DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Sept 20 2018

Time: 7h30

Presents:

AEM: PG - AH

HFDI: AZ, CA

KCG: CG - CT - MW - DG -

QA: MJ

QC: MC - MOB

Health & Safety & Environment:

- Snow outside its becoming slippery
- Tent is anchored to the ground
- Need to cover casing that were drilled and kept low

Daily Advance:

KCG: - Finish ~~pearno~~ dome installation
- Start human on pipe for
- NE Dike : Stoping of excavation and resume pumping water
- Saline : install calorifuge

HFDI :- dismantling agitator tanks and installed

~~QA/QC:~~ - Finish drilling the available shoes (15)
- Reconfiguration on grout plant to fit new system
- Finish assembly of BG-28

QA-QC :- Pinhole test done on 3 day fridge cure cylinder

AEM: - Vane tests done on 1-2-3 days and everything is above 168 Kpa
- All casing drilled are approved

General Planning/Comments:

KCG: - Continue grout system delivery to dike
- Start WRSF excavation
- removal of turbidity barriers South basin.

Henry : tie in of grout plant to pipe system

QA/QC: - Shear vane test deepen
- pinhole test

AEM: - Drilling of a TH

Report By: Patrice Gagnon

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Sept 21, 2018

Time: 7h30

Presents:

AEM: PG - AH

HFDI: AZ, CA

KCG: FT - CG - MW - MAB - DG - PG

QA: MJ

QC: MC, MOB

Health & Safety & Environment:

- Gastro entheritis outbreak - wash your hands
- Snow outside → slippery

Daily Advance:

KCG: Fusion pipe 6"
- Turbidity D removed entirely
- Prepare sand for road

HFDI: closing shelter for batch plant, modif to the plant for new set up
issue with DG-SS, → resolved

QA/QC:
- Test on bentonite slurry inconclusive, redo today
- Pile 101 needs to be redrilled

AEM: Funnel Marsh cone issue

General Planning/Comments:

KCG: Continue with fusion, electrical switch
- Curtain E removed
- instrument TH on WTD

HFDI: continue with assembly of system to deliver to dike

QA/QC: - heater sea can will be fixed
UCS press will be assemble & calibrated today
pinhole test

AEM:

Report By: Patrice Gagnon

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Sept 29nd 2018

Time: 7h30

Presents:

AEM: DG- AH

HFDI: AZ- CA

KCG: MAB- CG- DG- CT-

QA: MJ

QC: MDB- MC

Health & Safety & Environment:

- Slippery outside → wear cleats

Daily Advance:

KCG: Fusion pipe -
- South curtains removed from lake outlet into sea cans
- TH installed backfilled
- Batch plant roof

HFDI: - bentonite testing with arbo, technical issues during days with plant
- still try to incorporate Arbo at night with better results
- continue set-up of the modified plant

~~QA/QC:~~

QA/QC: Compression tests done and successful > 287 KPa for 11 days

AEM: pinhole test realized - good results as well

General Planning/Comments:

KCG: - Finish fusion of piping - sent genset to MBK for troubleshooting
- Saline ditch, Caterpillar installation
- Mammoth dike limits of excavation to be staked

HDFI: bentonite/arbo testing, set-up of modified plant with pipefitters

~~QA/QC:~~ test the line to deliver grout to dike

QA/QC: more compression tests

AEM: KCG to work on procedure for passing the pig

Report By: Patrice Gagnon

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Sept 23rd 2018

Time: 7h30

Presents:

AEM: PG - AH

HFDI: AZ - CA

KCG: FT - CG - DG - MW - PG - CT - MAB

QA: MJ

QC: MOB - MC

Health & Safety & Environment:

- No incident, no accident
- JHA done for pig launching

Daily Advance:

KCG:
- Piping completed, heater (post fighters) installed
- Continue Saline protection
- Start excavation Mammoth
- Test on CB

HFDI: testing bentonite & cubes, set up pump/batch plant/pipe, 7 batches of bentonite produced for test today

QA/QC: UCS testing, all above 300 kPa for 10-11 days old

AEM:

General Planning/Comments:

KCG:
- Continue HFDI support
- Finish Coketanche on Saline protection
- WRSF install culvert, NE dike pump pumping

HFDI: test in pipe towards dike with bentonite; continue testing with cubes on CB

QA/QC: Send CB in the line towards dike to fill pile

QA/QC: need HFDI drilling logs to complete approvals

AEM:

Report By: Patrice Gagnon

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Sept 25th 2018

Time: 7h30

Presents:

AEM: PG - AH

HFDI: AZ - CA

KCG: CT - DG - PG - MAB -

QA: MJ

QC: MAB

Health & Safety & Environment:

- Pump failure last night → no injuries, just great mess everywhere in the

Daily Advance:

KCG: Finish saline protector work
WRSF : unplug line and bring material for culvert
Grave installation completed

HFDI : Continue with test batching - bentonite pumped in the pipe → success
grout testing in pipe successfull → pump failure → clean up

~~QA/QC:~~ Work on plan C with Vaccum truck

QA/QC: - QC shift change
- UCS cold cure — 150 kPa
- bleeding test OK

AEM:

General Planning/Comments:

KCG: - WRSF culvert installation
- Crew change

HFDI : - batching & pumping CB in the piles
- pulling casing and drilling

QA/QC: - Follow-up on sampling program
- QA to send a communication on testing program

AEM:

Report By: Patrice Gagnon

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Sept 25th 2018

Time: 7h30

Presents:

AEM: PG-AH

HFDI: CA-AZ

KCG: CT-DG-FT-LB-MP

QA: MJ

QC: MG-MOB

Health & Safety & Environment:

- incidents around site about trips & falls → be careful where you place your feets
- asked crews to review Wildlife document

Daily Advance:

KCG: - culvert WRSF completed

HFDI: - attempt with slurry in pipe → unsuccessful
- modification on vacuum truck done → adapted pump on it → success
- 2 batches fit in the truck → cycle is perfect with the great production

QA/QC: - keep going with initial sampling program
- pile 15 might be wrong location → follow up with surveyors
-

AEM:

General Planning/Comments:

KCG: - WRSF access - modification on pipe to install a booster pump on the line
- pumping at NE dike

HFDI: continue with pouring CB in pile
- drilling casing & bedrock

QA/QC: - keep working on plan C, D with vacuum truck

QA/QC: QC on site on dike to approve depth

AEM: Daily report from QA-QC are required

Report By: Patrice Gagnon

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Sept 26th 2018

Time: 7h30

Presents:

AEM: PG - AH

HFDI: DH - CA - AZ

KCG: ML - ~~CT~~ - FT - DG - MW - LB

QA: Shift change

QC: MG

Health & Safety & Environment:

- Make sure all door are closed on site, wildlife around can get into buildings
- Snowy outside → slippery

Daily Advance:

KCG: - Modification on the 6" line → flanges added
- Start access at WRSF, prepare PAD for the truck on pad 8
- NE dike pumping

HFDi: - Continued ~~CB~~ pouring recent pile
- " drilling & rock

~~QA/QC~~: - problems with bentonite screws → fixed, water heater failed → fixed
- grout pump failure → hose blows

QC: UCS on 7 days around 400 kPa

AEM:

General Planning/Comments:

KCG: - work on booster pump
- Use truck garage build up → with HFDi
- Continue access to WRSF

HFDi: - Continue latching, drilling, rock socketing

~~QA/QC~~: - continue with alternate solution
-

QC: need survey up to 62

AEM: Meeting with Coupe - AEM - KCG & HFDi this afternoon

Report By: Patrice Gagnon

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Sept 27th 2018

Time: 7h30

Presents:

AEM: PG - SFB

HFDI: AZ - DH - CA

KCG: CT - DG - MW - FT

QA: AA

QC: MG

Health & Safety & Environment:

- Slippery watch where you walked
- Housekeeping in the agitator area and grout plant → working on it
  - light in the agitator

Daily Advance:

KCG: - digging old ramp to build the Vac truck garage
- WRSF access
- pumping NE dike

HFDI: Filling up piles, drilling casing, rock sockets
- Some paddle break → Fixed on one agitator.

~~QA/QC:~~ - Vac truck lifting cylinder broken → will be fixed today

QA-QC: Casing approved to 99 → filled to 95
pump not stopped when truck (Vac) is empty
will drill 1st pile in CO trench today

AEM:

General Planning/Comments:

KCG: - Garage Vac truck construction,
- WRSF finish access & start digging → install silt fence on ice ...

HFDI: continue drilling, casing, pouring
prepare for maintenance day tomorrow

QA/QC: - Core test in 24h poured pile
- approve depth on new piles,

AEM: - Better communication between HFDI → KCG needs to be put in place - maintenance, fueling

Report By: Patrice Gagnon

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Sept 28th 2018

Time: 7h30

Presents:

AEM: PG - JFB

HFDI: DH - AZ

KCG: OP - CG - MW - FT - ZB - ML

QA: YJ - AA

QC: MAB - MG

Health & Safety & Environment:

- Drive around offices → slippery and reactivity with road surveyors
- Slippery on job site → wear proper PPE - spikes
- Drilling sequence changed to allow more space between drills

Daily Advance:

KCG:
- Access WRSF
- Pad for Vac truck & garage → Vac truck modif: all parts ordered
- Sand stockpile for site road maintenance

HFDI: drilling & pouring pile
reorganized sequencing on job site → identification of pile,

~~QA/QC:~~ Maintenance set-up for today

QC/QA: 65 piles Filled ; 68 approved to bedrock, 75 casings installed, 6.5% completed
Approval forms to be sent today

AEM:

General Planning/Comments:

KCG:
- Vac truck garage with seacan
- WRSF excavation start
- Modif to vac trucks - 4" discharge

HFDI:
- Maintenance on grout plant, drill

~~QA/QC~~
- Garage build up
- crew change
- need more lights on dike

QA-QC: Core test discussions

AEM:
- Monday we will decide the frequency of sampling
- Cold cement powder

Report By: Patrice Gagnon

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Sept 24th 2018

Time: 7h30

Presents:

AEM: PG - JFB

HFDI: Az - Sam

KCG: DP - CG - LB - MW - ML - FT

QA: AA

QC: MOB - MG

Health & Safety & Environment:

- New workers → adapt to new area
- Near miss with one of the diver
- New berm around camp is not well identified
- Wildlife procedure → fox around do not feed them

Daily Advance:

KCG: - VRSF nothing done
- Voc truck garage, modif to voc trucks
- Pumping NE dike

HFDi: - Crew change - maintenance on lots of equipements
- poured 4 piles, drilled

QA/QC: - 2 vane tests - 15hr → 65 kPa at 6" depth / 7hr → intact set
- bucket used by QC is taken by KCG personnel
- do not forget to fill the very end of the trench on West abutment
- 153 pile was redrilled = 71 completed, 74 approved

AEM: - rock socket need to be 1m → reference problem in drill → will be fixed

General Planning/Comments:

KCG: - VRSF: excavation start
- Voc truck garage + modif + testing on truck

HFDi: - continue drilling, casing, pouring
- new crew on site

~~QA/QC~~ - fix the broken drill;

QA/QC: try another vane on 12 hrs cured

AEM: - Build a trailer with PAT set up to bring pump - genset - on dike

Report By: Patrice Gagnon

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Sept 30th 2018

Time: 7h30

Presents:

AEM: PC - JFB

HFDI: AZ, SAM

KCG: CC - DP - FT - ML - MW -

QA: AA

QC: MG

Health & Safety & Environment:

- Respect speed limit and adapt your driving to changing conditions
- Bus only have 1 headlight
- Respect the 12 hr shifts as per Mine Act
- Make sure to have enough plywood to cover the holes (except pile)

Daily Advance:

KCG: WRSF excavation key trench
- Vac truck garage building + modification completed

HFDi: drilled, poured at night, no batching at Days, BC 28 rotary fixed
Poured 6 pile,

QA/QC: Verne test on 12 hr pile → could go to 8m with excavator
- 305 casing moved after it was destroyed, change the survey to once it is completed with hammer
78 completed → 8.2% 84 piles approved

~~AEM~~: Usage of hot cement powder from now on
winterization of equipment SAM experience shared with HFDi

General Planning/Comments:

KCG: - Excavation WRSF continued
- Test on Vac truck today, continue with

HFDi: housekeeping on dike, BC 28, cement inventory on site, follow up on consumption
Continue with drilling, pouring, rock socket

QA/QC: Continue with approved

AEM: 3 weeks meeting at 3pm today

Report By: Patrice Gagnon

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Oct 1st 2018

Time: 7h30

Presents:

AEM: PG-SFB

HFDI: DH-SAM

KCG: LS-CG-ML-MW-FT-

QA: AA

QC: Crew change | at batch plant

Health & Safety & Environment:

- Be sure to use proper channel around site
- Make sure to do the preoperation inspection daily

Daily Advance:

KCG: - WRSF excavation
- Vac truck testing + garage
- Build ramp over pipe on South access, ramp to the vac truck garage

HFDI: - drilled casing, pouring CB, towards trench West
- 100 m^3 of CB poured yesterday
- BG dg fixed, new procedure put in place to add cement powder in the batch plant

QA/QC: - CB pouring issues with vac truck → resolved
99 piles approved, 88 completed 9%

AEM:

General Planning/Comments:

KCG: - Crew change today
- HFDI
- test with vac truck but continue with pump option

HFDI: Continue drill & pouring CB

QA/QC: weld braces on vac garage, assemble portable pumping unit

QA/QC: Continue approval of piles
- Ship samples South

AEM:

Report By: Patrice Gagnon

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Oct 2nd 2018

Time: 7h30

Presents:

AEM: PG-JFB HFDI: DH-SG

KCG: CG-FT-AB-MW-LB-ML

QA: AA

QC: MG

Health & Safety & Environment:

- Coactivity on dike → radios contact to make sure you are seen, eye contact
- 12hr per day → Mandatory as per Mine Act

Daily Advance:

KCG: Crew change, use truck garage, trailer modification to pour grout
Fixed water pump,

HFDI: drilling, pouring, rock sockets drilling, issues with drills → fixed
maintenance done on CD 80 pump
poured 24 piles

QA/QC: vane test with Skytrack 77 kPa on 14 Lr at 7.7m depth
112 pile completed → 11.4%; drilled through a tertiary during night → already poured #8

AEM: talked about tertiaries drilling

General Planning/Comments:

KCG: trailer modification continuation
- HFDi support

HFDI: Continue drilling, bedrock, casing, pouring
-

QA/QC: Continue approval, 2 days WCS to be done
pile 165 needs to be topped

AEM:

Report By: _____

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: 2018-10-03

Time: 7h30

Presents:

AEM: J-FB FB

KCG: AB - LB - CG - JG - ML - DP - FT - MT

QA: AA ~~AA~~

QC: MG

HFDI: DH ~~SE~~

Health & Safety & Environment:

- SLIPPERY CONDITION, WATCH WHERE YOU WALK
- WEAR PROPER PPE - CODE 1 AMQ ROAD PROCEDURE

Daily Advance:

KCG: ~~BATCH~~ BATCH PLAN + GROUT SUPPORT, WORK ON NEW POURING TRAILERS EMPTY REJECT POUND BATH PLANT

HFDI: DRILL + POUR PILE, CLEAN CD 80 PUMP, WELDING ON TRAILER

QA/QC: TEST ON 217 160 KPA 24H, SENT SAMPLE TO SOUTH LAB
↳ TEST WITH VACUUM TRUCK PILE

AEM: APPROVED 10/DAY + 10/DAY POURS 5/DAY + 3/NIGHT 13% COMPLETED
PILE 104 + 121 NEED TO DRILLE DEEPER, 7 M OK NOW
PILE 12+16 REMOVED CASING BH AFTER POURING TO AVOID ANY PROBLEM WE WILL WRITE POURING HOUR.

General Planning/Comments:

KCG: - START QC PRODUCTION PROGRAM
SUPPORT POURING CB, TRAILER MODIFICATION,
MOVED SEA-CAN INSULATED ON DIKE

HFDI: STARTED NEW SET-UP FOR PUMP, TO BE MOVED WITH ZOOM BOOM
DRILL POURING

QA/QC: - APPROVAL PILE, SURVEY WILL INCLUDED QA IN THE PILE LIST DISTRIBUTION
- FIXED LAB.

AEM:

Report By: J.F BELAND

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 10/4/2018

Time: 7h30

Presents:

AEM: OJ, FB

KCG: MG, JG, FT, AB, ML, DP **HDFI : DH**

QA: AA

QC: MG

Health & Safety & Environment:

1 Worker was on the heavy equipment parking. He climbed up the excavator to turn it on and while he was climbing down the worker missed the step (the one on the track frame).

The worker fell from the equipment and hit his left elbow on the top of the excavator track.

2 AEM Env. Department came on-site and advise us that we need to move the CB waste pound from the south to the north of dike because of a potential risk of contaminating the env.

KCG worked on that last night and it should be completed tonight to be ready to use tomorrow. HDFI will advise his personnel of the new procedure to manage the CB waste.

Daily Advance:

KCG:

Continue working on the trailer

Henry Drilling support

WRSF excavation

Winterization plan for the batch plant and all the equipment on the dike was sent this morning.

HENRY DRILLING :

19 piles grouted, 22 rock hammer approved

Work on the pump skid

A tour was done yesterday with KCG and HDFI to see what needs to be protected from the cold and blizzard in winter condition on the cranes.

QA/QC :

3 UCS done yesterday, approx. 400 kPa after 8 days. Results are good.

QA advise HDFI they have 6 piles approved and ready to pour today. Weekly report was sent to AEM yesterday also.

General Planning/Comments:

KCG:

Continue working on the trailer

Install the roof on the seacan shelter. KCG will need a crane for that. AEM to look with construction.

CB mix pound to be finished tonight. Esker materials from esker 6 and installation of geotextile.

Move slurry pipes on the crest of the dike away from the cranes.

KCG raises the flag that we are using way more cement and bentonite than expected. (60% more). Investigate the reason and try to find solution. (lower cement ratio)

HENRY DRILLING :

Drill and pour piles. Production of yesterday was really good and HDFI wants to keep it that way.

Work on a daily report revision to make it easier and quicker to fill it and send it daily.

QA/QC :

2 more samples (one on DS and one on NS) and send down south to compare the results witht the ones we have here on-site.

QA will send the weekly report for all the other infrastructure (North-East Dike and WRSF dike) probably today.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 10/5/2018

Time: 7h30

Presents:

AEM: OJ, FB

KCG: JG, AB, MG, ML, DP, LB **HDFI : DH**

QA: AA

QC: MG

Health & Safety & Environment:

1 Worker injured before yesterday was sent home yesterday to do xray of his elbow. Xray operator at MBK isn't on-site. Clinic didn't take any chance and send him home.

2 CB mix pound is completed

3 Nothing to report

Daily Advance:

KCG:

Vacuum truck seacan shelter on-going

Henry Drilling support, move the pipes on the dike crest out of the dike (half of it removed)

WRSF excavation

Cement overrun issue to be assess as soon as possible. HDFI sent a proposition yesterday to use their core barel and insert the casing in the roc instead of on the roc.

HENRY DRILLING :

19 piles grouted, 19 rock hammer approved

Batch plant ran out of cement at 3h00AM. Pouring activities are shutdown until reception of cement.

QA/QC :

1 UCS done yesterday on sample #31, 3 days of curing 178kPa

AEM :

General Planning/Comments:

KCG:

Isolation waterplant

Installation seacan roof on top of the vacuum seacan shelter

Clean-up and maintenance on equipment around and on the batch plant while we don't any CB mix.

WRSF overburden excavation

HENRY DRILLING :

Drill and pour piles.

Clean-up and maintenance on equipment around and on the batch plant while we don't any CB mix.

Finish the skid with the pump

QA/QC :

A bunch of UCS teste will be done this morning until the batch plant is back in fonction during the day.

AEM :

2 trailer coming from Baker Lake with cement seacans and 2 trailer (AEM & SANA) from Vault transit to AMQ. We should receive a minimum of 8 cement seacans today.

The 80T. Will be available all day for us for the cement seacans and to install the seacan roof.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: 10/6/2018

Time: 7h30

Presents:

AEM: OJ, FB

KCG: AB, DP, LB, MG, JG, ML **HDFI : DH**

QA: AA

QC: MG

Health & Safety & Environment:

1 Nothing to Report

2 KCG H&S rep. did a reminder that it is mandatory to park the pick-up truck backward at all time.

3 Modification on the dike excavator who is responsible to install and remove the tremi pipe in the pile is done. It is safer now for worker around the excavator during this operation.

Daily Advance:

KCG:

Vacuum truck shelter on-going. Installation of the roof (3 seacans)

Henry Drilling support. Site clean-up around the batch plant and equipment. Transportation of cement seacans with KCG flat bed from Vault transit to Pad Q

WRSF excavation. Excavator hit some roc around the middle of the dike.

Winterization plan for the batch plant and all the equipment on the dike was sent this morning.

HENRY DRILLING :

8 piles grouted, 15 rock hammer approved

Work on the pump skid

Run the test with the core barrel on 2 piles. Results seems concluant and can be a good solution to lower the CB mix consumption. Waiting for final results before changing the method.

Batch of grout froze in the batch plant at 22h15. Dismantle, clean-up and reassemble of the cement plant. Batch Plant op. didn't see the alarm of an old batch.

QA/QC :

A bunch of UCS test was done during night shift while the batch plant was down. Results will follow.

Esker sector is done. It was really a minor sector with esker.

General Planning/Comments:

KCG:

Continue vacuum shelter.

Transportation of cement seacan from Vault to AMQ

WRSF Overburden excavation

Henry Drilling support to have the batch plant working again

HENRY DRILLING :

Drilling operation are stopped until piles are poured. Once a couple of piles are poured, HDFI will complete the pile test with core barrel

Batch Plant should be running again this morning if everything goes well.

QA/QC :

QA advise HDFI that pile #231 will need to be redrill because of the batch plant shut down. Pile was half poured.

QA ask if it possible to have visual of wich piles need to be top off. HDFI propose to use candles.

AEM :

AEM advise KCG they should receive 15 seacans of cement today.

A barge coming from Rankin Inlet will bring 35 seacans of cement HE in case we run out of cement with the actual overrun observed.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 10/7/2018

Time: 7h30

Presents:

AEM: OJ

KCG: AB, LB, MG, JG, ML **HDFI : DH**

QA: AA

QC: MG

Health & Safety & Environment:

1 Nothing to Report

2 Amaruq road is closed for the moment. Should be reopen during the day if weather permits it.

3 Blizzard procedure is ready to be presented to workers. H&S KCG rep. will do it at the start of the shift tonight and tomorrow morning.

Daily Advance:

KCG:

1 Vacuum truck shelter on-going and pump trailer on-going also.

2 Henry Drilling support. Transportation of cement seacans with KCG flat bed from Vault transit to Pad Q

3 WRSF Overburden excavation

4 Work on the Sana garage, backfill and leveling inside the garage.

HENRY DRILLING :

1 12 piles grouted, 2 rock hammer approved

2 HDFI advise they saw a diminution with the CB mix overrun. It was at 27% yesterday.

3 Batch plant is running now but the cement plant is batching manually. There is an issue on one of the load cell wich is sending a code error to the computer. Specific gravity is good.

4 1 hrs lost time during night shift. CB mix stuck in the tremi and broke the hose in the pump.

QA/QC :

Night shift QC saw a difference in the specific gravity when they are taking CB mix at the bottom of the PAT and at the top. At the top it is higher around 1.28.

Piles are top off and pile #231 was redrilled to avoid a cold joint.

General Planning/Comments:

KCG:

1 Continue vacuum shelter. Insulation of pipes and pump set-up inside the seacan.

2 Transportation of cement seacan from Vault to AMQ

3 WRSF Overburden excavation should be completed by the end of day and switch on NE dike tomorrow.

4 Henry Drilling support

5 Work on the Sana garage, backfill and leveling inside the garage.

HENRY DRILLING :

1 Drilling and pouring piles

2 Repair the broken pump of last night. Run some test on the load cell (error code). Repair a small leak in the batch plant also.

QA/QC :

1 QC will do a vane test tonight. Pile # to be confirmed

2 QC sent all the sample results. QA will monitor the test piles #124 & 128.

AEM :

1 AEM advise KCG they should receive 15 seacans of cement today.

2 The mechanic for the CD80 pump was supposed to come on-site today from MBK but with the road closed. It is postponed tomorrow.

3 Electricians are here this morning to install an on/off switch on the pump trailer. Should be completed shortly.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 10/8/2018

Time: 7h30

Presents:

AEM: OJ

KCG: MG, JG, ML, DP **HDFI : DH**

QA: AA

QC:

Health & Safety & Environment:

1 Nothing to Report

2 Reminder to the workers to put the plywood sheet over the poured holes. KCG suggest to put candles and/or drilling cones on the plywood to make them more visible.

3 AEM ask HDFI to use proctection when welding at the HDFI shop. HDFI ask if we can put empty seacan to protect the welder from the wind. KCG will do it this morning.

Daily Advance:

KCG:

1 Vacuum truck shelter on-going and work to install a backup pump in the batch plant (back-up CD80)

2 Henry Drilling support. Reception of cement seacans from Vault transit and Baker Lake to Pad Q (AEM truck and Artic Fuel Truck)

3 WRSF Overburden excavation

4 Work on the Sana garage, backfill and leveling inside the garage.

HENRY DRILLING :

1 18 piles grouted, 17 rock hammer approved

2 Fixed the hoses on the pump (new hoses), Skid welding legs

3 Issue with a batch plant scale. The batch plant is settling with the weight, vibration and the heat. Probably have to reset the scale and level measure.

4 CB mix production was really good yesterday.

QA/QC :

QA advise they will not add the HDFI report in the drilling approval since they removed the drilling part into their report.

QC installed a thermocouple in the pile #142.

HDFI needed to redrill hole #122. The casing was still in the hole for 12hours. KCG will do a reminder to the vacuum operator to write down the time on the casing.

QC noticed the grout specific gravity was at 1.28 @ 1.29 last night. They were still on manual mode. HDFI will look about that to target 1.25.

General Planning/Comments:

KCG:

1 Continue vacuum shelter. Work on the set-up for the back-up CD80 pump with the AEM mechanic.

2 Work on a heated seacan for the worker on the dike.

3 WRSF Overburden excavation

4 Henry Drilling support, KCG ask if it is possible to ask to AEM to rotate the worker in the tent in a room. Tent to room, room to tent…

5 Work on the Sana garage

HENRY DRILLING :

1 Drilling and pouring piles, Work on the pump skid

2 BG30 have a broken cable or hose. Needs to be repair can take 20min as it could take 3 hours.

QA/QC :

1 QC crew change today. QA will act as QA/QC during this period.

2 QA will send to the results for the 2 remaining test piles with the core barrel method.

AEM :

1 AEM pump mechanic is here on-site to change the mechanical seal on the CD80 at the batch plant.

2 AEM will look with the construction dept. for the request about the genset uses at the batch plant.

3 Cement seacans today from Vault and Baker.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 10/9/2018

Time: 7h30

Presents:

AEM: OJ

KCG: DP, MAB, JG, MG **HDFI : DH**

QA: AA

QC: MC

Health & Safety & Environment:

1 Nothing to Report

2 AEM do a reminder of the smoking policy. It has been noticed workers were smoking inside the batch plant.

3 AEM ask to HDFI if we can remove the internet at the batch plant and only put it in case of an emergency. HDFI agree to proceed like this.

Daily Advance:

KCG:

1 Batch Plant PAT area set-up, Main CD80 pump mechanical seal was repair by the AEM mechanic. AEM ask to HDFI and KCG to only use the second CD80 as a back-up plan.

2 Henry Drilling support. Reception of cement seacans from Vault transit and Baker Lake to Pad Q (AEM truck and Artic Fuel Truck)

3 WRSF Overburden excavation

4 South access work to soften it and have access from the crest to the south access at the entrance of the dike.

HENRY DRILLING :

1 8 piles grouted, 10 rock hammer approved. Issue during day shift with CB mix setting really fast in the PAT. It was OK during night shift. It seems one of the discharge line was plugged and was creating heat wich could be the reason of the fast setting.

2 HDFI lower the cement % in the mix during NS to help with the fast setting. Specific gravity was around 1.24.

3 BG30 cable is repaired.

QA/QC :

QC do a reminder to KCG to write down the poured hour on the casing during Night shift.

Thermocouple reading - temperature was between 35 to 40 degre Celcius.

AEM :

AEM advise KCG, HDFI, QA and QC that camp manager agreed to limit the duration of the workers in the tent to 14 days. Change should be done quickly.

General Planning/Comments:

KCG:

1 Batch Plant PAT area set-up, Make a door into a seacan to have an easier access to the waste area.

2 Woodframe around the pump skid. Move the pump trailer on the dike and run some test.

3 WRSF overburden excavation

4 Henry Drilling support,

HENRY DRILLING :

1 Drilling and pouring piles, Work on the pump skid

QA/QC :

1 QA advise they will do the tertiary approval so they will not be impacted by the crew change tomorrow.

2 QA do a reminder that around station 0+500 in the frozen soil foundation that the socket should 2m instead of 1m. A memo by designer will be sent.

AEM :

1 AEM spoke with AEM electrician this morning concerning the genset set-up at the batch plant. The electrician will come and have a look today.

2 No reception of cement seacan from MBK nor Baker Lake annonced for the moment.

3

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 10/9/2018

Time: 7h30

Presents:

AEM: OJ, PEM

KCG: DG, PG, MG, SL, DP, JG **HDFI : DH**

QA:

QC: MC

Health & Safety & Environment:

1 Nothing to Report

2 KCG mechanic (Incident report 19557) have a fractured elbow. Worker will be on light duty at Saguenay.

Daily Advance:

KCG:

1 Work on the trailer pump,

2 Door access inside a seacan to have a quick access to the temporary CB waste pound right next to the batch plant (north side)

3 WRSF Overburden excavation

HENRY DRILLING :

1 16 piles grouted, 15 rock hammer approved.

2 Minor issue with a casing that fell in a pile yesterday while removing it.

QA/QC :

UCS test for tertiary piles approval. Results were between 400kPa to 500kPa after 2 to 5 days.

AEM :

AEM electrican went to the batch yesterday for the request of KCG to have a back-up plan for the genset inside the batch plant. The electrican needs to know the amperage at the BP.

HDFI said that the ampermeter is not working on the genset. The amperage should be around 100A.

General Planning/Comments:

KCG:

1 Wooden crate around the skid pump

2 WRSF overburden excavation should be completed today. Excavator will switch to NE dike to finish the overburden excavation.

3 Henry Drilling support,

4

HENRY DRILLING :

1 Drilling and pouring piles, Work on the pump skid

2 1 Drill will work on tertiary and the other drills on seconday and primary up ahead.

QA/QC :

1 QA crew change today.

2

AEM :

1 2 cement seacan coming from Vault today, should be there in 1 hour.

2 QC will do UCS test to have the latest results with the CB mix modification (lower % of cement in the mix) to see the impact for the tertiary. Cement % was dropped minus 100kg/batch before yesterday night.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: **10/12/2018**

Time: **7h30**

Presents:

AEM: OJ, PEM

KCG: SL, DG, JG, MG, **HFDI : DH**

QA: TA

QC: MC

Health & Safety & Environment:

1 Near Miss – During night shift, a worker fell into a pile that was poured . The worker was able to stop his fall with his arms before being complete submerge into the grout. High Potential event. A full investigation will be done by KCG. Corrective measures has already been put in-place and more is coming.

Worker needs to go at the clinic.

2 AEM do a reminder of the winter clothing policy for the plane. 2 workers of HFDI doesn't have winter clothes to go down south.

3 Hydraulic Oil Spill 5 liters - Hole in a rotary hose on the drill #1 BG30

4 AEM did a tour with the Env. Dept yesterday. Everything was to there satisfaction. Small leak at jonction of air hoses on the dike. They asked for the spec data sheet of the oil.

Daily Advance:

KCG:

1 Work on the skid pump at MBK. Needed to do a new one. The one made here at AMQ wasn't well fabricated.

2 Fix the floor around the batch plant

3 KCG brought all the old coverall back at the camp.

4 WRSF excavation, sloping. Surveyor went there yesterday and there is still excavation to be done to reach the good limits.

HENRY DRILLING :

1 12 piles grouted, 14 rock hammer approved.

2

QA/QC :

QC did the UCS on the new mix after 2 days. Results were good 260 kPa average.

QA had issue with the pouring team last night. Workers weren't cooperative with the instruction of the QA to do the toping. AEM advise QA when it happens to contact the KCG supervisor.

QA ask if it is possible to have a tag with pile # on it. It is really hard to do follow-up on the piles # currently. KCG to take action.

AEM :

AEM will ensure a minimum of 1 load of 2 cement seacan everyday. Dike supervisor spoke with the logistic team to make it clear.

Fork Hyster is ready for pick-up at Baker Lake. KCG tow haul is down. It will be done tomorrow.

General Planning/Comments:

KCG:

1 Work on the pump skid at MBK Sana garage

2 Clean-up around the batch plant, clean vacuum truck to be ready for insulating. Level up the cement batch.

3 Henry Drilling support,

4 Revised the work method/procedure with the corrective measure and do a full investigation concerning the near miss event.

5 Urethane foam (insulating) around the vacuum tomorrow.

6 WRSF excavation. KCG is waiting for the instruction of AEM for the foundation treatment.

HENRY DRILLING :

1 Drilling and pouring piles on night shift if possible

2 Crew change today. Batch Plant maintenance, greasing drills and general clean-up

QA/QC :

1 A 3rd QC is coming on-site today. Extra manpower to do 28 days UCS.

2 QA/QC will go and have a look at the WRSF foundation.

AEM :

1 AEM electrician to work on the gensets to have a back-up plan if the genset in the batch plant break. All day.

2 AEM will do the cargo prioritization form for HFDI crate at the Val d'Or CTMN

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: 10/13/2018

Time: 7h30

Presents:

AEM: OJ, PEM

KCG: DG, SL, JG, MAB, MG **HFDI : DH**

QA: TA

QC: MC

Health & Safety & Environment:

1 Near Miss – Declaration Form have been fill up and enter in the Intelex. Investigation is on-going. It needs to be sent today.

2 The revised method with the corrective measure was presented to workers at 18h00 to HFDI and KCG. Grouting activity are ok to restart on NS

3 AEM ask to KCG to revise to the Code 1 procedure with their supervisors.

4 AEM ask to HFDI for the data sheet of the drilling oil they are using for their drills.

Daily Advance:

KCG:

1 Level-up cement plant completed

2 Clean-up the vacuum truck. It is ready to be insulated with urethan today for winter condition.

3 General clean-up on the dike and around the batch plant. Install the corrective measure on the dike (wooden pallet, cones, candles, danger rubban, etc)

4 WRSF sloping

HENRY DRILLING :

1 4 piles grouted, 5 rock hammer approved.

2 Maintenance on the batch plant and the drills during day shift. Bit of casing installation during day shift. Move air lines on the dike crest.

3 Night Shift back in production, Failure on a pump last time that caused lost time. The hose wasn't properly drained and was plugged.

QA/QC :

1 The 3nd QC arrived yesterday. He will be doing the CB mix test in the batch plant. The other QC will do UCS test.

2 QA is working on the weekly report for WRSF dike for last week and on the SPW approval.

3 QA/QC went to WRSF dike to see the foundation.

AEM :

1 AEM electrician work on the genset connection yesterday. A bit of work to be completed today. We will need to plan a shut down to complete the work. AEM ask to Sana and HFDI when it will be the best. It is a 2 hours job.

General Planning/Comments:

KCG:

1 Start working on the pump skid at MBK Sana garage

2 New grouting crew today. Some training will be done to explain the procedure.

3 Henry Drilling support,

5 Urethane foam (insulating) around the vacuum truck.

6 WRSF excavation. Foundation treatment in the key trench. Try to remove as much as possible fracuted bedrock. 5m from the bottom slope on the upstream side.

HENRY DRILLING :

1 Drilling and pouring piles

2 New crew arrival on-site.

QA/QC :

1 UCS test all day and maybe a pin hole test.

2

AEM :

1 AEM Eng. Talked about doing some small batches in a bucket or else with a lower % of cement to minimize the cement consumption. KCG wants also to do a test with the cement HE to know the set time with an High Early cement. QC will look for that. The goal is to avoid any surprises when switching to cement HE if necessary.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **10/13/2018**

Time: **7h30**

Presents:

AEM: OJ, PEM

KCG: DG, SL, MAB, JG, PG, MG **HFDI : CA**

QA: TA

QC: MC

Health & Safety & Environment:

1 Nothing to report

2 The invesgation for the near miss event is completed and will be in Intelex this morning.

3 There is a traning for Fall Arrest and Arial Work platform after the meeting.

4 Waste food management. A lot of foxes and ravens have been noticed around the batch plant and on the dike. HFDI ask to have a garbage can on the dike. KCG to take action.

5 Code 1 yesterday for the false fire alarm. AEM revised the evacuation procedure. AEM will send it to KCG and HFDI so they can present it to their workers.

Daily Advance:

KCG:

1 Vacuum clean-up done to be insulated. Switch the pump in the trailer, Failure on the pump.

2 KCG brought some better green flags to identify the pile # on the dike.

3 Road maintenance and snow removal

4 WRSF excavation and removal of fractured roc. +/- 5m from the US bottom slope in the key trench

HENRY DRILLING :

1 12 piles grouted, 9 rock hammer approved.

2 Minor issue on the BG30, it is repaired now.

QA/QC :

1 AEM did a maintenance on the Lab genset. It affected the number of UCS done. Results are good so far. Mechanic advise the QC that a protection around that genset will be required for winter.

2 CB mix sample yesterday for Cold cure. Also, QA asked QC during night to do a sample reproducing a cold joint situation. AEM ask QA to send an email when doing that of request.

3 QA ask for pH results of the water. Strips and Env. Tool is not working for some reason. Reading are all the same 13 or 5. AEM to check with the Env Dept if they can help us.

4 QA want to check the HFDI report with AEM and HFDI after the meeting. Some issue were noticed in the report of yesterday.

AEM :

1 AEM asked to KCG to remove the south waste pound and bring the waste to the WRSF waste dump. KCG to take action.

2 KCG brought a seacan hyster last night to ease the unloading of cement seacan.

General Planning/Comments:

KCG:

1 Vacuum insulation is on-going. Will be completed today.

2 Road and access maintenance, snow removal

3 Henry Drilling support,

4 WRSF dike, backhoe removed as much as possible the fractured roc. Waiting for a rock hammer from AEM. Switch to NE dike to complete the overburden excavation. (100T. = HTR14)

HENRY DRILLING :

1 Drilling and pouring piles

2 A near miss happened last night with a cable on the drill. Cable got stuck in the rotary portion and broke. HFDI will do a near-miss report that will be put in Intelex after.

QA/QC :

1 UCS again today. There is 39 molds ready to be shipped down south. Samples to go to the warehouse today to go in the bus going to MBK.

2 New CB mix test receipe to target 1.21. HFDI proposed to go with more aggressive mix like 42% cement and 58% water. AEM will check with QA.

AEM :

1 Weekling meeting at 14h00 this afternoon.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **10/15/2018**

Time: **7h30**

Presents:

AEM: OJ, PEM

KCG: MAB, PG, DG, SL, JG **HFDI : CA, DH**

QA: TA

QC: MC

Health & Safety & Environment:

1 Near Miss – The service line of the drill (in stored position) was hooked on rotary and broke causing it to whip. No workers were in the area. Drill Operator was in the cab during the event.

2 KCG ask to AEM if it possible to order Ty-Vek suit L-XL, 2 boxes of each if possible. AEM will do the order today.

3 Icy Condition - Reminder to wear to proper PPE if more cleats is needed AEM can order some from MBK. KCG will receive some shortly.

4

Daily Advance:

KCG:

1 Vacuum Insulation completed.

2 3 hrs at WRSF Dike for rock treatment, Operator switch for Earthwork and went to Quarry 2

3 Road maintenance and snow removal

4 Switch from vacuum trailer to Vacuum truck during night shift

HENRY DRILLING :

1 10 piles grouted, 12 rock hammer approved.

2 Normal production, general tools maintenance (core barrel)

QA/QC :

1 QA looked for all the batching process with time cycle. UCS test, and rock socket approval

2 Real Rock Depth vs theorical Rock depth discussion. An email was sent yesterday by AEM to clarify the process with QC, QA, KCG surveyor and HFDI driller.

3 QC said that NS and DS doesn't proceed the same way for rock depth procedure. AEM wants to do a meeting at 18h00 with DS and NS to clarify the proper process.

3 HFDI ask if it possible to reset the target for rock depth for tertiary by taking the rock depth elevation from the secondary and the primary. Take the deepest one.

4 Mud balance during night was at 1.21. Marsh was at 40sec. Instead of 50 sec. It was noticed during night contaminated water with CB mix was coming out of the pile instead of clear water.

The decision was taken to put half of the quantity of Arbo and it seems it has solved the problem. Will keep the same receipe for day shift.

5 39 molds were given to the warehouse to go on the plane today.

AEM :

1 Env. Dept. will be at the batch plant at 11h00 to take pH reading on the water. It may be possible to have more accurate data with their equipment.

2 Env. Dept will do an inspection of the general waste seacan to see if they can be shipped to Meadowbank at the landfield.

General Planning/Comments*:*

KCG:

1 Work on the worker seacan. Install bench and hook.

2 Skid is almost ready at Meadowbank.

3 Henry Drilling support,

4 Sana moved the 345 with the rock hammer from MBK to AMQ for WRSF foundation treatment. On-going tomorrow crew change shovel operator.

HENRY DRILLING :

1 Drilling and pouring piles

2 Swap rock hammer. Yard clean-up

3 HFDI is looking for option to upgrade the pourring delivery. Extra manpower after the dark zone to go with the vacuum truck and vacuum trailer at the same time. To be evaluated if necess.

QA/QC :

1 QA ask for a meeting concerning the WRSF foundation.

2 AEM asked to QA to elaborate a new CB mix receipe to target 1.21 specific gravity. QA to check with the designer.

3 QC crew change today. Field + Batch (no lab today)

AEM :

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **10/16/2018**

Time: **7h30**

Presents:

AEM: OJ,

KCG: JAC, MAB, MG, SL, DG, JG **HFDI : DH, AZ**

QA: TA

QC: MC

Health & Safety & Environment:

1 Blast tonight at Quarry 2 at 18h00.

2 Incident report last night during night shift, a labor at the cement and bentonite loading area got injured to his hand by a handshovel that was hit by the zoom boom. Worker was sent to MBK to do an Xray. More details will come.

3 AEM installed a garbage wooden box at the batch plant seacan and smoke area. AEM ask to advise worker to use the proper garbage for food waste.

Daily Advance:

KCG:

1 Worker heated seacan is completed. It is on the dike.

2 Sana ask to HFDI to gather all the empty propane bottle so AEM can order new ones.

3 Sana ask to AEM if it is possible to have a 4ft level for HFDI. AEM to check with construction

4 Henry Drilling support, no activity on other dikes

HENRY DRILLING :

1 14 piles grouted, 17 rock hammer approved.

2 HFDI are working to optimize the batch plant production. Should be completed by the end of the week with a new program.

3 During night shift, when removing the casings in a poured hole. Casings slipped and fell in the grouted hole. They tried to retreive the casings but it was unsuccessful. Day shift to find a solu.

QA/QC :

1 HFDI noticed that there is an issue on Night shift on the way QC and surveyor with the rock depth measure. 3 piles needed to be redrill but HFDI are confident the good rock depth was reached. KCG surveyor seems to know where the issue come from when the measure taken from the lip and not the top of the casing. A meeting will be held at 18h00 to make sure everything is well understand.

2 QA asks if it still require from them to send a new CB mix receipe to target 1.21. AEM says YES. QA advise AEM that with a thinner mix the CB mix is more likely to go in the roc. HFDI says that we can play with the quantity of Arbo in the mix to make more thicker for the same specific gravity.

AEM :

1 Env Dept are coming to the toolbox meeting to do reminder of the Wildlife policy and the Waste management policy.

General Planning/Comments:

KCG:

1 Pump skid is on his way from MBK today. HFDI wants to have a look at it if some modification needs to be done.

2 Rock Hammer on WRSF foundation and clean-up.

3 HFDI support

4

HENRY DRILLING :

1 Drilling and pouring piles

2 HFDI will work on retreiving the casings that fell in pile 355

3

QA/QC :

1 QA nothing special

2 QC - Lab test today, pin hole test on sample #52 and UCS 28days.

3

AEM :

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **10/17/2018**

Time: **7h30**

Presents:

AEM: OJ, PG

KCG: PG, JAC, PG, MW, MAG, DG, CG **HFDI : CA**

QA: TA

QC: MC, JPL, MOB

Health & Safety & Environment:

1 Worker went to MBK to do an Xray of his hand. No fracture. He went back to his regular job last night at midnight.

2 KCG H&S Rep. went with a worker this morning. The worker feel a pain to his shoulder. It may be not work related. To be clarify

3 During day shift, a worker went to do an inspection on dike, he was around 200m far from his pick-up truck when a worker told him he wasn't wearing his hard hat. On his way back to his pick-up, he slipped and hit his head on the icy ground. Worker wasn't wearing neos and/or cleats.

AEM sent an email yesterday to advise everyone it is now mandatory wear anti-slip protection device as cleats, neos or equivalent.

4 Env Dept are done with the toolbox meeting with KCG and HFDI for the wildlife policy and waste management talk.

Daily Advance:

KCG:

1 Skid was received and it is now at the Sana AMQ shop. A worker is working to finalize it.

2 Fix some safety issue at the batch plant with the carpenter. Handrail, guards and a couple minor things.

3 Rock Hammer at WRSF dike foundation with BAC07 and clean-up

4 Sana worked on the SANA to burried the ground cable and the fuel tank pad.

HENRY DRILLING :

1 8 piles grouted, 13 rock hammer approved.

2 Casings were removed successfully during day shift using 2 excavators to dig around. The hole #355 was redrilled.

3 Batch Plan down at 21h30. Seems to be an computer/programming issue, no support yet from Vancouver available.

QA/QC :

1 An adjacent pile was dug on a small portion during the digging to retreive the casings. Possible cold joint, the pile may have to be redrilled.

2 QC, pin hole test on cold condition non-dispersive. UCS after 3 days in cold condition results was 29 kPa. Another UCS will be done on the same sample but in warm cond. to compare the results.

3 QA is concerned that some pile will need to be redrill because of possible cold joint due to the batch plant failure. Issue to be adress by QA and QC.

AEM :

General Planning/Comments:

KCG:

1 Road and access maintenance and snow removal

2 Skid pump - Install pump and genset on it, finish the frame around it

3 WRSF Dike - Rock Hammer and foundation clean-up, remove fractured rock

4

HENRY DRILLING :

1 Batch Plant troubleshooting

2 Change the rock hammer, move air lines, stretch the line to max so we will move only 1 time all the air compressor on the dike.

3 Drilling is well ahead right, will stop shortly if the batch plant doesn't work. Maintenance on the drills

4 Modification on the jaw for more clamping to avoid the casings issue of yesterday.

QA/QC :

1 The rock depth approval will be done using the QC data.

2 QA is working on the weekly report.

3 QA is concern about the last UCS result done in cold condition 29kPa < 50 kPa. May affect the tertiary approval. Field vane shear test will also be carried out on piles that are three days old for comparison.

AEM :

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 10/18/2018

Time: 7h30

Presents:

AEM: OJ, PG

KCG: CG, SL, JAC, MW, MAB **HFDI :** AZ, CA

QA: TA

QC: MC, MOB

Health & Safety & Environment:

1 First aid this morning - This morning at 6h00AM - A mechanic was getting out of the service truck, when he put his foot on the first step ladder, his foot slipped and he fell from about 5 feet height directly on his back. No head injury, worker was wearing his helmet. The report will be done later today as the worker is night shift.

2 QC said the floor in the geotech lab is getting icy and asked if it is possible to have some kind of a rubber mat install in there. KCG will look for it..

