of the casing.
- Prefilled 35 liters of Mix C grout to displace water and then after packer inflated, injected total of 61.2 liters of Mix C without celbex.
- After the grouting started, pressure build up quickly and reached Pmax within few minutes
- Waited for 5 minutes after flow rate came below 3 l/min at Pmax.
- The closing pressure was 3.3 bar at 0.7 l/min.
- **Hole backfilled after grouting.**

Grout Test

Mix C	Marsh Value = 64 sec.	S.G = 1.74	Temp. = 37.0 C	Bleeding = 1%
Mix C	Marsh Value = 53 sec.	S.G = 1.73	Temp. = 31.0 C	Bleeding =
Mix C	Marsh Value = 72 sec.	S.G = 1.78	Temp. = 28.0 C	Bleeding = 1%

Note: Higher grout temperature observed in the morning because, no grouting in the last two days and water in the tank was too hot (37C). Later on some fresh water mixed in the tank to bring the water temperature down.

SITE GUIDELINES (guidelines, memos, modification proposals, etc.)

No	Subject	Given to
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

DAILY FIELD REPORT
(Detailed)

SPECIFIC ELEMENTS VERIFIED

Elements	Location, batch or other	Scope and comments
Grout Testing	Injection Unit	Marsh Funnel, Specific Gravity, Temperature, Bleed,

SAFE AND SAFETY REMARKS

- Dress up properly for extreme cold conditions

Issued by:

Muhammad Saleem

Signature

16-02-2020

Date

Verified by:

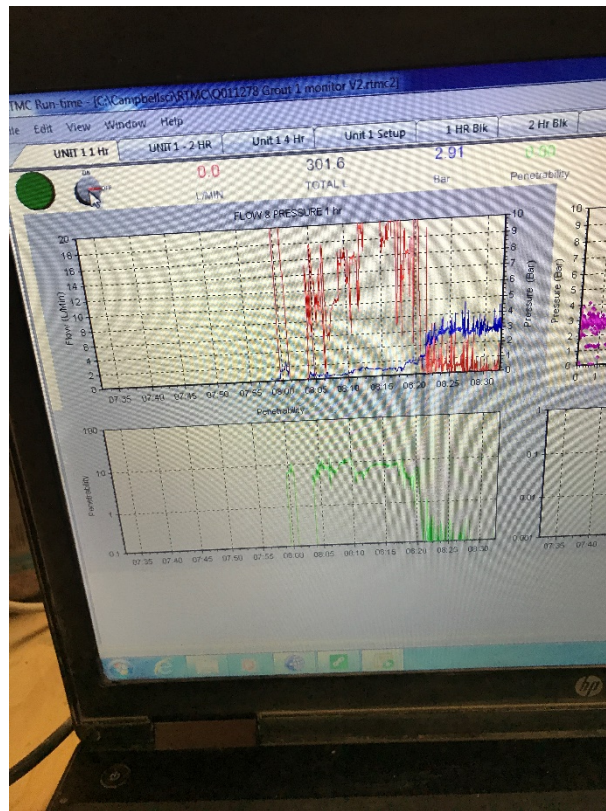
Tom Xue

Signature

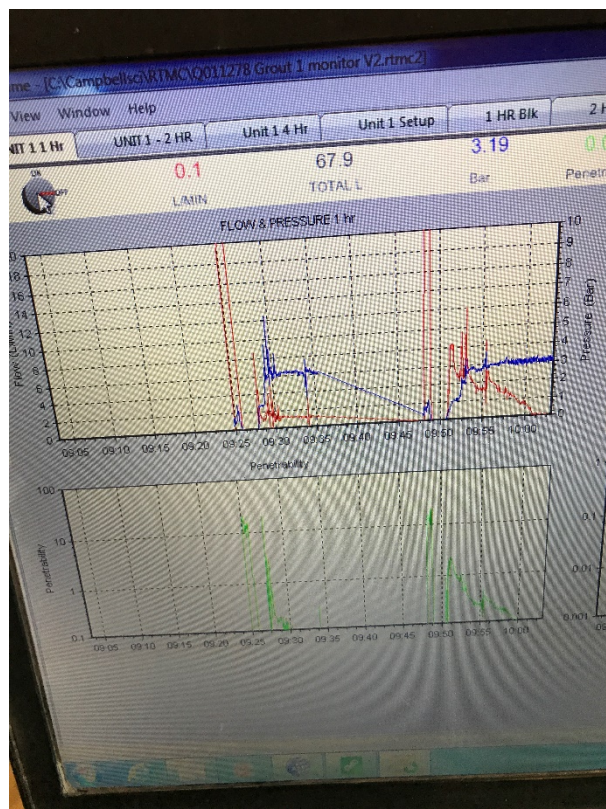
16-02-2020

Date

DAILY FIELD REPORT (Detailed)



Screen shot of pressure and flow chart at S434.5



Screen shot of pressure and flow chart at S422.5 and S410.5 from left to right