Daily Advance:

KCG:

1 Work on insulating the water line. Connection, elbow, etc.

2 Repair at the hot water seacan completed by the AEM pipefitters.

3 Build a fuel tank pond for the permanent fuel tank next to the SANA AMQ shop.

4 WRSF Dike - Rock Hammer on foundation and remove fractured rock.

5 Day shift crew on stand-by because of the batch plant

HENRY DRILLING :

1 3 piles grouted, 5 rock hammer approved.

2 Work on diagnos the batch plant, Batch Plant was up and running around 8:00PM last night. Production during night shift. The exact root cause of the failure is still not answered.

3 Reconfigure all the air lines, rebuild the rock hammer. Maintenance on the drills and compressor

4 Pump skid modification

QA/QC :

1 QC did a lot of UCS test yesterday. Results were good. UCS results on the cold cure mold was at 42 kPa after 4 days and the warm cure was at 129 kPa after 4 days for the same sample.

2 Possible cold joint in 5 piles. No punch was done before pouring. 24hrs between the initial pouring and second pouring. Decision was made by HFDI to let it as-is for the moment and wait for the result on the cold joint mold.

3 QA did a tertiary approval between 0+245 and 0+297. QA is holding tertiary approval because of the results in cold cure below 50 kPa that was made with the new mix we are using October 9th.QA doesn't have enough data to release the approval. Field shear vane test needs to be done to make sure it is good. QA ask to see to recent results in the thermistor to help out to establish if we are in cold cure condition or warm cure condition.

4 Weekly report was sent for last week.

AEM :

1 Env Dept are coming to the toolbox meeting to do reminder of the Wildlife policy and the Waste management policy.

General Planning/Comments:

KCG:

1 Work on the pump skid

2 WRSF dike - finished the rock hammer job and send the rock hammer with the excavator (BAC07) to MBK for the crusher shutdown.

3 North-East Dike - Overburden excavation, KCG will need to take a 100T. From the road.

HENRY DRILLING :

1 Drilling and pouring piles, Normal production

2 Finish rebuilding the rock hammer, support KCG with the pump skid

3 Still investigation for the exact root cause of the batch plant failure. HFDI thinks it is a glitch in the program. Amix is working on it right now.

QA/QC :

1 QC unmold the cold joint sample this morning and do a UCS test on it. (2-3 days old). One cold-joint mold was done with a 24 hrs delay between but QA scrap it. The mold that will test there is a 12 to 15hrs delay between the 2 pours.

2 Multiple field shear vane test will be done today.

3 QC will install a thermocouple on the side of pile at a maximum of 4" of the edge close as possible. Thermocouple will be placed in a short hole to have worst case reading of the least heat coming out of the CB mix reaction.

4 QA will go visit WRSF dike for the weekly report and have a look at the foundation.

AEM :

Report By: Olivier Jacques, Eng.

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **10/19/2018**

Time: **7h30**

Presents:

AEM: OJ, PG

KCG: CG, SL, JAC, MW, MAB **HFDI : AZ, CA**

QA: TA

QC: MC, MOB

Health & Safety & Environment:

1 Incident Report – Material Damage – Sana mechanic pick-up truck #1743 went off the road 13 in the pad H this morning at 5h45AM. The pick-up truck stopped his course into couple of boulders. Poor visibility and the flags installed yesterday weren't on the good side of the road.

2 The mechanician that fell on his back was alright and was back to work last night.

3 AEM advise KCG and HFDI to take the time with their workers to take 10 mins to talk about recent events and to talk about safety in their work space. Safety first.

Daily Advance:

KCG:

1 Work on the pump skid at the Sana AMQ shop.

2 BAC07 was sent back to MBK for the crusher shutdown. Job is not complete yet a WRSF dike so it will be require to have it back when possible.

3 North-East Dike - Overburden excavation, started PM hauling from NE dike to WRSF dump. 1x100T.

4 Henry drilling support

5

HENRY DRILLING :

1 9 piles grouted, 8 rock hammer approved.

2 Still some glitches to be adress by the Amix technician and HFDI technician about the issue with the Batch Plant.

3 Pile #393 yesterday was sinking/leaking a lot. A lot more CB went in the hole compare to the theorical. Something is going-on in the rock foundation in this area. The decision was taken to wait until the CB set and start back pouring after couple of hours. Sinking but less important was also noticed in pile # 401, 417 and 397. Reattemp 393 this morning.

4 Pump skid support, maintenance on drills

QA/QC :

1 QC did a shear vane test on pile #381 after 2 days old. Results are good more than 160 kPa in shear strenght.

2 QC tried to install a thermocouple in pile #246 at the start of night. It was unsuccessful mix was to liquid. Will try again today in a different pile.

3 UCS test, 28 days and more. Results are good between 700 to 850 kPa.

4 QA worked on the daily report for WRSF dike and North-East Dike.

AEM :

1 Management Meeting at the cafeteria today. Lunch time is between 11h00 to 12h00 and 13h to 14h. Tonight, open 16h to 17h and 18h to 19h.

General Planning/Comments:

KCG:

1 Work on the pump skid. Should be finish today.

2 North-East Dike - Overburden excavation, 1 x 100T. HTR07

3 Road and access maintenance with the recent snow accumulation.

4 KCG wants to look with HFDI concerning some questionning about the winterization of the batching process.

5 One of the hot water tank #5 is down. To be evaluted if it is problematic.

6 KCG will work on a plan B, C… concerning the sinking piles to see what option we have if the piles keep sinking like noticed.

HENRY DRILLING :

1 Drilling and pouring piles, Normal production

2 Plug the problematic zone between 0+390 and 0+420.

3 HFDI received a verbal approval for some tertiary by the QA.

4 Help on finish the pump skid, HFDI will need an electrican to connect the genset to the pumps.

QA/QC :

1 UCS test 2-3 days, 7 days.

2 QC will install the thermocouple in pile #254, if not possible in pile #239.

3 QA and QC will keep an eye on the sinking/leaking piles.

4 QA wants do viscosity test to see the setting time. Do Marsh Funnel reading every 30min.

AEM :

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 10/20/2018

Time: 7h30

Presents:

AEM: OJ, PG

KCG: MA, MW, PG, CG, FT, SL, JAC **HFDI :** AZ, CA

QA: TA

QC: MOB

Health & Safety & Environment:

1 Blast tonight Quarry 1 at 19h00, Muster station at the Core shack. AEM will need the name of your night shift workers for the head count.

Nothing to report

2 SANA crew were met this morning to review the latest incident. HFDI tomorrow.

Daily Advance:

KCG:

1 Work on the pump skid at the Sana AMQ shop on day and night shift.

2 Road and access maintenance

3 Clean-up during the batch plant was down.

4 Insulate waterline pipe jonction between pumping station and water heating seacan.

5 North-East Dike - Overburden Excavation

6 New procedure for the leaking holes was a success. It may be reproduce if other leaking pile are encounter.

HENRY DRILLING :

1 9 piles grouted, 9 rock hammer approved. Plug the problematic leaking piles succesfully.

2 Batch plant was down around 13h30 yesterday. A seal blow up in the bentonite plant, completely destroy. Rebuild it around 20h00. During the shut down, frozen water in the water

line between the hot water seacan and the dome. CB mix production back and running at midnight.

3 HFDI do a reminder to KCG that it is really important to make sure to clean everything when operation are stopped.

4 Pump skid support, maintenance on drills

5 Early in the morning yesterday, a chunk of bag was found into the bentonite plant and it get stuck in a butterfly valve. Wasted a full batch of bentonite. HFDI to a reminder to KCG

it is really important that workers advise as quick as possible in case something fall during the loading process.

QA/QC :

1 QC did pin hole test in the hole and UCS test. Results were good.

2 QA completed the viscosity test. Results were sent to the designer.

AEM :

1

General Planning/Comments:

KCG:

1 Insulated the pump skid with styrofoam inside

2 Fix the heating water seacan. Heat trace is no good for use anymore.

3 Complete North-East overburden excavation and than switch to esker 6 to be able to haul some loads of sand for road maintenance.

6

HENRY DRILLING :

1 Drilling and pouring piles, Normal production

2 Help QC to install the thermocouple in pile #254

3 Help KCG with the skid pump

4 HFDI ask if it possible to install a better sucks hose (trompe de frostfighter) to avoid the water line to freeze again.

QA/QC :

1 QC install thermocouple this morning.

2 QA/QC will work on the new mix design test and on the mix with cement HE instead of GU.

3 QA said due to the batch plant shut down there was a delay of 30hrs between pouring and the top-up (1.55m). 393 has 18hrs to top-up 1.55m and 397 has 17hrs to top-up 1.9m

4

AEM :

Report By: Olivier Jacques, Eng.

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 10/21/2018

Time: 7h30

Presents:

AEM: OJ, PG

KCG: CG, MAB, SL, JAC, PG, MW, FT **HFDI :** AZ, CA

QA: TA

QC: MC, MOB, JPL

Health & Safety & Environment:

1 HFDI crew was met this morning to talk about the recent incident that happened. Sana night crew was also met yesterday at the start of the shift.

2 Sana is doing a JHA to put a dozer on the tow haul using another equipment.

3 Nothing to report

Daily Advance:

KCG:

1 Work on the pump skid yesterday

2 Road and access maintenance

3 Clean-up during the batch plant was down on night shift

4 Do a trench last night to bring the bentonite washing waste to the loading pond next to the batch plant. Done

5 North-East Dike - Overburden Excavation

HENRY DRILLING :

1 6 piles grouted, 6 rock hammer approved. Decent production during day shift 7 loads of CB (77m3)

2 Had a compressor issue at the start of night shift a little of lost time. Did one batch and than the glitch in the programmation came back. Calibration issue on one of the load cell that doesn't allow the batch plant to batch. Drills are stopped now, no more casing to continue. 2 piles to rock hammer left.

3 Reception of the 2 palettes with HFDI materials.

4 Pick-up truck that went off the road was brought to the Sana AMQ shop for it repair. It is now up and running.

5 Installation the insulation sheet into the pump skids yesterday.

6 There was confusion last night concerning the tertiary drilling depth. HFDI ask for a meeting after this one to address the issue with QC/KCG surveyor/HFDI. More details to come.

QA/QC :

1 Thermocouple installation completed in pile #254. Lowest reading was 14oC (moyen per depth) after 4 hours and 29oC after 24hours. Lowest reading was 13oC at 1m depth Highest was 34.4oC after 24hours at 7m depth. 4 thermocouple (1m, 3m, 5m and 7m).

2 AEM ask to QC to do graphics with degres per time and per depth.

3 QA advise that pile 363 and 375 need to be redrill and may have cold joint issue with pile #371 and 367.

AEM :

1

General Planning/Comments:

KCG:

1 Work on Sana AMQ Garage. Fuel tank pond

2 Removal of the south CB waste pond after North-East Dike excavation

3 North-East Dike overburden excavation completed

6 Clean-up on the dike crest before everything gets cover by snow during down time with the batch plant

7 KCG have their IT technician on-site. Currently working to have a new portable computer working with Windows 7.

HENRY DRILLING :

1 Find a temporary and permanent solution to the batch plant issue

2 Maintenance on the drills.

3 Work on the pump skid, finish rock hammer, Material reception check if we have everything for the BG28 so it can be more versatile.

4 AEM ask if HFDI have any news concerning the part coming from Germany. HFDI to look.

QA/QC :

1 QC is preparing for the crew change tomorrow.

2 QC will continue to take reading on the thermocouples.

3 QA is working to release a lot of tertiary approval forms

4

AEM :

Report By: Olivier Jacques, Eng.

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Oct 22nd 2018

Time: 7h30

Presents:

AEM: PG-DJ

HFDI: CA-AZ

KCG: CG-FT-SL-JAC-MA

QA: TA

QC: MOB-JPL

Health & Safety & Environment:

- Nothing to report

—

Daily Advance:

KCG: Clean-up on WTD
- Pond excavation slurry, reinstall heat trace at batch plant
- Finish excavation NE dike; heater reason troubleshooting
- Pump skid insulated

HFDI: - Troubleshooting batch plant
- Maintenance on rigs, hoist line
- Install remaining casing

QA/QC: UCS test & thermocouple reading
NE dike, tertiary approval sent; Pile 314 & 318 needs to be redrilled

AEM:
Electrician on site

General Planning/Comments:

KCG: Perform hammer on WRSF & NE dike
- Rack of propane
- Pump skid

HFDI: Continue diagnosis plant
Service Compressors

QA/QC: Working on approval forms pending, UCS tests,
HE program testing

AEM: Electrician on site to plug the pump in the skid

Report By: _____

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Oct 23rd 2018

Time: 7h30

Presents:

AEM: PG

HFDI: CA-AZ

KCG: CG-FT-JAC-MW-LB-DP-MAB

QA: TA

QC: MG-MOB-JPL

Health & Safety & Environment:

- Review incidents of last days with crews
- Snow & ice management on site by E&I to prevent falls around building

Daily Advance:

KCG: pump skid insulation
- water vescan insulation, brought heater on ice surface
- worked on plan B → injection unit
- blizzard procedure reviewed

HFDI: - Continue diagnosis with programmer
- bentonite plant improvement

QA/QC: - Thermocouple readings
- Approval forms on technicien dent

AEM:

General Planning/Comments:

KCG: - build garage for frost fighters
- injection unit on the way for plan B
- electric component on the skid

HFDI: - Compressor valve at batch plant
- welding machine at Meadow → follow up
- try to have electricians on site

QA/QC: - Continue UCS lab test, readings thermocouple
- UCS test punching because of the cup size → not really according to ASTM (QA)

AEM: - permeability test at lab
- pH needs to be taken
- Chemical analysis Water

Report By: _____

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Oct 24th 2018

Time: 7h30

Presents:

AEM: PG

HFDI: CA - AZ

KCG: CG - FT - MAB - OP - LB - MW

QA: Shift change

QC: MG - MOB - JPL

Health & Safety & Environment:

- IT announcement on shut down
- Mill incident review, supervision formula philosophy, important to declare all incident

Daily Advance:

KCG: - Frost fighter & genset shack + garage
- install injection unit beside grout plant
- insulation of 14" water pipe
- support HFDI, fixed heater #5

HFDI: - grout plan diagnosis, clean-up & maintenance
- batched cement (test)

QA/QC: UCS tests & thermocouple readings → going down
test with plates (thinner)

AEM:

Samples of till in Quarry 2

General Planning/Comments:

KCG: - frost fighter garage build-up
- continue with injection unit set-up

HFDI: - continue diagnosis of plants
- injection unit set-up
-

QA/QC: - UCS test in lab, gradation on till material from Quarry 2

AEM: Thermofoil

Report By: _____

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Oct 25th 2018

Time: 7h30

Presents:

AEM: PG - SFB

HFDI: CA - AZ

KCG: LB - CG - DP - JAC - MAB - MW

QA: AA

QC: MG - MOB - JPL

Health & Safety & Environment:

- Blast 6h pm – Quarry 2 → No evacuation required
- Civility training
- New working area in the injection unit, tight area

Daily Advance:

KCG: - Injection unit set-up and test, batched cement → 7min batch → 4 Q/min → 1 PAT with / unit
- Insulation of water pipe
-

HFDI: - Modification trying to reduce vibration at cement
- More test on plants
- Mechanical seal on Mix plant broken due to a bent shaft

QA/QC: - Thermocouple reading
- Temperature of water at plant is 0.4°C → heater shut off

AEM: - UCS tests

General Planning/Comments:

KCG: - Injection unit batching this afternoon
- Setup of cement transfer season
- Work on drain system for water pump in lake

HFDI: - Work on injection unit solution, optimization for both systems (units)
- Moving compressors to reconfiguration on dike → need a pad

QA/QC: - UCS testing + Till gradation from Quarry 2

AEM: - Check manpower for SANA place in camp

Report By: _____

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Oct 26th 2018

Time: 7h30

Presents:

AEM: PG - JFB

HFDI: AZ - CA

KCG: CG - DP - FT - MAB - JAC

QA: AA

QC: MOB - MG

Health & Safety & Environment:

- Muscle Spasm
- High wind, Snow drifts
- MBK: employee burn his hand with coffee pot

Daily Advance:

KCG: - Injection unit set-up, Cement management with buckets
- built accesses between unit for cement
- built a "T" to drain water line

HFDI: - Modification to injection unit to bring grout to PAT
- Vibration improvement
- Move compressor closer to job

QA/QC: - Pile 318 clarification
- Gradation till, UCS → worked on graph

AEM: * Plates or without plate on UCS does not change results *

General Planning/Comments:

KCG: - Injection unit set-up, Start injection tonight
- Make sure everyone is on the same page for procedure to operate injection unit

HFDI: - Finishing vibration dampening
- Run hose to bring grout to PAT
- Maintenance on different parts

* Parts coming with Don did not follow on commercial flight, Stuck in Uca *

QA/QC: - As-built required for last piles
- 38 piles are not according to deviation tolerences

AEM:

Report By: _____

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Oct 27th 2018

Time: 7h30

Presents:

AEM: PG - JFB

HFDI: CA, AZ

KCG: CG - DP - MW - MAB - JAC - LB

QA: AA

QC: MG -

Health & Safety & Environment:

- Drive according to road conditions
- Weather forecast freezing rain
- Blast on road km 50

Daily Advance:

KCG: - Access excavation at injection units, built - shelter for cement
- batched 9 trucks with injection unit → 45 minutes per PAT

HFDI: - Crew change → maintenance, electrical modif on genset
- Connection inj unit to PAT
- Fixed grout plant after midnight → 4 voc trucks

QA/QC: poured 6 piles, 2 are taking cement
UCS on 1 sample, QA checked the bedrock depth with HFDI

AEM:

General Planning/Comments:

KCG: - Modification on loading cement bucket
- pipe insulation
- WRSF rock hammer

HFDI: - Continue with secant pile production
- Electrical modification on panel

QA/QC: QC of secant pile, 318 rock hammered 30 cm more
371 & 367 need to be redrilled to 2.5m for cold joint

AEM:

Report By: _____

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Oct 28th 2018

Time: 7h30

Presents:

AEM: PG - JFB

HFDI: AZ-CA

KCG: DP - CG - LB - MW - LPC - FT - MAB - JAC

QA: DA

QC: MOB - MG

Health & Safety & Environment:

- Freezing rain accessing KCG trailer → slippery
-

Daily Advance:

KCG: - bucket loading for injection unit
- built a small fence to protect the freshly poured pile → following incident report
-

HFDI: - Continue secant pile
- leaving blown on 06-28 → fixed
- 15 trucks poured

QA/QC: - 3 piles were not drilled to proper depth
- 13 piles poured, as-built of secant problems noticed

AEM: - tremie not put to the bottom of hole
- top-ups done, UCS tests done

General Planning/Comments:

KCG: - bucket loading modif on both inj. unit
- insulation pipe
- WASF hammer to knock bedrock

HFDI: - Continue production secant pile
- get the skid to service
-

QA/QC: - HE testing preparations, Approval send to 377,

AEM: install lighting and heater in the skid, mechanic to service the CD-80 pump

Report By: _____

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Oct 24th 2018

Time: 7h30

Presents:

AEM: PG-JFB HFDI: CA-AZ

KCG: LB-CG-DP-MW-LPC-FT

QA: AA

QC: MG – Crew change

Health & Safety & Environment:

- Review of incident where worker stepped in pile, all workers days and nights were not
  * not walk on wood pallet, install the fence on top of pallet
  * put pallet right away on any poured hole → full secant or topped with 5cm of grout
  * 1 person is responsible to do that job = HFDI when drilling → KCG when pouring

Daily Advance:

KCG: – injection unit set up (grid)
– hole protection fence built up
– WRSF rock hammer → hammer back to MRK

HFDI: – Continue secant piles production
– grout plant issue (1.5h) → fixed
– finish pump skid

QA/QC: – survey modification in field is not good AGAIN, wrong markings, wrong flag colors
– HE mix preparation for testing Tuesday

~~AEM:~~ 3 piles were redrilled and poured →
– 14 piles poured → 367 total ; sampling for QC, 1 per shift, UCS 1 per 3 shift

General Planning/Comments:

KCG: – Continue inj. unit #2 set up
– build more guards (fence)
– training of a new batcher on inj. unit

HFDI: – Continue with secant pile production
– set up of inj unit

QA/QC: – Crew change, sample bentonite at batch plant

AEM:

Report By: _____

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: Oct 30th 2018

Time: 7h30

Flags: Orange = Pile numbering +
green = ready to pour
red = " to lock hammer
blue = " to inspect

AGNICO EAGLE
MEADOWBANK

Presents:

AEM: PG-JFB HFDI: CA-AZ

KCG: DP-CG-LB-MW-MT-FT-LPC

QA: AA

QC: MG

Health & Safety & Environment:

- Always have good eye contact with operators
- Nemo lake pellet burning today at 3pm

Daily Advance:

KCG: - Crew change, received cement
- build safety guards to protect holes (40)
- reviewed surveying protocol / piles → everything should be fine
- change heater set up for water (9°C)

HFDI: - Continue with secant pile production
- record night 12 trucks → optimizing pump speed and bentonite mix

QA/QC: - UCS 2 days → 60 kPa
- permeability test results received → good results

~~AEM:~~ - approval 321 to 393 for tertiaries (verbal)
- 298 ±425 deviation exceedance ; 19 piles pour total 386

General Planning/Comments:

KCG: - injection unit modif →
- follow-up on inspection foreman every hour ;
- fix genset (pump) ;

HFDI: - Continue with secant pile production

QA/QC: HE mix tests ; UCS test 2 days old ; Vane test on night shift
- send tertiaries approval form

AEM:

Report By: _____

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Oct 31th 2018

Time: 7h30

Presents:

AEM: PEM, JFB HFDI: CA

KCG: CG, FT

QA: AA

QC: MG

Health & Safety & Environment:

- Snow on the ground hidding obstacles could be a problems
- Special care to remove jewelry when working.

Daily Advance:

KCG: Continue injection unit set up
tests with HE cement
Checked bedrock surface for gaps in As-built drawings.

HFDI: Consistent production, very good production rates achieved. 22 piles in last 24 hrs.

QA/QC: Vane test in Pile # 300 after 17 hours. G
Approved 11 & B piles for a total of 413. Comparison SMC drafting vs KCG as-built. Everything compliant matches.

AEM: X shifting.

General Planning/Comments:

KCG: Finish set up injection unit.
Perform grout test (ACM to clarify with test)

HFDI: Continue with production

QA/QC: QA weekly report

AEM: Prioritization forms for HFDI parts / Clarify GU & HE cement tests.

Report By:

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **11/1/2018**

Time: **7h30**

Presents:

AEM: OJ, PEM

KCG: FT, DP, LPC, JG **HFDI : AZ, CA, DH**

QA: AA

QC: MG

Health & Safety & Environment:

1 Nothing to report

2

3

Daily Advance:

KCG:

1 Build fence for open pile protection and visual

2 Road and access maintenance, Adjust the flags to have better visual access to the dike and the batch plant in case of a blizzard

3 Backup genset set-up at the batch plant

4 WRSF and North-East Dikes clean-up, snow removal and sloping key trench excavation

5 Mix GU cement aiming 1.22 specific gravity with the designer proposed mix. Minor mistake in the Arbo % viscosity was off a bit after 3 hours.

6 KCG sent yesterday a procedure concerning the % of Arbo. HFDI can take the call to lower the Arbo % by half but need the advise QA/QC.

HENRY DRILLING :

1 22 piles grouted, 19 rock hammer approved. Good production yesterday

2 Switch Rock hammer

3 Received parts yesterday. Don installed the parts. Batch plant is now running with 3 load cells calibrated.

QA/QC :

1 Vane test yesterday after 18hrs. Results 55kPa on top and 90 kPa at the bottom of the pile at the middle 127 kPa.

2 UCS after 2 days Result 85 kPa

3 QA gave the information to HFDI that 4 piles are out of the spec for the deviation % and location.

4 2 piles have possible cold joint during the pouring delay yesterday between the initial pouring and the top-up. More than 12 hours delay in between. #334 and #352

5 HFDI wants to know what is the target depth for pile 364 because there is 5m difference between 365 and 363. HFDI will look at the data to take a clear decision.

6 Started drilling in the foundation zone around 0+500@ 0+700. Additionnal controls need to be in place on-site to make sure the bedrock is reached.

AEM :

1

General Planning/Comments:

KCG:

1 Build 10 more fences

2 Test with injection unit.

3 Move pipes away from Pad Q. KCG wants to know where to put them. AEM to look today.

4 Inspection with AEM at WRSF and North-East Dikes before having the rock hammer back at Amaruq

HENRY DRILLING :

1 Continue Production

2 Move airlines and rebuild cluster drill

3

QA/QC :

1 Pin hole test on-going in the lab.

2 QA gave verbal approval this morning for tertiary PM 0+420

3 Inspection on other structure North-East and WRSF Dikes

AEM :

1 Electricans are working on the back-up gensets at the batch plant. A back-up for the batch plant genset and a back-up for the water plant genset.

2 AEM sent the cargo prioritization this morning for the HFDI parts that arrived at the CTMN. On-going

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **11/2/2018**

Time: **7h30**

Presents:

AEM: OJ, PEM

KCG: DG, LPC, JG, DG **HFDI : AZ, CA**

QA: AA

QC: MG

Health & Safety & Environment:

1 During night shift, an exhaust leak on the grout pump inside the batch plant was discovered. A worker wasn't feeling good and had heart palpitation. The worker went to the clinic and his health condition was fine.

2 Spill 2-3 liters hydraulic oil on the loader #278, broken fitting.

Daily Advance:

KCG:

1 Build fence for open pile protection and visual

2 Closed the injection unit. Everything is ready and fonctional in case of a batch plant failure.

3 Henry Drilling support

4 Vacuum was doing half load (1 PAT) during night shift because of the drill issue and to not completely stop the batch plant.

HENRY DRILLING :

1 18 piles grouted, 16 rock hammer approved. Good production yesterday

2 At the beginning of night shift, a hose blown on the BG28 with the rock hammer. It was repaired and right after the same drill blown a shift bearing on the rig. The drill is now out

3 of service until it is repaired. Switch rock hammer on the BG30 to be able to run with 2 drills instead of 3.

4 Manlift was brought to dike from the Pad H to grease the drills on night shift. They only did 1 drill because of the issue with the BG28. HFDI will need the manlift again tonight.

QA/QC :

1 QC did UCS test on the HE cement mix after 2 days old. Result will be sent this morning.

2 Pin hole test was done yesterday. Non-despersive

3 2 mistakes were noticed yesterday on the survey. 1 pile had a deviation of 5% correction was made. One of point was off by 50mm. 1 pile localisation was way off. It was also fixed by the surveyor. HFDI asked to do a meeting after the morning meeting to recap and have more explaination.

4 UCS test after 2 days of GU mix, 128kPa.

6 pH reading to be done. AEM Env. Will come at the batch plant today. AEM told QC that they have water bottle that they can fill up and give to AEM for pH test to do it on more regular basis.

AEM :

1 AEM electricians came to do the batch plant to work on the genset set-up.

General Planning/Comments:

KCG:

1 Temporary pond right next to the batch plant modification.

2 Continue with HFDI support

3

4

HENRY DRILLING :

1 Continue Production

2 Switch on 2 rigs system and work on repairing the BG28.

3

QA/QC :

1 Prepare molds to be sent for permability test

2 pH reading

3

AEM :

1

2

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **11/3/2018**

Time: **7h30**

Presents:

AEM: OJ, PEM

KCG: LB, DP, LPC, JG **HFDI : CA**

QA: AA

QC: MG

Health & Safety & Environment:

1 A worker was pulling a tarp on the dike with his left arm in front when a back pain appeared. The pain was major and was preventing him from doing any movements, including walking and using his arms. ERT were called to bring him to the clinic safely by the night shift supervisor and the nurse.

2 Blast at Quarry 2 at 12h30PM. No impact on production.

3 Gaz (CO emission) detector reading into the batch plant during day shift and night shift. Nothing anormal.

4 KCG H&S Rep do a reminder it is mandatory for workers to wear safety glasses at all time when outside.

Daily Advance:

KCG:

1 Install 2 lights into the batch plant.

2 Do some maintenance and upgrade on the temporary waste pond next to the batch plant. Put some muck at the bottom.

3 HFDI support - Secant pile wall

4

HENRY DRILLING :

1 15 piles grouted, 13 rock hammer approved. Good production yesterday

2 The broken drill was repaired during day shift. HFDI went to MBK to build a bearing and a pin with the help a machinist at the garage.

3 Drilling activities were back with 3 drills around midnight.

4 Same drill that broke yesterday. Broke again around 3h00AM because of another issue with the hoisting cable. Grouting activities were stopped, waiting on piles to be hammered.

QA/QC :

1 UCS test yesterday, results are good. Prepare sample to be shipped down south next Monday.

2 UCS data form in the Excel file was modified so the graphic can be updated automaticly.

3 pH reading done yesterday 6.7.

4 Mix D UCS test done, Results are in the Excel file.

5 Verbal approval for tertiary to PM 0+429

6 KCG asks for an update concerning the cement HE results. QA/QC said that results are good after 2 days and they are waiting to do 7 days, 28 days and permability test.

AEM :

1 AEM Env dept. went to the batch plant for the pH reading.

General Planning/Comments:

KCG:

1 Lights are reading to plug today in the batch plant.

2 Support HFDI

3

4

HENRY DRILLING :

1 Continue Production

2 Repair the drill should be done shortly or it is done now.

3 Reorganized a bit the workforce due to the worker injury last night.

QA/QC :

1 Waiting for rock socket drilling for approval to start back the grouting activities.

2

3

AEM :

1 AEM electricians should come at the batch plant this morning for the lights and to install the CO detector. KCG said that they have an electrical job at the Sana garage also.

2

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 11/4/2018

Time: 7h30

Presents:

AEM: OJ, PEM

KCG: DG, LB, JG, DP, LPC **HFDI : CA, AZ**

QA: AA

QC: MG

Health & Safety & Environment:

1 Incident reported at the end of dayshift yesterday, a worker received CB mix on the side of the face and his left eye got it contact with CB. Worker was brought to the clinic for eyewash.

2 Back Injury HFDI Worker - Worker was on light duties last night sorting paper. Worker will go to MBK to receive a therapist treatment. Worker will go home on Monday.

3 Visit yesterday of the H&S Superintendant - Couple of minor recommandation and modification was sent to HFDI and Sana following that visit. In general, everything was fine.

4 Radio communication issue between Motorolla and Sepura during the past days. AEM ask to Sana if they can provide some motorolla radio (4) so we are all using the same.

5 AEM sent an email yesterday concerning the spray can (aerosol) and explained the proper way to dispose them on-site and at the camp.

Daily Advance:

KCG:

1 Work on the H&S rep recommandations, switch fluocompact bulbs for regular bulbs, installed sign, etc.

2 HFDI support

4

HENRY DRILLING :

1 15 piles grouted, 19 rock hammer approved.

2 HFDI blew a hose on the rock hammer in the morning yesterday. Repaired now.

3 Cement plant seized during day shift. It seems it was small piece of bags who was guilty. Ok now.

4 AEM ask to HFDI to explain what is the goal of doing pre-drill. HFDI explained it allows them to use a longer casing at the beginning which helps us. Pre-drill depth (2-2.5m). Easier to pass the top frozen layer of o-3/4" on top.

QA/QC :

1 UCS test

2 Training on the field with the other QCs for the crew change tomorrow for the one who are staying.

3 QA checked the AS-Built sent by Sana. Everything is fine.

4 QA ask some explanation concerning the pile 362 no rock hammer was used initialy, only the core barrel to reach the final depth. HFDI explains that there are using a spinning clean-up bucket to clean the pile socket .HFDI explained that it is more the traditionnal method used. The important is the results at the end and it helps HFDI in case of a rock hammer failure.

Rock hammer was done by HFDI for pile 362 at the end. Rock hammer is still more productive according to HFDI.

5 QA advise HFDI that pile 363 was poured at 1h00AM and the casings were only removed at 5h00AM.

AEM :

1

General Planning/Comments:

KCG:

1 HFDI support keep going

HENRY DRILLING :

1 Continue Production

2 HFDI will work on 2 modifications. First one is for the rock hammer too many hose blown. HFDI will need some materials from Sana and AEM. Second is request from the surveyor. to have a platform to help them reach the top of casing and have a level platform to make it safer and doable.

3 HFDI have an issue with a casing that it is stock and doesn't want to move at all. (tertiary pile) HFDI proposed to drill 2 piles on the west and east of the problematic one.

QA/QC :

1 Verbal approval for tertiaty by QA to HFDI.

2

3

AEM :

1 AEM ask to Sana to also do a follow-up on the bentonite consumption, not only on the cement to make sure everything is fine with the quantities we have on-site.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 11/4/2018

Time: 7h30

Presents:

AEM: OJ, PEM

KCG: DG, LB, JG, DP, LPC **HFDI : CA, AZ**

QA: AA

QC: DF

Health & Safety & Environment:

1 Nothing to report

2 Sana H&S rep do a reminder due to the recent snow accumulation to be vigilant when driving and walking.

3 A CO detector was installed in the batch plant at the agitator tank area.

4 HFDI ask if it possible to put better visual marker to identify the light vehicule entrance to the office area. Sana will look.

5

Daily Advance:

KCG:

1 HFDI support

2 Nothing special

4

HENRY DRILLING :

1 15 piles grouted, 17 rock hammer approved.

2 Early in the night shift, successfully move the casings in the pile 374 by doing the 374B pile. Both are ready to be pour this morning.

3 Fixed a minor leak on one of the drill. No spill to report.

4 Modification on the rock hammer done to avoid blowing hoses again.

5 Build a step ladder that hook on the casing for surveyor done. Surveyor asked for some minor modification on it.

QA/QC :

1 UCS test

2 QC crew change today

3 There was some confusion concerning the rock socket depth on field 2m vs 1m. The 2m rock socket requirement by the designer isn't applicable anymore due to the current procedure done on the field. Surveyor will adjust the data.

4 4-5 piles were done with a 2m rock socket. HFDI ask to QA and surveyor to adjust the tertiary rock depth to be 1m not 2m.

5 During night shift, it was noticed that piles 559 and 555 (2 secondary piles) were communicating when pouring one of the pile. When pouring 559, the water was raising in the pile 555. To be flag by QA/QC for the grout injection.

6 Pile 362 and 366 casings were removed at 6h00AM and the top-up was done after 12 hours at the end of the shift. AEM ask HFDI and SANA to put a procedure in place to avoid that happening again since it's a recurrent issue.

3 to 4m dropped was noticed in this piles.

AEM :

1 AEM electricians went to plug the lights in the batch plant and install the CO detector.

General Planning/Comments:

KCG:

1 HFDI support keep going

2 An extra labor on day shift for HFDI support on day shift. Another labor is planned to come on-site by the end of the week on night shift.

3 Bring BAC07 (AEM 345 with the rock hammer) from Meadowbank to Amaruq for WRSF and North-East dikes.

HENRY DRILLING :

1 Continue Production

2 Tools maintenance

QA/QC :

1 Permeability sample sent down south with the plane of today.

2 QC crew change today. One on day shift and one on night shift.

3

AEM :

1

Report By: Olivier Jacques, Eng.

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **11/5/2018**

Time: **7h30**

Presents:

AEM: OJ, PEM

KCG: DG, MAB, JG, MT, DG **HFDI : CA, AZ**

QA: AA

QC: MC

Health & Safety & Environment:

1 Nothing to report

2 Sana will present a JHA to the workers at the garage for the door repair.

3 AEM sent WHMIS training session with dates and hours.

4

5

Daily Advance:

KCG:

1 HFDI support

2 Bring BAC07 (AEM 345 with the rock hammer) from Meadowbank to Amaruq for WRSF and North-East dikes.

4

HENRY DRILLING :

1 18 piles grouted, 14 rock hammer approved.

2 Production as usual

3 Minor air compressor issue in PM during day shift. Issue was fixed by priming the fuel pump. OK

4 Casing drill down at around 2h00-3h00AM. Damaged upper crown cable. Repair is on-going.

5 When pouring pile 472 (tertiary), the tremi pipe steel hose guide fell into the freshly poured pile. To be documented by QA/QC. No possible way to retreive the piece. AEM ask if it is possible to have a picture of it for the records.

QA/QC :

1 No lab test yesterday

2 QC crew change yesterday

3 QA is really pleased with the new top-up procedure and see a good improvement in the communication with the grouting crew. On NS, QC were using the wooden marker on top of the casing with orange to flag the pile ready for top-up.

It worked well. This can be added to the new procedure.

4 As-Built verification - QA ask to Sana surveyor to do a back check of the Wall thickness between pile #365 and 366. A 60mm gap was noticed. Sana surveyor will check.

5 Verbal approval for tertiary to PM 0+536

6 Discussion between AEM, SANA and HFDI on how to record the pile 374B. Add 1 pile to total number of pile to be completed. New total = 984. Also applicable in case of a qauternaire pile.

AEM :

1 AEM electricians went to plug the lights in the batch plant and install the CO detector.

General Planning/Comments:

KCG:

1 Rock hammer with BAC07 at WRSF and/or North-East

2 HFDI support, road and access maintenance

3 Build more wooden barricades/fences to put on the wooden pallettes

HENRY DRILLING :

1 Continue Production

2 Work on the repair. Production with 2 drills. No impact on the grouting activities for the moment but they will catch up eventually. Drill should be ready by mid-day according to HFDI.

QA/QC :

1 Lab test

2 QA will send approval form for depth of rock socket today.

3 QC do a reminder that the genset at the lab is still not cover to prevent it from stopping due to the weather. Recommandation from the AEM mechanic dept. Sana and AEM will look to put a wooden cover on it.

AEM :

1

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 11/7/2018

Time: 7h30

Presents:

AEM: OJ, PEM

KCG: DG, DG, MAB, JG, PG **HFDI : CA, AZ**

QA: YJ

QC: MC

Health & Safety & Environment:

1 Nothing to report

2 Sana H&S rep will install an extinguisher in the skid pump.

3 Sana H&S rep ordered some new ice tracker for Sana and HFDI workers.

4 First session of the WHMIS 2015 taining session done this morning.

5

Daily Advance:

KCG:

1 HFDI support, road and access maintenance

2 Rock hammer with BAC07 at North-East Dike and the excavator was brought to WRSF at the end of shift.

3 Build 10 more wooden barricades/fences to put on the wooden pallettes

HENRY DRILLING :

1 12 piles grouted, 14 rock hammer approved.

2 Production with 2 drill rigs during day shift until crew change. 3 drills during night shift. Upper and lower crowd cable changed.

3 The recent cold weather starts to have an impact on the drill

QA/QC :

1 Pile #406 was sinking a lot. Achieved at the end of day shift

2 No cold joint recently so the new procedure is working well.

3 UCS test, results are good so far.

4 No QA during day shift. Day shift QA is leaving today. Designer YJ will cover for day shift with the help of the QCs.

5 A new QA will arrvied today. He will be on night shift.

6 AEM sent a picture of the steel hose guide that fell in a pile yesterday. To be documented in the QA weekly report.

AEM :

1

General Planning/Comments:

KCG:

1 HFDI support, road and access maintenance. Level the bumper on the north side for the aire hoses as requested by HFDI. Clean-up around the air hoses line

2 Rock hammer at WRSF today

3 Put shelter over the genset at the lab.

4 HFDI ran out of propane. AEM to order from MBK propane bottle but need to know how many. Sana will look.

HENRY DRILLING :

1 Continue Production with 3 drill rigs

2 Build a new steel hose guide for pouring into the pile.

QA/QC :

1 Designer will introduce the new QA representative when he will arrive on-site. Omar.

2 New QCs and the new QA will need to do there SOP training to be able to drive on-site. AEM will look to schedule a SOP training with the training department.

3 QC advise AEM the fuel farm doesn't work this morning. AEM ask what is going on.

AEM :

1 AEM ask to HFDI and Sana to do a reminder to the workers they absolutly need to fill up the fuel data sheet right next to the fuel farm when they fuel equipment and/or equipment.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **11/8/2018**

Time: **7h30**

Presents:

AEM: OJ, PEM

KCG: DG, DG, MAB, JG, PG **HFDI : CA, AZ**

QA: YJ

QC: MC

Health & Safety & Environment:

1 Nothing to report

2 Operation were stopped at around 21h00 due to the porr visibility on the dike. Activities resumed at around 3h00AM.

3

4

5

Daily Advance:

KCG:

1 Put a shelter over the geotech lab genset completed.

2 Road and access maintenance, snow removal

3 WRSF rock hammer completed.

4 Do a berm at the west side of the dike at the entrance of the road. Requested by the Earthwork supervisor for the blast at Quarry 2

HENRY DRILLING :

1 12 piles grouted, 10 rock hammer approved.

2 Issue with the rock hammer yesterday. Air lines were freezing due to the cold weather and the humidity in the air lines. AEM ordered Nalco, Windshield washer and Alcohol to prevent that. Should be arriving today.

3

QA/QC :

1 UCS press screws broke. AEM brought some new screws that work fine but ask to Sana to order the proper one.

2 Pin hole test, non-despersive results

3

4

5

6

AEM :

1 WHMIS training. 3 sessions were done yesterday. Dike and Road crews

General Planning/Comments:

KCG:

1 HFDI support

2 road and access maintenance

3 Repair the door handle on the HFDI seacan.

4

HENRY DRILLING :

1 Continue Production.

2 Tools maintenance.

3 Crew change tomorrow. Prepare everything for tomorrow. Move air lines. HFDI ask to have some manpower from Sana to help them during the operation shut down. Sana is also in crew change tomorrow.

QA/QC :

1 pH reading at 8h00AM by the Env. Dept.

2 QC ask if it is possible to put some gravel in front of the geotech lab. AEM came to fill up the water tank and it is really slippery.

3 The new QA is arriving this morning. He needs to do his AMQ induction at 17h00 at the camp.

4 WRSF dike visit with AEM and QA to have a look at the foundation.

5 Designer went to the batch plant yesterday and he congratulates HFDI and Sana concerning the housekeeping in there and the efficiency of it.

AEM :

1 AEM will do a site visit with the new AEM H&S rep during the day.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 11/9/2018

Time: 7h30

Presents:

AEM: OJ, PEM

KCG: SL, DG, MAB, JG, PG **HFDI : CA, AZ**

QA: YJ, MJ

QC: MC

Health & Safety & Environment:

1 It was noticed yesterday that 2 supports on the batch plant dome door broke (bolts failure) due to recent strong wind. Reinforce the steel structure with 2 steel bar on each side from the steel strucutre of the door to the steel structure of the dome. A report will be done after the meeting. Daily inspection to be implemented.

2 There was an incident during night shift on the road. Trip, slip and fall. Sana H&S rep do a reminder of the importance of 3 pts contact.

3 Sana H&S rep ask to have 2 stop sign to put at the east entrance of the dike. AEM will provide 2 after the meeting.

4 Sana installed some flags at Light Vehicule access road to the office on Pad H.

5 QC ask again if it is possible to have some 0-3/4 in front of the geotech lab because it is really slippery.

6 3 WHMIS training were done yesterday. 6h00, 17h30 and 18h00. Next training session will be last week.

Daily Advance:

KCG:

1 Fixed the batch plant dome door by reinforcing it.

2 Build a pad on the dike at around 0+630 to put the air compressors.

3 Frozen water line inside the geotech lab. Sana put some small heaters to unfroze the lines. It was working this morning.

4 The geotech lab genset missed fuel this morning at around 3h00 AM. It was fuelled at 5h00AM. AEM do a reminder of the importance of fuelling this genset because of the CB samples inside of it.

HENRY DRILLING :

1 22 piles grouted, 22 rock hammer approved.

2 Really good production yesterday.

3 Pile #426 was sinking a lot yesterday. It was still dropping during NS. What is strange, it is a tertiary piles… To check after the meeting if completed. QA suggested to wait a 5hrs setting time between 2 pouring. If this pile needs to be top-up. It will be done after the batch plant shutdown. Re-auger the top of the hole if necessary.

QA/QC :

1 QC notice important temperature variation inside the sample room between 12degres to 33 degres celcius. It should be at 21degres celcius +/- 2 degres. Seem that there is an issue with the thermostate or the heat circulation in the room. HFDI suggest to put a fan inside. AEM will provide one.

2 Pile #599 rock socket issue. Accept based on the theorical not the real encounter rock depth. Result is the rock socket is 844mm instead of 1m. It was approved conjointly by the QA, the designer and AEM.

3 QA and the designer strongly recommand to restrict or limit the circulation over the secant pile wall at all time. It was discussed to restrict the pick-up and the loader and try to minimize the circulation of the excavator over the wall. Sana will spread the word to all workers and will put some candles on the west side to block the circulation over the wall.

4 pH reading done yesterday

AEM :

1

General Planning/Comments:

KCG:

1 Batch Plant shutdown today. Clean everything like the vacuum truck, tremi pipe, hoses, etc.

2 Move the air compressors on the pad at 0+630 and move all other seacans (worker seacan, tools seacan, etc)

3 Install a T at the water intake seacan on the dike to be able to purge the line in case of a blizzard.

4 Install lights at the back of the vacuum for more visibility.

HENRY DRILLING :

1 Crew change today.

2 HFDI will change the drilling strategy (sequence). They will be doing Primary and secondary until all the 9-10m pile section are completed and come back to do the tertiary. This will avoid segmental section and be able to clean-up the dike crest (wooden pallettes). More organize and it will help the driller.

QA/QC :

1 Lab test today and a field vane test. QC ask if it is possible to have the zoom boom to help out with the vane test. It will be required for approx. 1 to 2 hours. HFDI said that it should not be a problem to free it.

2 The designer is leaving today and he is leaving with a lot of things to look at. Things are really doing in general and he is really positive for the end of the project.

3 QA will look for the secant pile wall east end of the dike to establish the last pile station in accordance to the real condition encounter at the east abutment during excavation. Sana will send the as-built drawing with cross-section to

4 the designer.

5 QA and the designer will look to do a final approval of a completed section of the secant pile wall since we have received all the results 28days UCS and permability results.

AEM :

1

Report By: Olivier Jacques, Eng.

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **11/10/2018**

Time: **7h30**

Presents:

AEM: OJ, PEM

KCG: DG, DG, MAB, JG, PG **HFDI : CA, AZ**

QA: MJ

QC: MC

Health & Safety & Environment:

1 Nothing to report

2 ERT emergency procedure has changed. In case of an emergency or code 1, call 6911. Advise all your supervision personnel of the change.

3 Sana H&S rep ask if it possible to have protective googles for the workers doing the CB pouring.

4 AEM gave 2 stop sign yesterday to Sana as requested. To be installed.

5 0-3/4" in front of geotech lab done yesterday.

Daily Advance:

KCG:

1 Activites shutdown yesterday and pouring team crew change.

2 Move everything forward on the dike, air compressors, towerlights, air lines, heated secan

3 Install a T at the water intake seacan to be able to purge the line in case of a batch plant failure or else.

4 Work on the north CB waste pond to have more dumping space.

5 Snow removal at the west abutment at WRSF dike

HENRY DRILLING :

1 4 piles grouted, 3 rock hammer approved.

2 Work on reconfiguring all the set-up on the dike with Sana

3 Crew change. 4hrs at the beginning of night shift to set-up everything to be back on production.

4 Second BG30 went not done. The motor is sending an error code that needs to be adress by a Caterpillar representative.

5 Issue with the rock hammer during night shift. Swap rock hammer at mid shift. Batch plant was stopped at 2h30AM no more pile ready to be poured.

6 A bad manipulation when closing the batch plant last night. Washing cycle wasn't done properly in the cement plant. Cement set into a line. It is being adress right now.

7 HFDI received winter condition grease, hydrex oil (hydraullic oil), windshield washer, mytlene alcohol. Still waiting for the Nalco tote.

QA/QC :

1 UCS test on a sample after 2 days. Result was 43 and 47 kPa. It is low compare to all the previous results we had. The 50kPa shouldn't be a problem anymore with the change in drilling strategy of HFDI.

2 Field Shear vane test done yesterday. Pile #480. Results were good. Issue with the rod not going vertical. QC suggest to stop these tests as it is destructive all the results are good. 10 shear vane test done. It was also brought by QC that the methode used to do the vane test is not the proper by pushing the rod into the pile instead of drilling a hole and install a casing. QA agreed to put a hold on this test. AEM agrees and will look if still necessary.

3

AEM :

1 AEM pipefitter went to do the water heating seacan to fix a leak on a PVC. Everything is fixed now.

2 HFDI crates arrived with the plane yesterday. Sana to look with the MBK warehouse to bring them at AMQ. Some HFDI stocks just arrived at the CTMN, will be brought with plane next week.

General Planning/Comments:

KCG:

1 Change the hose going from the grout pump to the vacuum truck.

2 Install the stop sign at the east entrance of the dike

3 Change the heater location in the geotech lab to prevent the water line to freeze again.

4 HFDI Support

HENRY DRILLING :

1 Production with 2 drills for the moment until the Toromont mechanic arrives on-site.

2 Test deicing products to see what is the best product to be used.

3 Get the batch plant up and running ASAP.

4 Toromont mechanic is on his way from MBK to AMQ to have a look at the BG30 motor.

QA/QC :

1 Visit WRSF west abutment with the QA representative to take some picture during the day.

2 UCS after 3 days on the sample with 43kPa results to see if over 50kPa now.

3 QA will gather all the information to be able to do a final approval of section of the dike

4

5

AEM :

1 Issue with the room of the HFDI mechanic. He has a shared room but he can be call to work on night shift. He needs a single room. AEM will look with Frontdesk and Camp coordinator to have it done.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **11/11/2018**

Time: **7h30**

Presents:

AEM: OJ, PEM

KCG: DG, JG, MAB **HFDI : AZ**

QA: MJ, JPL

QC: MC

Health & Safety & Environment:

1 Nothing to report

2 AEM gave to the Sana H&S rep this morning the requested satefy winter google.

3 AEM gave a lockable protective plug to put on a male end of an extension cord.

4 An inspection was held with the Sana H&S rep and HFDI at the HFDI maintenance area. Tools inspection. Everything was fine.

5 AEM sent an official communication concerning the Code 1 procedure. 6911.

6 Sana crusher just arrived to AMQ at the WRSF waste dump. Some fences need to be install shortly.

6 Yesterday, wooden pallette mixed with CB and 0-3/4" was dumped at the wood dump. This is not permitted and all the waste contaminated by CB need to go the WRSF waste dump. Advise Earthwork supervisor prior of going there.

Daily Advance:

KCG:

1 Sana crusher just arrived to AMQ at the WRSF waste dump. Should be starting to crush 0-6" this morning. Some issue last night with the Nalco totes not on-site.

2 Clean-up dike crest, Flat the US berm to put the air lines. Clean-up and do maintenance on the North CB mix pond and the temporary CB mix pond close to the batch plant.

3 Relocate the heater inside the geotech lab with the water tote completed.

4 Batch Plant back on production around 00h30AM. Back on full production.

5

HENRY DRILLING :

1 5 piles grouted, 13 rock hammer approved.

2 Batch Plant up and running at 00h30AM. It was noticed it was not only the cement line going the AT that was plugged but also inside the plant itself. Everything has been clean-up and it is running now.

3 All the holes possible were drilled during day shift. No casing available during night shift until some piles were grouted.

4 BG30 was back up and running with the help of the Toromont mechanic. Was up at around 15h00PM. Same drill went done last night due to a winch issue and the same code reappeared again.

5 AEM suggested to HFDI to establish a washing procedure and put it at the batch plant to avoid this situation again. HFDI will do it.

6 AEM brought last night to HFDI a product called Tannergas which contains Mythelene Alcohol. The purpose of this product is exactly for preventing air lines to freeze. AEM have that in great quantity at MBK if decided to go with it.

7

QA/QC :

1 There was an issue with one of the formula in the secant pile wall register concerning the rock depth when assuming the nail elevation is at 157m Elv. That has been address by the QC. Everything is ok now.

2 One of the CB mix batch last night had a low specific gravity 1.21. Poured pile 725 and 721 with it. One of the AT last night wasn't empty because of a stuck valve. 5.5m3 scrap.

3 QA noticed last night that workers weren't entirely removing the ice on top of the pile before doing the top-up. AEM ask to QA to advise QA night shift to advise the QC when proper procedure aren't followed by worker to correct the situation immediately.

4 UCS test after 3 days were higher than 100kPa with the same sample we had low results under 50kPa after 2 days. OK

5 Sana sent to QA and the designer the Whale Tail Dike East abutment as-built drawing and the WRSF and NE dikes foundation survey, as requested.

6 QA sent yesterday to AEM a draft for the Thermistance string localisation on Whale Tail Dike. Will be sent to Sana when official. Other instruments localisation will be sent to AEM Monday.

AEM :

1

2

General Planning/Comments:

KCG:

1 HFDI support

2 Small crew change tomorrow. Sana will need help from the Earthwork for the fuel on the dike.

3 Start crushing 0-6" today. QC will need to do some samples. Advise QC when around 500t. is produced.

4

HENRY DRILLING :

1 Production with 2 drill rigs at the start of the shift. Shouldn't be affecting pouring activities since we have plenty of pile approved ready to be poured.

2 Batch Plant running.

3

4

QA/QC :

1 Visit WRSF west abutment with the QA representative and AEM Geotech Coordinator on-site today.

2 Coarse Filter granulometry today.

3 Work on the secant pile register. There is a lot of data to cover and verify for the final approval of the secant pile wall. QA said it will take a little bit longer than expected. Final approval a section should be done and sent Tuesday.

4 QA is validating the piles verticality for piles approval.

5

AEM :

1 AEM advise HFDI that we can keep SCI-12 (85ft manlift) until the end of the project. No more sharing with the Construciton Dept.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 11/12/2018

Time: 7h30

Presents:

AEM: OJ, PEM

KCG: DG, JG, PG **HFDI : CA, AZ**

QA: MJ

QC: MC

Health & Safety & Environment:

1 Nothing to report

2 Some workers requested to put some 0-3/4" at the parking lot at the front desk entrance. AEM will ask to site service.

Daily Advance:

KCG:

1 HFDI support

2 Sana Crusher started to do 0-6". Still waiting to receive more Nalco.

3 Install a hoisting device (palan) in the water intake seacan to easily pull out the pump.

HENRY DRILLING :

1 19 piles grouted, 13 rock hammer approved.

2 Production with 2 drill rigs during day shift. HFDI still manage to have a good production on the drilling side. Back with 3 drill rigs on night shift. The BG30 motor is still sending some error code that are being address by the HFDI mechanic.

3 Minor issue the cement silo during night shift.

4 The cement plant is Ok. Everything has been fixed with the cement that plugged in the plant.

QA/QC :

1 Late morning, it was noticed the viscosity of a batch was really high. No flow in the mash funnel from the sample taken directly on the dike, SG was ok tough.

2 UCS test, results are good.

3 A specific gravity of one of the batch on Night Shift was at 1.20. HFDI think the % of bentonite was a bit higher than usual. HFDI will look in the data.

4 4 piles out of 80 the verticality and the localisation was a bit off. QA will check if gap ok in the as-built drawing.

5 WRSF west abutment site visit with AEM after the snow removal by Sana. It was discussed to remove the snow once every 2 weeks until the dike construction begins.

AEM :

General Planning/Comments:

KCG:

1 HFDI support

2 Nothing special

HENRY DRILLING :

1 Production as usual. 3 drill rigs - batch plant running full production. Expecting a good day.

2 Windshield washer is now used and put in minor quantities into the air line to prevent the valve of freezing. Seems working good no issue. HFDI will look if we need more than 1 tote, probably need another one to finish the project.

3 HFDI ask to Sana some help to find a system to put the grease that Sana brought to them. 45gallons is to heavy to be put manually into the drill. Sana will look if possible to use the lub truck to do so.

4 Help the construction department with replacing the crane cable of 120T crane on pad H. They need a crane operator.

QA/QC :

1 Coarse Filter granulometry today.

2 QC crew change today, no lab test unless really necessary. A couple of rock socket ready to be approved

3 QA will work on the instrumentation with draftman to localise all the remaining instruments on the dike.

4 QA will take a look at the as-built drawing.

AEM :

1

Report By: Olivier Jacques, Eng.

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **11/14/2018**

Time: **7h30**

Presents:

AEM: OJ, PG

KCG: SL, PG, MAB, DG, CG **HFDI : CA, AZ**

QA: MDJ

QC: MC

Health & Safety & Environment:

1 First Aid - Worker boots are not waterproof and allowed the wet cement to penetrate through to his feet causing minor burns on his feet. Intelex Report has been done.

2 Investigation report is still on-going by the KCG H&S rep. concerning the event of the worker putting his feet into a freshly top-up pile. (5 pages). Should be completed today.

3 KCG H&S rep talked about wildlife. We have a lot of foxes around our installation. Advise all workers concerning the waste management.

4 KCG had a meeting yesterday morning. A management meeting with all supervisors and the head office about Health and Safety on-site to find some solution how they can improve and responsbilize the supervisors (action plan).

5

Daily Advance:

KCG:

1 Change a hose in the batch plant that was damaged.

2 The hoisting device in the water intake seacan is completed.

3 Maintenance and access road maintenance

4 Work on the geotech lab chamber so it is more insolated and it can maintain the proper temperature around 21 degres celcius.

5 Work on the injection unit that just came from meadowbank. Some works to do inside of it. It is being address by KCG carpenter.

HENRY DRILLING :

1 17 piles poured, 17 rock sockets approved

2 Production as usual

3 Minor repair on the BG28, Tools maintenance

QA/QC :

1 QC saw immediate amelioration of the temperature in the geotech lab chamber.

2 Coarse Filter sampling at the crusher during PM.

3 QA had a meeting with the designers, Designers want to double-check all the data. First final approval should be sent before next Wednesday. Since it is the first one, they want to make sure it is properly done and analyse.

4 Discussion concerning the piles done between pile # 534 and #638 with a 2m rock socket. QA ask what is the procedure for the final depth of the tertiary. It is discussed to take the lower rock depth encounter of the adjacent primary or secondary and go 1m below. KCG ask to AEM if it is possible to send an official email on that. AEM will send it.

5 Issue with pile #669. The location is offset by 300mm towards South-East. AEM ask what is the root cause. HFDI and KCG have no explaination. There is most likely going to have a gab at this location. Another pile (669B) will probably be required. AEM and/or QA will send an email of the following constation. KCG and HFDI to take action.

AEM :

Nothing to report.

General Planning/Comments:

KCG:

1 Work on the temporary pond next to the batch and on the north waste pond.

2 Find a good spot to do a turn-around for the vacuum truck. It needs to back up for a long distance when coming from the west.

3 Put the towerlight on winter mode by adding some cover on it.

4 Clean-up the wood waste dump. Some 0-3/4 and CB still there. Requested by AEM Env. Dept. to be brought to WRSF dump.

5 Work on the injection unit

HENRY DRILLING :

1 HFDI ask to KCG if it is possible to clean-up from pile #658 to the west abutment. Wooden palette, etc.

2 HFDI will work on some safety aspect. Safety improvement

3 HFDI ask if it is possible to use the KCG lube truck. KCG no problem but will need to give a little training to HFDI mechanic.

4 HFDI advise QA to make sure they really looking at the material coming out for the auger not in the pile next to drill to evaluate the material at the bottom. HFDI don't want to unnecessary overdrill cause a misinterpretation of the QA.

It was noticed yesterday by QA some frozen 0-3/4 was coming out of the drilling bucket. Conclusion was, it is coming from the bucket itself by the way it is stored into the 0-3/4 frozen top layer.

QA/QC :

1 UCS test

2 Coarse Filter gradation

3 Work on some modification at the geotech lab. Isolation, put some snow all around the seacans.

4 Minor electrical issue in the geotech lab with an outlet to be adress.

5 QC realize there was some minor mistakes in the UCS data sheet. Everything has been fixed.

AEM :

1

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **2018-11-15**

Time: **7h30**

Presents:

AEM: OJ, PG

KCG: SL, PG, MAB, DG, CG **HFDI : CA, AZ**

QA: MDJ

QC: MC

Health & Safety & Environment:

1 Investigation report is completed by the KCG H&S rep. concerning the event of the worker putting his feet into a freshly top-up pile. (5 pages).

2 Reviewed bedbugs memo with crew

Daily Advance:

KCG:

1 Work on the injection unit that just came from meadowbank. Some works to do inside of it. It is being address by KCG carpenter.

2 Wood burn area cleaned of cement and fine filter coming from dike clean-up

3 Settling pond clean-up

4 Dike surface clean-up from 650 towards West

HENRY DRILLING :

1 16 piles poured (64%), 16 rock sockets approved

2 Production as usual

3 Electrical issues at batch plant - was fixed

4 Issues with the cement silo screw - fixed

QA/QC :

1 UCS and gradation on 0-6" coarse filter

2 Thermocouple reading on 25 days cured pile

3 Temperature in storage room has improved, less variations

4 Weekly report sent by QA

5 QA identified 9 piles that are outside verticality tolerances - No gaps associated

AEM :

1 Email sent for the next steps to follow at pile #669

General Planning/Comments:

KCG:

1 Work on the injection unit preparation

2 Vacuum truck complete clean-up

3 Survey of the aggregates piles at crusher

HENRY DRILLING :

1 Production of secant piles

2 Minor fixes on grease points on equipments

3 Fix the spare hammer

QA/QC :

1 UCS test; pinhole test, sampling and gradation of CF

2 Modifications to secant pile regster

3 QC to take bentonite sample for water content verification

4 WTD instrumentation follow-up with AEM

AEM :

1 Check SOP training for Umar

Report By: **Patrice Gagnon, P.Geo.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **2018-11-16**

Time: **7h30**

Presents:

AEM: JFB, PG

KCG: SL, PG, MAB, CG **HFDI : CA, AZ**

QA: MDJ

QC: MC, JPL

Health & Safety & Environment:

1 Speed limit must be respected on site and around building

2 Blast today at 12h45 at Quarry 2

Daily Advance:

KCG:

1 Work on the injection unit preparation

2 Valve on vacuum truck broke - switch to Vacuum trailer

HENRY DRILLING :

1 14 piles poured (66%), 14 rock sockets approved

2 BG-30 broke and was down all day - Troubleshooting, still not fixed. Problem is the anti-polution system that freezes

3 Production of secant piles with 2 drill rigs

QA/QC :

1 UCS on CB mix, pinhole test on CB mix (unconclusive) and gradation on 0-6" coarse filter

2 1m elevation difference between HFDI and QC records was noted by QA on pile #759

3 Water content test of bentonite slurry

AEM :

General Planning/Comments:

KCG:

1 Work on the injection unit preparation

2 Vacuum truck valve repair

3 Maintenance on compressors

HENRY DRILLING :

1 Production of secant piles with 2 rigs

2 BG-30 repair with Toromont mechanic

QA/QC :

1 UCS test; redo pinhole test, gradation of CF

2 QA to check verticality and deviation of the last piles

3 Still variations observed on mud balance results - Not considered an issue if we stay within the specs

AEM :

Report By: **Patrice Gagnon, P.Geo.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Nov 17th 2018

Time: 7h30

Presents:

AEM: PG - JFB

HFDI: AZ - CA

KCG: PG - MAB - SL - CG

QA: MS

QC: MC

Health & Safety & Environment:

- Report: Worker at crusher got dust in eye
- Housekeeping in the meeting room - clean after yourself please

Daily Advance:

KCG: - Injection unit prep

HFDI: - Production as usual with 2 rigs, 18 loads
- Silo inspection
- BS 30 down for 2 hr → fixed

QA/QC: - Pinhole test, ucs test, gradation,
- 18 piles outside tolerance in the last days, took longer to remove casing (only 1 drill cause delays) and top-

~~AEM:~~ - Cement and water quantity not recorded precisely because we are in manual mode
-

General Planning/Comments:

KCG: Injection unit preparation
- Clean settling ponds

HFDI: - Production of secant pile, silo investigation

QA/QC: - Permeability samples preparation for shipment;
- UCS and gradation;

~~AEM:~~ Check verticality and deviations

Report By: _____

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Nov 19 to 2018

Time: 7h30

Presents:

AEM: PG - JFB

HFDI: AZ - CA

KCG: CG - SL - PG - MAB -

QA: MJ

QC: JPL - MC

Health & Safety & Environment:

- Incident : Camlock fitting fell from Vac truck and hit a worker's finger
- Blast 12h45 : QZ
- Frost bite : wear proper PPE, take breaks to go inside if needed

Daily Advance:

KCG: - Injection unit preparation (2nd unit)
- Clean settling ponds

HFDI: Production of SP with 4 rigs
- Batch plant repairs & maintenance → down for 4hrs
- BC 30 fixed with Tesmat

QA/QC: - 8 more piles are outside tolerance → its 95% of the drilled piles
- Approval for tertiaries to pile 661

AEM: - Top-ups are done later than allowed at shift change - need to be reviewed with crews
- Permeability samples ready for shipment

General Planning/Comments:

KCG: - Empty ponds
- Assemble the injection units
- Add heater in batch plant and pump station

HFDI: Production as usual with 3 rigs
- Some maintenance on rigs

QA/QC: - QA-QC job as usual, get ready for crew change tomorrow (QC)
- UCS testing,

AEM:

3 weeks meeting at 2pm Report By: _____

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Nov 19th 2018

Time: 7h30

Presents:

AEM: PG-JFB HDFI: CA-AZ

KCG: CG - SL - MAB - MW

QA: MJ QC: JPL

Health & Safety & Environment:

Coactivity on dike → beware of your surroundings
Engine oil small spill 3 liters, small hydraulic fluid spill
Blast tomorrow → camp evacuation procedure review

Daily Advance:

KCG: - Injection units preparation
- Add a heater in batch plant
- Snow removal on d/s of dike

HFDI: - Production as usual with 3 rigs
- Drilled East abutment last piles
-

QA/QC: - Survey data review → no gaps
- rock socket depth review → survey and QC solve the issues
- UCS as usual

General Planning/Comments:

KCG: - Injection units preparation on hold → crew change Carpenters
-

HFDI: - Finish East abutment prims & Secs
- Tertiaries on West area going East
- Need to grease the rigs → AEM to check with mechanics

QA/QC: - QA-QC normal tasks
- take samples on CB
-

Report By: _____

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Nov 20th 2018

Time: 7h30

Presents:

AEM: PG-JFB HDFI: CA-AK

KCG: CG-LB-SL-ML-FT

QA: MJ QC: MG-JFL

Health & Safety & Environment:

- Blast tonight at 7pm - Camp evacuation
- Reduce speed around site
- Frost bite jackets reminder

Daily Advance:

KCG: - Clean up center line
- hand rail installed in batch plant
- Vac truck clean up (1.5 h loss)

HFDI: - East abutment secant pile
- 2 rigs production on West portion (Central)
- BG 28 broken for a couple hours

QA/QC: Approval around
- P2 batch in 578 → casing was removed later → was taking grout in bedrock
- Vac truck clean-up
- 661 to 701 will be approved today
- need another puck for UCS

General Planning/Comments:

KCG: - build more protection for pallets
- skid door needs to be fixed
- need steel plate for big UCS press → calibration on Nov 27th
- investigation on mud balance low values

HFDI: - Production with 3 rigs
- General maintenance

QA/QC: - UCS for tertiaries approval
- check verticality & offset
- weekly report
- pile are missing some info #594-745
- 33 reasons HE
- 55 needed on site
- permeability on HE need to be done soon

Report By: _____

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Nov 21st 2018

Time: 7h30

Presents:

AEM: PG - JFB HDFI: AZ - CA

KCG: CG - FT - ML - MW - SL

QA: Crew change QC: MG

Health & Safety & Environment:

- Make sure to have eye contact with operators
- Christmas party schedule
- Seat belt mandatory in all vehicules

Daily Advance:

KCG: - Finish clean-up on surface 157
- build racks for pallets
- install electic heater in skid

HFDI: - Production as usual
- Grouting completed
- Modification for hammer

QA/QC: - UCS → good results
- QA approved to 701

General Planning/Comments:

KCG: - build protective racks
- build a table for the press hydraulic
-

HFDI: Production as usual with 3 rigs
- Switch rock hammers - and service them

QA/QC: - UCS from East abutment
- Approval tonight from QA

Report By: [signature]

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Nov 22nd

Time: 7h30

Presents:

AEM: PG - JFB HDFI: CA-AZ

KCG: CG-SL-LB-MW-FT

QA: shift change QC: MG-JPL-MC

Health & Safety & Environment:

- High winds : adapt your driving to the conditions
- JHA/MIS sessions tomorrow
- Blast at 12h45 at Quarry 2

Daily Advance:

KCG: - Built racks, table for the press
- Cleaned box truck
- Double checked data for tertiaries

HFDI: - Production with 3 rigs
- Batch plant clogged, mechanical seal broke
- Hammer freezes

QA/QC: - Topping needed to be done last night, couldn't 560-564-462-446-448
- UCS ok for East abutment
- Approved QA for tertiaries to 0+857

General Planning/Comments:

KCG: - Install table for press in lab
- install hoses as bumper on dike
- build racks for protection
- JHA for installation of press in lab

HFDI: - drilling East abutment
- fix batch plant

QA/QC: UCS testing + pin hole

Report By: _____

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Nov 23rd 2018

Time: 7h30

Presents:

AEM: PG - JFB HDFI: DH - AZ

KCG: DP - CG - FT - LT - ML - MW

QA: AA QC: MC - MG

Health & Safety & Environment:

- Fresh snow on ground can hide potential hazards
- WHMIS training 4:30 and 6pm

Daily Advance:

KCG: - built protection devices for pallets
- clean up bumper to install air hoses
- sampling with QC

HFDI: - Drilled & poured
- Fixed mechanical seal on batch plant
- Maintenance of genset (today)

QA/QC: - Redrilled 12 piles to avoid cold joints → batch plant down
- UCS
- poured 15 piles
-

General Planning/Comments:

KCG: - Crew change HFDI
- Fix press in the lab
- Maintenance on Vac truck, batch plant genset

HFDI: - Crew change
- recalibrate scales, check lines, trenies in prep for the restart
- reconfigure air lines
- clean-up of the surface of dike to remove bumps

QA/QC: pinhole test, UCS

- Approval forms from QA

Report By: _____

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Nov 24th 2018

Time: 7h30

Presents:

AEM: PG-JFB HDFI: DH-AZ

KCG: DP-CG-MW-ML-FT-LB

QA: AA QC: MG

Health & Safety & Environment:

- Slippery condition on dike - drive accordingly
- Install anti-slippery membrane on PAT staircase

Daily Advance:

KCG: - Install press in lab
- Maintenance genset & vac truck
- Double checked values of lab

HFDI: - Clean-up dike
- Recalibrated batch plant scales
- Production of recent pile (3 panel + top-ups)

QA/QC: - Pinhole test, UCS
- Pile 682 needs to be redrilled
- Thermocouple
- List of top-ups → filled during night
- First batch at 1.27 mud balance → rest at 1.22

General Planning/Comments:

KCG: - Maintenance road & access to dike

HFDI: - Production as usual with 3 rigs
- Electrician Bauer to fix some issues in rigs
- Back to automatic mode for batch plant

QA/QC: - Approval & UCS
- Sample of FF at WRSF

Report By: _____

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Nov 16th 2018

Time: 7h30

Presents:

AEM: PG - JFB

HDFI: DH - O

KCG: DP - ML - FL - LB - CG

QA: AA QC: MG

Health & Safety & Environment:

- Visual contact with operator
- Slip, trips & falls on site
- Speed limits need to be respected
- Make sure to have enough
- Foxes around shelter and inside

Daily Advance:

KCG: - Vac truck clean-up
- Fix skid door
- Finalise press installation
- Verify cement qty on site

HFDI: - Production as usual
- Rock hammer freezes
- Kelly bars freezes
- Rock very hard on East abutment 859 and west

QA/QC: - UCS, gradation
- change sieves in Gilson
- 802 pile completed (#659 wall completed to)
- Checked deviation
- As-built sent → No gaps

General Planning/Comments:

KCG: - labor crew change
- Crusher parts at MBK to fix it → need crane 80T
- need old strap (conveyor) to try to fix hammer freeze up

HFDI: - Production as-usual
- Unfreeze the kelly bar
-

QA/QC: - UCS on hold crew change
- follow-up on grouting
-

Report By: MG

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: Nov 27th 2018

Time: 7h30

Presents:

AEM: PG - JFB

HDFI: DH - Delbet

KCG: AB - CG - FT - ML - PG - DD -

QA: AA QC: MG

Health & Safety & Environment:

- Slippery conditions on dike - South access is problematic → stop sign needed
- H&S Management meeting held this morning with KCG crew
- Blast 17h30 Quarry 2

Daily Advance:

KCG: - Crew change
- Casing crew arrives
- Get ready to install

HFDI: - Production as usual
- Worked on secant section 859-901
- 2 hrs stop at batch plant - bentonite clog
- Valve on vac truck broke - changed

QA/QC: - 13 piles poured,
- Section from 901 to end - 1m socket from HFDI encountered bedrock
- permeability results HE for 0.4 W/C
- hose in hole #748 - need to figure out the lenght

General Planning/Comments:

KCG: - Prepare for injection
- Clean-up Mammoth dike and Wrsf
- Crusher down

HFDI: - Production as usual

QA/QC: - UCS, gradation
- Approval final

Report By:

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 2018-11-28

Time: 7h30

Presents:

AEM: PEM

KCG: DP, JG, CG, AD, PG **HFDI : DH**

QA: AA

QC: MG

Health & Safety & Environment:

1. A worker tripped on a pipe while carrying a bucket full of bentonite to go ditch it in the grout pond adjacent to batch plant
2. WHMIS trainings are completed for all crews.
3. Ice trekkers received and they work great
4. 10 pairs of goggles need to be ordered for proper eye protection in winter time.

Daily Advancer

KCG:

1. Prepare casings for grouting injection
2. Snow clean up for Mammoth Dike (50% done)
3. Dike support

HENRY DRILLING :

1. Production of Secant Piles. 834 done, 143 to go. 11 Piles done at Day, 8 piles done at Night.
2. Calibration was done on batch plant programming, slightly higher mud balance as an end result.

QA/QC :

1. Granulometry results sent for SANA crusher
2. Performed UCS tests in lab, note that sample 107 is not good, was taken on top of hole with very high water content in grout
3. Deviation of piles from tolerance was communicated to HFDI to make corrections on the field.

AEM : Crew change.

General Planning/Comments:

KCG:

1. Begin driling for grouting with casings
2. Continue snow removal at Mammoth and WRSF..

HENRY DRILLING :

1. Continue Secant piles production.

QA/QC :

1. Continue production follow up of secant piles.
2. Need small wood pallets for green flags, KCG to take care of it.
3. Send weekly report.

AEM :

Meeting & discussions to be held for grouting between AEM, KCG and SNC (R&R And technical aspects)

Report By: **Pier-Eric McDonald, P. Eng**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 2018-11-29

Time: 7h30

Presents:

AEM: PEM, JFB

KCG: FT, JG, PG, RC, DP, ML, AB **HFDI :** DH, Dewet

QA: AA

QC: MG

Health & Safety & Environment:

1. Incident occurred where a worker has his arm pinched between zoom boom forks and the wall while opening bentonite bag resulting in skin abrasion. Reminder held with workers with change in work method.
2. Code 1 occurred at night and the works were stopped for 4hours. Good workflow occurred for stopping the works temporarily.
3. Zoom Boom with man basket was put off service temporarily due to a break. To be repaired today.
4. Trailer with ski doos is not visible when dark when arriving with pick up trucks close to the front desk entrance.

Daily Advance:

KCG:

1. Drilling and casing installation, 10 holes drilled. Some casings went deeper because of fractured rock.
2. Support HFDI
3. Clean up dike and road.
4. Mammoth and WRSF snow clean up done.
5. Review of grouting operations and data gathering between HFDI and FT.

HENRY DRILLING :

1. Piles production, 14 piles @ day, 7 piles @ night.
2. Manlift fixed 1 drill.
3. Clarification: pile 668 was just done. 668B has to wait 2 days before being drilled.
4. Tertiaries rock sockets between piles 708-720 were deeper because of fractured rock and hard to clean.

QA/QC :

1. 4 piles were out of specs
2. QA weekly report sent.
3. Pile 716 showed a 10m drop, need to wait a little bit more than usual before toping it up.

AEM : Meetings and clarifications held on grouting operations.

General Planning/Comments:

KCG:

1. Continue Casing drilling
2. Clean up around dike and batch plant.
3. Examine deviation of drilled holes for grouting with plumb bob to quantity deviation.

HENRY DRILLING :

1. Continue Secant piles production.
2. Replace bolts on kelly bar once manlift repaired.

QA/QC :

1. Continue production follow up of secant piles.
2. UCS tests to catch up since yesterday was reduced manpower due to Xrays of the worker in MBK.
3. Gradation 104 of SANA crusher to be sent.

AEM :

Meeting between AEM, KCG, and QA/QC for establishing forms and controls until the final specs are received by SNC.

Report By: Pier-Eric McDonald, P. Eng

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **11/30/2018**

Time: **7h30**

Presents:

AEM: OJ, PEM

KCG: ML, FT, PG, JG, AB, DP **HFDI : DH, DN**

QA: AA

QC: MG

Health & Safety & Environment:

1 Nothing to report

2 Spill Report - 20L. Fuel on Whale Tail Dike - Fuel hose busted, AEM do a reminder to KCG that the spill report needs to be sent as soon as possible and send a revision of the report when everything is clean-up.

3 KCG ask for an update to AEM if we received Dike and Dewatering workcard at MBK warehouse. AEM will look.

Daily Advance:

KCG:

1 Drilling and casing installation, 10 holes drilled. TCG Drill TCG-005 was down between 11h00AM to 16h00PM due to a fuel hose failure.

2 Verticality verification on the casings wasn't conclusive due to the method used. KCG will look for a better way, build a small tool to be more precise.

3 A meeting was held yesterday with AEM, KCG, QA and QC to talk about the injection (controls, methodology, specs, etc)

4 Support HFDI

HENRY DRILLING :

1 Piles production, 14 piles @ day, 14 piles @ night.

2 Repair on the BG30 to install some bolts on the kelly bar at the top of drill rigs completed.

QA/QC :

1 QA check the offset and deviation of piles. Everything was good.

2 QA checked the as-built drawing. No gaps were noticed in the wall.

3 UCS test after 2 days, verbal approval piles #910 @ 916

4 QA/QC went to have a look at the drilling and casings installation. They noticed one of the casing was bent at the top. It was also noticed that there is water coming in the holes now.

AEM :

General Planning/Comments:

KCG:

1 Continue with drilling and casing installation for the injection.

2 Clean up around dike and batch plant.

3 HFDI support

4 Cement GU transition to Cement HE. KCG will work to have everything set-up for tonight.

HENRY DRILLING :

1 Continue Secant piles production.

2 Clean-up on the dike. Start gathering everything to go toward the demobilisation.

3 Modification on the daily report to be more accurate since we are batching on manual mode since a couple of weeks.

4 HFDI will empty as much as possible to the cement silo before switching to cement HE. Switch to cement HE probably during Night shift. No more cement GU on-site.

5 HFDI and KCG will send an email with a propose receipe for the cement HE with 40% of cement instead of the actual receipe at 36%.

QA/QC :

1 UCS test for teritary approval

2 QA/QC will do a good follow-up to record the switch from cement GU to cement HE. Samples, UCS, etc.

AEM :

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **11/30/2018**

Time: **7h30**

Presents:

AEM: OJ, PEM

KCG: LF, AB, JG, DP, PG **HFDI : DH, DN**

QA: AA

QC: MG

Health & Safety & Environment:

1 First Aid – A worker at the Sana crusher went to the clinic this morning. He worked yesterday for a long period on his knees without any protection underneath. He woke up this morning and one of his knee was inflamed and had bruises.

2 Nothing to report for ENV.

Daily Advance:

KCG:

1 Drilling and casing installation, 12 casings installed. 8 of day shift and 4 on night shift. Entering the deep zone between 0+340 to 0+370 approx. Lower production

2 Support HFDI

3

HENRY DRILLING :

1 Piles production, 12 piles @ day, 13 piles @ night.

2 HFDI tried to retrieve the casings stuck in the pile #680 without success. This pile will need to be redrill completely.

3 Switch to Cement GU to cement HE at around midnight. No difference were notice. Good news.

4 All the primary and secondary piles are now completed.

QA/QC :

1 QC took a sample on the batch where we had a mix of cement GU and HE. Normal sampling otherwise.

2 UCS test after days, verbal approval for tertiary.

AEM :

26 propane bottles were ordered by AEM. Ready to be pick-up by KCG at MBK warehouse.

General Planning/Comments:

KCG:

1 Continue with drilling and casing installation for the injection.

2 Move the injection unit on pad Q on the west of the dike.

3 HFDI support

4 KCG will look to bring all the adjuvants for the injection from MBK to AMQ. It needs to be store in a heated place.

5 KCG will look for a good place to park the drill rigs on pad Q to make sure they will not be parked in the axis of the East channel.

HENRY DRILLING :

1 Continue Secant piles production.

2 Work on removing casings in hole 680. Probably, it will be required to drill an adjacent pile to release the pressure as it was done previously on another pile.

3 AEM ask to HFDI if they are still waiting for some parts that are at the CTMN. HFDI say they still have some stuffs there. They have 500lbs part at the CTMN in case of an emergency. This piece can be sent back to BC once the wall is completed.

QA/QC :

1 UCS test for teritary approval

2 Fine Filter sampling at the Sana crusher for a gradation. It is preferable to do a gradation before they start crushing again fine filter to know if they have to do some adjustment.

AEM :

1 A geotech technician from AEM went at AMQ yesterday. Data from the thermistance and piezometer on the dike will be sent to QA/QC shortly.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 11/30/2018

Time: 7h30

Presents:

AEM: OJ, PEM

KCG: LF, AB, JG, DP, PG **HFDI : DH, DN**

QA: AA

QC: MG

Health & Safety & Environment:

1 Nothing to report

2 AEM talk about an incident that occurred yesterday with a manlift at the maintenance shop at the pad H. A cylinder bent and basket fell to the ground from about 20feet. All the manlift on-site have been grounded until an expert come on-site. We will need to find an alternative to grease the drills. HFDI say it is alright they don't need to go at the top of the drill today.

Daily Advance:

KCG:

1 Drilling and casing installation, 7 casings installed. 3 of day shift and 4 on night shift.

2 Implantation of the East channel to see where to store the casings and where to park the drills. A lot of things in the way (seacans, stockpile, etc)

3 Install the wheel frame on the injection unit.

4 HFDI support, procedure at the batch plant area have been changed a bit to add another worker to help out with the cement HE bags since they are half the size of GU. More manipulation. The worker in the batch plant will give an hand.

5 New mix follow-up with cement HE. Everything is OK. Results are constant and on target.

6 KCG answered to the email of the QA manager concerning the bentonite % in the mix with the new HE receipe. KCG doesn't agree with the way it is calculated and affirmed we are at 4.6% of bentonite in the mix.

HENRY DRILLING :

1 Piles production, 14 piles @ day, 6 piles @ night.

2 Casing stuck in pile #680 was removed successfully yesterday by drilling another pile on the side of it. Pile #678B. Both of the piles have been grouted during night shift.

3 Down time during night shift on the grouting between 12h00AM to 3h00AM due to broken hose in the skid pump. Switch to the trailer pump until the hose is repaired. Slower production with the trailer pump.

QA/QC :

1 QC did a Fine Filter sampling at the Sana crusher in the afternoon.

2 UCS test after 2 days, verbal approval for tertiary.

3 QA had some comments and corrections on the casing drilling report sent yesterday. KCG is working on it. Some issues were also noticed in the Excel sheet by AEM. KCG will do a revision and send it.

4 QA ask to write on the casing drilling report 378B instead of 378. The casings broke on a welding connection between two casings. 378B is 0.3m away from 0+378 so at 0+378.3

5 QA did some marsh funnel with the new cement HE mix and found out the geli-set-time is around 4hrs. KCG had an higher value when they did the test more around 8hrs.

AEM :

1 AEM ask to KCG to minimize the circulation over the wall (center line) on the East side as much as possible with heavy equipment. Most of the piles have been grouted 10 days ago but advise your workers to pay attention.

General Planning/Comments:

KCG:

1 Continue with drilling and casing installation for the injection.

2 Finish installing the wheel frame on the injection unit.

3 HFDI support

4 Work on the skid pump to repair it and switch to it as soon as possible.

HENRY DRILLING :

1 Continue Secant piles production.

2 HFDI will do a close follow-up with the QA/QC to not run out of pile to be drilled and/or poured since we are almost completed.

3 Clean-up on the dike and around the batch plant. Start gathering all the casings and tools.

QA/QC :

1 UCS test for teritary approval, early test after 1 day to see if we reach the 50kPa to run out of layout. QA is confident it will be fine. Result to come.

2 QA/QC ask if it possible to have flags indicating the casing number for the injection. KCG will look to put some or to write the casing station directly on the casing.

AEM :

1 AEM advise KCG and HFDI that there will be a Christmas party next Wednesday for everybody on-site but not mandatory. Workers are allowed to leave at 16h00PM to be at the party.

Report By: Olivier Jacques, Eng.

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 12/3/2018

Time: 7h30

Presents:

AEM: OJ, PEM

KCG: DP, FT, PG, JG **HFDI : DH, DN**

QA: AA

QC: DF

Health & Safety & Environment:

1 Nothing to report

Daily Advance:

KCG:

1 Drilling and casing installation, 14 casings installed. 7 of day shift and 7 on night shift. 125.7 m drilled.

2 Completed the installation of the wheel frame on the injection unit.

3 Repair the skid pump during day shift. Switch it at the beginning of the night shift.

4 HFDI Support

HENRY DRILLING :

1 Piles production, 12 piles @ day, 10 piles @ night. 950/978

2 Down time on the pouring activity between 18h00 @ 21h00. No more pile ready to be poured at the end of day, Stop the batch plant at 18h00 to start back at 19h00 but issue with the genset at the batch plant.

3 HFDI did a safety meeting with his day and night shift crew concerning congested area on the dike. Stay vigilant and focus.

4 There was a cement GU seacan left and it was with the Cement HE seacans. 1 vacuum truck had a 50/50 GU-HE mix and 2 truck full of GU during day shift.

QA/QC :

1 Fine Filter gradation was sent. Gradation is good.

2 UCS test after 1 days, 2 days, 7 days and 28 days. Lowest result after 1 day was 129kPa out of 3 samples.

3 Secant pile wall is completed up to station 0+861.

4 QA verified the as-built drawing sent by KCG. No-gap on the wall, deviation and offset are ok.

5 On the east side approx pile 977, 3 tertiary piles stopped at the theorical bedrock depth not the real bedrock encountered 0.9m approx below. Probably left as-is but need to be confirm by the designer.

AEM :

General Planning/Comments:

KCG:

1 Continue with drilling and casing installation for the injection. 3 more left to do, will be completed today. Workers will give an hand for the HFDI demob and prep work for the upcoming injection.

2 Move the injection unit on the west side.

3 HFDI support,

4 Move the lunchroom next to the batch plant at the Sana offices. Drills will be parked there when SPW is completed.

5 Put some 0-3/4" and or esker on the east ramp so the drills can crawl up on the pad.

HENRY DRILLING :

1 Continue Secant piles production. Should be completed hopefully during night shift or tomorrow morning.

2 Pull out the casings on the dike at the casings storage area determined with AEM, KCG and HFDI.

QA/QC :

1 QC crew change today, No UCS test today.

2 QA will send the approval form to drill tertiary piles this morning.

AEM :

1 Final approval of the secant pile wall before HFDI demob. Discussion with the designer today.

Report By: Olivier Jacques, Eng.

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 12/4/2018

Time: 7h30

Presents:

AEM: OJ, PEM

KCG: DP, JG, AB **HFDI : DH, DN**

QA: AA

QC: DF

Health & Safety & Environment:

1 Nothing to report

2 KCG H&S rep is sick today. He went to the clinic this morning.

3 Operation were stopped yesterday between 14h30 to 16h00 due to the weather on the dike. Poor visibility

Daily Advance:

KCG:

1 Drilling and casing installation completed, 3 casings installed during day shift. 25.0 m drilled. S-0+498 @ S-0+510

2 Clean-up on the dike on the west side, Clean-up at the batch plant loading area using the a small loader with a scoop.

3 HFDI Support

HENRY DRILLING :

1 Piles production, 9 piles @ day, 12 piles @ night. 971/978, BG30 down during day shift 1 hour.

2 Fix the agitator tank with HFDI welder. Some palms were bent due to thicker mix.

3 Issue with the water heated seacan generator. Issue was temporaly fixed.

4 One of the air compressor on the dike for the rock hammer was down. Put a new one in-place, no down-time on the production.

QA/QC :

1 QC crew change yesterday, No UCS done

2 Last tertiary pile approval form was sent yesterday

3 Follow-up on the East side with the 3 piles at the theorical depth. Designer said to make sure no ice and/or boulders were noticed. Nothing was noticed by the QCs so it is fine and can be let as-is.

4 injection casing drilling report for Nov. 28, number doesn't fit at all with the depth measured by the QC last night with the numbers written on the report. AEM and KCG will look to adress the issue. May be required to redrill.

AEM :

General Planning/Comments:

KCG:

1 Clean-up on the dike, Move pick-up truck #28 to the Maintenance shop, Move the air compressors out of the dike, Big clean-up in the light and heavy equipment

2 Move the injection unit on the west side.

3 HFDI support,

4 Move the lunchroom next to the batch plant at the Sana offices. Drills will be parked there when SPW is completed.

5 Put some 0-3/4" and or esker on the east ramp so the drills can crawl up on the pad.

6 Drill and install casing for the instrumentation when HFDI will be out of the dike. Only thermistance casing can be done.

HENRY DRILLING :

1 Finish piles and top-up. Piles during day shift and top-up during night shift

2 Demobilization on-going

QA/QC :

1 QC back on full crew, UCS test today`

2 Final approval for the rock socket depth will be sent today

3 QA advise KCG to send the as-built drawing as soon as possible before moving the drill rigs out of the dike. KCG will make sure with the surveyor.

AEM :

1 Final approval of the secant pile wall before HFDI demob. Discussion with the designer.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 12/5/2018

Time: 7h30

Presents:

AEM: OJ, PEM

KCG: DP, JG, AB **HFDI : DH, DN**

QA: AA

QC: DF

Health & Safety & Environment:

1 Intelex Report - First Aid - the vacuum truck operator when loading water from the loading area pinched his pinky finger between the hose and the vacuum trap. Worker is ok.

2 Nothing to report Env.

3 AEM ask to HFDI and KCG to advise their workers as the secant pile wall to take the time and stay focus on the task they are assigned too.

Daily Advance:

KCG:

1 Secant Pile Wall Completion,

2 Start Demobilisation, Clean-up on the dike and at the batch plant

3 HFDI Support, Scarify and put 0-3/4" in the East ramp to move out the drill rigs from the dike.

4 Drillers and welders for the drilling and casing installation for the injection on stand-by until the grouting crew arrive on-site.

5 Move the lunchroom trailer from to the batch plant to the Sana offices.

HENRY DRILLING :

1 Piles production, 7 piles @ day, 978/978. Secant Pile Wall Completed

2 Move the drill rigs out of the dike, air lines, rock hammer seacan, etc. Demobilisation

QA/QC :

1 UCS test

2 As-built verification for the last piles. Everything is fine. 2 minor things. 2 piles had a gap at the rock socket but not at the rock ok. A pile was drilled 188mm offset, no gap also.

3 Designer sent last night a letter for the HFDI demobilisation. Designer doesn't see other elements that may require to drill extra piles. Good news.

AEM :

1 Group pictures with during day shift and night shift. Congratulation email was sent yesterday to all the parties involve in the project. Congratulations !

General Planning/Comments:

KCG:

1 Demobilisation on-going and clean-up of the dike and at the batch plant.

2 Christmas party tonight for everybody

3 Injection crew arrival tomorrow. They will stay one day at MBK to have all their trainings SOP, Respiratory mask, etc.

4 Work on the Amaruq Whale Tail Dike Symphony

6

HENRY DRILLING :

1 Demobilisation

2 Safety stop with the workers to advise them to take their time and stay focus until the end.

Half of the HFDI crew are leaving tomorrow, the other half Friday.

QA/QC :

1 QA crew change today

2 UCS test, pin hole test

3 Switch one of the QC on night shift to day shift. He finished at midnight and will be back at noon for the injection.

4 Work on the secant pile wall register

5 QC planification for the injection (number of samples, etc). AEM to check because the tender sampling is overkill.

AEM :

1

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 12/6/2018

Time: 7h30

Presents:

AEM: OJ, PEM

KCG: PG, JG, AB, DP **HFDI : DH**

QA: MJ

QC: MC

Health & Safety & Environment:

1 The worker that had inflammation to one of his knee on the sana crusher crew will be on light duties until he leave next Monday. His knee condition didn't enhance and got worst.

2 Nothing to report on Env.

Daily Advance:

KCG:

1 Clean-up on the dike and at the batch plant, Clean-up inside the light vehicule and heavy equipment. Clean-up inside the small dome at the batch plant.

2 Move equipment out of the dike (air compressor, towerlights, etc.)

3 Install the door on the small dome and put some frostfight to heat it up.

4 Move the esker stockpile out of the way of the fusion crew on the pad Q

5 Redrill the first 6 injection casings due to an issue into the casing drilling report of November 28th. The numbers weren't fitting.

HENRY DRILLING :

1 Demobilisation

2 Park the drill at the designated area

3 Put the casings into the seacans

4 The HFDI welding machine is still at MBK for repair. Should be repair during January still waiting for some parts.

QA/QC :

1 UCS test results are good, pin-hole test non-despersive result OK

2 Work on the secant pile wall register

3 QA crew change

AEM :

1 Christmas party, day shift finished at 16h00 and night shift started at 19h30.

General Planning/Comments:

KCG:

1 Work on the small dome, cut the beam, raise the door tarp up to be able to move it over the cement and bentonite bag loader (the one against the big dome)

2 Send HFDI daily report

3 Work on the demobilisation with HFDI

4 Close the water heated seacan when batch plant closure is done

6 Train one of the KCG driller on the drill rig to be able to move it in case of an emergency

HENRY DRILLING :

1 Demobilisation

2 Clean-up in the pick-up truck and the bus

3 Remove drill rigs batteries and store them in the Sana garage

4 Move and store for winter the skid pump and the trailer pump at the HFDI welding bay

5 HFDI ask if they need to move the seacans with the casing out of the East channel way. AEM say we can let them there and we will move them later on if necessary.

QA/QC :

1 QA/QC will go check if we can remove all the wooden palettes and the barricades on the poured pile if it is hard enough.

2 Work on the secant pile wall register

3 UCS test

4 Lab calibration on the Gilson and the grout molds

5 QA will send the last approval form for the rock socket depth.

6 QA/QC to measure the first injection casing hole to back check the casing drilling report of last night.

AEM :

1 AEM ask to KCG if they have a worker trained on the seacan hyster if not it would be a good idea to train one. The seacan hyster will stay at Amaruq all winter long without operator. We can rent it on a daily basis if necessary.

Report By: Olivier Jacques, Eng.

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 12/7/2018

Time: 7h30

Presents:

AEM: OJ, PEM

KCG: GT, PG, DG, AB, KL, JG, SL

QA: MJ

QC: MC

Health & Safety & Environment:

1 Nothing to report H&S

2 Wildlife : A wolf was reported around the Sana garage and the pad Q yesterday morning. Stay vigilant and watch your surrounding

3 Snailz operationz today, move the small dome on the dike. The JHA will be presented to workers assigned to this task.

4 Worker with the knee inflammation went to the clinc this morning to be evaluated, He will go see the nurse on a daily basis until he leave.

5 Blast at 12h45, Quarry 2

Daily Advance:

KCG:

1 Work on the small dome to be able to move today during day shift. Weather is OK no wind.

2 Remove the wooden palette and barricades on recent piles poured, some remaining to remove but the CB mix wasn't hard enough.

3 Reception of the crusher parts at MBK yesterday, they arrived with the plane. Sana will bring them to AMQ today.

4 Injection crew mobilisation on-site. The crew slept at MBK yesterday for the training today SOP and Fit test.

HENRY DRILLING :

1 Demobilisation, crew demobilisation,

2 Park the drill at the designated area, remove the batteries and store them. A worker of Sana have been trained yesterday to move the drill in case of an emergency.

3 Put the casings into the seacans

4 Closure of the batch plant and the water heated seacan.

QA/QC :

1 UCS test results are good

2 Piles #882 and 904 are a little bit lower than Elv. 157.0. 156.78 and 156.85. These piles will stay as-is.

3 Injection casing depth verification 180 @ 210. Minor difference with the KCG report but OK

4 QA/QC went to check if the recent pile were hard enough to remove the wooden palette and the barricade with KCG supervisor. Able to remove a couple of them.

5 Last approval for rock socket depth was sent yesterday.

AEM :

General Planning/Comments:

KCG:

1 Move the small permadome on the dike using the top hammer drill.

2 KCG HFDI support crew leaving site today

3 General clean-up on-site

4 Injection crew training today at MBK. KCG hopes to start the injection around Wednesday

HENRY DRILLING :

1 Complete crew demobilisation

QA/QC :

1 QA/QC will go check if we can remove all the wooden palettes and the barricades on the poured pile if it is hard enough.

2 Work on the secant pile wall register

3 UCS test

4 Lab calibration on the Gilson and the grout molds

5 QC ask if he can have the start-up program for the injection. AEM doesn't have all the technical spec yet but will provide the KCG work method.

AEM :

Report By: Olivier Jacques, Eng.

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 12/8/2018

Time: 7h30

Presents:

AEM: OJ, PEM

KCG: LS, GT, PG, DG, AB, JG, KL

QA: MJ

QC: MC

Health & Safety & Environment:

1 Nothing to report

2 Pit Operation shut down last time 3hrs during night shift. Crusher team went at the Sana Garage.

3 Improvement on the condition of the worker with the knee inflammation, Still on light duties until Monday. He should be fine.

4 SOP and Fit test at MBK for the injection crew on-site. Monday arrival workers will do the FIT test at MBK and the SOP next Friday at AMQ.

5 Presentation of the JHA to workers to move the small permadome on the dike.

Daily Advance:

KCG:

1 Dismantel the cement and bentonite loading area to move the permadome. Move the permadome in PM on the dike. Everything went well, completed.

2 Crusher parts arrived at AMQ with KCG tow haul yesterday. Work on the repair.

3 Work on the water heated seacan for the injection drill at MBK. Should be completed today.

4 KCG found a seacan with cement HE in small bags at MBK Sana garage. Cement HE big bag are too big for the injection unit and will cause a lost production if we need to use them.

5 Final clean-up on the dike. Remove all the remaining wooden palettes and level-up the floor.

HENRY DRILLING :

1 Demobilisation, crew demobilisation, completed. No more HFDI workers on-site. They will come back in June 2019 to complete the demobilisation for the barges.

QA/QC :

1 UCS test results are good

2 Work on the UCS register, curve.

AEM :

General Planning/Comments:

KCG:

1 Install the injection drill inside the permadome and hook the dome to the drill. Install the door on the other end of the permadome.

2 Bring the cement HE seacan from MBK to AMQ with KCG tow haul. This cement was ordered last year when KCG worked on the leach tank. If everything goes well with no big in-take, we should be fine with this quantity.

3 Close the temporary pound next to the batch plant. Backfill it.

4 Drill and install casing for the instrumentation on the East side. 5 casing can be install.

5 KCG receive the grout injection method revised by AEM and SNC Lavalin. KCG will wait Monday to revise it with the stakeholders of the method down south.

QA/QC :

1 QC/QA will work study the grout injection documents and also work on a grout injection register.

2 KCG received the inclinometer to verify the casing deviation (verticality). QA/QC and KCG will check the casing deviation this morning. Check at 3m and 9m (3bar of 3m lengths) and do the maths for the deviation.

3 QC to check to send samples next Monday down south for the permability test. Last samples shipment.

AEM :

Report By: Olivier Jacques, Eng.

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 12/9/2018

Time: 7h30

Presents:

AEM: OJ, PEM

KCG: LS, GT, PG, AB, JG, DG, SL, KL

QA: MJ

QC: MC

Health & Safety & Environment:

1 Nothing to report

2 Blast today at Quarry 2, 12h45PM. Crusher to give their clearance to Earthwork supervisor

3 KCG H&S rep. will do the WHMIS training the Sana garage crew day shift and night shift at MBK

4 Sana mechanic worked alone last night. Call himself every 30min to the Night shift Earthwork supervisor

5 A fit test is scheduled with the new workers arriving tomorrow for the injection.

6 KCG are revising and standarizing all the crusher procedure and work method Groupe Gilbert wide. Modification with guards, barricades, etc. Good move.

Daily Advance:

KCG:

1 Install the steel frame of the permadome door. Put and attach the injection drill to the permadome completed

2 Work on the injection unit, accessories, packers, etc.

3 Reception of one seacan out of two with cement HE in smaller bags than the one we have on-site at AMQ. Heat the cement using a frostfighter

4 Close and backfill the temporary pond close to the batch plant

5 General clean-up at the HFDI shelter and inside the batch plant on-going. Close the holes in the tarp on the permadome door using plywood for winter at the batch plant.

6 Bring the fuel tank at km 60 on AMQ road to the Sana garage.

7 Crusher team is working on the repairs. Crusher should be up and running next Monday.

8 Drill and Install 5 instrumentation casings on the East side of the dike. TH9, TH10, TH11, TH13, TH14

QA/QC :

1 UCS test results are good

2 Check the verticality % of injection casings using an inclinometer with the help of KCG. Data to be forwarded to AEM and QC/QA after the meeting.

3 Prepare the samples to be sent down south for permeability test

4 QA went at WRSF dike, minor quantity of snow at the west abutment. No need to do snow removal for the moment.

AEM :

General Planning/Comments:

KCG:

1 Finalize the prep work on the injection unit. Should be completed today. Bring it on the dike at the end of shift if possible.

2 Install the doors on the permadome on the dike. Should be done by the end of the day.

3 Remove the CD-80 back-up pump from inside the AT seacans. Bring it to E&I.

4 General clean-up inside the batch plant

5 Reception of the second seacans with cement HE and bring the water heated seacan for the injection from MBK to AMQ

6 Close the water heated seacan at the batch plant. Drain the water inside the water tanks.

QA/QC :

1 UCS test, Office work

2 QC to check the temperature of the cement HE inside the seacan. KCG said it was to hot this morning. They remove one trompe, should be fine like this.

AEM :

Report By: Olivier Jacques, Eng.

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 12/10/2018

Time: 7h30

Presents:

AEM: OJ

KCG: LS, DG, JG,

QA: MJ

QC: MC

Health & Safety & Environment:

1 Yesterday PM, the worker at the lab was feeling unconfortable. After an investigation, it was notice that inside the humidity room the presence of mould at the bottom of the walls. As a preventive measure, AEM close the lab and contacted the H&S department and the AEM industrial hygienist. Hygeinist will send a procedure and a product to mitigate and correct the situation. Lab is closed until further notice. Worker went to the clinic, he is fine.

2 Nothing to report Env.

Daily Advance:

KCG:

1 Water heated seacan and in-take water seacan closure.

2 Reception the cement HE seacan and water heated seacan from MBK

3 Work on the injection unit

4 Work on the permadome, finish the door, install a "jupe" so the snow doesn't come in and the heat stay inside the dome. Install a pole at the front to be able to pull it.

5 Work on crusher repair.

6 Bring the seacan with a transfo back to Construction on pad H

7 General clean-up at the batch plant, Remove the back-up CD-80 and frostfighters inside the batch plant back at the shop. Bring back the CD-80 and the portable toilette to E&I.

QA/QC :

1 UCS test results are good, Good clean-up inside the lab.

2 The verticality % sent by KCG is wrong. The % on the spread sheet is compare between the top casing and at 4.6m. The % need to be apply on the total length of the casing. KCG will revise.

3 The verticality % sent by KCG is only on one axis (Y) perpendicular to the wall. We have no data on the X axis. Redo inclinometer meter tomorrow with KCG, QA/QC.

4 Shipment with the last samples is on the bus to MBK this morning to be sent down south. Last shipment.

AEM :

General Planning/Comments:

KCG:

1 Crew change today. Injection crew coming-in today. Full staff.

2 Install an exhaust on the drill going out the dome.

3 Move the injection unit on the dike

4 Complete the assembly of the crusher parts, do some adjustment and run some test. Apply new standard and procedure of Groupe Gilbert at the crusher.

QA/QC :

1 Office work,

2 Redo inclinometer reading on X axis

3 SNC-Lavalin Grouting specialist arrival on-site today

AEM :

Report By: Olivier Jacques, Eng.

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 12/11/2018

Time: 7h30

Presents:

AEM: OJ

KCG: LS, SL, JG, DG, KL

QA: MJ

QC: MC

Health & Safety & Environment:

1 Nothing to report, Activities were stopped around 13h00PM due to the weather condition (Blizzard). Escort done around 15h30PM to go fuel up the equipment.

2 KCG are revising and standarizing all the crusher procedure and work method Groupe Gilbert wide. Modification with guards, barricades, etc. on-going

3 Mould in the Lab - AEM are in contact with the industrial hygienist at MBK. There is a specialize contractor in decontamination coming on-site for Baker Lake. We are planning to have them at Amaruq to clean the mould if possible.

If possible, it will be Thursday PM or Sunday during the day. KCG ask if it is possible to send more information by email. AEM to do it.

4 AEM contacted the GHD supervisor to ask him to send the workers that worked into the lab to go do a medical check-up.

Daily Advance:

KCG:

1 Work on the injection unit. Install a window and some accessories (wooden box)

2 Install an exhaust on the injection drill in the dome going outside of the dome, done.

3 Snow removal on day and night shift. KCG did a convoy at 15h30PM to fuel up the equipment

4 Work on the crusher assembly.

QA/QC :

1 Office work

2 QA ask what is the bedrock in the spread sheet sent by KCG. KCG said it is the bedrock encounter during the casing drilling. QA and KCG to sit to have more explaination and clarification.

3 Inclinometer reading are within the 6% tolerance. Worst case was at 2.9%. The inclinometer doesn't give the orientation on which way the hole deviate. It gives an absolute deviation.(No azimut)

After meeting discussion, KCG surveyor will draw a circle at the bottom of the hole indicating the possible localisation of the casing at the encounter bedrock according to deviation %.

AEM :

General Planning/Comments:

KCG:

1 Finalize the injection unit set-up. Run some test and do the mix testing (Bleed, Mud, Marsh and Temp.) with QA/QC. Scrap mix will go in the north pond.

2 Start drilling for the injection in PM.

3 Run test at the crusher and hopefully start crushing 0-3/4" at the end of day or tomorrow.

4 KCG say that the gel time is approx 8hrs and the mix should reach 10 to 15 MPA after 24hrs. Discussion concerning the establishment of the set time using a vane test or marsh funnel. Will be done using mash funnels.

5 Snow removal and road&access maintenance

QA/QC :

1 Office work, QC working on the grout register

2 QA will work on the weekly report

3 QA/QC grout mix trials

AEM :

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 12/11/2018

Time: 7h30

Presents:

AEM: OJ, PG

KCG: CG, SL, LS, LB, GT, DG

QA: MJ, MT

QC: MC

Health & Safety & Environment:

1 Nothing to report

2 KCG H&S advise to watch for the speed when coming out of the camp. There is a lot of traffic in the morning.

3 Specific risk - Watch for the CO emission coming from the drill inside the dome. AEM ask KCG H&S rep to do a CO reading in PM to make sure everything is ok. KCG tell that they need to do a modification on the exhaust pipe. It is really hot to prevent damage on the dome tarp.

4 KCG H&S rep is leaving site today (GT), did a good turn around with the crusher crew and gave them a corrective measure list to do before starting back crushing.

Daily Advance:

KCG:

1 Snow Removal all day

2 Install "ski" underneath the injection unit to make it easier to move. Finish installing the window inside the injection unit.

3 Work on the injection unit, to be ready to do some mix texting. Install hoses, etc.

4 Work on the crusher, Repair are done. Run some test last night, everything is running good. Work on the corrective measure.

QA/QC :

1 QC getting ready to do the mix trials for the injection, Work on the grout register.

2 Grouting Specialist was introduced to do the team.

3 QA sent the weekly report for Whale Tail Dike.

AEM :

General Planning/Comments:

KCG:

1 Small issue with the water heated seacan this morning. It is being adress by KCG.

2 Exhaust modification on the drill in the dome

3 Run some test with the drill if everything is working properly. Start drilling inj. Hole beginning with P-0+504

4 Crusher working on the corrective measure. After meeting discussion, the crusher won't start until Thursday with all the modification to be done.

5 Run the injection unit for the mix trial

QA/QC :

1 QA/QC mix trial with the grout mix. Study injection document and work on the grout register

2 QA will do a good tour to familiarize the grouting specialist with the site and the work to be done.

3 Designer is supposed to send all the documents concerning the injection today. (Number of stages, test frequency, drill depth, etc.)

AEM :

1 Dike Supervisor will be also Earthwork supervisor today due to the cross-shift.

Report By: Olivier Jacques, Eng.

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **December 13th 2018**

Time: **7h30**

Presents:

AEM: PG-OJ

KCG: LS-DG-SL-LB

QA: MT-MDJ-UM **QC: MC**

Health & Safety & Environment:

- CO gaz detection was done in the dome, everything was fine / WHMIS session for KCG injection workers done this morning

- Ear protection must be worn inside the Dome

- Very windy on site today, drive according to the changing conditions

Daily Advance:

KCG : - Grout mix trials (tests on mix A, B, D and A+cold admixture)

- 2 boreholes drilled

- water shack to drill connection troubleshooting done

- snow removal around site

- final bedrock depth values were corrected following AEM visit at the dome

QA/QC : - Glenium most likely froze in the past, produced not so good results when used. Was reheated and remixed. New tests today.

- follow up on grout injection preparation, procedure

- received roles and responsiliblities of QA-QC

General Planning/Comments:

KCG : - continue drilling the bedrock inside dome

- complete the grout tests

- move the injection unit on the dike

- start injection

QA/QC : - continuie testing on trials

- measure boreholes

- follow-up on injection and drilling

- SNC to provide missing information to start the grout injection and discusss the comments from AEM on R&R of QA-QC

Report By: Patrice Gagnon

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAG
MEADOWB

Date: **Dec 14th 2018**

Time: **7h30**

Presents:

AEM: PG-JFB

KCG: CG-SL-LB

QA: MT-MDJ-UM **QC: MC**

Health & Safety & Environment:

- AEM H&S Dpt visit : reminder about speed around site and to switch radio channel while driving around

- Light snow on site can hide potential hazards such as ice patch, be on the look out

- ENV Dpt inspection this morning

Daily Advance:

KCG : - Drilled 5 holes

- Mix trials (C & D)

- crusher resarted at 4:30pm yesterday, operation days & nights

- snow removal on U/S WTD access

QA/QC : - Mix trials testing - All good but Mix D was not as thick as it is supposed to be (to be adjusted with Grout specialist)

- measured the holes drilled - overdrilled by 0.3 to 1m

- Designer requested the Vicat apparatus on site ASAP (AEM checked with GHD, news on that today)

General Planning/Comments:

KCG : - Continue drilling holes

- Move injection unit on the WTD

- Start injection

- Crushing 0-¾"

QA/QC : - sampling of the 0-¾" at the crusher

- measure drill holes

- follow-up on injection on WTD

- official communication to be followed on the specifications and # stages today

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAG
MEADOWB

Date: **Dec 15th 2018**

Time: **7h30**

Presents:

AEM: PG-JFB

KCG: CG-SL-LB

QA: MT-MDJ-UM **QC: in the field**

Health & Safety & Environment:

- AEM Env inspection : reminder about wildlife vs coffee spills found on site

- QC lab will be cleaned this week-end by E&I

- Light snow and winds today: adapt your driving to conditions

Daily Advance:

KCG : - Drilled 0 hole (issues with the water pump feeding the Tamrock) - Fixed now

- Fixed issued with Data Acquisition System (DAS), changed program in it and AEM provided a new radio and antenna

- Crusher normal production with FF

- As a back up plan, AEM provided 3 water pumps to feed the Tamrock

QA/QC : - Sampling and gradation of the FF at crusher

- QA requested drill logs from TCG

- Designer requested the Vicat apparatus on site (AEM checked with GHD,arrival on site on Monday)

General Planning/Comments:

KCG : - Continue drilling holes

- Start injection on primaries

- Crushing FF 0-¾"

- Snow removal

- Test the new pumps from AEM

QA/QC : - sampling of the 0-¾" at the crusher

- measure drill holes

- follow-up on injection on WTD

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAG
MEADOWB

Date: **Dec 16th 2018**

Time: **7h30**

Presents:

AEM: PG-JFB

KCG: CG-SL-LS-NT

QA: MT-MDJ-UM **QC: MC**

Health & Safety & Environment:

- Icy conditions around and in the drilling dome - wear proper footwear
- Blast at 12h45 at Quarry 2
- Whipping protection cables need to be installed on every injection hoses in the injection unit

Daily Advance:

KCG : - Drilled 3 holes

- Drill broke at 3pm - Cylinder changed during night
- Injection of 4 holes - 11 stages completed
- Crusher normal production with FF

QA/QC : - Grouting follow up - all test good on mix A; measured 2 holes (ok)

- QA requested drill logs from TCG
- Hole 384 is caving badly when drilling - presence of FF and potential CB in cuttings
- Hole 468 and 456 are caved in - 468 already injected will need to be redrilled and reinjected

General Planning/Comments:

KCG : - Continue drilling holes

- COntinue injection on primaries
- Crushing FF 0-¾"
- Snow removal
- Test the new pumps from AEM

QA/QC : - sampling of the 0-¾" at the crusher

- measure drill holes
- follow-up on injection on WTD
- QC cross-shift tomorrow
- Discussions on water pressure test planning

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAG
MEADOWB

Date: **Dec 17th 2018**

Time: **7h30**

Presents:

AEM: PG-JFB

KCG: CG-SL-LS-NT

QA: MT-MDJ-UM **QC: crew change**

Health & Safety & Environment:

- JOHS commity meeting - emphasis on swiching radio channels around site

- Blast at 12h45 at Quarry 2

- Texting while walking in the corridors is forbidden

Daily Advance:

KCG : - Drilled 7 holes

- Injected 1 1/3 hole (4 stages) - High takes

- Pump test with AEM's inconclusive

- Crusher normal production with FF

QA/QC : - Grouting follow up - some inconsistency inviscosity and viscosity were noted for the same mix - **To be addressed by TCG**

- QA requested drill logs with NOTES from TCG

- Measured boreholes - 1 hole collapsed just below casing #384

General Planning/Comments:

KCG : - Continue drilling holes

- Continue injection on primaries

- Crusher down - crew change

- Snow removal

- Put sand on dike around unit and dome

QA/QC : - follow-up on injection on WTD

- measure drill holes

- MDJ to act as QC today during cross shift

- Discussion at SNC to assess the high takes from yesterday

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Dec 18th 2018**

Time: **7h30**

Presents:

AEM: PG-JFB

KCG: CG-SL-LB-NT

QA: MDJ-UM **QC: AD**

Health & Safety & Environment:

- Trips, slips and falls - use proper PPE, footwear, cleats

- Blast at 12h45 at Quarry 2

- Molds problem in the lab fixed by E&I

Daily Advance:

KCG : - Drilled 6 holes

- Injected 1 1/3 hole (4 stages) - High takes

- issues with water supply to the Tamrock at 3h30pm

- Crusher normal production with FF

QA/QC : - Grouting follow up - some inconsistency in viscosity were noted for the same mix - **To be addressed by TCG**

- Vicat apparatus received

- Drill logs received but need more details

General Planning/Comments:

KCG : - Continue drilling holes primaries, start secondaries

- Continue injection on primaries

- Crusher normal production FF

- Snow removal

- Put sand on dike around unit and dome

QA/QC : - follow-up on injection on WTD

- measure drill holes from yesterday

- Vicat test to start today

- Work on weekly report

- Perform UCS from CB mix

- Perform tests on new Mix E with higher cement content

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAG
MEADOWB

Date: **Dec 19th 2018**

Time: **7h30**

Presents:

AEM: PG-JFB

KCG: CG-SL-LB-NT

QA: UM **QC: AD**

Health & Safety & Environment:

- Ice on dike surface - Trips, slips and falls potential - use proper PPE, footwear, cleats

- Review incident that occurred at MBK's Sana garage - Coactivity is the main contributor to the incident

-

Daily Advance:

KCG : - Drilled 7 holes, 1 redrilled #468

- Injected 3 stages - High takes

- Crusher normal production with FF, down for a couples hours to change bearing

QA/QC : - Grouting follow up - consistency is better between mixes - MIX E was used but does not appear in the reports

- measured holes - #204 caved in

- packer deflation should arrived only when no more pressure in the hole

- injection happened with higher pressure than planned - need to substract pressure from the water head

- pressure gage at hole collar is not working - need a spare

- UCS testing on CB mix from secant pile

General Planning/Comments:

KCG : - Continue drilling holes primaries, start secondaries

- Continue injection on primaries, test on secondary

- Crusher normal production FF

- Move instruments and piping into 40' container

QA/QC : - follow-up on injection on WTD

- measure drill holes from yesterday

- Vicat test to start today

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAG
MEADOWB

Date: **Dec 20th 2018**

Time: **7h30**

Presents:

AEM: PG-JFB

KCG: CG-SL-LS-NT

QA: UM **QC: AD**

Health & Safety & Environment:

- Important to stay focus on the job during that time of year where distractions from personnal life can be at their peak

- Sun transit low at this period at lunch time - might be blinding when driving towards WTD

- Wolverine seen on site

Daily Advance:

KCG : - Drilled 0 holes

- Injected 10 stages - 2 with High take

- Crusher normal production with FF

- Tested new water supply at Service Building

- Moved instruments and pipes in 40' seacan

QA/QC : - Grouting follow up - too much volume is injected at the start of a stage - normal if no pressure from the bedrock - but will be adjusted by TCG fro a more gradual state

- measured holes after drilling but also before 2nd stage to make sure to adjust the pressure of the stage if any change is noted

- Sampling at crusher of FF

General Planning/Comments:

KCG : - Start drilling the first 3 secondaries

- Continue injection on primaries, test on secondary

- Crusher normal production FF

- Mammoth Dike snow removal

QA/QC : - follow-up on injection on WTD

- FF gradation

- Vicat test to start today

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Dec 21st 2018**

Time: **7h30**

Presents:

AEM: PG

KCG: CG-AB-NT-LB

QA: UM **QC: AD**

Health & Safety & Environment:

- Blast Quarry 2 at 3pm - Dike outside radius

- Review incident at garage - important to honk before initiating any vehicule movements

- Review of the AED location on AMQ site

Daily Advance:

KCG : - Drilled 3 secondary holes

- Injected 7stages - all to refusal

- Crusher normal production with FF

- Snow removal at Mammoth Dike

QA/QC : - Grouting follow up - volume is injected at the start of a stage is good now

- Need to wait for pressure dissipation before deflating packers

- Gradation of FF - Still slightly high in coarse portion - Adjustment at crusher

General Planning/Comments:

KCG : - Continue drilling the secondaries

- Start the injection on secondary, continue with primaries

- Crusher normal production FF

QA/QC : - follow-up on injection on WTD, water pressure test on secondaries

- FF gradation

- Vicat test to start today

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAG
MEADOWB

Date: **Dec 22nd 2018**

Time: **7h30**

Presents:

AEM: PG

KCG: AB-NT-LB-FP

QA: UM **QC: AD**

Health & Safety & Environment:

- Slip & falls around the unit - sill icy, wear proper PPE

- CO inside the dome - make sure the drill exhaust is directed to the outside

- LB tour with H&S officer today

Daily Advance:

KCG : - Drilled 2 secondary holes

- Injected 4 stages on secondaries - 3 holes collapsed could not perform proper stage 1 injection, needs to be redrilled…

- Crusher normal production with FF

QA/QC : - Grouting follow up - slight deviation in testing with mixes C & D - new batcher yesterday, fixed now

- Samples taken from Mixes C & D

- we should not drill too far ahead because most of the holes collapsed into bedrock - rock quality is bad

General Planning/Comments:

KCG : - Continue drilling the secondaries

- Continue the injection on secondary, water pressure tests

- Crusher normal production FF

- Snow removal at Mammtoh dike

QA/QC : - follow-up on injection on WTD, water pressure test on secondaries

- FF sampling at crusher

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Dec 23rd 2018**

Time: **7h30**

Presents:

AEM: PG

KCG: AB-NT-LB-RC

QA: UM **QC: AD**

Health & Safety & Environment:

- Slip & falls around the unit - sill icy, wear proper PPE

- Speed limit around camp and buildings must be respected

- LB tour with H&S officer went well, all good on WTD activities, some minor comments inside KCG's garage

Daily Advance:

KCG : - Drilled 2 secondary holes (needed to continue the injection today)

- Injected 4 stages on secondaries - 3 water pressure tests done

- Crusher normal production with FF

- Snow removal at Mammoth dike foundation

QA/QC : - Grouting follow up - everything is good

- Samples taken at crusher FF

- UCS on CB mix

General Planning/Comments:

KCG : - Continue the injection on secondary, water pressure tests

- Crusher normal production FF

- Continue snow removal at Mammoth dike

QA/QC : - follow-up on injection on WTD, water pressure test on secondaries

- FF gradation (coarse portion)

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: 2018-12-25

Time: 7h30

Presents:

AEM:

KCG: AB-RC-DD-LB-NT

QA: UM **QC: AD**

Health & Safety & Environment:

Windy and snowy conditions. Adjust driving to road conditions

Blizzard procedure kept on mind due to weather forecast

Daily Advance:

KCG : No drilling done yesterday

Injected 8 stages

Crusher normal production FF

QA/QC :

UCS on CB mix

Sample taken on FF material

** let pressure goes back to zero before removing packer

General Planning/Comments:

KCG : injection

3 secondary holes to be re-drilled (510-498-486)

crusher normal production FF

QA/QC :

Injection follow-up

gradation on FF

UCS

Report By: Audrey Bilodeau (KCG Ass. Project Mgr)

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: 2018-12-26

Time: 7h30

Presents:

AEM:

KCG: AB-RC-DD-LB-NT

QA: MU **QC: AD**

Health & Safety & Environment:

very cold weather, please pay attention to frost bites and check on your co workers

acces to medical clinic has to be done by driving all around the camp. Standard access blocked (night shift worker complained about pickup noise)

Daily Advance:

KCG :

no driling

4 stages achieved

crusher normal production with FF

installed pressure gage on injection set-up

QA/QC :

monitored injection

UCS test

FF non-conformity on 19 seive.

General Planning/Comments*:*

KCG :

re-drill 3 secondaries (510-498-486)

keep going with injection

QA/QC :

Monitoring injection

FF sample to be taken this afternoon

UCS to be performed

Report By: Audrey Bilodeau

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: 2018-12-27

Time: 6h30

Presents:

AEM:

KCG: AB-RC-DD-NT

QA: MU **QC: AD**

Health & Safety & Environment:

very cold weather, please pay attention to frost bites and check on your co workers

slow down on site, respect speed limits

Daily Advance:

KCG :

no driling

7 stages achieved

crusher restarted at 3h30pm

QA/QC :

monitored injection

UCS test

add new mix (0,5) discussed and agreed with injection team. To increase thickness more slowly.

General Planning/Comments*:*

KCG :

re-drill 3 secondaries (510-498-486)

keep going with injection

QA/QC :

Monitoring injection

FF sample to be taken this afternoon

UCS to be performed

Report By: **Audrey Bilodeau**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Dec 28th 2018**

Time: **7h30**

Presents:

AEM: OJ

KCG: NT, DG, RC, PG

QA: MU **QC: AOD**

Health & Safety & Environment:

Nothing to report

AEM sent to KCG the Env Weekly inspection report. There was a non conformity, doors of seacans were let open near the Sana garage. KCG are closing them at the moment.

Daily Advance:

KCG :

Re-drilled 2 secondary boreholes and 1 borehole cleaning

Injected 6 stages : P-0+300 x2, P-0+324 x2 and P-0+348 x2

3 hours lost time at the end of the shift due to pump failure in the injection unit. Should be up this morning.

Crusher is producing Fine Filter.

Snow removal and road & access maintenance

QA/QC :

Grouting follow-up, nothing special, Still some issue with the freeze in the pipes.

UCS test 28 days for the secant pile wall

FF gradation, QC advise there is an issue with the 19mm sieve at the crusher. 92% passant at that sieve. To be adress by KCG to fix the issue.

General Planning/Comments:

KCG :

Keep going with the injection, fix the issue with the pump in the injection unit.

Redrill 2 secondaries S-0+510 and S-0+498 because the hole caved in.

Snow removal at Mammouth Dike and if possible at WRSF west abutment

QA/QC :

QA ask for the water level up on Upstream and Downstream. AEM will look for the reading and send it when ever possible.

QA ask if we still a thermistance active on the dike. AEM think not but will double check.

AEM ask to QA concerning the need of tertiary and identify tertiary holes required ASAP. QA will talk about that during the 10h00 call with designer.

AEM ask to QA concerning the need for the injection pass S-0+510. QA will also talk about that during the meeting.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Dec 29th 2018**

Time: **7h30**

Presents:

AEM: OJ

KCG: NT, DG, RC, PG

QA: MU **QC: AOD**

Health & Safety & Environment:

Nothing to report

Environment Weekly Report is closed. Corrective measures were done yesterday morning.

Blast Quarry 2 at 12:45PM

Next Monday, there will be a Mechanic working alone on night shift. KCG ask if it is possible to do the same procedure as the other time, Call the Earthwork supervisor every 30min.

Daily Advance:

KCG :

Re-drilled 2 secondary boreholes S-0+510 and S-0+498

Injected 4 stages S-0+402 and 2 re-do stages on S-0+510

6.5 hours lost time at the beginning of the shift due to pump failure in the injection unit. Up and running now.

Crusher is producing Fine Filter.

Snow removal at Mammoth Dike

QA/QC :

Grouting follow-up, nothing special.

UCS test 28 days for the secant pile wall

Aem sent the piezo reading on DS and US to QA this morning dated on Dec 28th

QC talk about the sieve adjustment for the FF. KCG will not adjust it since they have completed all the fine filter required.

General Planning/Comments:

KCG :

Keep going with the injection, 498 and after 486

Redrill 402 last stage due to cave in.

Snow removal at Mammouth Dike. 3 or 4 hours left to do

Fine Filter crushing should be completed this morning. 2000T. Was added by Eng. Yesterday. Crusher will switch on stemming no gradation needed.

KCG ask AEM concerning the oversize at the crusher area. Earthwork are supposed to remove them soon to give some space for the stemming stockpile.

QA/QC :

QA advise AEM that we received the email from the designer concerning the tertiary. Discussion was held yesterday to add a night shift on the injection to be able to these extra

holes without impacting the actual grouting schedule.

QC to do a gradation on the fine filter this morning.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING
WHALE TAIL DIKE 2018

Date: **Dec 29th 2018**

Time: **7h30**

Presents:

AEM: OJ

KCG: NT, DG, RC, PG

QA: MU **QC: AOD**

Health & Safety & Environment:

Nothing to report

Work alone procedure was respected last night for the mechanic working alone on night shift. He did call himself every 30min to the Earthwork supervisor.

Crusher team requested an intersection sign at the intersection close to the WTP to go to the maintenance shop and/or to the Quarry 1. AEM will look with site service.

Daily Advance:

KCG :

No drilling yesterday. Move the drill at the end of the shift to be ready to drill secondaries today (S-0+390).

Injected 8 stages P-0+288, S-0+486, S-0+498 and P-0+276 and 4 re-do stages on S-0+486 and S-0+498

Snow removal at Mammoth Dike

Crusher had a break down during Dec 28th night shift. FF quantities are not completed yet.

AEM sent an email confirming the tertiaries requirment and according to the new scope of work a night shift will be required to make sure the schedule is respected.

AEM added a primary P-0+516 to make sure we reach the frozen soil. No in-take results.

QA/QC :

Grouting follow-up, The pressure gage at the collar is not working. KCG and AEM will check to replace it.

UCS test 28 days for the secant pile wall

QA ask why in the drilling report the cleaning time is always 2 min. It shouldn't be a fix time. The hole should be wash until the water returns clean, may take more than 2min.

High Pressure fluctuation was notice during the grouting of 510. KCG says it is because of pieces of big bag getting stuck at the valve and make the pressure increase.

Off meeting discussion, it may also come from peddle of cement getting stuck and make the pressure increasing. KCG to address that.

General Planning/Comments:

KCG :

Drill secondaries from 390 going West.

Grout injection in primaries and switch on secondaries when the drill have some advance probably in PM.

Snow removal at Mammouth Dike

Crusher is doing FF remaining quantities should be done during night shift. Switch on stemming after.

AEM and KCG to look for a place to stockpile NPAG at Mammoth dike, WRSF Dike and N-E dike as requested by Earthwork. No more space at the crusher stockpile.

AEM will also how much quantities we have in stockpile at the crusher and how much can be for the dikes so we don't stockpile to much at WRSF dike, closest dike.

QA/QC :

Follow injection and drilling

No QC tomorrow. QA and or KCG technician will do the testing during this period.

SNC grouting specialist arriving on-site tomorrow.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Dec 31st 2018**

Time: **7h30**

Presents:

AEM: OJ

KCG: NT, DG, PG

QA: MU **QC:**

Health & Safety & Environment:

Nothing to report

A wolverine was observed around 8h30 around the pad Q. Workers were advise this morning to start alert when working alone and have a portable radio with them.

A safety meeting was held this morning with the workers. The new revised blizzard procedure was presented to the workers this morning.

Daily Advance:

KCG :

Drilling 390, 378, 366 and 354 yesterday. Driller wasn't able to reach the full depth of the hole in some of them due to a lost of pressure at the bottom with the water.

Redrill 402, same thing wasn't able to reach the proper depth due a lost of pressure. 402 will be left as is. KCG to check for a solution to be able to drill at the target depth.

Injected 7 stages P-0+264, P-0+252 and S-0+390 and 2 re-do stages on S-0+402

Snow removal at Mammoth Dike and WRSF Dike

Crusher had a break down yesterday. FF quantities are not completed yet. To be completed by the end of day shift.

KCG ordered a new pressure gauge. It will be on-site next Thursday.

QA/QC :

QA talked about the drilling issue. Recommandation to go with down stage grouting in the fractured rock area. Discussion to be held with AEM and designer.

UCS test 28 days for the secant pile wall

Last FF gradation was sent yesterday by QC. Still have an issue with the 19mm sieve. 96% passant.

General Planning/Comments:

KCG :

Continue drilling secondaries.

Grout secondary holes

Start drilling casing for tertiaries tomorrow and the primary 0+516. Prep work this afternoon to bring the casing close to the work area.

Snow removal at WRSF Dike as there is a lot of snow and the weather forecast looks good we will remove more than just the west abutment to be ready for the rockfill in mid-jan

Crusher should be switching on stemming during night shift if no break down.

Discussion between AEM and KCG concerning the sand for the instrumentation cable on the dike. Eskers are completed frozen. Reject might be use instead of sand.

QA/QC :

Follow injection and drilling

No QC today. QA and KCG technician will do the grout test for today.

SNC grouting specialist arriving on-site today.

KCG ask if the press for grout cube is working. QA said that the cube was brought back south due to the problem with the mold at the lab. QC to do cube when back on-site.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Jan 1st 2019**

Time: **7h30**

Presents:

AEM: OJ

KCG: DG, PG, NT, RC, DD

QA: MU, MS **QC: MC**

Health & Safety & Environment:

Nothing to report

KCG H&S rep ask what is the procedure at Amaruq for the clean-up of the water drinking dispenser. AEM to look with housekeeping.

Daily Advance:

KCG :

Drilling 342, 330, 318, 306, 294 and 282 done yesterday.

Injected 7 stages S-0+390, S-0+378 and S-0+366 done.

Snow removal at WRSF Dike

Crusher fnished FF yesterday. They switch on stemming.

QA/QC :

Discussion concerning hole 378. Drilling target depth wasn't reach (7.5m). Hole was grouted. Redrill the hole to reach proper depth is necessary.

QA ask for a water pressure test in hole 318 and 516.

QA ask to pay attention to drill at the target depth, not deeper, Tolerance would be around 0.5m. Issue in the 402.

QA ask if the calibration of the flow meter and the pressure gauge is done once week. KCG says yes but will check with the crew, a washing cycle is done every 6 hours.

QA ask if we have spare flow meter and pressure gauge as requested in the specs. KCG have another injection unit which have some parts in it.

General Planning/Comments:

KCG :

Continue drilling secondaries. Redrill 378. 2 more secondary to drill before reaching the primary grouted.

Grout secondary holes

Start drilling casing today. Starting with primary 516 and than tertiaries. A list will be send officially by AEM with the location and the number of tertiary.

Snow removal at WRSF dike on stand-by today. Moving the temporary bridges on Amaruq Road back to MBK at the crusher.

Crusher doing stemming today.

QA/QC :

Follow injection and drilling

QC to do today and tomorrow Cube strenght test, UCS and vicat test.

Discussion with AEM and QC for a Night shift QC for the injection night shift next Monday.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Jan 2nd 2019**

Time: **7h30**

Presents:

AEM: OJ

KCG: DG, NT, RC, DB

QA: MU, MS **QC: MC**

Health & Safety & Environment:

Nothing to report

KCG request that all the worker going into the injection unit wear a coverall because of the cement dust, applicable to QC/QA also.

Since yesterday, AEM do a reminder that the water in-take seacan at the dike can't be use anymore as a water supply. New water supply is close to the underground installation.

The pump have been removed yesterday inside the water in-take seacan to make sure nobody go there anymore.

Daily Advance:

KCG :

Drilling 270 and 258. Redrill hole 378 to target depth successfully.

Injected 9 stages, S-0+354, S-0+342 and S-0+330 completed and 1 stage on S-0+318.

Snow removal at WRSF Dike in PM, Stand-by in AM for the temporary bridges on AMQ road, issue with the hyster.

Crusher is doing stemming.

KCG forgot to do the water pressure test in hole 318. It will be done today in hole 306.

Prep work for the tertiary casing drilling, Issue with the drill (emergency pull cord was missing). When fixed, the drill was brought on the dike at the end of the shift.

KCG will bring 2 or 3 pressure gauge to have back-up on-site tomorrow.

QA/QC :

QA tell that in hole 354, the hole cave in and was 7m instead of 10m and it was grouted like this. No re-drill but a tertiary will be require 357. There was already a tertiary at 351.

AEM sent an email yesterday to officialise the tertiary location and requirement. The list will be updated as we continue grouting with the in-take results.

QA ask what standard ASTM KCG is using for the water pressure. KCG will check and send an email.

QC did compressive strenght test on the grout cube. Results between 27 MPa to 42 MPa for 9 days to 17 days old.

Vicat test on mix A yesterday. Initial set time = 583 min. = 9.7 hours

2 bleeding done yesterday on Mix A. Bad results were noticed. First bleeding 12% and second one was 7% and it suppose to be 5%. No explaination everything else was OK.

QC change the mash funnel cone they are using. There was a 10sec difference between two cone.

General Planning/Comments:

KCG :

Start drilling casing starting with 516 and than going west with the tertiary

Keep going injection secondaries

No grout hole drilling today and tomorrow until a couple of tertiary casing ready

Water pressure test on 306

QA/QC :

Follow injection and drilling. QA arriving on-site today

UCS test with sample older than 28 days. Technically the last 28 days should have been done yesterday but due to mold inside the lab will take longer.

AEM received during holidays two results for permability results for the wall. QC says that we should receive more next Monday after the vacation period.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING
WHALE TAIL DIKE 2018

Date: **Jan 3rd 2019**

Time: **7h30**

Presents:

AEM: OJ, PEM

KCG: DG, NT, JG

QA: MS **QC: MC**

Health & Safety & Environment:

Nothing to report

Blizzard condition this morning. All operation are stop until further notice by supervisor.

Blast at Quarry 2 at 12h45. Off-meeting Blast cancelled

Daily Advance:

KCG :

No grout hole drilling done yesterday

Injected 8 stages S-0+318, S-0+306 and S-0+294 done.

3 water pressure test done yesterday on hole 306. Results will be sent by KCG today.

No snow removal done at WRSF, Operator was on AMQ road for the temporary bridges.

Crusher doing stemming

1 primary casing drilling done P-0+516 and 4 tertiary casing drilling done T-0+501, T-0+495, T-0+465 and T-0+459

QA/QC :

Discussion between KCG and QA concerning the proper method to use water pressure test. QA doesn't agree with the method use by KCG for the water pressure test done.

KCG grouting specialist is coming on-site today. Discussion will be held to clarify the situation.

Addition of 2 tertiary holes at 297 and 291 due to the in-take in 294. QA will send the revise table for tertiary requirement.

QA ask if AEM intend to go with downstage grouting for the tertiary. AEM decide to not do downstage grouting due to the short schedule for the dewatering and the instrumentation.

If going up stage grouting, QA recommend if the driller lose the pressure to stop and do down stage grouting instead of continuing drilling. AEM aggree with this method.

QC did UCS test 28 days. Results are good.

QC did 2 bleeding test yesterday. One result higher than 5% (6.8%) and one at the limit (5%). Bleeding is getting better.

General Planning/Comments:

KCG :

Blizzard condition, KCG will monitor the weather when they will be able to restart, shouldn't be too long since the pit is restarting their activities shortly.

Continue on grouting secondaries

Continue drilling tertiary casing according to the list provided by QA.

Snow Removal at WRSF Dike

QA/QC :

Follow injection and drilling

QA will send the revise table for tertiary after the meeting.

UCS test today and office work if the weather doesn't improve.

Report By: **Olivier Jacques, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: Jan 4th 2019

Time: 7h30

Presents:

AEM: PEM

KCG: PG, JG, LPC, SL, DB

QA: MS, MDJ QC: MC

Health & Safety & Environment:

H&S: Injection Crew change coming back from holidays today - Pay extra vigilence when starting back activities

ENV: Weekly inspection report sent - KCG to address corrective measures and send the report back signed.

Daily Advance:

KCG :

No grout hole drilling done yesterday. Injection supervisor KL came back on site.

Injected 9 stages S-0+285, S-0+270 and S-0+250.

The results of the 3 water pressure tests done Jan 2nd were sent

Snow removal at WRSF / Crusher doing stemming

Activities started back at 10AM due to blizzard conditions in the morning.

6 tertiary casings drilling was done for a total of 54.2m

QA/QC :

QC did UCS tests in the morning during blizzard.

QA inquired about pressure gage to be changed - To be discussed in separate meeting today

Discussion on adding a tertiary adjacent to S-270, stage 2 took 230L (230L above specs). Nor QA or AEM saw the need for a tertiary in those circumstances.

Calibration of pressure gauges and flowmeter has to be done once in the project - To be discussed in separate meeting today

High bleed values on mix A were observed (7.6% > 5% max in specs). AEM will look into providing HE data sheet to QA for further guidance.

General Planning/Comments*:*

KCG :

New injection crew coming in today.

Continue on grouting secondaries

Continue on drilling and casing for tertiaries, start back water drilling in bedrock.

Snow Removal at WRSF Dike

3 holes to be refreshed by survey

QA/QC :

Follow injection and drilling

AEM:

Meeting to be held with all parties (including instrumentation crew) to clarify a few question marks.

Spend day on the field to understand the injection process

Report By: Pier-Eric McDonald, Eng.

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: Jan 5th 2019

Time: 7h30

Presents:

AEM: PEM, JC, BL

KCG: LS, LPC, SL, PG, JG

QA: MS, MDJ **QC:** MC

Health & Safety & Environment:

A driller received Medical Aid on Jan 4th after 2 fingers of his left hand got pinched between a drilling rod/casing and the ground. They tried to unstuck the frozen casing out of the rod and lifted one end of the assembly with a sledge hammer, while the welder pulled on a sling at the other end, the assembly fell off the sledgehammer and the driller's hand was between the assembly and the ground.

Daily Advance:

KCG :

Crew change on the injection side. Pressure transducer from grout monitoring system failed.

Grout injection on going 9 stages done yesterday Total completed 137/264 stages, Progression : 51.9% - Holes: P-0+240, P-0+228 & P-0+216, every stage met refusal criteria

2 Boreholes were drilled yesterday. Total completed 510/880 meter, Progression : 58.0 %

Casing Drilling on going, 4 casings done yesterday, Total completed 15/32, Progression : 46.9 %

Snow removal at WRSF / Crusher doing stemming

6 tertiary casings drilling was done for a total of 54.2m

QA/QC :

- Meeting held yesterday with AEM, SNC and KCG: KCG will proceed with next water tests with the methods proposed by SNC, Calibration will be done in the next days, pressure Extra Gauge to be added
- Still High bleed values on mix A were observed (> 5% max in specs). The longer shearing didn't help the bleeding, KCG to look into reducing the bleeding, superplasticizer could be added in the water instead of in the mix.
- P-0+192 & P-0+180 in permafrost, one single stage with pressure from top stage to be used. S-0+186 to be cancelled, S-0+198 to be done in 3 stages.

Vicat set time of 375min VS >900min for previous. Grout temp at 33.8C (>20C). KCG to look into lowering the temperature to bring set time higher. NS should solve this from 7th.

AEM (incl. instrumentation):

Meeting held with all parties for injection.

Pre works + meeting held with all parties for instrumentation.

General Planning/Comments*:*

KCG :

Continue on drilling and casing for tertiaries, Continue with injection.

Perform verticality measurements before grouting tertiaries.

Install extra pressure gauge. Look into fixing the broken pressure transducer of the grout monitoring system.

Snow Removal at WRSF Dike

QA/QC :

Follow injection and drilling

AEM (incl. instrumentation):

Spend day on the field to understand the injection process

Preparation for instrumentation campaign.

Report By: Pier-Eric McDonald, Eng.

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: Jan 6th 2019

Time: 7h30

Presents:

AEM: PEM

KCG: LPC, JG, SL, LS

QA: MS, MDJ **QC: MC**

Health & Safety & Environment:

- Since Water drill caught up injection unit and Casing drill, lots of co-activity and workers at the same spot, beware of the ice rink the water drill creates in this congested area

Wear cleats and KCG to put some sand to help.

- The Geotech seacan for instrumentation is now on the dike with a towerlight, beware of this new equipment when driving around.

- Blast at Quarry 2 (off meeting: cancelled)

Daily Advance:

KCG :

Crew change on the injection side. Pressure transducer from grout monitoring system failed.

Grout injection on going 4 stages done yesterday Total completed 141/264 stages, Progression : 53.4% - Holes: P-0+204, P-0+192, P-0+180, S-0+378. Refusal by Vol. on 1 hole

8 Boreholes were drilled yesterday. Total completed 598/880 meter, Progression : 68.0 %

Casing Drilling on going, 4 casings done yesterday, Total completed 16/28, Progression : 57.1 %

Snow removal at WRSF / Crusher doing stemming

The casing drill drilled 5.3m during 15min and a valve broke for the whole day.

Pressure gauge was added as per SNC's request. The failed pressure transducer of the monitoring system will arrive Monday, no equivalent back up exists at AEM.

QA/QC :

- Low mud balance values were observed because of 20kg bucket forgotten in the mix. Was Ok after fixing this.

- Still high bleeding values were observed despite adding glenium in water rather than mix (8.9% >5%) but because of that forgotten bucket. To re-assess today.

- Vicat set time test was performed on mix D at 330min result

- Reminder to KCG to forward all the tertiary holes casing report as well as their inclinometer values

- Grout temperature is too high in the morning but is a result of being left all night in the warm unit. The nightshift Monday should solve this issue.

QC measured the hole depth once the Tamrock passes, all is compliant

AEM (incl. instrumentation):

Undertaking prep works. Geotech seacan now on the dike.

General Planning/Comments*:*

KCG :

Continue on drilling (1 hole only due to tight space) and casing for tertiaries, Continue with injection.

Casing drill to be fixed early in the morning.

Perform water pressure test on hole 0+516, pressure to be checked with QA before

Finish Snow Removal at WRSF Dike

Forward verticality readings this morning.

QA/QC :

Follow injection and drilling / QC to perform UCS tests on secant wall samples.

AEM (incl. instrumentation):

Preparation for instrumentation campaign.

Report By: **Pier-Eric McDonald, Eng.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: Jan 7th 2019

Time: 7h30

Presents:

AEM: PEM

KCG: LPC, JG, SL, LS

QA: MS, MDJ **QC:** MC

Health & Safety & Environment:

- Cold weather forecasted, dress properly
- Blast at Quarry 2

Daily Advance:

KCG :

No injection, 1 water test only due to genset problems. Total completed 141/264 stages, Progression : 53.4%

No boreholes were drilled yesterday due to drill problem. Total completed 598/880 meter, Progression : 68.0 %

Casing Drilling on going, 4 casings done yesterday, Total completed 20/28, Progression : 71.4 %

Snow removal at WRSF / Crusher doing stemming

QA/QC :

Water pressure test was undertaken on P-0+516, no reliable data for stages 2-3 at low pressure because the needle on both gauges varies too much.

Foundation inspection with AEM, QA and QC and KCG was undertaken at WRSF, agreement that the 5m width of key trench to be lipped..

Strategy for WRSF Foundation approval is to verbally approval and create the form after so the backfilling is quicker and right after approval to avoid filling with snow.

UCS tests were done.

Grout temperature is too high in the morning but is a result of being left all night in the warm unit. The nightshift Monday should solve this issue.

AEM (incl. instrumentation):

Undertaking prep works.

General Planning/Comments*:*

KCG :

Crew change on casing drilling, Dan Bernard will undertake the drilling today.

Restart bedrock drilling once Tamrock problem fixed

Continue with injection, NS to begin tonight.

Pressure transducer on the monitoring unit to be replaced.

No work to be undertaken at WRSF because of the crew change today.

QA/QC :

Follow injection and drilling / QC to perform UCS tests on secant wall samples.

Discussion with AEM on eastern extent of grout curtain and on future water pressure tests

Discussion on "plage de reference" for FFAB compaction specs. Limited Nucleo readings will be possible because of cold conditions (-10C limit). QC to arrange nucleo shipping.

AEM (incl. instrumentation):

Preparation for instrumentation campaign. / Recipe of FFAB to be determined and shared for other dikes.

Report By: Pier-Eric McDonald, Eng.

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: 1/8/2018.

Time: 7h30

Presents:

AEM: PEM, JC, BL

KCG: PG, LS, LPC, JG.

QA: SM QC: MC

Health & Safety & Environment:

Crew change with new night shift grout - H&S briefing done, blizzard procedure revised.
AEM pipe flew up, pieces received @ garage.
Mathieu Aubin will cover for Dike supervisor until Patrice comes back in the afternoon.

Daily Advance:

KCG:

2 casings done on tertiary / 423 - 417 drilled in Bedrock, drill broke after.
3 stages NS & 9 stages DS.
~~Problem~~ NS crew stopped the works due to travel exhaustion.

QA/QC:

DS 3 holes, good grout wise. Lost packer because of Blast.
365 grouted on NS with high grout take.
Mix A not to be used. begin with B right away.
3 water pressure tests left: 367 - 297 - (267) → to be drilled but not grouted.
Good grout & water t°, good improvement
305 min on Vicat test. Mix B very stable (2.5% bleeding).

General Planning/Comments:

KCG:

Find & instal genset part.
Fix Tamrock drill this morning.
Continue Drilling & grouting & casing.
Finish snow removal at the crest DS.

QA/QC:

Compressive strenght on grout cubes. / measure borehole depth.
UCS secant piles, 4 left.
Follow up injection
AEM (instru)
Trench works

Report By: _____

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Jan 8th 2019**

Time: **7h30**

Presents:

AEM: PG-JC-BL

KCG: LPC, JG, SL, LS, PG

QA: MS **QC: MC**

Health & Safety & Environment:

Cold weather forecasted, dress properly

Coactivity on the dike and around, make sure your position is know from operators - good communication is important

Noisy in wings at cross-shift

Daily Advance:

KCG :

4 casing drilled - No bedrock Tamrock still down - Part received yesterday

Injection of 15 stages - 5 holes on tertiaries

Snow removal at WRSF and NE dikes

Foundation preparationat WRSF

Crusher doing stemming

QA/QC : Follow-· Follow-up on grouting

Discrepencies noted in the casing drilling depths

Flowmeter needs to be done

Tests on grout are ok

UCS tests on CB were good.

UCS on grout samples were good

WRSF foundation approval verbally given from 0+300 to 0+211 for rockfill on d/s of key trench

AEM (incl. instrumentation):

Trenching between the casings to allow cables passage

General Planning/Comments:

KCG :

Continue drilling casing

Resume drilling bedrock

Rockfill placement at WRSF if time permitting

QA/QC :

Follow injection and drilling

QC to perform UCS tests on secant wall and grout samples.

WRSF rockfill and clean up follow-up

AEM (incl. instrumentation):

Trenching for cables continuation

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Jan 10th 2019**

Time: **7h30**

Presents:

AEM: PG

KCG: LPC, JG, SL, LS

QA: MS **QC: MC**

Health & Safety & Environment:

Incident at Sana Shop : worker hit his knee while climbing up the steps of the loader while wearing his cleats. Foot got stuck in metal steps then worker hit knee on railing.

Still lots of coactivity on the dike and around, make sure your position is know from operators - good communication is important

Daily Advance:

KCG :

4 casing drilled - 4 holes drilled to bedrock Tamrock repaired

Injection of 8 stages - 3 holes on tertiaries

Snow removal at WRSF and NE dikes

First lift of muck over foundation at WRSF

Crusher switching to 0-2"

QA/QC : Follow-up on grouting. Hole 417 was backfilled by mistake and the 3rd stage of injection was not completed.

hole cleaning after drilling is 2 minutes - 5 minutes is required according to specs

Flowmeter was calibrated

Tests on grout are ok

UCS tests on CB were completed.

UCS on grout samples were good

WRSF foundation rockfill placed on d/s of key trench over 100m length

AEM (incl. instrumentation):

Trenching between the casings

General Planning/Comments:

KCG :

Continue drilling casing for instrumentation, injecting grout in tertiaries

Continue drilling bedrock

Rockfill placement at WRSF continuation

QA/QC : WRSF approval form

Follow injection and drilling

QC to perform UCS tests on grout samples.

WRSF rockfill and clean-up follow-up

AEM (incl. instrumentation):

Stand by, no drilling

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Jan 11th 2019**

Time: **7h30**

Presents:

AEM: PG, JFB

KCG: LPC, JG, LS

QA: MS **QC: MC**

Health & Safety & Environment:

Review of incident at Sana shop with crew - importance of wearing cleats and remove them before entering building or heavy equipment

Still lots of coactivity on the dike and around, make sure your position is know from operators - good communication is important

JOHS Commity meeting: 2018 was a bad year on H&S, 2019 is starting badly with 25 incidents already. Always use work card philosophy on a daily basis to help identify the risks.

Daily Advance:

KCG :

No casing drilled - Bedrock on 13 holes was drilled with Tamrock

Injection of 7 stages - on 3 holes on tertiaries, all casing are now backfilled completely as of today

Foundation preparation at WRSF

Muck placement over approved foundation at WRSF, 70 loads of 50T

Crusher switched to 0-2"

QA/QC : Follow-up on grouting, hole measurement.

No receeding on all backifilled holes

Flowmeter and pressure gages were calibrated - paperwork required.

More control tests on grout are required - QC busy will try its best to comply.

AEM (incl. instrumentation):

Trenching between the casings

General Planning/Comments:

KCG :

Continue drilling casing for instrumentation, injecting grout in tertiaries

Continue drilling bedrock

Rockfill placement at WRSF continuation

Start 2nd injection unit for instrumentation

QA/QC :

Follow injection and drilling, measuring boreholes

WRSF rockfill and clean-up follow-up

AEM (incl. instrumentation):

Resume drilling and install TH-11, TH14, TH13 if time permitting

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Jan 12th 2019**

Time: **7h30**

Presents:

AEM: PG, JFB

KCG:

QA: **QC:**

Health & Safety & Environment:

Blizzard conditions all work stopped until further notice

Daily Advance:

KCG :

3 casing drilled - Bedrock on 0 holes was drilled with Tamrock

Injection of 7 stages of grout, 1 WPT on hole #267

Foundation preparation at WRSF

Muck placement over approved foundation at WRSF, 78 loads of 50T

QA/QC : Follow-up on grouting

More control tests done on grout - QC busy will try its best to comply.

AEM (incl. instrumentation):

Setting up the genset of the 2nd injection unit

General Planning/Comments:

KCG : BLIZZARD in effect, no works on all activities

QA/QC :

AEM (incl. instrumentation):

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Jan 13th 2019**

Time: **7h30**

Presents:

AEM: PG, JFB

KCG:

QA: **QC:**

Health & Safety & Environment:

Blizzard conditions all work stopped until further notice

Daily Advance:

KCG : BLIZZARD in effect, no works on all activities on day shift

Night shift did some snow removal on WRSF

QA/QC : BLIZZARD in effect, office works catch up

AEM (incl. instrumentation):

BLIZZARD in effect, no works on all activities

General Planning/Comments:

KCG : Snow removal at WRSF

Snow removal at WTD, resume injection works

Resume casing drilling for instrumentation

QA/QC : Follow up on injection works

Follow up on snow removal and foundation preparation

AEM (incl. instrumentation):

Resume instruments installation

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Jan 14th 2019**

Time: **7h30**

Presents:

AEM: PG, JFB

KCG: SL-LS-PG-JG

QA: MDJ-SM **QC: crew change**

Health & Safety & Environment:

- Blizzard warning over, still high winds; be carefull snow removing activities
- Extreme cold warning in effect - wear proper clothing
- Blast at Q2 at 12h45

Daily Advance:

KCG : Injection grout - 3 stages

No drilling

After blizzard snow removal at WRSF and around WTD and offices

QA/QC : Several discrepencies noted in KCG's grouting and drilling reports with survey and QC registers

Hole 369 needs to be measured before injection

Water pressure tests - use values provided by SNC for the testing in the next holes

AEM (incl. instrumentation):

BLIZZARD in effect, no works on all activities

General Planning/Comments:

KCG : Resume injection and drilling activities

Snow removal at WRSF, resume muck placement once foundations approved

Resume casing drilling for instrumentation

QA/QC : Follow up on injection works

Follow up on snow removal and foundation preparation WRSF

AEM (incl. instrumentation):

Resume instruments installation on TH and inclinometer

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING
WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: **Jan 15th 2019**

Time: **7h30**

Presents:

AEM: PG, JFB

KCG: SL-LS-JG

QA: MDJ **QC: CFT**

Health & Safety & Environment:

Blizzard warning over, still high winds; be carefull snow removing activities, low visibility

Extreme cold warning in effect - wear proper clothing

Spray cans found again in incinerator - review with crew the importance of disposing it in the proper bin

Daily Advance:

KCG : Injection grout - 9 stages - 3 holes

Bedrock drilling on 3 holes

Drilled 2 casing for instrumentation

Installed and grouted 2 thermistors

WRSF - 29 loads of muck on approved foundation

QA/QC : Grout mix was not smooth in the tremie - presence of chunck of not hydrated cement powder - causes spikes in pressure when passing through the valves

Spikes noted on the pressure for a given stage - should aim to more consistency from Contractor to avoid hydrojacking

Hole 369 needs to be redrilled, 2.6m too short according to

First mix of the day was tested at 46 seconds Marsh - should be 33- needs to be tested by QC before put in the hole

AEM (incl. instrumentation):

Installed and grouted TH 11 and TH 14

General Planning/Comments:

KCG : Continue injection, bedrock drilling and casing activities

Water pressure testing

WRSF - continue muck placement on foundations approved

Continue instrumentation installation

QA/QC : Follow up on injection works

Follow up on muck placement at WRSF

Foundation approval at WRSF

AEM (incl. instrumentation):

Continue instruments installation on TH and inclinometer

KCG requested more details for instrumentation for their manpower planning

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING
WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: **Jan 16th 2019**

Time: **7h30**

Presents:

AEM: PG, JFB

KCG: SL-LS-JG

QA: SM **QC: CFT**

Health & Safety & Environment:

Radio communication: make sure we are using the proper channel : Pit Operation on WRSF and Dikes on Injection and instrumentation

Extreme cold warning still in effect - wear proper clothing

Slippery around injection units - Make sure to wear cleats or Neos and if needed ask for sand around the units

Daily Advance:

KCG : Injection grout - 4 stages - 2 holes

Bedrock drilling on 3 holes, only one remaining; redrilled 4m in #369

Drilled 1 casing for instrumentation

Installed and grouted 2 thermistors

WRSF - 43 loads of muck on approved foundation

Water pressure testing done on 1 hole

QA/QC : Grout mix still not smooth in the injection hose - presence of chunk of not hydrated cement powder - causes spikes in pressure when passing through the valves

Still some errors in the grouting vs drilling files that needs to be corrected

UCS on grout samples are good

All test on grout good in the unit

AEM (incl. instrumentation):

Installed and grouted TH 10 and TH 13, 13 was partly grouted

General Planning/Comments:

KCG : Continue injection, bedrock drilling and casing activities

Water pressure testing

WRSF - continue muck placement on foundations approved

Continue instrumentation installation

QA/QC : Follow up on injection works

Follow up on muck placement at WRSF

Foundation approval at WRSF

Measure the last holes drilled

AEM (incl. instrumentation):

Continue instruments installation on TH and inclinometer

KCG requested more details for instrumentation for their manpower planning

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Jan 17th 2019**

Time: **7h30**

Presents:

AEM: PG, JFB

KCG: SL-JG-CG

QA: UM **QC: CFT**

Health & Safety & Environment:

Blast 12h45

Extreme cold warning still in effect - wear proper clothing

Slippery around injection units - Make sure to wear cleats or Neos and if needed ask for sand around the units

Daily Advance:

KCG : Injection grout - 12 stages - 4 holes

Bedrock drilling completed 100%

Drilled 1 casing for instrumentation

Installed and grouted 1 thermistors

WRSF - 26 loads of muck on approved foundation, only 1 haul truck

QA/QC : cement powder cold when arriving in the unit

UCS on grout samples are good

All test on grout good in the unit

Approval at WRSF

AEM (incl. instrumentation):

Installed and grouted TH 12

General Planning/Comments:

KCG : Continue injection and instrumentation casing activities

Continue instrumentation installation

WRSF - continue muck placement on foundations approved

WRSF continue sloping and start 0-6"

QA/QC : Follow up on injection works

Follow up on muck placement at WRSF

Foundation approval at WRSF

AEM (incl. instrumentation):

Continue instruments installation on TH and inclinometer

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Jan 18th 2019**

Time: **7h30**

Presents:

AEM: PG, JFB

KCG: DP-AB-CG

QA: UM-TX **QC: CFT**

Health & Safety & Environment:

Blast 12h45

Extreme cold warning still in effect - wear proper clothing

Never go down the steep slope at WRSF

Daily Advance:

KCG : Injection grout - 11 stages - 4 holes -

Bedrock drilling need to completed hole 186

Drilled 1 casing for instrumentation

Installed and grouted 0 instruments

WRSF - sloping of muck - CF in the slope from 0+330 to 0+142

snow clean up upstream

QA/QC : Hole 337,stage 1 packer bypass.

UCS on grout samples are good

All test on grout good in the unit

Approval at WRSF

AEM (incl. instrumentation):

Grouted missed hole for INC4, move then redrilled

General Planning/Comments:

KCG : Continue injection and instrumentation casing activities

Continue instrumentation installation

WRSF - continue 0-6" placement on foundations approved, start 0-¾" in slope.

WRSF compact the slope with roller

QA/QC : Follow up on injection works

Follow up on fill placement at WRSF

Foundation approval at WRSF

AEM (incl. instrumentation):

Continue instruments installation on inclinometer

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Jan 19th 2019**

Time: **7h30**

Presents:

AEM: PG, JFB

KCG: DP-AB-CG-LB

QA: UM-TX **QC: in the field**

Health & Safety & Environment:

Reduce speed around buildings and offices - speed limit 20km/h

Stop signs needs to be respected at all times

Hyster broken near intersection with stop signs - be careful as it is not a 4 stops intersection

Daily Advance:

KCG : Injection grout - 6 stages - 2 holes - 1 water pressure test completed

Drilled 1 casing for instrumentation

Installed and grouted 1 inclinometer

WRSF - CF and FF in the slope completed at elevation 154, started RF at 156 from West abutment

Snow clean-up Mammoth

QA/QC : Follow-up injection works

All test on grout good in the unit

Approval at WRSF

AEM (incl. instrumentation):

Installed and grouted INC4

General Planning/Comments:

KCG : Continue injection and instrumentation casing activities

Continue instrumentation installation

WRSF - continue RF placement elevation 156, start CF at 156 from West

WRSF hammer the West abutment to smooth the slope

Snow removal at Mammoth

QA/QC : Follow up on injection works

Follow up on material placement at WRSF

AEM (incl. instrumentation):

Continue instruments installation on thermistors

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Jan 20th 2019**

Time: **7h30**

Presents:

AEM: PG, JFB

KCG: DP-AB-CG-DD

QA: UM-TX **QC: in the field**

Health & Safety & Environment:

Full investigation completed on the accident at crusher (engine blew)

Slippery around the units, call for sand whenever needed

Dozer spill - Hydraulic fluid- 10L on WRSF dike

Daily Advance:

KCG : Injection grout - 7 stages - 2.333 holes

Drilled 1 casing for instrumentation

Installed and grouted 1 inclinometer

WRSF - CF and FF in the slope completed at elevation 156, started RF at 157.2 from West abutment

Snow clean-up Mammoth continuation

QA/QC : Follow-up injection works

Still some chunks in the grout causing pressure irregularirties when injecting

Approval at WRSF

UCS on grout samples

AEM (incl. instrumentation):

Installed and grouted INC4

General Planning/Comments:

KCG : Continue injection and instrumentation casing activities

Continue instrumentation installation

WRSF - continue RF placement elevation 157.2, finish CF at 156 from West

WRSF hammer the West abutment to smooth the slope

QA/QC : Follow up on injection works

Follow up on material placement at WRSF

AEM (incl. instrumentation):

Continue instruments installation on thermistors

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING
WHALE TAIL DIKE 2018

Date: **Jan 21st 2019**

Time: **7h30**

Presents:

AEM: PG, JFB

KCG: DP-AB-NT

QA: UM-TX **QC: CFT**

Health & Safety & Environment:

Recovery of the welding machine this morning on the AMQ road

Slippery around the units, be careful during drill moves

Reminder of the safety perimeter around the hydraulic hammer is 30m, call the operator to stop if you want to go within the radius

Daily Advance:

KCG : Injection grout - 5 stages - 86 holes completed, 256 stages done.

Drilled 1.5 casing for instrumentation

Installed and grouted 1 TH

WRSF - RF at 156 ocompleted on est abutment, hammer the slope at West abutment and toes in key trench

- RF at 157.2 started on East abutment

QA/QC : Follow-up injection works

Approval at WRSF

UCS on grout samples

High grout takes in hole 190, might need more hole...

AEM (incl. instrumentation):

Installed and grouted TH7

General Planning/Comments:

KCG : Continue drilling for instrumentation, crew change

Mammoth snow clean-up

WRSF - continue RF placement elevation 157.2, sloping RF; crew change

WRSF start CF and FF on night shift

Injection :crew change today. Stand by to wait for a decision on the added holes

QA/QC : Send WRSF foundation approvals

Follow-up on material placement at WRSF

Visit at Mammoth Dike

Sample of FF on night shift

AEM (incl. instrumentation):

Continue instrumentation installation

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING
WHALE TAIL DIKE 2018

Date: **Jan 22nd 2019**

Time: **7h30**

Presents:

AEM: PG, JFB, JC

KCG: DP-AB-NT-LB

QA: UM-TX **QC: CFT**

Health & Safety & Environment:

Coactivity on the dike, never assume you are seen by the operator, be aware of your surroundings

Hydraulic oil spill 18L on the Pad Q at Fusion shack (CAT 365)

Daily Advance:

KCG : Injection grout - crew change

Drilled 3 casing for instrumentation

Installed and grouted 2 TH

WRSF - RF at 156 completed on West abutment, CF & FF completed as well - Crew change also

- RF at 157.8 started from East abutment

QA/QC : Approval at WRSF sent

UCS on grout samples

CF sample results of gradation not to specs, was resampled

Meeting held to confirm the injection program 11 new holes

AEM (incl. instrumentation):

Installed and grouted TH-7, TH-1

General Planning/Comments:

KCG : Continue drilling for instrumentation

Mammoth snow clean-up

WRSF - continue RF placement elevation 157.8, sloping RF

WRSF start CF and FF on night shift at 157.8

Injection: continue drilling for instrument and injection holes

QA/QC : Follow-up on material placement at WRSF

Gradation on CF sample

AEM (incl. instrumentation):

Continue instrumentation installation with TH-2, INC-1

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

AGNICO EAGLE
MEADOWBANK

Date: 1/23/2018

Time: 7h30

Presents:

AEM: PCM, JC, JFB

KCG: AB, DD, DD, NT, LB.

QA: VM QC: CFT

Health & Safety & Environment:

-63°c with wind chill. watch your Colleques. ~~Blast @ 2~~ → cancelled
Wolverine around pad H & incinerator.
Mine hauls on road #7, advise dozer operator to pass behind him.

Daily Advance:

KCG:

Rockfill 0+253 0+131 @ 157.8
Snow removal Mammoth Dike.
Casing drilling restarted
Ø grouting, rock change & reactivity in a congested area.

QA/QC:

inclinometer cuttings inspected, top looks dry, bottom more clay like.
Never made pressure tests & prepare some. FF. 50mm Ø met specs after 2nd sample.
Gradation done.
instrument. TH-2, inc-1, th-4 casing drilled.
Comp. strength on-going on cube molds.
Follow up.

General Planning/Comments:

KCG: Rockfill WRSF to top elevation (excl. final layer)
Snow removal NE dike. → foundation approval,
keep going drilling & grouting instrumentation.

instr: continue instr. TH-12 - incl. 1 th-2 etc.

QA/QC:

follow up on injection
Dewatering method if hole caving (not expected) - after meeting: won't be possible due to time constraints.
comp. strength tests to be continued
visit NE dike & WRSF.

Report By: [signature]

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: Jan 24nd 2019

Time: 7h30

Presents:

AEM: PEM, JFB

KCG: AB, NT, DD, DP

QA: UM QC: CFT

Health & Safety & Environment:

Environment weekly inspection/report sent yesterday - All is compliant - Signed & sent back to ENV

Extra vigilence to operators for instruments & tight area not to roll on instruments - use extra candles or spotter if unsure.

Watch co-workers for frost bites due to extreme cold weather.

Daily Advance:

KCG : Start HFDI drill rig to bring mast up (gradually drops due to oil leak and bad support of mast with ground)

WRSF rockfill 0+131 to 0+040

Snow clean up at WRSF West abutment for a small portion remaining

NE dike snow removal

Thermistors installation with the injection unit

2 holes were drilled in bedrock, T-201 & T-207

QA/QC : Followed with Bedrock drilling

WRSF folllow up

Compressive strenght at lab

AEM (incl. instrumentation):

Installed and grouted TH-12

General Planning/Comments*:*

KCG : Sloping WRSF rockfill lift --> 6" CF placement --> 0-3/4" FF placement

NE Dike snow clean up --> foundation approval for rockfill placement

Grouting of INC-1

Continue with Casing drilling

Grouting T-201 & T-207 in the afternoon

QA/QC :

Approvals: 1) CF placement once RF placed in last lift of WRSF 2) foundation approval at NE dike for rockfill placement

UCS tests for cubes

Follow up grout injection

Work on weekly report

AEM (incl. instrumentation):

Need to validate the D&B polygon for Mammoth Dike --> After meeting notes: solved, good one communicated to AEM D&B

Report By: Pier-Eric McDonald P.Eng

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Jan 25th 2019**

Time: **7h30**

Presents:

AEM: OJ, PEM, BL, LB, AC (GKM)

KCG: DP, DD, AB

QA: **QC:**

Health & Safety & Environment:

Hydraulic Oil Spill 15L on loader 980H #268 at Sana garage

Nothing to report H&S

Daily Advance:

KCG :

WRSF rockfill and sloping 0+335 @ 0+170 during day shift.

WRSF Dike Coarse filter backfill 0-6" 0+295 @ 0+150 during night shift

North-East Dike snow removal and foundation clean-up & prep work

Casings drilling and installation for the injection on WTD

QA/QC :

Foundation approval at North-East Dike. Ready to rockfill

Last slope approval at WRSF Dike. Ready to backfill coarse filter

AEM (incl. instrumentation):

Instrumentation - Grouting INC01 and Drill TH04

General Planning/Comments:

KCG :

Coarse Filter backfill at WRSF Dike and Fine Filter backfill during night shift

NE Dike snow removal, should be ready to approve another section to hopefully rockfill. Sana haul trucks are all down (1/11).

WTD injection - 201 and 207 tertiary

Drill and casing installation new injection holes

QA/QC :

Foundation approval North-East

UCS tests for cubes

Follow up grout injection

Compaction and coarse filter backfill follow-up at WRSF Dike

AEM (incl. instrumentation):

Report By: **Olivier Jacques, ENG.**

DAILY CONSTRUCTION MEETING
WHALE TAIL DIKE 2018

Date: **Jan 26th 2019**

Time: **7h30**

Presents:

AEM: OJ, PEM, BL, LB, AC (GKM)

KCG: NT, DD, DP, LB

QA: MU **QC: CF**

Health & Safety & Environment:

Hydraulic Oil Spill 15L on loader 980H #268 at Sana garage. Everything has been clean-up.

Nothing to report H&S

Slippery condition. Pay attention when going outside make sure to wear cleats or equi.

Spray can reminder to workers to dispose properly the spray can in the bin in front of the kitchen and paint empty can need to go in the surveyor seacan.

Daily Advance:

KCG :

4 casing drilled and installed. Rockmaster stopped due to the cold temperature for a couple hours.

Grout injection 4 stages done. High in-take in stage 1 of 201 (3700 L.) stop and wait to grout to set to come back tomorrow. 3 stages done in 207.

No rock drilling waiting for the casing to be completed and the injection unit to be ready to move. Instrument othe the dome.

WRSF Dike Coarse Filter first layer completed and Fine Filter backfill 0+335 @ 0+170

North-East Dike snow removal and foundation prep work on West side and start rockfill on the East side 1st lift done and started the second one.

QA/QC :

Follow-up injection. QA did a depth reading on 201 this morning and it was noticed a grout rebond of 4m. QA recommend to redrill and do the stage 2. AEM decided to cancel stage

2 and do only stage 3 due to the schedule. To many equipment move needed and time consumming.

QC follow-up on the WRSF coarse filter and fine filter backfill and compaction. QC took a FF sample. The gradation was done during the night. Result to be sent shortly.

North-East Dike foundation approval. Confusion during the approval process. Not all the stakeholder were there at the same time and only the key trench was approved and not

all the surface was covered during the approval and it was rockfill during night shift. AEM repeat the proper process to establish an hour to have everybody at the same time, surveyor,

AEM, QC, QA and KCG supervisor.

It was noticed in the grout mix some impurity as wooden chips, rocks and bigbag pieces. QA and AEM ask if there is a solution to avoid this kind of impurity in the mix by adding

more grating mesh to filter. KCG said that it has been like this since the beginning of the injection and they are having problems with the size of the cement bags we are using.

KCG to look for a solution.

QA noticed that the cement temperature was very low -37degress which lead the grout mix to be a bit colder than the spec. grout mix around 7-8 degrees specs 10-20 degrees.

KCG said that due to the high in-take (3700 L) they had hard time to keep the cement heated. KCG will look to add another frost fighter in the big bags seacan to preheat.

AEM (incl. instrumentation):

Instrumentation - installation of the instrumentaiton cable in the trench and backfill it on the east side of the dike.

AEM and SNC agreed to remove 2 grout holes from the 11 more holes proposed by SNC. AEM cancelled one more. 8 additional holes instead of 11

AEM ask to KCG if they sent back south the inclinometer to read the verticality of the casings. KCG said that they send it down south because they tought the injection was completed

before the addition of the new holes. No inclinometer will be done on the recent casings installed.

General Planning/Comments*:*

KCG :

WRSF Dike - Fine Filter backfill and maybe rockfill sloping on downstream.

North-East Dike - Snow removal and foundation prep work on the west side and continue the rockfill on the East side. KCG will be ready to approve a section on the west side by

the end of the day to start the rockfill on that side during night shift.

Finish drilling and installation the 2 last casings should be done by the end of the day.

Grout hole 201 stage 3

QA/QC :

Follow-up injection and other structures backfill

Cubes compressive strenght in the lab

Foundation Approval North-East Dike west side

QC will take a sample today on the Fine Filter at WRSF

AEM (incl. instrumentation):

Continue with the instrumentation trench backfill

Report By: **Olivier Jacques, ENG.**

DAILY CONSTRUCTION MEETING
WHALE TAIL DIKE 2018

Date: Jan 26th 2019

Time: 7h30

Presents:

AEM: OJ, PEM

KCG: NT, AB, DP

QA: MU **QC: CF**

Health & Safety & Environment:

During night shift, the mechanic went to check the hydraulic oil on an equipment. When he removed the oil sonde, there was pression inside and oil splashed onto his face.

The pression was created by the fact the equipment breeder was frozen. First Aid only.

Assessment for the water truck operator will be done shortly this week. Tuesday or Wednesday

There is a Blast at Quarry 2. Make sure everybody gives there blast clearance.

Daily Advance:

KCG :

WRSF first layer of Fine Filter completed. Clean-up of the rock hammered last week in the key trench

Mamoth Dike snow removal hauled to the dump for environment

North-East Dike - Rockfill on the East and West side. Start the rockfill on the West during night shift. Snow removal and foundation prep work.

Whale Tail Dike - Instrumentation trench backfill

1 stage done on holes 201, 2 casings grout holes casings (casings for grout holes completed), 3 grout holes bedrock drilling done.

Drill and inject inclinometer TH2 done.

QA/QC :

It was noticed when drilling 403.5 presence of water. It may be needed to clean the hole again.

Follow-up on the North-East Dike rockfill and WRSF fine filter rockfill and grouting activities on WTD

Compressive strenght on grout cubes after 7 days and 28 days

Gradation done on Fine Filter at WRSF

Foundation approval at North-East Dike West side done (footprint+key trench)

WRSF fine filter approval

AEM (incl. instrumentation):

General Planning/Comments:

KCG :

North-East dike rockfill on West side, direct feed from the pit. Snow removal and foundation clean-up for approval

North-East Dike rockfill sloping on the East side

Snow removal at Mamoth Dike

Grout holes bedrock drilling, Redrill TH4 and drill inclinometer INC02

QA/QC :

Follow-up injection and other structures backfill

Fine Filter approval at WRSF dike

Foundation Approval North-East Dike west side

Follow-up the drilling of the inclinometer

AEM (incl. instrumentation):

Report By: Olivier Jacques, ENG.

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Jan 28th 2019**

Time: **7h30**

Presents:

AEM: OJ, PEM

KCG: LB, AB, DP, NT

QA: MU **QC:**

Health & Safety & Environment:

Extrem cold weather today with the wind, make sure the workers take time to heat themselves.

Assessment on the water truck will be done this morning. The trainer is on his way. Off-meeting : Training turn back due to the weather condition on Amaruq Road

Nothing to report Env and H&S

Incident report was signed last night by the mechanic and it is on Intelex now.

Daily Advance:

KCG :

North-East Dike Rockfill on the west side 0+160 @ 0+085, 0+210 @ 0+105

North-East Dike rockfill sloping on the east side 0+447 @ 0+315

Mamoth Dike - Snow removal, contaminated snow was hauled to the dump.

North-East Dike snow removal and foundation prep work for approval

Bedrock drilling for grout holes 2 done yesterday 406.5 and 463.5 (20m)

Install and grout TH4, Drill and install the casing for INC02

QA/QC :

Follow-up bedrock drilling and other structures works

Fine Filter approval

AEM (incl. instrumentation):

Addition of 2 quaternary grout holes at 199.5 and 202.5. An email was sent this morning by AEM to confirm that.

General Planning/Comments:

KCG :

Drill 1 more meter into the rock in the INC02. Issue with the DTH drill. Need to be done with the tamroc. DTH to switch on TH6 and move inj. Unit on the 4 holes ready.

Tamroc to drill bedrock for grout holes at 466

North-East Dike rockfill on the west side, No NAG coming out of the pit so loading into the crusher NAG stockpile

Snow removal and foundation prep work at NE Dike west side

KCG crew change today

QA/QC :

Foundation approval at NE dike west side at 8h00AM

QC crew change today

Follow-up WTD and other structures works

AEM (incl. instrumentation):

Report By: **Olivier Jacques, ENG.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Jan 29th 2019**

Time: **7h30**

Presents:

AEM: OJ, PEM

KCG: NT, LB, DP, LPC, AB

QA: MU **QC: MC**

Health & Safety & Environment:

Safety Weekly Topic - Safety Culture, I could have save a life this day, but I choose to look away.

Nothing to report H&S and Env.

Extreme weather condition (strong wind) on the dike, injection and instrumentation activities were stopped. 7h30AM @ 16h00PM

Daily Advance:

KCG :

North-East Dike Rockfill on the west side 0+030 @ 0+085, 0+105 @ 0+050, direct feed from the pit. Extrem cold condition (half load)

North-East Dike rockfill sloping on the east side completed

North-East Dike - Coarse Filter backfill on the East side 0+455 @ 0+320

North-East Dike snow removal and foundation prep work for approval

Bedrock drilling for grout holes 1 done yesterday 466.5 (10m), Activities were stopped after on WTD.

WRSF Dike - Snow removal in the key trench to check the 3m and do rock hammer if necessary

QA/QC :

NE Dike - Footprint and key trench rockfill approval West side, Rockfill slope on East side approved. Coarse Filter and Fine Filter foundation approval on East side.

Coarse Filter slope and backfill approved during night shift

QC crew change yesterday

AEM (incl. instrumentation):

Instrumentation Test program for DL104, office work

General Planning/Comments*:*

KCG :

Drill 1 more meter into the rock in the INC02. Need to be done with the tamroc. DTH to switch on TH6 and move inj. Move Unit on the 4 holes ready.

Casing drilling and installation 2 quaternaries 199.5 and 202.5

North-East Dike rockfill sloping on the west side west abutment

Snow removal and foundation prep work at NE Dike west side

Start Fine Filter backfill at North-East dike East side

QA/QC :

Follow-up WTD and other structures works

Complete the approval done yesterday, help with KCG surveyor

AEM (incl. instrumentation):

Report By: **Olivier Jacques, ENG.**

DAILY CONSTRUCTION MEETING
WHALE TAIL DIKE 2018

Date: **Jan 30th 2019**

Time: **7h30**

Presents:

AEM: OJ, PEM, BL, AC (GKM)

KCG: LB, DP, LPC, AB

QA: **QC:** **MC**

Health & Safety & Environment:

Incident reported - A worker cut two of his fingers (minor cut at the end of each finger) using a saw blade bench. First Aid only.

Nothing to report Env side

Reminder to follow the proper working method, no short cut

Daily Advance:

KCG :

North-East Dike - Rockfill sloping 0+200 @ 0+050

North-East Dike - Coarse Filter backfill 0+206 @ 0+180 and Fine filter backfill 0+445 @ 0+300

WRSF Dike - Rockfill sloping downstream 0+400 @ 0+250

Excavator break down yesterday led to some down time

Drill and install casing in Q-199.5

Drill and grout INC02, move the injection unit over grout holes around 0+390 @ 0+410

QA/QC :

QC do a reminder to pay attention to not contaminate the 0-3/4" with muck when backfilling

Coarse Filter and fine filter foundation approval in the key trench 0+209 @ 0+090, Rockfill placement and slope approval 0+209 @ 0+090

Gradation on Fine Filter backfill at NE Dike

QA/QC worked to finalize the approval done on Jan 28th, Work on weekly report

AEM (incl. instrumentation):

Issue while pulling out the casing for INC02. Pull only 5m and it was stuck when coming back from lunch. Multiple solution were tried unsuccessful. Redrill another hole 3m off-set

No more space to work at TH6 due to injection unit

General Planning/Comments:

KCG :

North-East Dike Snow removal and foundation clean-up for coarse and fine filter foundation and rockfill footprint and key trench

North-East Dike - Fine filter backfill and rockfill when foundation are approved. Rockfill, Coarse and Fine Filter are completed on the East side to elevation of the BGM.

North-East Dike - Snow removal and foundation clean-up in the key trench for 3m from the bottom slope of the fine filter. Check if rock hammer require

WTD injection - Inject grout holes where the inj. Unit is between 0+390 @ 0+410

Installation of instrument stuck due to the injection unit. Work on cable trench and backfill. Excavator is there at the moment for that.

QA/QC :

Follow-up WTD and other structures works

QC ask if it possible to install a towerlight at NE Dike to increase the visibility of the works. KCG will install one.

Work on the foundation approval and rockfill approval

Approval done this morning coarse and fine filter foundation between 0+090 @ 0+055, Rockfill foundation approval footprint + key trench 0+030 @0+042 to be done today.

AEM (incl. instrumentation):

Material for the instrumentation should arrive at MBK with the plane today. AEM ask to KCG if it is possible to bring the stock to AMQ. KCG will do it.

Aem ask to KCG surveyor for the lowest point at WRSF in the key trench for the installation of the thermistance. KCG will send it today.

Report By: **Olivier Jacques, ENG.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Jan 31st 2019**

Time: **7h30**

Presents:

AEM: OJ, PEM

KCG: DP, KL, AB, LPC, LB

QA: MJD **QC: MC**

Health & Safety & Environment:

Near-Miss on the dike - excavator operator was travelling eastbound and hit a casing rod that was going to be mounted on the drill. The casing fell close to the workers.

Health and Safety superintendant site visit - everything was ok except many workers weren't wearing their safety glasses in the garage and at the injection unit. Measure will be taken by AEM if dike supervisor see another worker without glasses inside the garage and/or in the injection unit.

Bell Let's talk day - Reminder to always stay alert of the health and mental condition of your co-workers. You never know if he had bad news at home.

KCG revised their cold weather procedure, below -38degres no hard work will be done as cleaning foundation, ripping, rock hammer, only soft backfill as coarse and fine filter.

Daily Advance:

KCG :

North-East Dike - Coarse Filter and Fine Filter backfill on West side

WRSF Dike - Rockfill sloping downstream, crest clean-up, snow removal in the key trench and foundation clean-up

Preparation work for BGM installation, Move BGM seacans to the dikes and tools

Instrumentation cable trench backfill on WTD, East trench DL104 completed

Drill and install casing in 202.5 done, Bedrock drilling in 199.5 and 202.5

Injection in quaternaries around 0+400, 5 stages done.

QA/QC :

Cube compressive strenght test after 28 days, around 30MPa

Foundation approval for rockfill, placement 0+030 and coarse and fine filter foundation 0+055

QA crew change

QC did test on grout mix B and C, everything ok except the grout temperature was high yesterday 34degree, water was at 33 and the cement at 13. Put some cold water to reduce.

397.5 stage refusal at grout volume.

AEM (incl. instrumentation):

General Planning/Comments:

KCG :

North-East Dike rockfill foundation approval at 8h30. Rockfill after whenever possible

North-East Dike coarse and fine filter backfill on the west side

Rockhammer if the weather temperature is ok at WRSF dike, clean the key trench

Continue with instrumentaiton cable trench at WTD

Preparation work for the BGM installaiton. Work on the homemade ladder for the workers that will go in the slope.

KCG surveyor ask if he can meet up with AEM surveyor concerning the blast at Mammoth Dike, KCG plan to split the blast patern into 3 sequence.

Grout injection quaternaries around 0+400, DTH on stand-by no room to work for the instrumentation (piezometer)

QA/QC :

Follow-up WTD and other structures works

Rockfill foundation approval footprint and key trench at 8h30

Work on the foundation approval and rockfill approval

QA and QC will modify the approval form to make it more simple and faster to do.

AEM (incl. instrumentation):

AEM will take the decision to cancel the water pressure that was planned due to the actual schedule and the delay it can create.

Report By: **Olivier Jacques, ENG.**

DAILY CONSTRUCTION MEETING
WHALE TAIL DIKE 2018

Date: Jan 31st 2019

Time: 7h30

Presents:

AEM: OJ, PEM

KCG: LPC, AB, LS, SL

QA: MJD **QC: MC**

Health & Safety & Environment:

Nothing to report

Daily Advance:

KCG :

North-East Dike - Coarse Filter and Fine Filter backfill on West side, correction done on the CF and FF to reach the good elevation 156.7m

North-East Dike - Rockfill West side west abutment

Preparation work for BGM installation, Move BGM seacans to the dikes and tools

Instrumentation cable trench backfill on WTD,

Injection in quaternaries Q400.5, Q406.5, Q403.5 and Q466.5, 10 stages done. Stage 3 in 400.5 cancel due to grout rebound in the hole.

QA/QC :

QC notice contamination by 6" and snow in the fine filter NE dike west side. Situation was corrected during night shift. Fine filter on the East side is OK.

Foundation approval for rockfill around 0+020, Rock hammer will be needed West side west abutment around 0+032 to smoothen the surface for the BGM installation.

QA notice some mistakes in the grout report sent this morning to be corrected. QA wasn't advise by KCG when they started grouting 466. Reminder to advise QA to KCG

Grout register to be updated by QC

QA ask if it is possible to measure the grout holes depth. QC will do it today if possible.

AEM (incl. instrumentation):

Install Inclinometer INC03 done, Work on installing cable on the dike

AEM ask what is going with the rockfil, CF, FF elevation at WRSF Dike. East abutment elevation RF, CF, FF are at the final elv. Of the rockfill and on grade 60m.

General Planning/Comments:

KCG :

Foundation approval in the key trench at NE Dike on east side for the FFAB backfill. "planche d'essai" to be done today for the FFAB

Rock hammer if weather temperature permits it at North-East dike and/or WRSF

Work on the method and build homemade scaffold for the BGM installation. KCG will start with North-East Dike

Continue working on the cable trench backfill on WTD

Injection - Complete Q469 and than switch on 199.5 and 202.5. Stage 2 and 3 will be done in these holes when 24 hours and drill the stage 1 and grout it.

Start drilling piezometer if possible today.

QA/QC :

Grout holes measure by QC

KCG to send grout report for Jan 30th.

Foundation approval at 8h30 at NE in the key trench East side for FFAB backfill. Prepare for the "planche d'essai" on the FFAB.

Gradation to be done on FF.

AEM (incl. instrumentation):

Discussion on the proper method to compact the second layer of FFAB over the BGM, static compaction with 12T. Compactor ?

Verification on the good receipe for the FFAB how many big bag for 1 load of 50T. To be done.

Report By: Olivier Jacques, ENG.

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: Februrary 2nd 2019

Time: 7h30

Presents:

AEM: OJ, PEM

KCG: LPC, AB, LS, SL

QA: MJD QC: MC

Health & Safety & Environment:

First Aid - A worker slipped while entering in his pick-up truck, resulting of an hypertension of the right knee. He is doing office work for the instrumentation. He was sent to the clinic.

Engine Oil spill 5L. On KCG bus #1760. Report done

Blast at 12h45PM at Quarry 2. Don't forget to give your clearance.

Message was passed during safety meeting at 13h00. To pay attention to the instrumentation cable on the dike. 2 instruments was broken recently…

Daily Advance:

KCG :

Key trench approval for the FFAB at NE dike East side, "planche d'essai" during night shift. Compaction target establish at 8 passes. KCG will put 500mm before compaction.

North-East Dike - Rockfill sloping 0+020 @ 0+085, Fine Filter backfill 0+140 @ 0+085, 0+295 @ 0+315 and 0+060 @ 0+030, Coarse Filter 0+294 @ 0+314, 0+055 @ 0+020

North-East Dike - FFAB backfill started 0+450 @ 0+440, air compressor to remove the snow before backfilling done

WTD instrumentation - cable trench backfill and grout TH6 done

WTD Injection - 3 stages done Q463.5

Mobilization on site of the BGM installation. They need to stay at MBK due to room availibility at AMQ.

QA/QC :

Approval done in the key trench for FFAB placement conditionnal that an air compressor is passed to remove the snow.

"planche d'essai" on FFAB during night shift. Compaction target = 8 passes, QC do a reminder it is 4 passes back and forth.

FFAB sampling done yesterday, Do a gradtion to try to determine the % of bentonite in the FFAb in place.

FF sampling to do a proctor in the lab to be able to compare the result of the "planche d'essai", FF and the FFAB. A meeting was held with AEM, SNC and GHD yesterday morning concerning this.

The mixing method and the FFAB backfill method was to the satisfaction of the QC and QA. Really good in general. Discussion will be held to see if we need to adjust the receipe due to the bentonite volatily. Current mix receipe is 23T. For a big bag (1400kg) and 15T. For the smaller bags 900kg. KCG are using the Crusher loader with a scale to do so.

QC ask for a good follow-up by the surveyor to make sure we have 300mm min. everywhere on the foundation.

AEM (incl. instrumentation):

TH6 installation and grouting done.

Office work on the programmation

General Planning/Comments*:*

KCG :

Piezometer drilling and casing installation PZ-04, PZ-05 and PZ-06

North-East Dike - FFAB backfill, Start the BGM installation if weather permits it (wind)

WTD Instrumentation cable trench backfill on-going

North-East Dike - Rock hammer on the west abutment west side during night shift

QA/QC :

QC will be in the lab for the proctor today, he is asking for good communication for the field work.

Discussion on how long the stockpile of the FFAB before backfilling it. QC says it is at the discretion of the contractor.

North-East Dike - Fine Filter slope approval before installing the BGM. Some rakes work will need to be done to remove the snow in the slope.

Completed all the approval done since Jan 28th.

AEM (incl. instrumentation):

Report By: Olivier Jacques, ENG.

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Februrary 3rd 2019**

Time: **7h30**

Presents:

AEM: OJ, PEM

KCG: LPC, AB, LS, SL

QA: MJD **QC: MC**

Health & Safety & Environment:

Nothing to report

AEM talk about the wolverine roaming around site. Advise your workers especially the mechanics at the shop to be vigilant and do good inspection of their workplace.

AEM do a reminder to always send JHA when KCG do one and the dike supervisor needs to be present during the presentation of the JHA to workers.

Daily Advance:

KCG :

North-East Dike - Key trench clean-up for approval, Rock hammer in the key west side west abutment,

North-East Dike - FFAB backfill on the east side west abutment going east, Rockfill sloping downstream, FFAB preparation at the WRSF dump

WRSF Dike - Rock hammer in the key trench for the 3m, AEM ask to make sure everything is ok to avoid coming back another time.

Mamoth Dike - Snow removal upstream, contaminated snow with excavation hauled at the dump

WTD instrumentation - Drill, install casing, install the piezometer PZ03 and grouted.

QA/QC :

QC did some proctor in the lab, 1 more point to do and 1 to redo.

Gradation on the FFAB non-concluant, to much fine lost due to bentonite. QCs will try again with a new sampling. It may cause by the sampling.

QC and QA notice the FFAB backfill during night shift was to high a bit. QC ask to follow closely the layer height because it will have an impact on the compaction %.

QA sent a proposal to modify the FFAb receipe due to the lost during the operation. 1400kg = 21T. 900kg = 14T. Approved by AEM

AEM (incl. instrumentation):

Office work on the programmation completed

General Planning/Comments:

KCG :

Drill, install casing, bedrock drilling, install piezometer and grout PZ4

Use casing puller to remove the casing for INC02

North-East Dike - Key trench clean-up for approval before FFAB backfill, Start installing the BGM (run test)

WRSF Dike - Finish the rock hammer in the key trench during night shift

QA/QC :

QC will complete the proctoc test in the lab and sent to the results.

Foundation approval for the key trench foundation North-East dike west side west abutment

FFAB and BGM installation follow-up

QA ask to QC to send the results of the "planche d'essaie" to the designer. QC to discuss with QA after the meeting.

AEM (incl. instrumentation):

Report By: **Olivier Jacques, ENG.**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **Februrary 4th 2019**

Time: **7h30**

Presents:

AEM: OJ, PEM

KCG: LS, AB, LPC

QA: MJD **QC: MC**

Health & Safety & Environment:

Nothing to report

JHA for BGM was sent by KCG to AEM. Dike supervisor signed it.

AEM do a reminder to KCG to make sure workers wear a proper mask when mixing the FFAB. It may also be good that the excavator operator wear one also.

Daily Advance:

KCG :

North-East Dike - Key trench clean-up for approval before FFAB backfill, Air compressor and excavator

North-East Dike - FFAB backfill 0+310 @ 0+355, BGM installation 0+310 @ 0+330

WRSF Dike - Rock hammer in the key trench for the 3m, almost completed

North-East Dike - Fine filter backfill 0+047 @ 0+024

WTD instrumentation - Drill, install casing and bedrock drilling PZ-8 - Drill and install casing for PZ-7

QA/QC :

Switch terminology of "planche d'essai" for "planche de reference"

Clean-up with air compressor was ok before FFAB backfill even if it was windy.

AEM, QC, KCG and QA agreed to lower the layer height before compaction to 400mm. 500mm was too much. Misleading information from the "planche de reference"

Proctor on FFAB, Proctor on FF need to be redo. No logic with the number from the previous test

AEM (incl. instrumentation):

ZTG QC for BGM welding - Visual inspection done on the weld done yesterday. AEM ask if ZTG will do a daily report and/or an approval of the weld before backfilling. KCG will look with ZTG how it can be done. The subcontractor is the one who should give the authorisation before backfilling.

General Planning/Comments:

KCG :

Continue on piezometer, complete PZ-7. Discussion was held to be able to dril safely PZ-7 using the dome. Remove the berm and put muck in the slope.

Instrumentation cable trench backfill

KCG crew change today

North-East Dike - FFAB backfill, BGM installation and FFAB preparation during night shift

WRSF Dike - Complete the rock hammer in the key trench

QA/QC :

QC brought the point of the compaction FFAB over the BGM. Chance are to break the BGM while compacting near the jonction of the BGM in the slope. To avoid static compaction to be done first close the bottom slope and start compaction with vibration 0.5 m from that point.

2 other "planche de reference" need to be done for FFAB layer of 500mm over the BGM (one with and one without compaction).

Vacuum box test to be done today. 1 every 30m of weld. 21m done yesterday.

Complete all the approval form QA/QC. QA to produce sketch and proposal to designer for compaction strategy for 500m over BGM

AEM (incl. instrumentation):

AEM ask to KCG to do a bentonite inventory and add it into the weekly meeting report to make sure we will not run out of bentonite.

Report By: **Olivier Jacques, ENG.**

DAILY CONSTRUCTION MEETING
WHALE TAIL DIKE 2018

Date: **Februrary 5th 2019**

Time: **7h30**

Presents:

AEM: OJ

KCG: LPC, SL, AB

QA: MJD **QC: MC**

Health & Safety & Environment:

Nothing to report

AEM noticed yesterday that one of the Henry Drilling rigs is leaking continously. KCG to put a retention containment underneath .

During the night, the garage door fell on the ground due to a break of the shaft. KCG ask to AEM if it is possible to have scaffold to do reparation. AEM to check.

Daily Advance:

KCG :

North-East Dike - BGM installation 0+322 @ 0+349

North-East Dike - Start backfilling over the BGM, second FFAB layer from 0+305 @ 0+342, Fine filter in the slope over the BGM 0+305 @ 0+342, CF 0+305 @ 0+315

FFAB prepaparation day shift and night shift

WRSF Dike - Rock hammer in the key trench and clean-up, remove the oversize on top of the rockfill crest

WTD instrumentation - Grouted PZ-8, PZ-7 hole need to be redo completely. Casing driller tought he was in the bedrock but he was in a boulder when they drilled the bedrock

using the tamrock the drill rods deviate and got stuck inside the hole. KCG went to MBK to grab more drilling rods. Localisation to be determined on the dike.

Same offset and 2m on west or east side.

QA/QC :

2 "planche de reference" was done during the night on the FFAB with compaction (500mm) and static compaction. 12 passes vibration and 6 passes static. KCG target 600mm

before compaction. The result was good.

Approval was done by ZTG QC before backfilling over the BGM.

QC took a sample on the FFAB for proctor test. When doing the proctor on the FFAB, QC noticed that when putting water. The bentonite is reacting and the particule are agglomerating.

QA/QC do a reminder to KCG to not overlap too much during the compaction. Should be around 1/4 of the width of the compactor roll.

QA ask proof of the good weight given by the loader scale at the FFAB preparation. KCG to do spot check with the weight of a bentonite. To be check today.

QA ask to KCG if they are keeping a track of the batch mixed of FFAB. KCG are recording the number of Tonnes per bucket and number of big bag per batch on a sheet in the loader

ZTG QC did 2 vacuum box test on the BGM weld. Results were good. Station approx 0+344 and 0+333

AEM (incl. instrumentation):

General Planning/Comments:

KCG :

KCG need to send the excavator at the FFAB prep area to MBK dome. Mixing of the FFAB will be done using the loader. QC and QA to look if mixing is satisfying.

North-East Dike - BGM installation, FFAB 1st and 2nd layer backfill, Coarse and Fine filter over the BGM.

WTD instrumentation - Redo hole PZ-7 today.

QA/QC :

Proctor test in the lab today on the FFAB

Complete the approval form

AEM (incl. instrumentation):

CPT01 - AEM compactor should be up and running

AEM Geotech Eng. Is leaving today. No Geotech Eng. On-site for the up coming week. For any technical issue contact Dike Supervisor and or Alexandre Lavallee.

Report By: **Olivier Jacques, ENG.**

DAILY CONSTRUCTION MEETING
WHALE TAIL DIKE 2018

Date: **Februrary 6th 2019**

Time: **7h30**

Presents:

AEM: OJ

KCG: LPC, JG, SL

QA: MJD **QC: MC**

Health & Safety & Environment:

Nothing to report

A JHA was done by KCG to repair the Sana garage door. Everything went well. Door is now repaired.

KCG did some clean-up around the Sana garage and removed the tote that was outside with different liquid in.

Daily Advance:

KCG :

North-East Dike - FFAB backfill between 0+378 @ 0+408 2nd layer, BGM installation 0+349 @ 0+392

WRSF Dike - Key trench clean-up during day shift and night shift, foundation approval done during night shift between 0+069 @ 0+110

WRSF Dike - FFAB backfill between 0+070 @ 0+109

WTD instrumentation - Drill and install casing, bedrock drilling PZ-7, Started grouting PZ-7. To be finish today

Rock hammer is completed at WRSF dike. Surveyor passed and the key trench has the 3m width min.

QA/QC :

QC observation, mixing the FFAB with the loader is giving good results. Operator is doing a really good job to make sure the bentonite is not blown by the wind.

The new batching sheet is good. It is really helpful for the operator to keep track of number of tonnes and batches.

Verification done with the scale on the loader is to the satisfaction of the QC. 2 small bags = 1.8T, Result of the scale was 1.7T, 2T and 2T. Even if, the result are not bulleye. It is the more precise method than going with volume and hypothesis on the density of fine filter.

QC took 2 sample of FFAB one at WRSF and one at NE for gradations.

Proctor done the Fine filter, Results are good according to QC. Results will be sent.

Overlap for the compaction is better with the 1/4 of rolls, given by AEM. Less overlap = less over compaction

QA did a flexibility test on the BGM and notice crack when bending it in half. This demonstrate that the compaction strategy is good (No vibration area, static vibration)

QA/QC notice that one area at North-East dike was approved without any written approval. (small area). Reminder that communication is the key.

AEM (incl. instrumentation):

AEM sent to the design for a written approval to recreate the theorical excavation slope on upstream to minimize the FFAB quantity due to over excavation. Verbal approval given by the designer to AEM in the morning.

General Planning/Comments:

KCG :

North-East Dike - Fine filter and coarse filter backfill over the BGM.

North-East Dike - Foundation clean-up and BGM installation east side and FFAB backfill

WTD Instrumentation - Work on PZ-6 today.

The BGM installation crew is switching tonight from MBK to AMQ to eliminate the lost time due the travelling.

North-East Dike west side - Correction of the over excavation using muck to be done during night shift.

QA/QC :

QC will do proctor test on the FFAB and gradations.

Complete the approval form today.

Follow-up on the backfill, another "planche de reference" is required on the 300mm FFAB on the key trench at WRSF Dike. Foundation condition may not be the same than at NE dike. not require on the 2nd layer over the BGM.

QA to send all the approval done.

Weekly report to be sent by QA for WTD and other structures today.

AEM (incl. instrumentation):

Report By: **Olivier Jacques, ENG.**

DAILY CONSTRUCTION MEETING
WHALE TAIL DIKE AND OTHER STRUCTURES 2019

Date: **Februrary 7th 2019**

Time: **7h30**

Presents:

AEM: OJ

KCG: LPC, JG, SL

QA: MJD **QC: MC**

Health & Safety & Environment:

Nothing to report

AEM ask to KCG in their next safety meeting to present to workers the MSDS sheet for the bentonite to explain the risk related to that product.

Blast 12h45PM at Quarry 2, Give your clearance to Earthwork supervisor

Daily Advance:

KCG :

North-East Dike - FFAB backfill between 0+408 @ 0+449 and 0+296 @ 0+305

North-East Dike - BGM installation 0+392 @ 0+449, East side should be complete this morning

North-East Dike - Rockfill in the excavation slope to reproduce the theorical excavation slope upstream on the West side,

WTD instrumentation - Drill and install casing, bedrock drilling PZ-6, Grout PZ-6, Issue while pulling out the casing the instrument came with the casing. Reinstall PZ-6 and grout.

Potential delay on the schedule for the instrumentation/injection at WTD, Postpone the crew departure. AEM ask to follow that closely and advise if impact on the dewatering schedule.

BGM approval by ZTG from 0+392 @ 0+449

QA/QC :

2 Foundation approval done yesterday, East side 0+304 @ 0+294 and the area that was already backfill from 0+026 @ 0+032, AEM signed it as-is.

Proctor on FFAB done, QC need to do one more point to be able to draw a good curve to be done today.

QC notice the rockfill for the over excavation that placement was really good all the snow was removed in the slope and rockfill was not more than approx 8". Good move, saved a lot

of FFAB quantity and backfill cost. Minor adjust of the bottom slope for 3m width, KCG is aware and will correct it.

Approval form QA/QC are now up to date.

QA worked on the weekly reports, to be sent this morning

Following the request of the designer for an Excel sheet for the secant pile wall. KCG gave the Surveyor Excel sheet to the designer. All the information is in there.

AEM (incl. instrumentation):

AEM sent to KCG the localisation of the TH in the slope at WRSF Dike. Station 0+120. Everybody is aware that it needs to be installed before the BGM installation.

General Planning/Comments:

KCG :

North-East Dike - Complete BGM installation on East side, switch on West if key trench is approved. Switch on WRSF Dike if not.

North-East Dike - Key trench clean-up on the West side to backfill FFAB as soon as possible.

WTD Instrumentation - Keep going with the cable trench excavation and backfill for shack installation

WTD Instrumentation - Complete PZ-6 and than switch on PZ-5

QA/QC :

QA/QC follow-up backfill and key trench clean-up at North-East dike

Foundation approval to be done whenever ready at NE Dike West side

QA to complete Weekly reports and send them this morning.

AEM (incl. instrumentation):

Dike supervisor crew change today

Report By: Olivier Jacques, ENG

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE AND OTHER STRUCTURES 2019

AGNICO EAGLE
MEADOWBANK

Date: February 10th 2019

Time: 7h30

Presents:

AEM: JFB

KCG: LPC, JG, SL

QA: MDJ **QC: MC**

Health & Safety & Environment:

Blast today 12:45 Q2

Minor coolant spill CPT-01 (2 liters) North-East Dike

Daily Advance:

KCG :

North-East Dike - FFAB 0+135 to 0+206 first layer and 0+040 to 0+195 second layer

North-East Dike - BGM installation 0+086 to 0+202

Non-conformity will be send for North-East Dike: East Leg West and East side coarse and Fine filter elevation

Next week Man-power, Logistic with the plane is ok Camp will be check today

QA/QC :

QA : ZTG test and report to be clarify

QC : FFAB gradation OK 4-8 % Bentonite

AEM (incl. instrumentation):

WTD instrumentation: PZ-5 and TH Lake completed 23/26

General Planning/Comments:

KCG :

North-East Dike - Completed BGM 0+024

WRSF Dike Clean-up, FFAB and BGM placement

WTD Instrumentation - Keep going with the cable trench excavation and backfill for shack installation

WTD Keep going with instrumentation installation

North East Dike ,DMT will be send for East Leg abutment 0+296 to 0+450

QA/QC :

QA/QC follow-up FFAB and BGM placement on North-East Dike and WRSF Dike

QC: WRSF Dike (planche de reference)

AEM (incl. instrumentation):

WRSF Dike don't forget instrumentation installation

Report By: **Jean-Francois Beland**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE AND OTHER STRUCTURES 2019

AGNICO EAGLE
MEADOWBANK

Date: February 11th 2019

Time: 7h30

Presents:

AEM: JFB

KCG: LPC, JG, SL

QA: MDJ **QC: crew change**

Health & Safety & Environment:

Blast today 12:45 Q2

While filling of fuel a frostfighter the fuelman received some fuel in his eyes

Safety move: Cut the high face of the 0-3/4" stock pile

WRSF BGM installation follow the JHA

Daily Advance:

KCG :

North-East Dike - FFAB 0+024 to 0+040

North-East Dike - BGM installation 0+023 to 0+033 completed

North-East Dike- Fine Filter placement 0+024 to 0+200 and Coarse Filter placement 0+024 to 0+125

WRSF BGM installation 0+070 to 0+115

WRSF clean-up Key trench and FFAB placement 0+112 to 0+140

Whale Tail Dike 4 stage grouted and 2 instruments installation PZ-#1 and PZ#2

QA/QC :

QA : ZTG test and report OK. Note : the vacuum test is only done on the top of the Dike slope

QA & QC Foundation approval WRSF Key trench 0+111 to 0+190

QC: Gradation done

QC : will do a compaction test every 20 meter +or-

AEM (incl. instrumentation):

WTD instrumentation: PZ-#1 and PZ#2 completed 25/26

General Planning/Comments:

KCG :

North-East Dike - Coarse Filter placement

WRSF Dike Clean-up Key trench, FFAB and BGM placement, Instrumentation installation

WTD Instrumentation - Keep going with the cable trench excavation and backfill for shack installation

WTD Keep going with instrumentation installation and grout injection

Crew change today. NOTE: BGM crew will need to go back at Meadowbank tonigth no more room Amaruq Camp

QA/QC :

QA/QC follow-up FFAB and BGM placement on WRSF Dike and Coarse Filter placement on North East Dike

QA: Whale Tail Dike, be sure to top off all the casing with grout

AEM (incl. instrumentation):

WRSF Dike don't forget to follow the JHA for BGM installation

Report By: **Jean-Francois Beland**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE AND OTHER STRUCTURES 2019

AGNICO EAGLE
MEADOWBANK

Date: February 12th 2019

Time: 7h30

Presents:

AEM: JFB

KCG: ML SL JG

QA: MDJ **QC: CFT**

Health & Safety & Environment:

Nothing to report

No Blast

Windy, take extra care during BGM installation

Daily Advance:

KCG :

North-East Dike - coarse filter placement 0+130 to 0+195

WRSF clean-up Key trench and FFAB placement 0+140 to 0+195 and 0+211 to 0+300

WRSF BGM installation 0+115 to 0+145

Bentonite inventory done , we have 31 sea-can full, we are OK for the quantity we need to completed Dikes construction

Mammoth: ready for Drill&Blast , just wait for the OK from environment

QA/QC :

QA : asked to ZTG to have some BGMsample to bring to external labotary

QA & QC Foundation approval WRSF Key trench 0+190 to 0+300 . Highly weathered bedrock observed between 0+193 to 0+214

QC: Gradation Fine filter #121 little bit to much coarse particle

QC : WRSF FFAB compaction test done, result OK

QA BGM one strip is too short and another one have some hole, also one welding spot need to be fixed

AEM (incl. instrumentation):

WTD instrumentation: PZ-#3 completed 26/26 and WRSF TH #1 installation done

General Planning/Comments:

KCG :

WRSF Dike both abutment clean-up

WRSF Dike Clean-up Key trench, FFAB and BGM placement

WTD Instrumentation - Keep going with the cable trench excavation and backfill for shack installation

WTD Keep going with drilling and grouting

NOTE: BGM crew need to go back at Meadowbank and travel, no more room Amaruq Camp

QA/QC :

QA/QC follow-up FFAB and BGM placement on WRSF Dike

QA: Whale Tail Dike, be sure to top off all the casing with grout (will be done today)

QC BGM inspection before backfilling, gradation FFAB and send compaction report

QA BGM sample from ZTG, need also drawing from surveyor for yesterday approval

AEM (incl. instrumentation):

Report By: **Jean-Francois Beland**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE AND OTHER STRUCTURES 2019

AGNICO EAGLE
MEADOWBANK

Date: February 13th 2019

Time: 7h30

Presents:

AEM: JFB PG

KCG: JG SL

QA: Crew change **QC: CFT**

Health & Safety & Environment:

Nothing to report

No Blast

WTD Moved out equipment

Use proper Radio channel everywhere you are on site

Daily Advance:

KCG :

Whale tail dike Drilling and Grouting activities completed 100%

WRSF clean-up Key trench and FFAB placement 0+300 to 0+320 first layer and 0+121 to 0+ 190 second layer

WRSF BGM installation 0+145 to 0+250

WRSF GBM started to do some reparation

QA/QC :

QA : leave today with some BGM sample to bring to external labotary

QA & QC Foundation approval WRSF Key trench 0+300 to 0+320

QC: Gradation FFAB

QC : WRSF FFAB compaction test done, result OK

AEM (incl. instrumentation):

WTD Instrumentation - Keep going with the cable trench excavation and backfill for shack installation

General Planning/Comments:

KCG :

WRSF Dike West side abutment clean-up , BGM installation, FFAB placement (BGM correction)

North Easth Dike completed Filter placement on abutment

WTD, Moved all equipment out of the dike starting today

Mammoth Dike, Drilling will start this afternoon

QA/QC :

QA/QC follow-up FFAB and BGM placement on WRSF Dike

QC: compaction test and compressive test in labotary

QA: WRSF West side abutment Mapping

AEM (incl. instrumentation):

Surveying for Drill & Blast need to be clarify (FGL -AEM)

Report By: Jean-Francois Beland

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **February 14th**

Time: **7h30**

Presents:

AEM: PG-JFB

KCG: SL-ML-JG

QA: UM **QC: CFT**

Health & Safety & Environment:

- Blast at 12h45 Q2

- KCG to install the other geotextile staircase in the slope to access the construction area safely

- Spped limit on the Amaruq road reviewed

Daily Advance:

KCG : **WRSF** : 1st lift of FFAB 0+320 to 0+350

2nd lift FFAB 0+072 to 0+120 & 0+190 to 0+257

BGM : 0+250 to 0+304 & various repairs on the welds before fill placement.

Key trench clean up on West abument

NED :complete the aggregates in the abutments

MD : start drilling 44 holes completed over 554 total

QA/QC Approval key trench

Nucleo values are ok in both 1st and 2nd lifts

QA crew change

Sand cone test - non conclusive

AEM : performed inspection of the welds over the WRSF BGM to give approval for fill placement on night shift and assisted in repairing the holes

instrumentation WTD: shack set up and cable burying in trenches

General Planning/Comments:

KCG : continue installation BGM

start 0-6" over the FFAB

final clean up of key trench West abutment

Continue drilling Mammoth

QA/QC Follow up on BGM installation

Mapping of West abutment

Inspection of welds in slope

Redo the sand cone

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **February 15th**

Time: **7h30**

Presents:

AEM: PG-JFB

KCG: DP-JG

QA: UM **QC: CFT**

Health & Safety & Environment:

- H&S departmental inspection on dikes and offices

- KCG installed a geotextile staircase in the slope to access the construction area safely, please use it

- WRSF area is restricted access - Please park your truck in order not to be in the way of heavy equipment and or turning points

Daily Advance:

KCG : **WRSF** : 1st lift of FFAB 0+046 to 0+075

2nd lift FFAB 0+290to 0+338 & 0+190 to 0+257

BGM : 0+304 to 0+340 & various repairs on the welds before fill placement.

CF : 0+075 to 0+332 over FFAB

NED :completed the aggregates in the abutments

MD : drilling holes for blasting, 129 completed over 554 total

QA/QC : Mapping key trench West abutment

Approval key trench West abutment

Welds inspection 0+120 to 0+340

Sand cone test done - better resuts: testing needs to be done on freshly compacted material prior to freeze back

AEM : Assist in bedrock mapping, inspect welds and assist in repairs

Instrumentation WTD: shack set up and cable burying in trenches

General Planning/Comments:

KCG : finish installation BGM + FFAB 1st lift over it

continue 0-6" over the FFAB

continue FF in the slope over liner

Continue drilling Mammoth

QA/QC : Follow up on BGM installation

Inspection of welds in slope

Follow up on QA-QC activities

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **February 16th**

Time: **7h30**

Presents:

AEM: PG-JFB

KCG: DP-JG

QA: UM **QC: CFT**

Health & Safety & Environment:

- Blast missed holes 12h45

- Cold conditions outside, windy. Please adapt your driving to the changing conditions.

Daily Advance:

KCG : **WRSF** : 1st lift of FFAB 0+070 to 0+040 in Key trench; 2nd lift FFAB 0+070 to 0+040 in KT

BGM : 0+070 to 0+040 - Completed

FF in slope : 0+120 to 0+190 2nd half

CF in slope : 0+090 to 0+306 1st half; 0+270 to 0+336 2nd half

MD : drilling holes for blasting, 164 completed over 554 total

QA/QC : Approval key trench West abutment

Welds inspection 0+070 to 0+040

RF too fine at beginning of shift - Corrected

strenght testing on BGM done

Gradation FF (2); Sand cone test done

AEM : Instrumentation WTD: shack set up and cable burying in trenches

General Planning/Comments:

KCG : Continue FF & CF in the slope over liner

continue RF

finalize West abutment as per proposed modification

Continue drilling Mammoth

NED - RF on d/s plateform with D8

QA/QC : Follow up on construction QA-QC activities

Finish last UCS on grout sample and send Register

Key trench final approval WRSF

Report By: **Patrice Gagnon, P.Geo**

DAILY CONSTRUCTION MEETING

WHALE TAIL DIKE 2018

Date: **February 17th**

Time: **7h30**

Presents:

AEM: PG-JFB

KCG: DP-JG

QA: UM **QC: CFT**

Health & Safety & Environment:

- H&S inspection at KCG shop and WRSF dike - small modifications to seacans on WRSF

- Still cold conditions outside, windy. Please adapt your driving to the changing conditions, take frequent breaks if needed.

- AMQ site travel management meeting this morning at 10am

Daily Advance:

KCG : **WRSF** : FF in slope : 0+210 to 0+050 2nd half

CF in slope : 0+328 to 0+175 2nd half

RF : 0+150 to 0+060 over the key trench

MD : drilling holes for blasting, 219 completed over 554 total

fix the access to MD for the emulsion truck

QA/QC : UCS completed over grout samples

follow up on material placement

gradation on FF, all good

AEM : Instrumentation WTD: shack set up and cable burying in trenches

found 3 of the 4 remaining seacans of ES-2 geomembrane, enough for the Mammoth dike and Fuel farm

General Planning/Comments:

KCG : Continue FF & CF in the slope over liner

continue RF

finalize West abutment as per proposed modification

Continue drilling Mammoth and loading holes

NED - RF on d/s plateform with D8

QA/QC : Follow up on construction QA-QC activities

Planning meeting at 2pm this afternoon

Report By: **Patrice Gagnon, P.Geo**

Appendix I-4

Dynamic Compaction

KIVALLIQ CONTRACTORS GROUP LTD

Contract	Service	Type	Sequence	Revision
651298	CON	DCDR	001	0
AEM Document #:				

DYNAMIC COMPACTION DAILY REPORT

Contract Title: Amaruq Project - Whale Tail Dike
Contractor: Kivalliq Contractors Group Ltd.
Crane No.: NCK RAPIER
Weight (kg): 15 000 **Drop Height (m):** 18

Date: 2018-08-29 **Shift (D/N):** DAY
Temp (°C): *6 degre*
Weather: ☐ ☐ ☑ ☑ ☐ ☐ ☐ ☐

PROGRESS

Crater No.	Station	Offset	Phase	Number of Impacts	Crater Volume (m^3)	Diameter (m)	Depth (m)	App. Energy Transmitted (T*m)	Backfilling C	Backfilling NC	Compaction C	Compaction NC
31	0+340	1,288	PH1	65	18,28	4,8	2	17550	☑	☐	☑	☐
32	0+349	1,28	PH1	55	13,69	4,6	1,6	14850	☑	☐	☑	☐
33	0+358	1,271	PH1	55	16,16	4,92	1,7	14850	☑	☐	☑	☐
34	0+367	1,263	PH1	55	15,71	4,5	1,9	14850	☑	☐	☑	☐
35	0+376	1,254	PH1	55	15,71	4,5	1,9	14850	☑	☐	☑	☐
134	0+372	-1,242	PH2	45	10,31	3,9	1,55	12150	☑	☐	☑	☐
133	0+363	-1,233	PH2	35	8,46	4,05	1,2	9450	☑	☐	☑	☐
132	0+354	-1,224	PH2	35	9	4	1,3	9450	☑	☐	☑	☐
131	0+345	-1,216	PH2	35	8,18	3,65	1,35	9450	☑	☐	☑	☐
									☐	☐	☐	☐
									☐	☐	☐	☐
									☐	☐	☐	☐
									☐	☐	☐	☐
									☐	☐	☐	☐
									☐	☐	☐	☐

KIVALLIQ CONTRACTORS GROUP LTD

Contract	Service	Type	Sequence	Revision
651298	CON	DCDR	001	0
AEM Document #:				

DYNAMIC COMPACTION DAILY REPORT

Contract Title: Amaruq Project - Whale Tail Dike
Contractor: Kivalliq Contractors Group Ltd.
Crane No.: NCK RAPIER
Weight (kg): 15 000 **Drop Height (m):** 18

Date: 2018-08-29 **Shift (D/N):** DAY
Temp (°C): 6 degre
Weather: ☐ ☐ ☑ ☑ ☐ ☐ ☐ ☐

PROGRESS

Crater No.	Station	Offset	Phase	Number of Impacts	Crater Volume (m^3)	Diameter (m)	Depth (m)	App. Energy Transmitted	Backfilling C	Backfilling NC	Compaction C	Compaction NC
									☐	☐	☐	☐
									☐	☐	☐	☐
									☐	☐	☐	☐
									☐	☐	☐	☐
									☐	☐	☐	☐
									☐	☐	☐	☐
									☐	☐	☐	☐

SIGNATURES

RESPONSIBLES	Name	Signature	DATE
KCG Surveyor:	Marie-Pier Gagnon		30-08-2018 (DD-MMM-YYYY)
KCG representative:	Jonathan. A.C		30-08-2018 (DD-MMM-YYYY)
AEM Inspector/QC:	Melina Gray	Melina Gray	30-08-2018 (DD-MMM-YYYY)

Rev 1 (2018-08-27)

18M004- WHALE TAIL DYKE - AMARUQ (NU)

Ground Improvement - Dynamic Compaction

DAILY REPORT

Date:	8/29/2018	Report N°	9	Site Ref	18M004	Weather	Rainy / Cloudy

Staff		
	Project Manager	1
	Site Supervisor	1
	HSE Manager	0
	Crane Operator	2
	Mechanic	0
	Visitor	0
	Bulldozer operator (by client)	0
	Total	**4**

Equipements		
	Site office (by client)	
	Crane Equipment Containers	2
	Pick-up (by client)	1
	Dynamic Compaction crane (NCK Rapier)	1
	Dynamic Compaction pounder	1
	Total Station	1
	Mobile Crane	1
	Bulldozer (by client)	
	Total	**7**

Description of the work performed / Remarks

1-	**Modification of the daily report by adding a DC-11 zone in between PK 0+335 and 0+380**
2-	**Assembly of the crane 6h30 - 10h00 AM**
3-	**Start of Dynamic Compaction around 10 AM**
4-	**Penetration test performed on Phase 1 print # 31 completed to define optimum number of blows for phase 1 print between PK 0+335 and PK 0+380**
5-	**Phase 1 completed on Zone DC11**
6-	**Maintenance of the crane at 2:30 PM (Brake need adjustements)**
7-	**Penetration test performed on Phase 2 print # 134 completed to define optimum number of blows for phase 2 print between PK 0+335 and PK 0+380**
8-	**Dynamic Compaction on Phase 2 - One Print of Phase 2 to be completed on Zone DC11 tomorrow**
9-	**Modification of total of PH4 prints in zone DC11 due to the fact that they are located in the slope**
10-	**Addition of the PH4 prints located in the slope in zone DC11 to the Zone DC10**
11-	
12-	
13-	
14-	
15-	
16-	
17-	

Dynamic Compaction Works

Zone	Description	Total number of prints	Done Today	Done Previously	Cumulated	Percentage Completed
Dynamic Compaction - Zone DC3	Phase 1 print	9				0%
	Phase 2 print	9				0%
	Phase 3 print	18				0%
	Phase 4 print	74				0%
Dynamic Compaction - Zone DC5	Phase 1 print	8				0%
	Phase 2 print	8				0%
	Phase 3 print	16				0%
	Phase 4 print	64				0%
Dynamic Compaction - Zone DC7.5	Phase 1 print	36				0%
	Phase 2 print	35				0%
	Phase 3 print	71				0%
	Phase 4 print	284				0%
Dynamic Compaction - Zone DC9	Phase 1 print	17				0%
	Phase 2 print	18				0%
	Phase 3 print	35				0%
	Phase 4 print	144				0%
Dynamic Compaction - Zone DC10	Phase 1 print	8				0%
	Phase 2 print	8				0%
	Phase 3 print	16				0%
	Phase 4 print	62				0%
Dynamic Compaction - Zone DC11	Phase 1 print	5	5	0	5	100%
	Phase 2 print	5	4	0	4	80%
	Phase 3 print	10				0%
	Phase 4 print	38				0%

Signatures	MENARD CANADA INC.	CLIENT
		

DYNAMIC COMPACTION
DC PRINT VOLUME AND RELATED SETTLEMENT

Project : Whale Tail Dyke - Amaruq
Project # : 18M004
Crane : NCK Rapier

Project Manager : Adrien Viateau
Site Supervisor : Maxime Roy
Crane Operator : Eric Bergeron
Crane Operator : Eric Bellemare

					Coordinates		DC Pounder			DC Prints Measurements					
N°	Phase	Print N°	DC-Zone	Date	NORTHING	EASTING	Height of Drop [m]	Weight [t]	Number of drops	Depth [m]	Upper Diameter [m]	Bottom Diameter [m]	Volume [m³]	Settlement - Phase [mm]	Remarks
1	PH1	31	DC11	8/29/2018	7254716.424	607302.756	18	15	65	2.00	4.80	1.80	18.28	203	PT-1 Zone DC11
2	PH1	32	DC11	8/29/2018	7254720.114	607310.965	18	15	55	1.60	4.60	1.80	13.69	152	
3	PH1	33	DC11	8/29/2018	7254723.804	607319.174	18	15	55	1.70	4.92	1.80	16.16	180	
4	PH1	34	DC11	8/29/2018	7254727.494	607327.382	18	15	55	1.90	4.50	1.80	15.71	175	
5	PH1	35	DC11	8/29/2018	7254731.184	607335.591	18	15	55	1.90	4.50	1.80	15.71	175	
6	PH2	134	DC11	8/29/2018	7254731.619	607330.462	18	15	45	1.55	3.90	1.80	10.34	115	PT-2 Zone DC11
7	PH2	133	DC11	8/29/2018	7254727.929	607322.253	18	15	35	1.20	4.05	1.80	8.46	94	
8	PH2	132	DC11	8/29/2018	7254724.239	607314.044	18	15	35	1.30	4.00	1.80	9.00	100	
9	PH2	131	DC11	8/29/2018	7254720.549	607305.835	18	15	35	1.35	3.65	1.80	8.18	91	
10							18	15							
11							18	15							
12							18	15							
13							18	15							
14							18	15							
15							18	15							
16							18	15							
17							18	15							
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19							18	15							
20							18	15							
21							18	15							
22							18	15							
23							18	15							
24							18	15							
25							18	15							
26							18	15							
27							18	15							
28							18	15							
29							18	15							

LEGEND

TREATMENT LIMIT
(10m EFFECTIVE WIDTH)

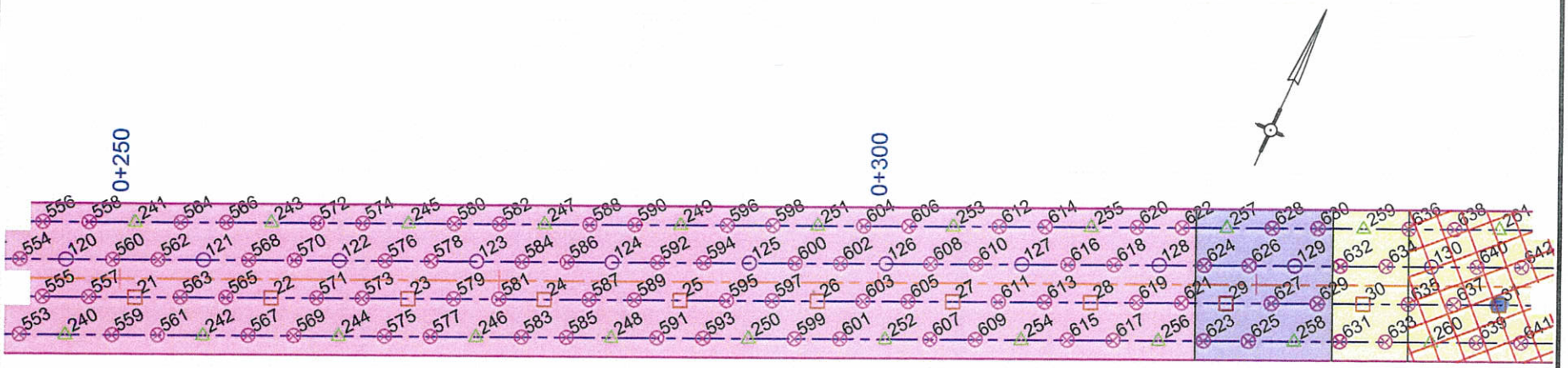
PHASE 1
PHASE 2
PHASE 3
PHASE 4

DC DEPTH

0m-7.5m
0m-9m
0m-10m
0m-10m from EL 153.5

KEY PLAN

29/08/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)

DRAWN BY: S. DZANOUNI
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
DESIGNED BY: A. VIATEAU, EIT.
FROM:
VERIFIED BY: H. GUIMONT, P.Eng.
DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE

menARD
1590, RUE AMPÈRE B202
BOUCHERVILLE, QC
J4B 7L4
info@menardcanada.ca
TÉL.: (450)449-2633
FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM SECTION C
SCALE: 1:425 (0 4.3 8.6 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R2.dwg
DRAWING N°: 200C
DATE: AUG-20-2018

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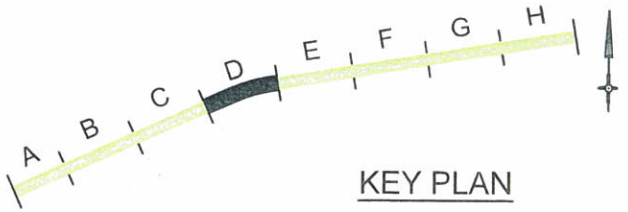
LEGEND

TREATMENT LIMIT
(10m EFFECTIVE WIDTH)

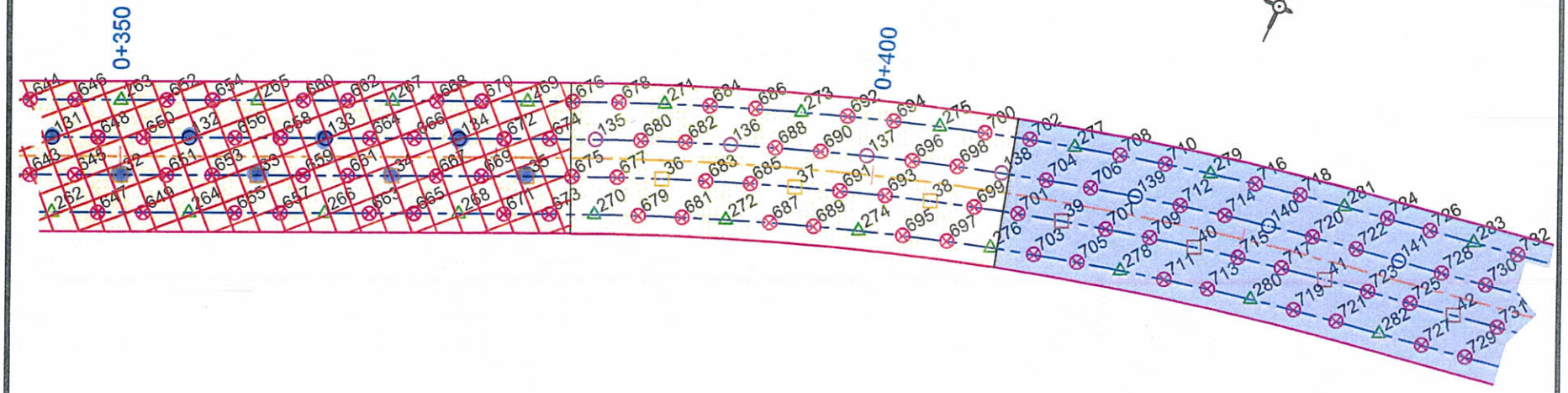
PHASE 1
PHASE 2
PHASE 3
PHASE 4

DC DEPTH
0m-9m
0m-10m
0m-10m from EL 153.5



KEY PLAN

29/08/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)

DRAWN BY: S. DZANOUNI
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
DESIGNED BY: A. VIATEAU, EIT.
FROM:
VERIFIED BY: H. GUIMONT, P.Eng.
DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE

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FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM SECTION D
SCALE: 1:425 (0, 4.3, 8.6, 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R2.dwg
DATE: AUG-20-2018
DRAWING N°: 200D

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KIVALLIQ CONTRACTORS GROUP LTD

Contract	Service	Type	Sequence	Revision
651298	CON	DCDR	002	0
AEM Document #:				

DYNAMIC COMPACTION DAILY REPORT

Contract Title: Amaruq Project - Whale Tail Dike
Contractor: Kivalliq Contractors Group Ltd.
Crane No.: NCK RAPIER
Weight (kg): 15 000 **Drop Height (m):** 18

Date: 30-08-2018 **Shift (D/N):** DAY
Temp (°C): *5 degre*
Weather: ☑ ☐ ☐ ☐ ☐ ☐ ☐ ☐

PROGRESS

Crater No.	Station	Offset	Phase	Number of Impacts	Crater Volume (m^3)	Diameter (m)	Depth (m)	App. Energy Transmitted (T*m)	Backfilling		Compaction	
									C	NC	C	NC
16	0+205	1,417	PH1	20	5,15	3,25	1	5400	☑	☐	☑	☐
17	0+214	1,408	PH1	20	5,75	3,4	1,05	5400	☑	☐	☑	☐
18	0+223	1,4	PH1	20	6,83	3,6	1,15	5400	☑	☐	☑	☐
19	0+232	1,391	PH1	20	6,28	3,5	1,1	5400	☑	☐	☑	☐
20	0+241	1,382	PH1	20	6,15	3,45	1,1	5400	☑	☐	☑	☐
21	0+250	1,374	PH1	20	6,79	3,7	1,1	5400	☑	☐	☑	☐
22	0+259	1,365	PH1	20	6,66	3,65	1,1	5400	☑	☐	☑	☐
23	0+268	1,357	PH1	20	7,13	3,6	1,2	5400	☑	☐	☑	☐
24	0+277	1,348	PH1	20	6,53	3,6	1,1	5400	☑	☐	☑	☐
25	0+286	1,339	PH1	20	6,05	3,5	1,06	5400	☑	☐	☑	☐
26	0+295	1,331	PH1	20	6,23	3,6	1,05	5400	☑	☐	☑	☐

KIVALLIQ CONTRACTORS GROUP LTD

Contract	Service	Type	Sequence	Revision
651298	CON	DCDR	002	0
AEM Document #:				

DYNAMIC COMPACTION DAILY REPORT

Contract Title: Amaruq Project - Whale Tail Dike
Contractor: Kivalliq Contractors Group Ltd.
Crane No.: NCK RAPIER
Weight (kg): 15 000 **Drop Height (m):** 18

Date: 30-08-2018 **Shift (D/N):** DAY
Temp (°C): *5 degre*
Weather: ☑ ☐ ☐ ☐ ☐ ☐ ☐ ☐

PROGRESS

Crater No.	Station	Offset	Phase	Number of Impacts	Crater Volume (m³)	Diameter (m)	Depth (m)	App. Energy Transmitted (T*m)	Backfilling		Compaction	
									C	NC	C	NC
116	0+210	-1,087	PH2	14	5,04	3,2	1	3780	☑	☐	☑	☐
117	0+219	-1,096	PH2	14	4,25	3,05	0,9	3780	☑	☐	☑	☐
118	0+228	-1,104	PH2	14	3,54	3,05	0,75	3780	☑	☐	☑	☐
119	0+237	-1,113	PH2	14	4,48	3,05	0,95	3780	☑	☐	☑	☐
120	0+246	-1,122	PH2	14	4,85	3	1,05	3780	☑	☐	☑	☐
121	0+255	-1,13	PH2	14	4,29	2,95	0,95	3780	☑	☐	☑	☐
122	0+264	-1,139	PH2	14	4,62	3	1	3780	☑	☐	☑	☐
123	0+273	-1,148	PH2	14	4,1	3,1	0,85	3780	☑	☐	☑	☐
124	0+282	-1,156	PH2	14	4,32	3,22	0,85	3780	☑	☐	☑	☐
125	0+291	-1,165	PH2	14	4,72	3,05	1	3780	☑	☐	☑	☐
126	0+300	-1,173	PH2	24	6,23	3,6	1,05	6480	☑	☐	☑	☐
260	0+336	3,793	PH3	8	2,42	2,7	0,6	2160	☑	☐	☑	☐
261	0+340	-3,712	PH3	8	3,45	3,15	0,7	2160	☑	☐	☑	☐
262	0+345	3,784	PH3	8	3,16	2,95	0,7	2160	☑	☐	☑	☐
263	0+349	-3,721	PH3	8	3,3	2,75	0,8	2160	☑	☐	☑	☐
264	0+354	3,775	PH3	8	2,01	2,5	0,55	2160	☑	☐	☑	☐
265	0+358	-3,729	PH3	8	2,42	2,7	0,6	2160	☑	☐	☑	☐
266	0+363	3,767	PH3	8	2,59	2,85	0,6	2160	☑	☐	☑	☐
267	0+367	-3,738	PH3	8	2,95	2,8	0,7	2160	☑	☐	☑	☐
268	0+372	3,758	PH3	8	2,95	2,8	0,7	2160	☑	☐	☑	☐
268	0+372	3,758	PH3	8	2,95	2,8	0,7	2160	☑	☐	☑	☐

KIVALLIQ CONTRACTORS GROUP LTD

Contract	Service	Type	Sequence	Revision
651298	CON	DCDR	002	0
AEM Document #:				

DYNAMIC COMPACTION DAILY REPORT

Contract Title: Amaruq Project - Whale Tail Dike
Contractor: Kivalliq Contractors Group Ltd.
Crane No.: NCK RAPIER
Weight (kg): 15 000 **Drop Height (m):** 18

Date: 30-08-2018 **Shift (D/N):** DAY
Temp (°C): 5 degre
Weather: ☑ ☐ ☐ ☐ ☐ ☐ ☐ ☐

PROGRESS

Crater No.	Station	Offset	Phase	Number of Impacts	Crater Volume (m³)	Diameter (m)	Depth (m)	App. Energy Transmitted (T*m)	Backfilling C	Backfilling NC	Compaction C	Compaction NC
637	0+337	1,291	PH4	2	1,1	2,5	0,3	540	☑	☐	☑	☐
643	0+343	1,286	PH4	2	0,81	2,25	0,25	540	☑	☐	☑	☐
650	0+351	-1,221	PH4	2	1,19	2,35	0,35	540	☑	☐	☑	☐
657	0+360	3,77	PH4	2	1,28	2,5	0,35	540	☑	☐	☑	☐
670	0+373	-3,744	PH4	2	1,05	2,4	0,3	540	☑	☐	☑	☐
									☐	☐	☐	☐
									☐	☐	☐	☐
									☐	☐	☐	☐
									☐	☐	☐	☐
									☐	☐	☐	☐
									☐	☐	☐	☐

SIGNATURES

RESPONSIBLES

	Name	Signature	DATE
KCG Surveyor:	Marie-Pier Cocagnon		31-08-2018
KCG representative:	Jonathan Audet-Cote		31-08-2018
AEM Inspector/QC:	Melina Gray		31-08-2018

DD-MMM-YYYY

Rev 1 (2018-08-27)

18M004- WHALE TAIL DYKE - AMARUQ (NU)

Ground Improvement - Dynamic Compaction

DAILY REPORT

Date:	8/30/2018	Report N°	10	Site Ref	18M004	Weather	Rainy / Cloudy

Staff		
	Project Manager	1
	Site Supervisor	1
	HSE Manager	0
	Crane Operator	2
	Mechanic	0
	Visitor	0
	Bulldozer operator (by client)	0
	Total	**4**

Equipements		
	Site office (by client)	
	Crane Equipment Containers	2
	Pick-up (by client)	1
	Dynamic Compaction crane (NCK Rapier)	1
	Dynamic Compaction pounder	1
	Total Station	1
	Mobile Crane	1
	Bulldozer (by client)	
	Total	**7**

Description of the work performed / Remarks

1-	Zone DC11 - Completion of remaining PH2 print
2-	Zone DC11 - Completion of PH3 prints
3-	Zone DC11 - 2 additional blows on PH1 and PH2 prints given when doing PH4 prints
4-	Zone DC11 - Completion of PH4 prints
5-	Following transmission of east abutment survey beween PK0+772 and PK0+840, modification of the extent of DC Zone
6-	DC Zone 7.5 extended from PK0+772 to PK0+800
7-	DC Zone 5 added from PK0+800 to PK0+810
8-	DC Zone 3 added from PK0+810 to PK0+830 / End of treatment at PK 0+830 due to bedrock above EL157.
9-	4 PH4 moved from DC Zone 10 to DC Zone 11 as it was possible to apply treatment despite the fact they were located in the slope
10-	
11-	
12-	
13-	
14-	
15-	
16-	
17-	

Dynamic Compaction Works

Zone	Description	Total number of prints	Done Today	Done Previously	Cumulated	Percentage Completed
Dynamic Compaction - Zone DC3	Phase 1 print	11				0%
	Phase 2 print	11				0%
	Phase 3 print	22				0%
	Phase 4 print	88				0%
Dynamic Compaction - Zone DC5	Phase 1 print	9				0%
	Phase 2 print	9				0%
	Phase 3 print	18				0%
	Phase 4 print	74				0%
Dynamic Compaction - Zone DC7.5	Phase 1 print	40	12	0	12	30%
	Phase 2 print	38	11	0	11	29%
	Phase 3 print	78				0%
	Phase 4 print	308				0%
Dynamic Compaction - Zone DC9	Phase 1 print	17				0%
	Phase 2 print	18				0%
	Phase 3 print	35				0%
	Phase 4 print	144				0%
Dynamic Compaction - Zone DC10	Phase 1 print	8				0%
	Phase 2 print	8				0%
	Phase 3 print	16				0%
	Phase 4 print	58				0%
Dynamic Compaction - Zone DC11	Phase 1 print	5		5	5	100%
	Phase 2 print	5	1	4	5	100%
	Phase 3 print	10	10	0	10	100%
	Phase 4 print	42	42	0	42	100%

Signatures	MENARD CANADA INC.	CLIENT

DYNAMIC COMPACTION
INT VOLUME AND RELATED SETTLEMENT

Project : Whale Tail Dyke - Amaruq
Project # : 18M004
Crane : NCK Rapier

Project Manager : Adrien Viateau
Site Supervisor : Maxime Roy
Crane Operator : Eric Bergeron
Crane Operator : Dany Menard

					Coordinates		DC Pounder			DC Prints Measurements					
N°	Phase	Print N°	DC-Zone	Date	NORTHING	EASTING	Height of Drop [m]	Weight [t]	Number of drops	Depth [m]	Upper Diameter [m]	Bottom Diameter [m]	Volume [m³]	Settlement - Phase [mm]	Remarks
1	PH1	31	DC11	8/29/2018	7254716.424	607302.756	18	15	65	2.00	4.80	1.80	18.28	203	PT-1 Zone DC11
2	PH1	32	DC11	8/29/2018	7254720.114	607310.965	18	15	55	1.60	4.60	1.80	13.69	152	
3	PH1	33	DC11	8/29/2018	7254723.804	607319.174	18	15	55	1.70	4.92	1.80	16.16	180	
4	PH1	34	DC11	8/29/2018	7254727.494	607327.382	18	15	55	1.90	4.50	1.80	15.71	175	
5	PH1	35	DC11	8/29/2018	7254731.184	607335.591	18	15	55	1.90	4.50	1.80	15.71	175	
6	PH2	134	DC11	8/29/2018	7254731.619	607330.462	18	15	45	1.55	3.90	1.80	10.34	115	PT-2 Zone DC11
7	PH2	133	DC11	8/29/2018	7254727.929	607322.253	18	15	35	1.20	4.05	1.80	8.46	94	
8	PH2	132	DC11	8/29/2018	7254724.239	607314.044	18	15	35	1.30	4.00	1.80	9.00	100	
9	PH2	131	DC11	8/29/2018	7254720.549	607305.835	18	15	35	1.35	3.65	1.80	8.18	91	
10	PH1	31	DC11	8/30/2018	7254716.424	607302.756	18	15	2	0.35	2.40	1.80	1.22	14	
11	PH1	32	DC11	8/30/2018	7254720.114	607310.965	18	15	2	0.35	2.30	1.80	1.16	13	
12	PH1	33	DC11	8/30/2018	7254723.804	607319.174	18	15	2	0.35	2.40	1.80	1.22	14	
13	PH1	34	DC11	8/30/2018	7254727.494	607327.382	18	15	2	0.30	2.40	1.80	1.05	12	
14	PH1	35	DC11	8/30/2018	7254731.184	607335.591	18	15	2	0.30	2.30	1.80	1.00	11	
15	PH2	130	DC11	8/30/2018	7254716.860	607297.627	18	15	45	1.10	3.40	1.80	6.02	67	
16	PH2	131	DC11	8/30/2018	7254720.549	607305.835	18	15	2	0.35	2.30	1.80	1.16	13	
17	PH2	132	DC11	8/30/2018	7254724.239	607314.044	18	15	2	0.35	2.20	1.80	1.10	12	
18	PH2	133	DC11	8/30/2018	7254727.929	607322.253	18	15	2	0.40	2.20	1.80	1.26	14	
19	PH2	134	DC11	8/30/2018	7254731.619	607330.462	18	15	2	0.40	2.20	1.80	1.26	14	
20	PH3	260	DC11	8/30/2018	7254712.299	607299.677	18	15	8	0.60	2.70	1.80	2.42	13	
21	PH3	261	DC11	8/30/2018	7254720.985	607300.706	18	15	8	0.70	3.15	1.80	3.45	19	
22	PH3	262	DC11	8/30/2018	7254715.989	607307.885	18	15	8	0.70	2.95	1.80	3.16	18	
23	PH3	263	DC11	8/30/2018	7254724.675	607308.915	18	15	8	0.80	2.75	1.80	3.30	18	
24	PH3	264	DC11	8/30/2018	7254719.679	607316.094	18	15	8	0.55	2.50	1.80	2.01	11	
25	PH3	265	DC11	8/30/2018	7254728.365	607317.124	18	15	8	0.60	2.70	1.80	2.42	13	
26	PH3	266	DC11	8/30/2018	7254723.369	607324.303	18	15	8	0.60	2.85	1.80	2.59	14	
27	PH3	267	DC11	8/30/2018	7254732.055	607325.332	18	15	8	0.70	2.80	1.80	2.95	16	
28	PH3	268	DC11	8/30/2018	7254727.059	607332.512	18	15	8	0.70	2.80	1.80	2.95	16	
29	PH3	269	DC11	8/30/2018	7254735.745	607333.541	18	15	8	0.70	2.85	1.80	3.02	17	

					Coordinates		DC Pounder			DC Prints Measurements					
N°	Phase	Print N°	DC-Zone	Date	NORTHING	EASTING	Height of Drop [m]	Weight [t]	Number of drops	Depth [m]	Upper Diameter [m]	Bottom Diameter [m]	Volume [m³]	Settlement - Phase [mm]	Remarks
30	PH4	670	DC11	8/30/2018	7254734.515	607330.805	18	15	2	0.30	2.40	1.80	1.05	1	
31	PH4	657	DC11	8/30/2018	7254722.139	607321.567	18	15	2	0.35	2.50	1.80	1.28	2	
32	PH4	650	DC11	8/30/2018	7254723.009	607311.308	18	15	2	0.35	2.35	1.80	1.19	2	
33	PH4	643	DC11	8/30/2018	7254717.654	607305.492	18	15	2	0.25	2.25	1.80	0.81	1	
34	PH4	637	DC11	8/30/2018	7254715.194	607300.020	18	15	2	0.30	2.50	1.80	1.10	2	
35	PH1	27	DC7.5	8/30/2018	7254701.665	607269.921	18	15	28	1.20	4.25	1.80	9.10	101	PT-PH1 Zone DC7.5
36	PH1	26	DC7.5	8/30/2018	7254697.975	607261.712	18	15	20	1.05	3.60	1.80	6.23	69	
37	PH1	25	DC7.5	8/30/2018	7254694.285	607253.503	18	15	20	1.06	3.50	1.80	6.05	67	
38	PH1	24	DC7.5	8/30/2018	7254690.595	607245.294	18	15	20	1.10	3.60	1.80	6.53	73	
39	PH1	23	DC7.5	8/30/2018	7254686.905	607237.086	18	15	20	1.20	3.60	1.80	7.13	79	
40	PH1	22	DC7.5	8/30/2018	7254683.215	607228.877	18	15	20	1.10	3.65	1.80	6.66	74	
41	PH1	21	DC7.5	8/30/2018	7254679.525	607220.668	18	15	20	1.10	3.70	1.80	6.79	75	
42	PH1	20	DC7.5	8/30/2018	7254675.835	607212.459	18	15	20	1.10	3.45	1.80	6.15	68	
43	PH1	19	DC7.5	8/30/2018	7254672.145	607204.250	18	15	20	1.10	3.50	1.80	6.28	70	
44	PH1	18	DC7.5	8/30/2018	7254668.455	607196.042	18	15	20	1.15	3.60	1.80	6.83	76	
45	PH1	17	DC7.5	8/30/2018	7254664.765	607187.833	18	15	20	1.05	3.40	1.80	5.75	64	
46	PH1	16	DC7.5	8/30/2018	7254661.075	607179.624	18	15	20	1.00	3.25	1.80	5.15	57	
47	PH2	126	DC7.5	8/30/2018	7254702.100	607264.791	18	15	24	1.05	3.60	1.80	6.23	69	PT-PH2 Zone DC7.5
48	PH2	125	DC7.5	8/30/2018	7254698.410	607256.583	18	15	14	1.00	3.05	1.80	4.72	52	
49	PH2	124	DC7.5	8/30/2018	7254694.720	607248.374	18	15	14	0.85	3.22	1.80	4.32	48	
50	PH2	123	DC7.5	8/30/2018	7254691.030	607240.165	18	15	14	0.85	3.10	1.80	4.10	46	
51	PH2	122	DC7.5	8/30/2018	7254687.340	607231.956	18	15	14	1.00	3.00	1.80	4.62	51	
52	PH2	121	DC7.5	8/30/2018	7254683.650	607223.747	18	15	14	0.95	2.95	1.80	4.29	48	
53	PH2	120	DC7.5	8/30/2018	7254679.960	607215.539	18	15	14	1.05	3.00	1.80	4.85	54	
54	PH2	119	DC7.5	8/30/2018	7254676.270	607207.330	18	15	14	0.95	3.05	1.80	4.48	50	
55	PH2	118	DC7.5	8/30/2018	7254672.580	607199.121	18	15	14	0.75	3.05	1.80	3.54	39	
56	PH2	117	DC7.5	8/30/2018	7254668.890	607190.912	18	15	14	0.90	3.05	1.80	4.25	47	
57	PH2	116	DC7.5	8/30/2018	7254665.200	607182.704	18	15	14	1.00	3.20	1.80	5.04	56	
58				8/31/2018			18	15							
59				8/31/2018			18	15							
60				8/31/2018			18	15							
61				8/31/2018			18	15							
62				8/31/2018			18	15							
63				8/31/2018			18	15							
64				8/31/2018			18	15							
65				8/31/2018			18	15							
66				8/31/2018			18	15							
67				8/31/2018			18	15							
68				8/31/2018			18	15							
69				8/31/2018			18	15							
70				8/31/2018			18	15							
71				8/31/2018			18	15							
72				8/31/2018			18	15							
73				8/31/2018			18	15							

LEGEND

TREATMENT LIMIT
(10m EFFECTIVE WIDTH)

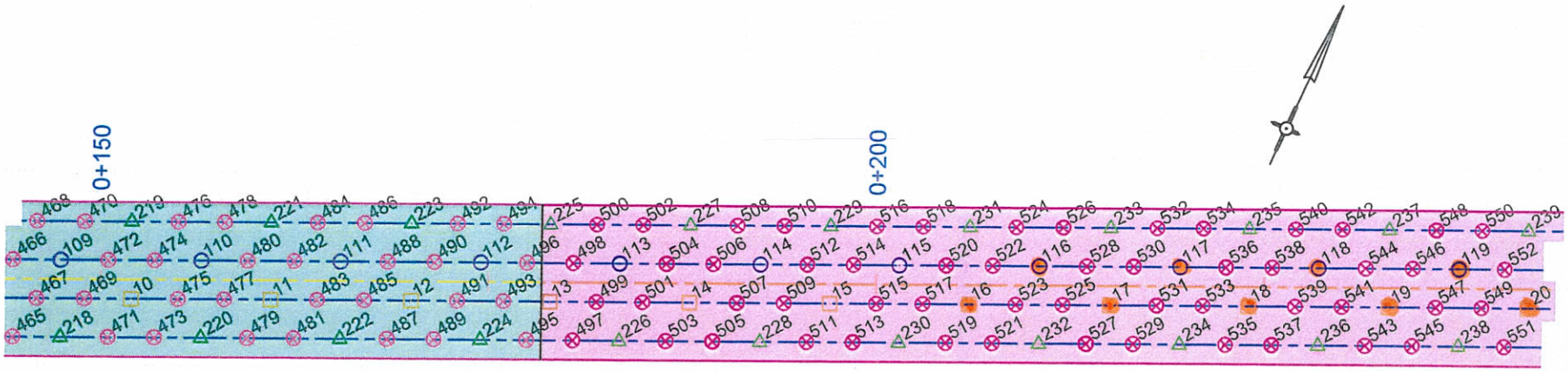
PHASE 1
PHASE 2
PHASE 3
PHASE 4

DC DEPTH

0m-5m
0m-7.5m

KEY PLAN

30/08/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)

DRAWN BY: S. DZANOUNI
DESIGNED BY: A. VIATEAU, EIT.
VERIFIED BY: H. GUIMONT, P.Eng.
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
FROM:
DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE

menARD
1590, RUE AMPÈRE B202
BOUCHERVILLE, QC
J4B 7L4
info@menardcanada.ca
TÉL.: (450)449-2633
FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM SECTION B
SCALE: 1:425 (0 4.3 8.6 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R2.dwg
DATE: AUG-20-2018
DRAWING N°: 200B

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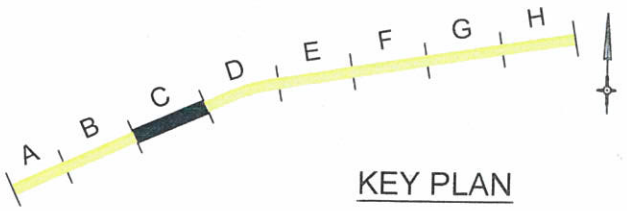
LEGEND

TREATMENT LIMIT
(10m EFFECTIVE WIDTH)

PHASE 1
PHASE 2
PHASE 3
PHASE 4

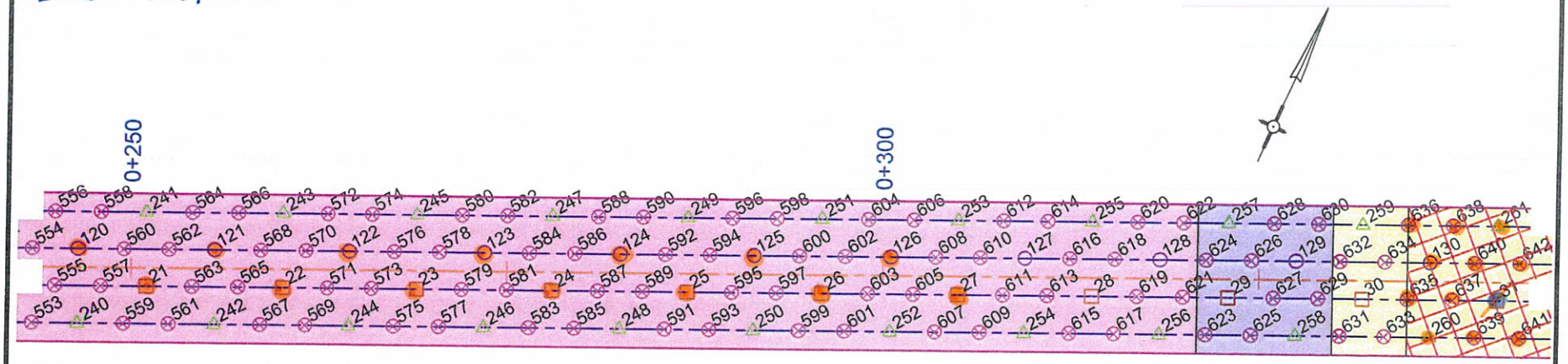
DC DEPTH
0m-7.5m
0m-9m
0m-10m
0m-10m from EL 153.5



KEY PLAN

29/08/2018

30/08/2018



REVISIONS		
No.	DATE	DESCRIPTION
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1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)

DRAWN BY: S. DZANOUNI
DESIGNED BY: A. VIATEAU, EIT.
VERIFIED BY: H. GUIMONT, P.Eng.
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
FROM:
DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE

menard
1590, RUE AMPÈRE B202
BOUCHERVILLE, QC
J4B 7L4
info@menardcanada.ca
TÉL.: (450)449-2633
FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM SECTION C
SCALE: 1:425 (0 4.3 8.6 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R2.dwg
DRAWING N°: 200C
DATE: AUG-20-2018

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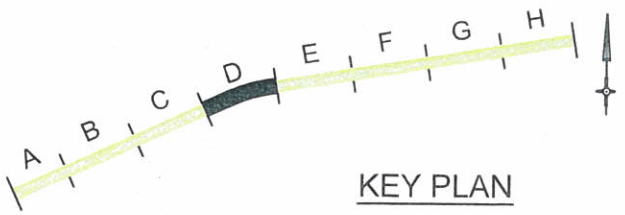
LEGEND

TREATMENT LIMIT
(10m EFFECTIVE WIDTH)

PHASE 1
PHASE 2
PHASE 3
PHASE 4

DC DEPTH

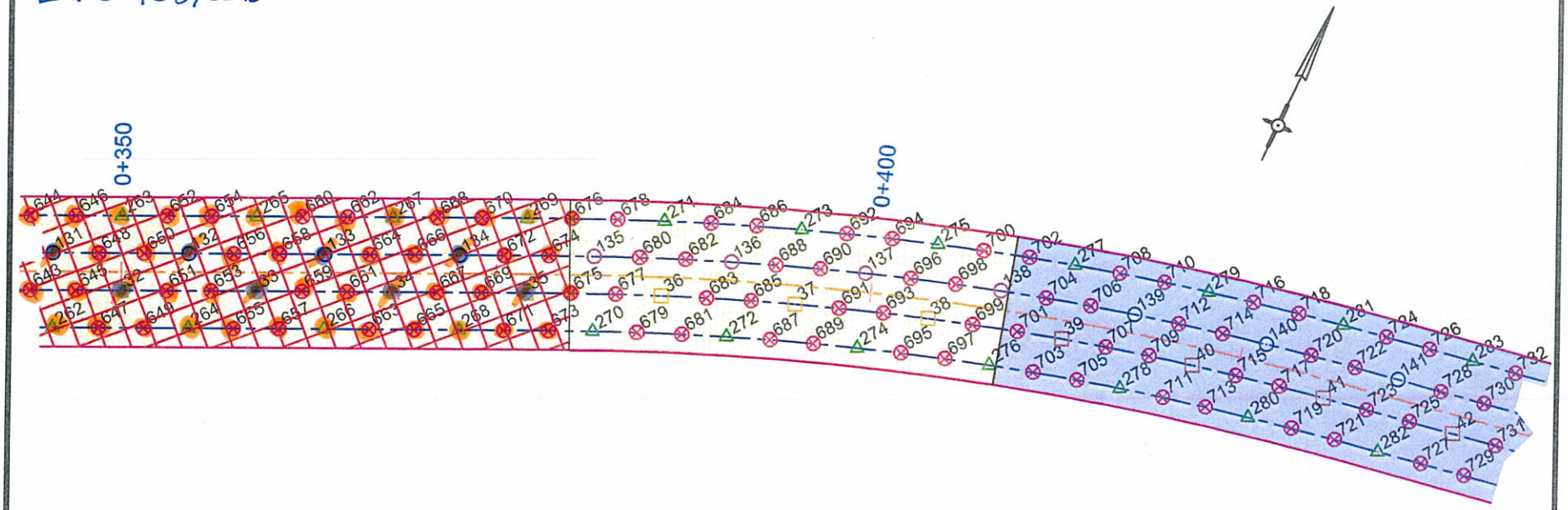
0m-9m
0m-10m
0m-10m from EL 153.5



KEY PLAN

29/08/2018

30/08/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)

DRAWN BY: S. DZANOUNI
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menARD
1590, RUE AMPÈRE B202
BOUCHERVILLE, QC
J4B 7L4
info@menardcanada.ca
TÉL.: (450)449-2633
FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ
MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM
SECTION D
SCALE: 1:425 (0 4.3 8.6 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R2.dwg
DATE: AUG-20-2018
DRAWING N°: 200D

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check by surveyor	MARIE-PIER CAGNON PC
check by surveyor	MAXIME ROY Maxime Roy
check by quality	Jonathan A.C
date	AUGUST 30, 2018

SURVEY EQUIPEMENT VERIFICATION

no	equipement	integrity	note
	GPS 1186Q3		
	Station SPS 700		

VERIFICATION DES SYSTÈME ACCUGRADE

Control point number	*Amq-cp-002*	
	Control Point Job 80830	
surveyor coordinate	**x:** 7255709.250	ΔN 0,006
	y: 607430.222	E 0,003
	z: 165.005	Z 0,022
Theoric coordinate	**x: 607430.219**	
	y: 7255709.256	
	z: 164.983	
Control point subcontractor	TP2	
surveyor FGL coordinate	**x:** 7254677.763	ΔN 0,006
	y: 607241.127	E 0,019
	z: 157.589	Z 0,014
Subcontractor coordinate	**x:** 7254677.769	
	y: 607241.108	
	z: 157.575	

Notes

KIVALLIQ CONTRACTORS GROUP LTD

Contract	Service	Type	Sequence	Revision
11-811	CON	DCDR	003	0
AEM Document #:				

DYNAMIC COMPACTION DAILY REPORT

Contract Title: Amaruq Project - Whale Tail Dike
Contractor: Kivalliq Contractors Group Ltd.
Crane No.: NCK RAPIER
Weight (kg): 15 000 **Drop Height (m):** 18

Date: 30-08-2018 **Shift (D/N):** DAY
Temp (°C): *8 degre*
Weather: ☑ ☐ ☐ ☐ ☐ ☐ ☐ ☐

PROGRESS

Crater No.	Station	Offset	Phase	Zone	Number of Impacts	Crater Volume (m³)	Diameter (m)	Depth (m)	App. Energy Transmitted (T*m)	Backfilling		Compaction	
										C	NC	C	NC
15	0+196	1,426	PH4	DC7,5	2	6,53	3,6	1,1	540	☑	☐	☑	☐
14	0+187	1,434	PH1	DC7,5	20	5,82	3,55	1	5400	☑	☐	☑	☐
13	0+178	1,443	PH1	DC5	20	4,99	3,3	0,95	5400	☑	☐	☑	☐
12	0+169	1,451	PH1	DC5	16	6,36	3,65	1,05	4320	☑	☐	☑	☐
11	0+160	1,46	PH1	DC5	10	3,78	3,05	0,8	2700	☑	☐	☑	☐
10	0+151	1,468	PH1	DC5	10	4,89	3,25	0,95	2700	☑	☐	☑	☐
9	0+142	1,476	PH1	DC5	10	4,99	3,3	0,95	2700	☑	☐	☑	☐
8	0+133	1,485	PH1	DC5	10	4,37	3,25	0,85	2700	☑	☐	☑	☐
7	0+124	1,494	PH1	DC5	10	3,78	3,05	0,8	2700	☑	☐	☑	☐
6	0+115	1,502	PH1	DC5	10	4,58	3,1	0,95	2700	☑	☐	☑	☐
5	0+106	1,511	PH1	DC5	10	3,23	3	0,7	2700	☑	☐	☑	☐
4	0+097	1,52	PH1	DC3	2	1,16	2,3	0,35	540	☑	☐	☑	☐
115	0+201	-1,079	PH2	DC7,5	2	1,05	2,4	0,3	540	☑	☐	☑	☐

KIVALLIQ CONTRACTORS GROUP LTD

Contract	Service	Type	Sequence	Revision
11-811	CON	DCDR	003	0
AEM Document #:				

DYNAMIC COMPACTION DAILY REPORT

Contract Title: Amaruq Project - Whale Tail Dike
Contractor: Kivalliq Contractors Group Ltd.
Crane No.: NCK RAPIER
Weight (kg): 15 000 **Drop Height (m):** 18

Date: 30-08-2018 **Shift (D/N):** DAY
Temp (°C): *8 degre*
Weather: ☑ ☐ ☐ ☐ ☐ ☐ ☐

PROGRESS

Crater No.	Station	Offset	Phase	Zone	Number of Impacts	Crater Volume (m³)	Diameter (m)	Depth (m)	App. Energy Transmitted (T*m)	Backfilling		Compaction	
										C	NC	C	NC
114	0+192	-1,07	PH2	DC7,5	14	4,25	3,05	0,9	3780	☑	☐	☑	☐
113	0+183	-1,062	PH2	DC7,5	14	4,44	3,15	0,9	3780	☑	☐	☑	☐
112	0+174	-1,054	PH2	DC5	10	4,07	2,95	0,9	2700	☑	☐	☑	☐
111	0+165	-1,045	PH2	DC5	10	3,69	3	0,8	2700	☑	☐	☑	☐
110	0+156	-1,036	PH2	DC5	10	3,75	2,9	0,85	2700	☑	☐	☑	☐
109	0+147	-1,028	PH2	DC5	10	5,04	3,2	1	2700	☑	☐	☑	☐
108	0+138	-1,019	PH2	DC5	10	4,39	3	0,95	2700	☑	☐	☑	☐
107	0+129	-1,01	PH2	DC5	10	3,69	3	0,8	2700	☑	☐	☑	☐
106	0+120	-1,002	PH2	DC5	10	3,97	2,9	0,9	2700	☑	☐	☑	☐
105	0+111	-0,993	PH2	DC5	10	3,69	3	0,8	2700	☑	☐	☑	☐
104	0+102	-0,985	PH2	DC3	2	1,16	2,3	0,35	540	☑	☐	☑	☐
103	0+093	-0,976	PH2	DC3	2	1,08	2,15	0,35	540	☑	☐	☑	☐
252	0+300	3,827	PH3	DC7,5	8	4,53	3,2	0,9	2160	☑	☐	☑	☐
251	0+295	-3,669	PH3	DC7,5	8	3,67	2,85	0,85	2160	☑	☐	☑	☐
250	0+291	3,836	PH3	DC7,5	8	4,82	3,1	1	2160	☑	☐	☑	☐

KIVALLIQ CONTRACTORS GROUP LTD

Contract	Service	Type	Sequence	Revision
11-811	CON	DCDR	003	0
AEM Document #:				

DYNAMIC COMPACTION DAILY REPORT

Contract Title: Amaruq Project - Whale Tail Dike
Contractor: Kivalliq Contractors Group Ltd.
Crane No.: NCK RAPIER
Weight (kg): 15 000 **Drop Height (m):** 18

Date: 30-08-2018 **Shift (D/N):** DAY
Temp (°C): *8 degre*
Weather: ☑ ☐ ☐ ☐ ☐ ☐ ☐

PROGRESS

Crater No.	Station	Offset	Phase	Zone	Number of Impacts	Crater Volume (m^3)	Diameter (m)	Depth (m)	App. Energy Transmitted (T*m)	Backfilling		Compaction	
										C	NC	C	NC
249	0+286	-3,66	PH3	DC7,5	8	3,07	2,6	0,8	2160	☑	☐	☑	☐
248	0+282	3,844	PH3	DC7,5	8	4,01	3,05	0,85	2160	☑	☐	☑	☐
247	0+277	-3,652	PH3	DC7,5	8	2,89	2,75	0,7	2160	☑	☐	☑	☐
246	0+273	3,852	PH3	DC7,5	8	4,42	2,9	1	2160	☑	☐	☑	☐
245	0+268	-3,643	PH3	DC7,5	8	3,53	2,9	0,8	2160	☑	☐	☑	☐
244	0+264	3,861	PH3	DC7,5	8	3,89	2,85	0,9	2160	☑	☐	☑	☐
243	0+259	-3,634	PH3	DC7,5	8	3,24	2,85	0,75	2160	☑	☐	☑	☐
242	0+255	3,869	PH3	DC7,5	8	2,53	2,8	0,6	2160	☑	☐	☑	☐
241	0+250	-3,626	PH3	DC7,5	8	3,17	2,8	0,75	2160	☑	☐	☑	☐
240	0+246	3,878	PH3	DC7,5	8	3,3	2,75	0,8	2160	☑	☐	☑	☐
239	0+241	-3,617	PH3	DC7,5	8	3,84	2,95	0,85	2160	☑	☐	☑	☐
238	0+237	3,887	PH3	DC7,5	8	3,51	2,75	0,85	2160	☑	☐	☑	☐
237	0+232	-3,609	PH3	DC7,5	8	3,15	2,65	0,8	2160	☑	☐	☑	☐
236	0+228	3,895	PH3	DC7,5	8	3,38	2,8	0,8	2160	☑	☐	☑	☐
235	0+223	-3,6	PH3	DC7,5	8	3,09	2,75	0,75	2160	☑	☐	☑	☐
234	0+219	3,904	PH3	DC7,5	8	3,67	2,85	0,85	2160	☑	☐	☑	☐
233	0+214	-3,592	PH3	DC7,5	8	2,01	2,7	0,5	2160	☑	☐	☑	☐
232	0+210	3,912	PH3	DC7,5	8	4,34	3,1	0,9	2160	☑	☐	☑	☐
231	0+205	-3,584	PH3	DC7,5	8	3,59	2,8	0,85	2160	☑	☐	☑	☐
230	0+201	3,921	PH3	DC7,5	8	3,38	2,8	0,8	2160	☑	☐	☑	☐
229	0+196	-3,575	PH3	DC7,5	8	3,07	2,6	0,8	2160	☑	☐	☑	☐
228	0+192	3,93	PH3	DC7,5	8	2,89	2,75	0,7	2160	☑	☐	☑	☐
227	0+187	-3,566	PH3	DC7,5	8	3,14	3,1	0,65	2160	☑	☐	☑	☐

KIVALLIQ CONTRACTORS GROUP LTD

Contract	Service	Type	Sequence	Revision
11-811	CON	DCDR	003	0
AEM Document #:				

DYNAMIC COMPACTION DAILY REPORT

Contract Title: Amaruq Project - Whale Tail Dike
Contractor: Kivalliq Contractors Group Ltd.
Crane No.: NCK RAPIER
Weight (kg): 15 000 **Drop Height (m):** 18

Date: 30-08-2018 **Shift (D/N):** DAY
Temp (°C): 8 degre
Weather: ☑ ☐ ☐ ☐ ☐ ☐ ☐ ☐

PROGRESS

Crater No.	Station	Offset	Phase	Zone	Number of Impacts	Crater Volume (m³)	Diameter (m)	Depth (m)	App. Energy Transmitted (T*m)	Backfilling		Compaction	
										C	NC	C	NC
125	0+291	-1,165	PH4	DC7,5	2	1,1	2,5	0,3	540	☑	☐	☑	☐
124	0+282	-1,156	PH4	DC7,5	2	0,83	2,3	0,25	540	☑	☐	☑	☐
123	0+273	-1,148	PH4	DC7,5	2	1	2,3	0,3	540	☑	☐	☑	☐
122	0+264	-1,139	PH4	DC7,5	2	0,79	2,2	0,25	540	☑	☐	☑	☐
121	0+255	-1,13	PH4	DC7,5	2	1,22	2,4	0,35	540	☑	☐	☑	☐
120	0+246	-1,122	PH4	DC7,5	2	1,22	2,4	0,35	540	☑	☐	☑	☐
119	0+237	-1,113	PH4	DC7,5	2	0,83	2,3	0,25	540	☑	☐	☑	☐
118	0+228	-1,104	PH4	DC7,5	2	1,05	2,4	0,3	540	☑	☐	☑	☐
117	0+219	-1,096	PH4	DC7,5	2	1,22	2,4	0,35	540	☑	☐	☑	☐
116	0+210	-1,087	PH4	DC7,5	2	0,95	2,2	0,3	540	☑	☐	☑	☐
115	0+201	-1,079	PH2	DC7,5	2	1,05	2,4	0,3	540	☑	☐	☑	☐
114	0+192	-1,07	PH2	DC7,5	14	4,25	3,05	0,9	3780	☑	☐	☑	☐
26	0+295	1,331	PH4	DC7,5	2	1,05	2,4	0,3	540	☑	☐	☑	☐
25	0+286	1,339	PH4	DC7,5	2	1	2,3	0,3	540	☑	☐	☑	☐
24	0+277	1,348	PH4	DC7,5	2	1,05	2,4	0,3	540	☑	☐	☑	☐
23	0+268	1,357	PH4	DC7,5	2	1,22	2,4	0,35	540	☑	☐	☑	☐
22	0+259	1,365	PH4	DC7,5	2	0,95	2,2	0,3	540	☑	☐	☑	☐
21	0+250	1,374	PH4	DC7,5	2	1,33	2,3	0,4	540	☑	☐	☑	☐
20	0+241	1,382	PH4	DC7,5	2	1,05	2,4	0,3	540	☑	☐	☑	☐
19	0+232	1,391	PH4	DC7,5	2	1,22	2,4	0,35	540	☑	☐	☑	☐
18	0+223	1,4	PH4	DC7,5	2	1	2,3	0,3	540	☑	☐	☑	☐
17	0+214	1,408	PH4	DC7,5	2	1,69	2,8	0,4	540	☑	☐	☑	☐
16	0+205	1,417	PH4	DC7,5	2	1,47	2,5	0,4	540	☑	☐	☑	☐
15	0+196	1,426	PH4	DC7,5	2	6,53	3,6	1,1	540	☑	☐	☑	☐
603	0+298	1,328	PH4	DC7,5	2	1,22	2,4	0,35	540	☑	☐	☑	☐

KIVALLIQ CONTRACTORS GROUP LTD

Contract	Service	Type	Sequence	Revision
11-811	CON	DCDR	003	0
AEM Document #:				

DYNAMIC COMPACTION DAILY REPORT

Contract Title: Amaruq Project - Whale Tail Dike
Contractor: Kivalliq Contractors Group Ltd.
Crane No.: NCK RAPIER
Weight (kg): 15 000 **Drop Height (m):** 18

Date: 30-08-2018 **Shift (D/N):** DAY
Temp (°C): 8 degre
Weather: ☑ ☐ ☐ ☐ ☐ ☐ ☐

PROGRESS

Crater No.	Station	Offset	Phase	Zone	Number of Impacts	Crater Volume (m^3)	Diameter (m)	Depth (m)	App. Energy Transmitted (T*m)	Backfilling C	Backfilling NC	Compaction C	Compaction NC
598	0+292	-3,666	PH4	DC7,5	2	1,65	2,5	0,45	540	☑	☐	☑	☐
592	0+285	-1,159	PH4	DC7,5	2	0,95	2,2	0,3	540	☑	☐	☑	☐
585	0+279	3,847	PH4	DC7,5	2	2,01	2,7	0,5	540	☑	☐	☑	☐
582	0+274	-3,649	PH4	DC7,5	2	1,05	2,4	0,3	540	☑	☐	☑	☐
577	0+270	3,855	PH4	DC7,5	2	1,05	2,4	0,3	540	☑	☐	☑	☐
576	0+267	-1,142	PH4	DC7,5	2	0,95	2,2	0,3	540	☑	☐	☑	☐
566	0+256	-3,632	PH4	DC7,5	2	1,39	2,4	0,4	540	☑	☐	☑	☐
559	0+249	3,875	PH4	DC7,5	2	1,33	2,3	0,4	540	☑	☐	☑	☐
542	0+229	-3,606	PH4	DC7,5	2	1,39	2,4	0,4	540	☑	☐	☑	☐
533	0+220	1,403	PH4	DC7,5	2	0,95	2,2	0,3	540	☑	☐	☑	☐
511	0+195	3,927	PH4	DC7,5	2	1,22	2,4	0,35	540	☑	☐	☑	☐
516	0+199	-3,578	PH4	DC7,5	2	0,87	2,4	0,25	540	☑	☐	☑	☐
529	0+216	3,907	PH4	DC7,5	2	1,16	2,3	0,35	540	☑	☐	☑	☐
527	0+213	3,91	PH4	DC7,5	2	1	2,3	0,3	540	☑	☐	☑	☐
										☐	☐	☐	☐

SIGNATURES

	Name	Signature	DATE
RESPONSIBLES			
KCG Surveyor:	Mikael Lavoie		01-09-2018 (DD-MMM-YYYY)
KCG representative:	Jonathan A.C		01-09-2018 (DD-MMM-YYYY)
AEM Inspector/QC:	Melina Gray		01-09-2018 (DD-MMM-YYYY)

Rev 1 (2018-08-27)

18M004- WHALE TAIL DYKE - AMARUQ (NU)

Ground Improvement - Dynamic Compaction

DAILY REPORT

Date:	8/31/2018	Report N°	11	Site Ref	18M004	Weather	Sunny

Staff		
	Project Manager	1
	Site Supervisor	1
	HSE Manager	0
	Crane Operator	2
	Mechanic	0
	Visitor	0
	Bulldozer operator (by client)	0
	Total	**4**

Equipements		
	Site office (by client)	
	Crane Equipment Containers	2
	Pick-up (by client)	1
	Dynamic Compaction crane (NCK Rapier)	1
	Dynamic Compaction pounder	1
	Total Station	1
	Mobile Crane	
	Bulldozer (by client)	
	Total	**6**

Description of the work performed / Remarks

1-	DC Phase 1 and DC Phase 2 in Zone DC3 / DC5 and DC7.5
2-	Erratum in Daily Report of August 30th 2018 : Penetration test performed on PH1 print (#27) in Zone DC7.5
3-	Erratum in Daily Report of August 30th 2018 : Penetration test performed on PH2 print (#126) in Zone DC7.5
4-	Following instruction from GHD given in daily meeting, Dynamic Compaction starts at PK 0+092 and ends at PK0+830 - modification of the DC Zone
5-	Zone DC3 total # of prints per phase adjusted to match new limits
6-	Penetration test performed on PH1 print (#12) in Zone DC5
7-	Zone DC7.5 - Dynamic Compaction on PH3 and PH4 prints
8-	Zone DC7.5 - 2 additional blows on PH1 and PH2 prints given when doing PH4 prints
9-	Volume Survey performed on all points for PH1 / PH2 and PH3 prints
10-	Volume Survey performed on random PH4 prints
11-	
12-	
13-	
14-	
15-	
16-	
17-	

Dynamic Compaction Works

Zone	Description	Total number of prints	Done Today	Done Previously	Cumulated	Percentage Completed
Dynamic Compaction - Zone DC3	Phase 1 print	8	1	0	1	13%
	Phase 2 print	9	2	0	2	22%
	Phase 3 print	17				0%
	Phase 4 print	74				0%
Dynamic Compaction - Zone DC5	Phase 1 print	9	8	0	8	89%
	Phase 2 print	9	8	0	8	89%
	Phase 3 print	18				0%
	Phase 4 print	74				0%
Dynamic Compaction - Zone DC7.5	Phase 1 print	40	3	12	15	38%
	Phase 2 print	38	3	11	14	37%
	Phase 3 print	78	26	0	26	33%
	Phase 4 print	308	99	0	99	32%
Dynamic Compaction - Zone DC9	Phase 1 print	17				0%
	Phase 2 print	18				0%
	Phase 3 print	35				0%
	Phase 4 print	144				0%
Dynamic Compaction - Zone DC10	Phase 1 print	8				0%
	Phase 2 print	8				0%
	Phase 3 print	16				0%
	Phase 4 print	58				0%
Dynamic Compaction - Zone DC11	Phase 1 print	5		5	5	100%
	Phase 2 print	5		5	5	100%
	Phase 3 print	10		10	10	100%
	Phase 4 print	42		42	42	100%

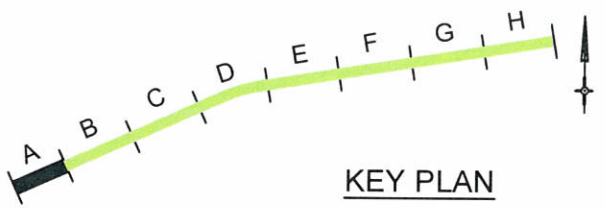
Signatures	MENARD CANADA INC.	CLIENT
		

LEGEND

TREATMENT LIMIT
(10m EFFECTIVE WIDTH)

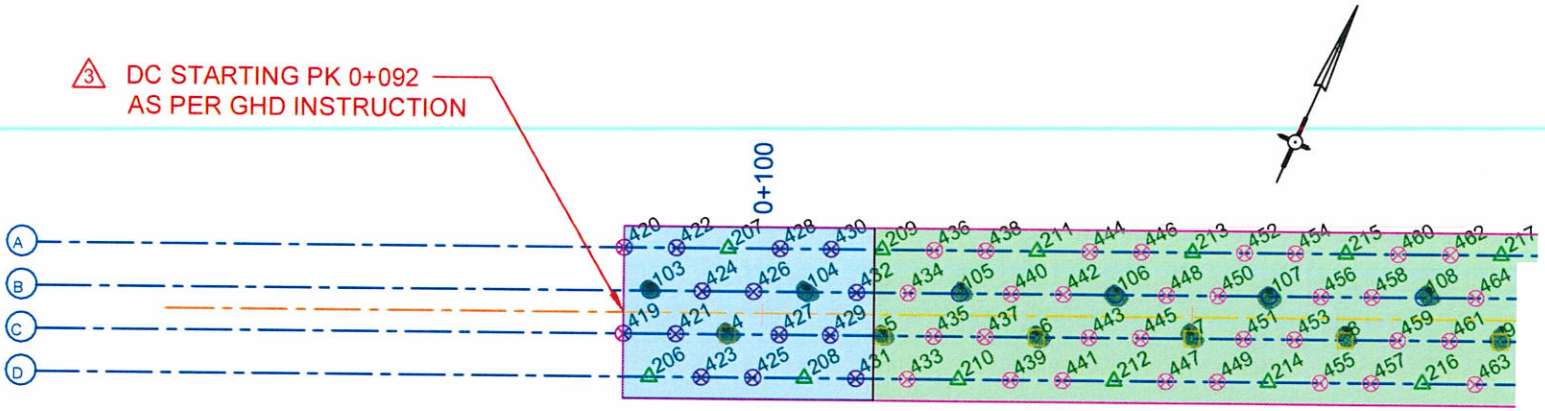
PHASE 1
PHASE 2
PHASE 3
PHASE 4

DC DEPTH
0m-3m
0m-5m



KEY PLAN

31/08/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)
3	AUG-31-2018	REVISED SURVEYED BEDROCK (AUG 31ST)

DRAWN BY: S. DZANOUNI
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
DESIGNED BY: A. VIATEAU, EIT.
FROM:
VERIFIED BY: H. GUIMONT, P.Eng.
DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE

menard
1590, RUE AMPÈRE B202
BOUCHERVILLE, QC
J4B 7L4
info@menardcanada.ca
TÉL.: (450)449-2633
FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM SECTION A
SCALE: 1:425 (0 4.3 8.6 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R4.dwg
DRAWING Nº: 200A
DATE: AUG-31-2018

X:\QC\PROJETS\CONTRATS 2018\18M004_Whale_Tail_Dyke_Amaruq\7-Dessins\MENARD\18M004_DWG-R4.dwg

LEGEND

TREATMENT LIMIT (10m EFFECTIVE WIDTH)

PHASE 1

PHASE 2

PHASE 3

PHASE 4

DC DEPTH

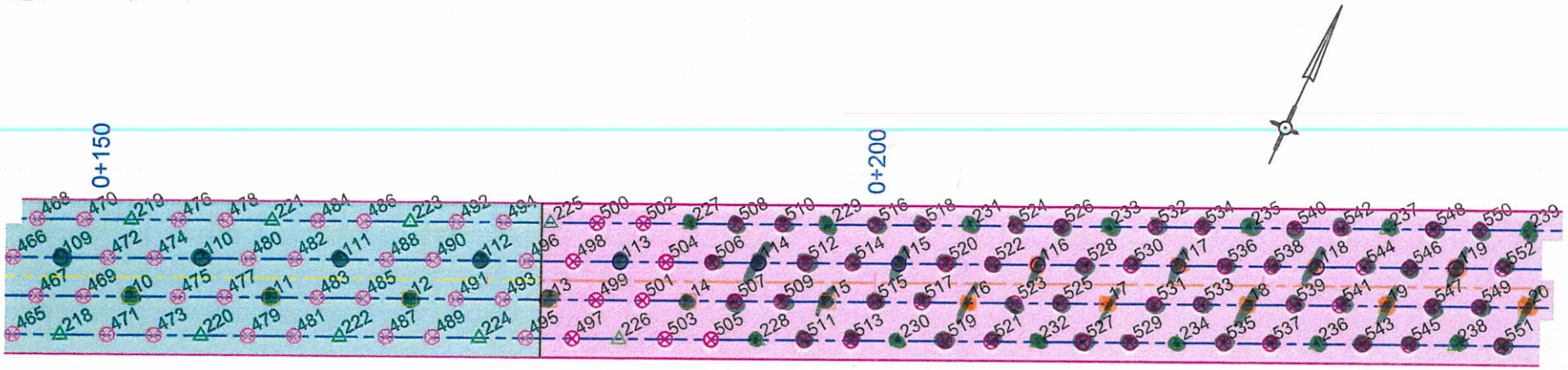
0m-5m

0m-7.5m

KEY PLAN

30/08/2018

31/08/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)

DRAWN BY: S. DZANOUNI

DRAWING REFERENCE: 651298-2500-4GDD-0004-01

DESIGNED BY: A. VIATEAU, EIT.

FROM:

VERIFIED BY: H. GUIMONT, P.Eng.

DATE: JUL-20-2018

CLIENT: AGNICO-EAGLE

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1590, RUE AMPÈRE B202
BOUCHERVILLE, QC
J4B 7L4
info@menardcanada.ca
TÉL.: (450)449-2633
FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION

DRAWING TITLE: TREATMENT PROGRAM SECTION B

SCALE: 1:425 (0 4.3 8.6 12.9 m)

FOLDER: 18M004

FORMAT: 11 x 8.5

SYSTEM: METRIC

FILE: 18M004_DWG-R2.dwg

DATE: AUG-20-2018

DRAWING N°: 200B

X:\QC\PROJETS\CONTRATS 2018\18M004_Whale_Tail_Dyke_Amaruq\7-Dessins\MENARD\18M004_DWG-R2.dwg

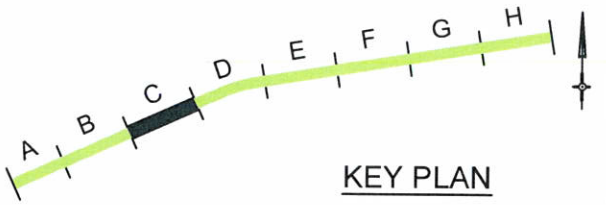
LEGEND

TREATMENT LIMIT (10m EFFECTIVE WIDTH)

PHASE 1
PHASE 2
PHASE 3
PHASE 4

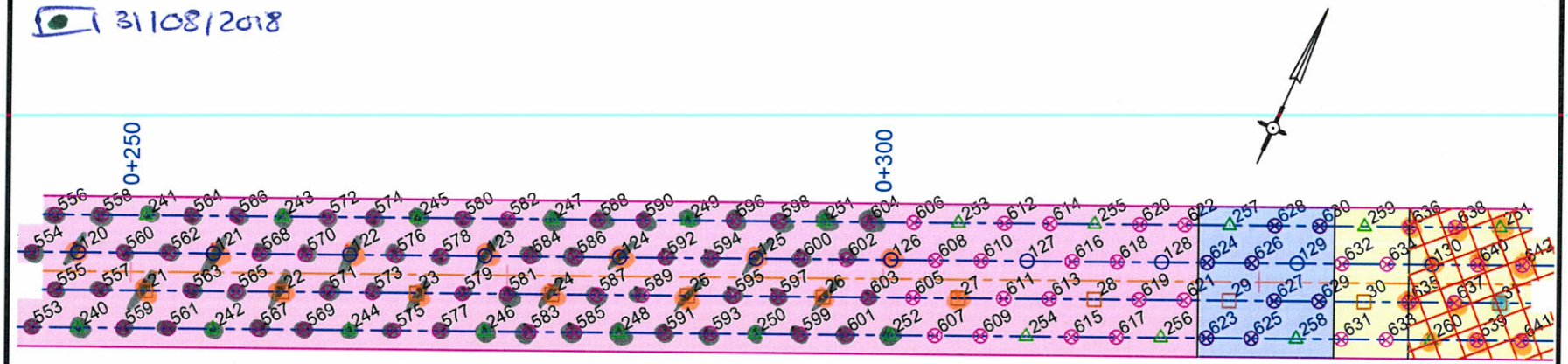
DC DEPTH

0m-7.5m
0m-9m
0m-10m
0m-11m from EL 154.5



KEY PLAN

29/08/2018
30/08/2018
31/08/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)
3	AUG-31-2018	REVISED SURVEYED BEDROCK (AUG 31ST)

DRAWN BY: S. DZANOUNI
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
DESIGNED BY: A. VIATEAU, EIT.
FROM:
VERIFIED BY: H. GUIMONT, P.Eng.
DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE

menard
1590, RUE AMPÈRE B202
BOUCHERVILLE, QC
J4B 7L4
info@menardcanada.ca
TÉL.: (450)449-2633
FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM SECTION C
SCALE: 1:425 (0, 4.3, 8.6, 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R4.dwg
DRAWING N°: 200C
DATE: AUG-31-2018

X:\QC\PROJETS\CONTRATS 2018\18M004_Whale_Tail_Dyke_Amaruq\7-Dessins\MENARD\18M004_DWG-R4.dwg

check by surveyor	Marie-Pier Gagnon
check by surveyor	Maxime Roy
check by quality	Jonathan A.C
date	AUGUST 31.2018

SURVEY EQUIPEMENT VERIFICATION

no	equipement	integrity	note
	GPS 118603	GOOD	
	GPS		

VERIFICATION DES SYSTÈME ACCUGRADE

Control point number	*Amq-cp-002*
surveyor coordinate	**x:** 7255709.262 **y:** 607430.224 **z:** 165.012
Theoric coordinate	**x: 607430.219** **y: 7255709.256** **z: 164.983**
Control point subcontractor	office CtRL
surveyor FGL coordinate	**x:** 7254960.815 **y:** 607951.893 **z:** 162.098
Subcontractor coordinate	**x:** 7254960.796 **y:** 607951.883 **z:** 162.102

Notes

18M004- WHALE TAIL DYKE - AMARUQ (NU)

Ground Improvement - Dynamic Compaction

DAILY REPORT

Date:	8/31/2018	Report N°	11	Site Ref	18M004	Weather	Sunny

Staff		
	Project Manager	1
	Site Supervisor	1
	HSE Manager	0
	Crane Operator	2
	Mechanic	0
	Visitor	0
	Bulldozer operator (by client)	0
	Total	**4**

Equipements		
	Site office (by client)	
	Crane Equipment Containers	2
	Pick-up (by client)	1
	Dynamic Compaction crane (NCK Rapier)	1
	Dynamic Compaction pounder	1
	Total Station	1
	Mobile Crane	
	Bulldozer (by client)	
	Total	**6**

Description of the work performed / Remarks

1-	DC Phase 1 and DC Phase 2 in Zone DC3 / DC5 and DC7.5
2-	Erratum in Daily Report of August 30th 2018 : Penetration test performed on PH1 print (#27) in Zone DC7.5
3-	Erratum in Daily Report of August 30th 2018 : Penetration test performed on PH2 print (#126) in Zone DC7.5
4-	Following instruction from GHD given in daily meeting, Dynamic Compaction starts at PK 0+092 and ends at PK0+830 - modification of the DC Zone
5-	Zone DC3 total # of prints per phase adjusted to match new limits
6-	Penetration test performed on PH1 print (#12) in Zone DC5
7-	Zone DC7.5 - Dynamic Compaction on PH3 and PH4 prints
8-	Zone DC7.5 - 2 additional blows on PH1 and PH2 prints given when doing PH4 prints
9-	Volume Survey performed on all points for PH1 / PH2 and PH3 prints
10-	Volume Survey performed on random PH4 prints
11-	
12-	
13-	
14-	
15-	
16-	
17-	

Dynamic Compaction Works

Zone	Description	Total number of prints	Done Today	Done Previously	Cumulated	Percentage Completed
Dynamic Compaction - Zone DC3	Phase 1 print	8	1	0	1	13%
	Phase 2 print	9	2	0	2	22%
	Phase 3 print	17				0%
	Phase 4 print	74				0%
Dynamic Compaction - Zone DC5	Phase 1 print	9	8	0	8	89%
	Phase 2 print	9	8	0	8	89%
	Phase 3 print	18				0%
	Phase 4 print	74				0%
Dynamic Compaction - Zone DC7.5	Phase 1 print	40	3	12	15	38%
	Phase 2 print	38	3	11	14	37%
	Phase 3 print	78	26	0	26	33%
	Phase 4 print	308	99	0	99	32%
Dynamic Compaction - Zone DC9	Phase 1 print	17				0%
	Phase 2 print	18				0%
	Phase 3 print	35				0%
	Phase 4 print	144				0%
Dynamic Compaction - Zone DC10	Phase 1 print	8				0%
	Phase 2 print	8				0%
	Phase 3 print	16				0%
	Phase 4 print	58				0%
Dynamic Compaction - Zone DC11	Phase 1 print	5		5	5	100%
	Phase 2 print	5		5	5	100%
	Phase 3 print	10		10	10	100%
	Phase 4 print	42		42	42	100%

Signatures	MENARD CANADA INC.	CLIENT
		

DYNAMIC COMPACTION
DC PRINT VOLUME AND RELATED SETTLEMENT

Project : Whale Tail Dyke - Amaruq
Project # : 18M004
Crane : NCK Rapier

Project Manager : Adrien Viateau
Site Supervisor : Maxime Roy
Crane Operator : Eric Bergeron
Crane Operator : Dany Menard

					Coordinates		DC Pounder			DC Prints Measurements					
N°	Phase	Print N°	DC-Zone	Date	NORTHING	EASTING	Height of Drop [m]	Weight [t]	Number of drops	Depth [m]	Upper Diameter [m]	Bottom Diameter [m]	Volume [m³]	Settlement - Phase [mm]	Remarks
1	PH1	31	DC11	8/29/2018	7254716.424	607302.756	18	15	65	2.00	4.80	1.80	18.28	203	PT-1 Zone DC11
2	PH1	32	DC11	8/29/2018	7254720.114	607310.965	18	15	55	1.60	4.60	1.80	13.69	152	
3	PH1	33	DC11	8/29/2018	7254723.804	607319.174	18	15	55	1.70	4.92	1.80	16.16	180	
4	PH1	34	DC11	8/29/2018	7254727.494	607327.382	18	15	55	1.90	4.50	1.80	15.71	175	
5	PH1	35	DC11	8/29/2018	7254731.184	607335.591	18	15	55	1.90	4.50	1.80	15.71	175	
6	PH2	134	DC11	8/29/2018	7254731.619	607330.462	18	15	45	1.55	3.90	1.80	10.34	115	PT-2 Zone DC11
7	PH2	133	DC11	8/29/2018	7254727.929	607322.253	18	15	35	1.20	4.05	1.80	8.46	94	
8	PH2	132	DC11	8/29/2018	7254724.239	607314.044	18	15	35	1.30	4.00	1.80	9.00	100	
9	PH2	131	DC11	8/29/2018	7254720.549	607305.835	18	15	35	1.35	3.65	1.80	8.18	91	
10	PH1	31	DC11	8/30/2018	7254716.424	607302.756	18	15	2	0.35	2.40	1.80	1.22	14	
11	PH1	32	DC11	8/30/2018	7254720.114	607310.965	18	15	2	0.35	2.30	1.80	1.16	13	
12	PH1	33	DC11	8/30/2018	7254723.804	607319.174	18	15	2	0.35	2.40	1.80	1.22	14	
13	PH1	34	DC11	8/30/2018	7254727.494	607327.382	18	15	2	0.30	2.40	1.80	1.05	12	
14	PH1	35	DC11	8/30/2018	7254731.184	607335.591	18	15	2	0.30	2.30	1.80	1.00	11	
15	PH2	130	DC11	8/30/2018	7254716.860	607297.627	18	15	45	1.10	3.40	1.80	6.02	67	
16	PH2	131	DC11	8/30/2018	7254720.549	607305.835	18	15	2	0.35	2.30	1.80	1.16	13	
17	PH2	132	DC11	8/30/2018	7254724.239	607314.044	18	15	2	0.35	2.20	1.80	1.10	12	
18	PH2	133	DC11	8/30/2018	7254727.929	607322.253	18	15	2	0.40	2.20	1.80	1.26	14	
19	PH2	134	DC11	8/30/2018	7254731.619	607330.462	18	15	2	0.40	2.20	1.80	1.26	14	
20	PH3	260	DC11	8/30/2018	7254712.299	607299.677	18	15	8	0.60	2.70	1.80	2.42	13	
21	PH3	261	DC11	8/30/2018	7254720.985	607300.706	18	15	8	0.70	3.15	1.80	3.45	19	
22	PH3	262	DC11	8/30/2018	7254715.989	607307.885	18	15	8	0.70	2.95	1.80	3.16	18	
23	PH3	263	DC11	8/30/2018	7254724.675	607308.915	18	15	8	0.80	2.75	1.80	3.30	18	
24	PH3	264	DC11	8/30/2018	7254719.679	607316.094	18	15	8	0.55	2.50	1.80	2.01	11	
25	PH3	265	DC11	8/30/2018	7254728.365	607317.124	18	15	8	0.60	2.70	1.80	2.42	13	
26	PH3	266	DC11	8/30/2018	7254723.369	607324.303	18	15	8	0.60	2.85	1.80	2.59	14	
27	PH3	267	DC11	8/30/2018	7254732.055	607325.332	18	15	8	0.70	2.80	1.80	2.95	16	
28	PH3	268	DC11	8/30/2018	7254727.059	607332.512	18	15	8	0.70	2.80	1.80	2.95	16	
29	PH3	269	DC11	8/30/2018	7254735.745	607333.541	18	15	8	0.70	2.85	1.80	3.02	17	

					Coordinates		DC Pounder			DC Prints Measurements					
N°	Phase	Print N°	DC-Zone	Date	NORTHING	EASTING	Height of Drop [m]	Weight [t]	Number of drops	Depth [m]	Upper Diameter [m]	Bottom Diameter [m]	Volume [m³]	Settlement - Phase [mm]	Remarks
30	PH4	670	DC11	8/30/2018	7254734.515	607330.805	18	15	2	0.30	2.40	1.80	1.05	1	
31	PH4	657	DC11	8/30/2018	7254722.139	607321.567	18	15	2	0.35	2.50	1.80	1.28	2	
32	PH4	650	DC11	8/30/2018	7254723.009	607311.308	18	15	2	0.35	2.35	1.80	1.19	2	
33	PH4	643	DC11	8/30/2018	7254717.654	607305.492	18	15	2	0.25	2.25	1.80	0.81	1	
34	PH4	637	DC11	8/30/2018	7254715.194	607300.020	18	15	2	0.30	2.50	1.80	1.10	2	
35	PH1	27	DC7.5	8/30/2018	7254701.665	607269.921	18	15	28	1.20	4.25	1.80	9.10	101	PT-PH1 Zone DC7.5
36	PH1	26	DC7.5	8/30/2018	7254697.975	607261.712	18	15	20	1.05	3.60	1.80	6.23	69	
37	PH1	25	DC7.5	8/30/2018	7254694.285	607253.503	18	15	20	1.06	3.50	1.80	6.05	67	
38	PH1	24	DC7.5	8/30/2018	7254690.595	607245.294	18	15	20	1.10	3.60	1.80	6.53	73	
39	PH1	23	DC7.5	8/30/2018	7254686.905	607237.086	18	15	20	1.20	3.60	1.80	7.13	79	
40	PH1	22	DC7.5	8/30/2018	7254683.215	607228.877	18	15	20	1.10	3.65	1.80	6.66	74	
41	PH1	21	DC7.5	8/30/2018	7254679.525	607220.668	18	15	20	1.10	3.70	1.80	6.79	75	
42	PH1	20	DC7.5	8/30/2018	7254675.835	607212.459	18	15	20	1.10	3.45	1.80	6.15	68	
43	PH1	19	DC7.5	8/30/2018	7254672.145	607204.250	18	15	20	1.10	3.50	1.80	6.28	70	
44	PH1	18	DC7.5	8/30/2018	7254668.455	607196.042	18	15	20	1.15	3.60	1.80	6.83	76	
45	PH1	17	DC7.5	8/30/2018	7254664.765	607187.833	18	15	20	1.05	3.40	1.80	5.75	64	
46	PH1	16	DC7.5	8/30/2018	7254661.075	607179.624	18	15	20	1.00	3.25	1.80	5.15	57	
47	PH2	126	DC7.5	8/30/2018	7254702.100	607264.791	18	15	24	1.05	3.60	1.80	6.23	69	PT-PH2 Zone DC7.5
48	PH2	125	DC7.5	8/30/2018	7254698.410	607256.583	18	15	14	1.00	3.05	1.80	4.72	52	
49	PH2	124	DC7.5	8/30/2018	7254694.720	607248.374	18	15	14	0.85	3.22	1.80	4.32	48	
50	PH2	123	DC7.5	8/30/2018	7254691.030	607240.165	18	15	14	0.85	3.10	1.80	4.10	46	
51	PH2	122	DC7.5	8/30/2018	7254687.340	607231.956	18	15	14	1.00	3.00	1.80	4.62	51	
52	PH2	121	DC7.5	8/30/2018	7254683.650	607223.747	18	15	14	0.95	2.95	1.80	4.29	48	
53	PH2	120	DC7.5	8/30/2018	7254679.960	607215.539	18	15	14	1.05	3.00	1.80	4.85	54	
54	PH2	119	DC7.5	8/30/2018	7254676.270	607207.330	18	15	14	0.95	3.05	1.80	4.48	50	
55	PH2	118	DC7.5	8/30/2018	7254672.580	607199.121	18	15	14	0.75	3.05	1.80	3.54	39	
56	PH2	117	DC7.5	8/30/2018	7254668.890	607190.912	18	15	14	0.90	3.05	1.80	4.25	47	
57	PH2	116	DC7.5	8/30/2018	7254665.200	607182.704	18	15	14	1.00	3.20	1.80	5.04	56	
58	PH1	15	DC7.5	8/31/2018	7254657.385	607171.415	18	15	20	1.10	3.60	1.80	6.53	73	
59	PH1	14	DC7.5	8/31/2018	7254653.695	607163.207	18	15	20	1.00	3.55	1.80	5.82	65	
60	PH1	13	DC7.5	8/31/2018	7254650.005	607154.998	18	15	20	0.95	3.30	1.80	4.99	55	
61	PH1	12	DC5	8/31/2018	7254646.315	607146.789	18	15	16	1.05	3.65	1.80	6.36	71	PT-PH1 Zone DC5
62	PH1	11	DC5	8/31/2018	7254642.625	607138.580	18	15	10	0.80	3.05	1.80	3.78	42	
63	PH1	10	DC5	8/31/2018	7254638.936	607130.371	18	15	10	0.95	3.25	1.80	4.89	54	
64	PH1	9	DC5	8/31/2018	7254635.246	607122.163	18	15	10	0.95	3.30	1.80	4.99	55	
65	PH1	8	DC5	8/31/2018	7254631.556	607113.954	18	15	10	0.85	3.25	1.80	4.37	49	
66	PH1	7	DC5	8/31/2018	7254627.866	607105.745	18	15	10	0.80	3.05	1.80	3.78	42	
67	PH1	6	DC5	8/31/2018	7254624.176	607097.536	18	15	10	0.95	3.10	1.80	4.58	51	
68	PH1	5	DC5	8/31/2018	7254620.486	607089.327	18	15	10	0.70	3.00	1.80	3.23	36	
69	PH1	4	DC3	8/31/2018	7254616.796	607081.119	18	15	2	0.35	2.30	1.80	1.16	13	
70	PH2	115	DC7.5	8/31/2018	7254661.510	607174.495	18	15	14	0.75	3.05	1.80	3.54	39	
71	PH2	114	DC7.5	8/31/2018	7254657.820	607166.286	18	15	14	0.90	3.05	1.80	4.25	47	
72	PH2	113	DC7.5	8/31/2018	7254654.131	607158.077	18	15	14	0.90	3.15	1.80	4.44	49	
73	PH2	112	DC5	8/31/2018	7254650.441	607149.868	18	15	10	0.90	2.95	1.80	4.07	45	

					Coordinates		DC Pounder			DC Prints Measurements					
N°	Phase	Print N°	DC-Zone	Date	NORTHING	EASTING	Height of Drop [m]	Weight [t]	Number of drops	Depth [m]	Upper Diameter [m]	Bottom Diameter [m]	Volume [m³]	Settlement - Phase [mm]	Remarks
74	PH2	111	DC5	8/31/2018	7254646.751	607141.660	18	15	10	0.80	3.00	1.80	3.69	41	
75	PH2	110	DC5	8/31/2018	7254643.061	607133.451	18	15	10	0.85	2.90	1.80	3.75	42	
76	PH2	109	DC5	8/31/2018	7254639.371	607125.242	18	15	10	1.00	3.20	1.80	5.04	56	
77	PH2	108	DC5	8/31/2018	7254635.681	607117.033	18	15	10	0.95	3.00	1.80	4.39	49	
78	PH2	107	DC5	8/31/2018	7254631.991	607108.824	18	15	10	0.80	3.00	1.80	3.69	41	
79	PH2	106	DC5	8/31/2018	7254628.301	607100.616	18	15	10	0.90	2.90	1.80	3.97	44	
80	PH2	105	DC5	8/31/2018	7254624.611	607092.407	18	15	10	0.80	3.00	1.80	3.69	41	
81	PH2	104	DC3	8/31/2018	7254620.921	607084.198	18	15	2	0.35	2.30	1.80	1.16	13	
82	PH2	103	DC3	8/31/2018	7254617.231	607075.989	18	15	2	0.35	2.15	1.80	1.08	12	
83	PH3	252	DC7.5	8/31/2018	7254697.539	607266.841	18	15	8	0.90	3.20	1.80	4.53	25	
84	PH3	251	DC7.5	8/31/2018	7254702.535	607259.662	18	15	8	0.85	2.85	1.80	3.67	20	
85	PH3	250	DC7.5	8/31/2018	7254693.849	607258.633	18	15	8	1.00	3.10	1.80	4.82	27	
86	PH3	249	DC7.5	8/31/2018	7254698.845	607251.453	18	15	8	0.80	2.60	1.80	3.07	17	
87	PH3	248	DC7.5	8/31/2018	7254690.159	607250.424	18	15	8	0.85	3.05	1.80	4.01	22	
88	PH3	247	DC7.5	8/31/2018	7254695.155	607243.245	18	15	8	0.70	2.75	1.80	2.89	16	
89	PH3	246	DC7.5	8/31/2018	7254686.470	607242.215	18	15	8	1.00	2.90	1.80	4.42	25	
90	PH3	245	DC7.5	8/31/2018	7254691.465	607235.036	18	15	8	0.80	2.90	1.80	3.53	20	
91	PH3	244	DC7.5	8/31/2018	7254682.780	607234.006	18	15	8	0.90	2.85	1.80	3.89	22	
92	PH3	243	DC7.5	8/31/2018	7254687.775	607226.827	18	15	8	0.75	2.85	1.80	3.24	18	
93	PH3	242	DC7.5	8/31/2018	7254679.090	607225.797	18	15	8	0.60	2.80	1.80	2.53	14	
94	PH3	241	DC7.5	8/31/2018	7254684.085	607218.618	18	15	8	0.75	2.80	1.80	3.17	18	
95	PH3	240	DC7.5	8/31/2018	7254675.400	607217.589	18	15	8	0.80	2.75	1.80	3.30	18	
96	PH3	239	DC7.5	8/31/2018	7254680.395	607210.409	18	15	8	0.85	2.95	1.80	3.84	21	
97	PH3	238	DC7.5	8/31/2018	7254671.710	607209.380	18	15	8	0.85	2.75	1.80	3.51	19	
98	PH3	237	DC7.5	8/31/2018	7254676.705	607202.201	18	15	8	0.80	2.65	1.80	3.15	17	
99	PH3	236	DC7.5	8/31/2018	7254668.020	607201.171	18	15	8	0.80	2.80	1.80	3.38	19	
100	PH3	235	DC7.5	8/31/2018	7254673.015	607193.992	18	15	8	0.75	2.75	1.80	3.09	17	
101	PH3	234	DC7.5	8/31/2018	7254664.330	607192.962	18	15	8	0.85	2.85	1.80	3.67	20	
102	PH3	233	DC7.5	8/31/2018	7254669.326	607185.783	18	15	8	0.50	2.70	1.80	2.01	11	
103	PH3	232	DC7.5	8/31/2018	7254660.640	607184.753	18	15	8	0.90	3.10	1.80	4.34	24	
104	PH3	231	DC7.5	8/31/2018	7254665.636	607177.574	18	15	8	0.85	2.80	1.80	3.59	20	
105	PH3	230	DC7.5	8/31/2018	7254656.950	607176.545	18	15	8	0.80	2.80	1.80	3.38	19	
106	PH3	229	DC7.5	8/31/2018	7254661.946	607169.365	18	15	8	0.80	2.60	1.80	3.07	17	
107	PH3	228	DC7.5	8/31/2018	7254653.260	607168.336	18	15	8	0.70	2.75	1.80	2.89	16	
108	PH3	227	DC7.5	8/31/2018	7254658.256	607161.157	18	15	8	0.65	3.10	1.80	3.14	17	
109	PH2	125	DC7.5	8/31/2018	7254698.410	607256.583	18	15	2	0.30	2.50	1.80	1.10	12	
110	PH2	124	DC7.5	8/31/2018	7254694.720	607248.374	18	15	2	0.25	2.30	1.80	0.83	9	
111	PH2	123	DC7.5	8/31/2018	7254691.030	607240.165	18	15	2	0.30	2.30	1.80	1.00	11	
112	PH2	122	DC7.5	8/31/2018	7254687.340	607231.956	18	15	2	0.25	2.20	1.80	0.79	9	
113	PH2	121	DC7.5	8/31/2018	7254683.650	607223.747	18	15	2	0.35	2.40	1.80	1.22	14	
114	PH2	120	DC7.5	8/31/2018	7254679.960	607215.539	18	15	2	0.35	2.40	1.80	1.22	14	
115	PH2	119	DC7.5	8/31/2018	7254676.270	607207.330	18	15	2	0.25	2.30	1.80	0.83	9	
116	PH2	118	DC7.5	8/31/2018	7254672.580	607199.121	18	15	2	0.30	2.40	1.80	1.05	12	
117	PH2	117	DC7.5	8/31/2018	7254668.890	607190.912	18	15	2	0.35	2.40	1.80	1.22	14	

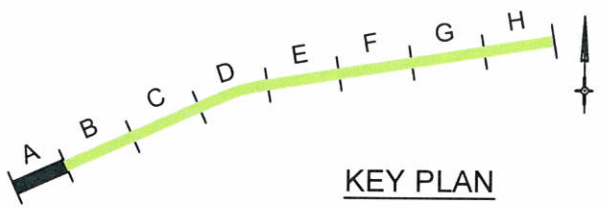
					Coordinates		DC Pounder			DC Prints Measurements					
N°	Phase	Print N°	DC-Zone	Date	NORTHING	EASTING	Height of Drop [m]	Weight [t]	Number of drops	Depth [m]	Upper Diameter [m]	Bottom Diameter [m]	Volume [m³]	Settlement - Phase [mm]	Remarks
118	PH2	116	DC7.5	8/31/2018	7254665.200	607182.704	18	15	2	0.30	2.20	1.80	0.95	11	
119	PH2	115	DC7.5	8/31/2018	7254661.510	607174.495	18	15	2	0.30	2.40	1.80	1.05	12	
120	PH2	114	DC7.5	8/31/2018	7254657.820	607166.286	18	15	2	0.30	2.40	1.80	1.05	12	
121	PH1	26	DC7.5	8/31/2018	7254697.975	607261.712	18	15	2	0.30	2.50	1.80	1.10	12	
122	PH1	25	DC7.5	8/31/2018	7254694.285	607253.503	18	15	2	0.30	2.40	1.80	1.05	12	
123	PH1	24	DC7.5	8/31/2018	7254690.595	607245.294	18	15	2	0.30	2.30	1.80	1.00	11	
124	PH1	23	DC7.5	8/31/2018	7254686.905	607237.086	18	15	2	0.30	2.40	1.80	1.05	12	
125	PH1	22	DC7.5	8/31/2018	7254683.215	607228.877	18	15	2	0.35	2.40	1.80	1.22	14	
126	PH1	21	DC7.5	8/31/2018	7254679.525	607220.668	18	15	2	0.30	2.20	1.80	0.95	11	
127	PH1	20	DC7.5	8/31/2018	7254675.835	607212.459	18	15	2	0.40	2.30	1.80	1.33	15	
128	PH1	19	DC7.5	8/31/2018	7254672.145	607204.250	18	15	2	0.30	2.40	1.80	1.05	12	
129	PH1	18	DC7.5	8/31/2018	7254668.455	607196.042	18	15	2	0.35	2.40	1.80	1.22	14	
130	PH1	17	DC7.5	8/31/2018	7254664.765	607187.833	18	15	2	0.30	2.30	1.80	1.00	11	
131	PH1	16	DC7.5	8/31/2018	7254661.075	607179.624	18	15	2	0.40	2.80	1.80	1.69	19	
132	PH1	15	DC7.5	8/31/2018	7254657.385	607171.415	18	15	2	0.40	2.50	1.80	1.47	16	
133	PH4	603	DC7.5	8/31/2018	7254699.205	607264.448	18	15	2	0.35	2.40	1.80	1.22	2	
134	PH4	598	DC7.5	8/31/2018	7254701.305	607256.926	18	15	2	0.45	2.50	1.80	1.65	2	
135	PH4	592	DC7.5	8/31/2018	7254695.950	607251.110	18	15	2	0.30	2.20	1.80	0.95	1	
136	PH4	585	DC7.5	8/31/2018	7254688.929	607247.688	18	15	2	0.50	2.70	1.80	2.01	3	
137	PH4	582	DC7.5	8/31/2018	7254693.925	607240.508	18	15	2	0.30	2.40	1.80	1.05	1	
138	PH4	577	DC7.5	8/31/2018	7254685.240	607239.479	18	15	2	0.30	2.40	1.80	1.05	1	
139	PH4	576	DC7.5	8/31/2018	7254688.570	607234.693	18	15	2	0.30	2.20	1.80	0.95	1	
140	PH4	566	DC7.5	8/31/2018	7254686.545	607224.091	18	15	2	0.40	2.40	1.80	1.39	2	
141	PH4	559	DC7.5	8/31/2018	7254676.630	607220.325	18	15	2	0.40	2.30	1.80	1.33	2	
142	PH4	542	DC7.5	8/31/2018	7254675.475	607199.464	18	15	2	0.40	2.40	1.80	1.39	2	
143	PH4	533	DC7.5	8/31/2018	7254667.225	607193.305	18	15	2	0.30	2.20	1.80	0.95	1	
144	PH4	511	DC7.5	8/31/2018	7254654.490	607171.072	18	15	2	0.35	2.40	1.80	1.22	2	
145	PH4	516	DC7.5	8/31/2018	7254663.176	607172.102	18	15	2	0.25	2.40	1.80	0.87	1	
146	PH4	529	DC7.5	8/31/2018	7254663.100	607190.226	18	15	2	0.35	2.30	1.80	1.16	2	
147	PH4	527	DC7.5	8/31/2018	7254661.870	607187.490	18	15	2	0.30	2.30	1.80	1.00	1	
148							18	15							
149							18	15							
150							18	15							
151							18	15							
152							18	15							
153							18	15							
154							18	15							
155							18	15							
156							18	15							
157							18	15							
158							18	15							
159							18	15							
160							18	15							
161							18	15							

LEGEND

TREATMENT LIMIT
(10m EFFECTIVE WIDTH)

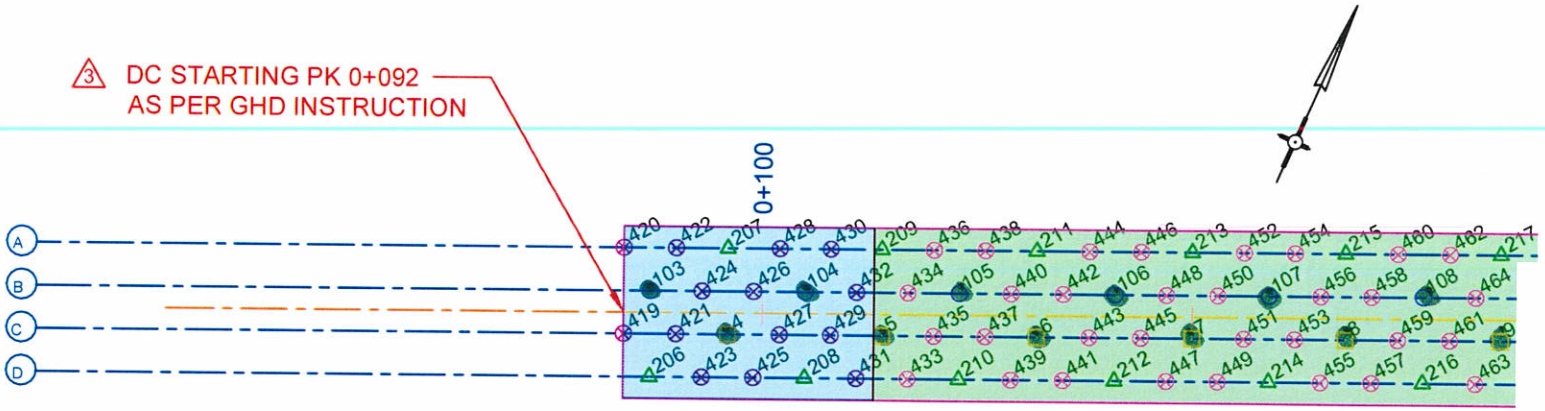
PHASE 1
PHASE 2
PHASE 3
PHASE 4

DC DEPTH
0m-3m
0m-5m



KEY PLAN

31/08/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)
3	AUG-31-2018	REVISED SURVEYED BEDROCK (AUG 31ST)

DRAWN BY: S. DZANOUNI
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
DESIGNED BY: A. VIATEAU, EIT.
FROM:
VERIFIED BY: H. GUIMONT, P.Eng.
DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE

menard
1590, RUE AMPÈRE B202
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J4B 7L4
info@menardcanada.ca
TÉL.: (450)449-2633
FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM SECTION A
SCALE: 1:425 (0 4.3 8.6 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R4.dwg
DRAWING Nº: 200A
DATE: AUG-31-2018

X:\QC\PROJETS\CONTRATS 2018\18M004_Whale_Tail_Dyke_Amaruq\7-Dessins\MENARD\18M004_DWG-R4.dwg

LEGEND

TREATMENT LIMIT (10m EFFECTIVE WIDTH)

PHASE 1

PHASE 2

PHASE 3

PHASE 4

DC DEPTH

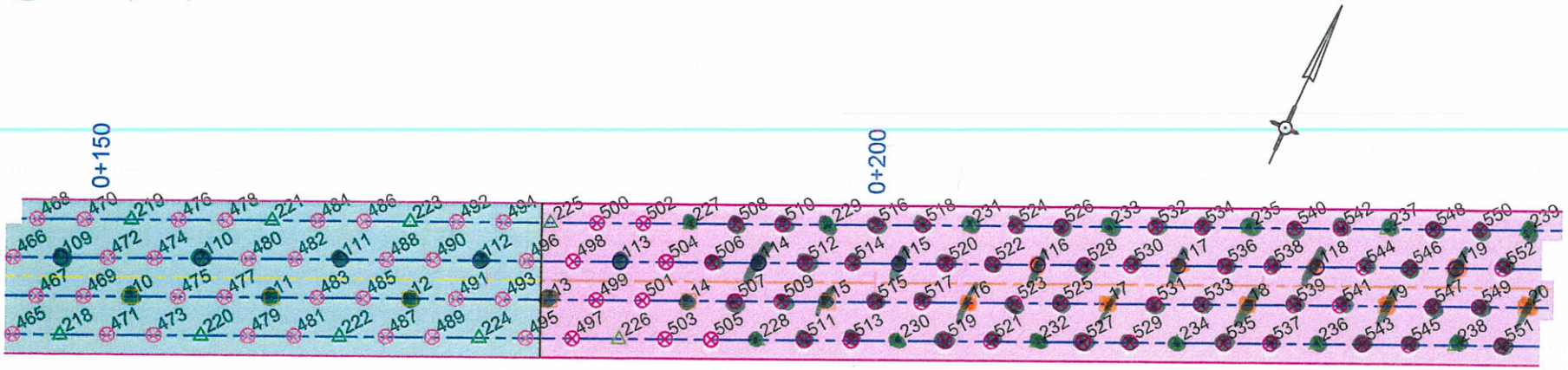
0m-5m

0m-7.5m

KEY PLAN

30/08/2018

31/08/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)

DRAWN BY: S. DZANOUNI

DRAWING REFERENCE: 651298-2500-4GDD-0004-01

DESIGNED BY: A. VIATEAU, EIT.

FROM:

VERIFIED BY: H. GUIMONT, P.Eng.

DATE: JUL-20-2018

CLIENT: AGNICO-EAGLE

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TÉL.: (450)449-2633
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PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION

DRAWING TITLE: TREATMENT PROGRAM SECTION B

SCALE: 1:425 (0 4.3 8.6 12.9 m)

FOLDER: 18M004

FORMAT: 11 x 8.5

SYSTEM: METRIC

FILE: 18M004_DWG-R2.dwg

DATE: AUG-20-2018

DRAWING N°: 200B

X:\QC\PROJETS\CONTRATS 2018\18M004_Whale_Tail_Dyke_Amaruq\7-Dessins\MENARD\18M004_DWG-R2.dwg

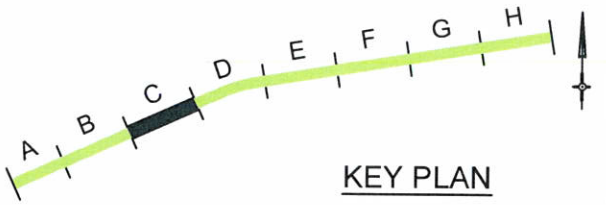
LEGEND

TREATMENT LIMIT (10m EFFECTIVE WIDTH)

PHASE 1
PHASE 2
PHASE 3
PHASE 4

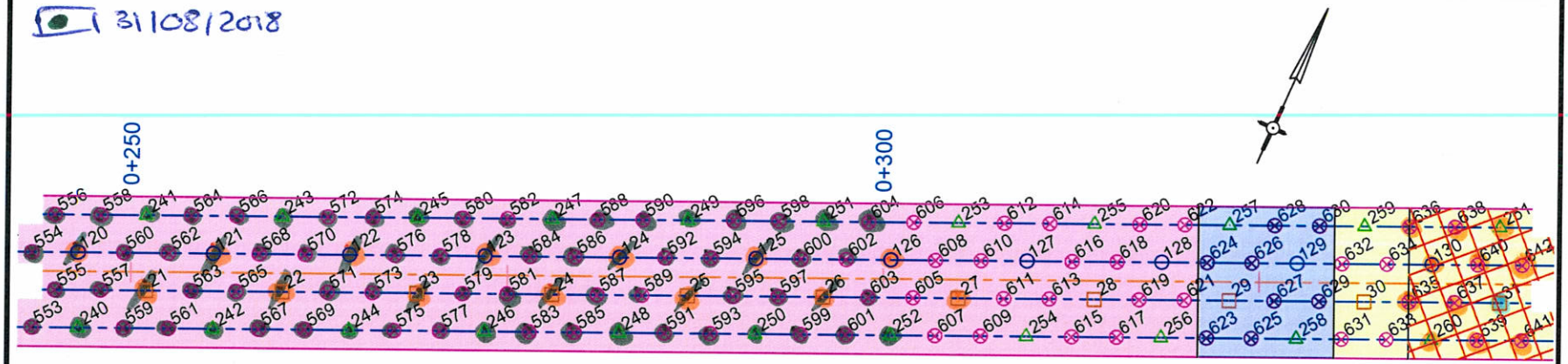
DC DEPTH

0m-7.5m
0m-9m
0m-10m
0m-11m from EL 154.5



KEY PLAN

29/08/2018
30/08/2018
31/08/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)
3	AUG-31-2018	REVISED SURVEYED BEDROCK (AUG 31ST)

DRAWN BY: S. DZANOUNI
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
DESIGNED BY: A. VIATEAU, EIT.
FROM:
VERIFIED BY: H. GUIMONT, P.Eng.
DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE

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TÉL.: (450)449-2633
FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM SECTION C
SCALE: 1:425 (0, 4.3, 8.6, 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R4.dwg
DRAWING N°: 200C
DATE: AUG-31-2018

X:\QC\PROJETS\CONTRATS 2018\18M004_Whale_Tail_Dyke_Amaruq\7-Dessins\MENARD\18M004_DWG-R4.dwg

18M004- WHALE TAIL DYKE - AMARUQ (NU)

Ground Improvement - Dynamic Compaction

DAILY REPORT

Date:	9/1/2018	Report N°	12	Site Ref	18M004	Weather	Sunny

Staff		
	Project Manager	1
	Site Supervisor	1
	HSE Manager	0
	Crane Operator	2
	Mechanic	0
	Visitor	0
	Bulldozer operator (by client)	0
	Total	**4**

Equipements		
	Site office (by client)	
	Crane Equipment Containers	2
	Pick-up (by client)	1
	Dynamic Compaction crane (NCK Rapier)	1
	Dynamic Compaction pounder	1
	Total Station	1
	Mobile Crane	
	Bulldozer (by client)	
	Total	**6**

Description of the work performed / Remarks

1-	**Zone DC3 and DC5 : Dynamic Compaction PH3 and PH4**
2-	**Zone DC3 and DC5 - 2 additional blows on PH1 and PH2 prints given when doing PH4 prints**
3-	**Zone DC3 on top of DC11 : Dynamic Compaction PH1 and PH2**
4-	**Zone DC7.5 : Dynamic Compaction PH1 / PH2 / PH3 and PH4**
5-	**Zone DC7.5 - 2 additional blows on PH1 and PH2 prints given when doing PH4 prints**
6-	**Zone DC9 and DC10 : Dynamic Compaction PH1 / PH2**
7-	**Penetration test performed on PH1 print (#29) in Zone DC9**
8-	**Penetration test performed on PH2 print (#129) in Zone DC9**
9-	**Penetration test performed on PH1 print (#30) in Zone DC10**
10-	**Penetration test performed on PH2 print (#135) in Zone DC10**
11-	**Dynamic Compaction completed between PK0+092 and PK0+300 - Main Contractor to compact using Roller Compactor**
12-	**Volume Survey performed on all points for PH1 / PH2 and PH3 prints**
13-	**Volume Survey performed on random PH4 prints**
14-	
15-	
16-	
17-	

Dynamic Compaction Works

Zone	Description	Total number of prints	Done Today	Done Previously	Cumulated	Percentage Completed
Dynamic Compaction - Zone DC3	Phase 1 print	8	5	1	6	75%
	Phase 2 print	9	5	2	7	78%
	Phase 3 print	17	3	0	3	18%
	Phase 4 print	74	14	0	14	19%
Dynamic Compaction - Zone DC5	Phase 1 print	9		8	8	89%
	Phase 2 print	9		8	8	89%
	Phase 3 print	18	16	0	16	89%
	Phase 4 print	74	64	0	64	86%
Dynamic Compaction - Zone DC7.5	Phase 1 print	40	1	15	16	40%
	Phase 2 print	38	2	14	16	42%
	Phase 3 print	78	2	26	28	36%
	Phase 4 print	308	9	99	108	35%
Dynamic Compaction - Zone DC9	Phase 1 print	17	1	0	1	6%
	Phase 2 print	18	1	0	1	6%
	Phase 3 print	35		0	0	0%
	Phase 4 print	144		0	0	0%
Dynamic Compaction - Zone DC10	Phase 1 print	8	2	0	2	25%
	Phase 2 print	8	1	0	1	13%
	Phase 3 print	16			0	0%
	Phase 4 print	58			0	0%
Dynamic Compaction - Zone DC11	Phase 1 print	5		5	5	100%
	Phase 2 print	5		5	5	100%
	Phase 3 print	10		10	10	100%
	Phase 4 print	42		42	42	100%

Signatures	MENARD CANADA INC.	CLIENT
		

DYNAMIC COMPACTION
DC PRINT VOLUME AND RELATED SETTLEMENT

Project : Whale Tail Dyke - Amaruq
Project # : 18M004
Crane : NCK Rapier

Project Manager : Adrien Viateau
Site Supervisor : Maxime Roy
Crane Operator : Eric Bergeron
Crane Operator : Dany Menard

					Coordinates		DC Pounder			DC Prints Measurements					
N°	Phase	Print N°	DC-Zone	Date	NORTHING	EASTING	Height of Drop [m]	Weight [t]	Number of drops	Depth [m]	Upper Diameter [m]	Bottom Diameter [m]	Volume [m³]	Settlement - Phase [mm]	Remarks
148	PH1	4	DC3	9/1/2018	7254616.796	607081.119	18	15	2	0.40	2.50	1.80	1.47	16	
149	PH1	5	DC5	9/1/2018	7254620.486	607089.327	18	15	2	0.35	2.40	1.80	1.22	14	
150	PH1	6	DC5	9/1/2018	7254624.176	607097.536	18	15	2	0.25	2.40	1.80	0.87	10	
151	PH1	7	DC5	9/1/2018	7254627.866	607105.745	18	15	2	0.30	2.40	1.80	1.05	12	
152	PH1	8	DC5	9/1/2018	7254631.556	607113.954	18	15	2	0.40	2.50	1.80	1.47	16	
153	PH1	9	DC5	9/1/2018	7254635.246	607122.163	18	15	2	0.25	2.40	1.80	0.87	10	
154	PH1	10	DC5	9/1/2018	7254638.936	607130.371	18	15	2	0.30	2.50	1.80	1.10	12	
155	PH1	11	DC5	9/1/2018	7254642.625	607138.580	18	15	2	0.30	2.50	1.80	1.10	12	
156	PH1	12	DC5	9/1/2018	7254646.315	607146.789	18	15	2	0.30	2.50	1.80	1.10	12	
157	PH1	13	DC7.5	9/1/2018	7254650.005	607154.998	18	15	2	0.30	2.50	1.80	1.10	12	
158	PH1	14	DC7.5	9/1/2018	7254653.695	607163.207	18	15	2	0.35	2.50	1.80	1.28	14	
159	PH1	28	DC7.5	9/1/2018	7254705.354	607278.130	18	15	20	1.10	3.90	1.80	7.33	81	
160	PH1	29	DC9	9/1/2018	7254709.044	607286.338	18	15	45	1.50	4.00	1.80	10.38	115	PT-PH1 Zone DC9
161	PH1	30	DC10	9/1/2018	7254712.734	607294.547	18	15	50	1.55	4.40	1.80	12.38	138	PT-PH1 Zone DC10
162	PH1	31	DC3	9/1/2018	7254716.424	607302.756	18	15	2	0.65	2.30	1.80	2.16	24	
163	PH1	32	DC3	9/1/2018	7254720.114	607310.965	18	15	2	0.55	2.40	1.80	1.92	21	
164	PH1	33	DC3	9/1/2018	7254723.804	607319.174	18	15	2	0.40	2.60	1.80	1.54	17	
165	PH1	34	DC3	9/1/2018	7254727.494	607327.382	18	15	2	0.50	2.70	1.80	2.01	22	
166	PH1	35	DC3	9/1/2018	7254731.184	607335.591	18	15	2	0.50	2.60	1.80	1.92	21	
167	PH1	36	DC10	9/1/2018	7254734.752	607343.807	18	15	45	1.40	4.10	1.80	10.05	112	
168	PH2	113	DC7.5	9/1/2018	7254654.131	607158.077	18	15	2	0.35	2.50	1.80	1.28	14	
169	PH2	112	DC5	9/1/2018	7254650.441	607149.868	18	15	2	0.30	2.50	1.80	1.10	12	
170	PH2	111	DC5	9/1/2018	7254646.751	607141.660	18	15	2	0.35	2.50	1.80	1.28	14	
171	PH2	110	DC5	9/1/2018	7254643.061	607133.451	18	15	2	0.30	2.40	1.80	1.05	12	
172	PH2	109	DC5	9/1/2018	7254639.371	607125.242	18	15	2	0.35	2.50	1.80	1.28	14	
173	PH2	108	DC5	9/1/2018	7254635.681	607117.033	18	15	2	0.30	2.40	1.80	1.05	12	
174	PH2	107	DC5	9/1/2018	7254631.991	607108.824	18	15	2	0.30	2.30	1.80	1.00	11	
175	PH2	106	DC5	9/1/2018	7254628.301	607100.616	18	15	2	0.25	2.50	1.80	0.92	10	
176	PH2	105	DC5	9/1/2018	7254624.611	607092.407	18	15	2	0.35	2.50	1.80	1.28	14	
177	PH2	104	DC3	9/1/2018	7254620.921	607084.198	18	15	2	0.30	2.40	1.80	1.05	12	
178	PH2	103	DC3	9/1/2018	7254617.231	607075.989	18	15	2	0.30	2.50	1.80	1.10	12	
179	PH2	126	DC7.5	9/1/2018	7254702.100	607264.791	18	15	2	0.75	2.10	1.80	2.24	25	
180	PH2	127	DC7.5	9/1/2018	7254705.790	607273.000	18	15	14	1.00	3.35	1.80	5.36	60	
181	PH2	128	DC7.5	9/1/2018	7254709.480	607281.209	18	15	14	1.05	3.40	1.80	5.75	64	

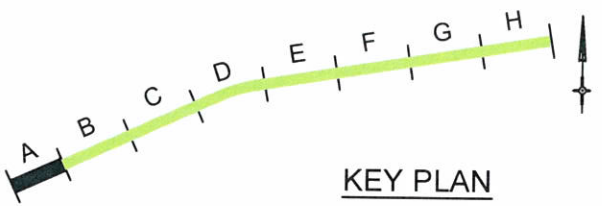
					Coordinates		DC Pounder			DC Prints Measurements					
N°	Phase	Print N°	DC-Zone	Date	NORTHING	EASTING	Height of Drop [m]	Weight [t]	Number of drops	Depth [m]	Upper Diameter [m]	Bottom Diameter [m]	Volume [m³]	Settlement - Phase [mm]	Remarks
182	PH2	129	DC9	9/1/2018	7254713.170	607289.418	18	15	40	1.35	3.90	1.80	9.00	100	PT-PH2 Zone DC9
183	PH2	130	DC3	9/1/2018	7254716.860	607297.627	18	15	2	0.55	2.40	1.80	1.92	21	
184	PH2	131	DC3	9/1/2018	7254720.549	607305.835	18	15	2	0.45	2.30	1.80	1.49	17	
185	PH2	132	DC3	9/1/2018	7254724.239	607314.044	18	15	2	0.45	2.50	1.80	1.65	18	
186	PH2	133	DC3	9/1/2018	7254727.929	607322.253	18	15	2	0.50	2.40	1.80	1.74	19	
187	PH2	134	DC3	9/1/2018	7254731.619	607330.462	18	15	2	0.40	2.40	1.80	1.39	15	
188	PH2	135	DC10	9/1/2018	7254735.303	607338.689	18	15	40	1.30	4.10	1.80	9.34	104	PT-PH2 Zone DC10
189	PH3	226	DC7.5	9/1/2018	7254649.570	607160.127	18	15	8	0.70	3.00	1.80	3.23	18	
190	PH3	225	DC7.5	9/1/2018	7254654.566	607152.948	18	15	8	0.70	2.40	1.80	2.44	14	
191	PH3	224	DC5	9/1/2018	7254645.880	607151.918	18	15	8	0.75	2.70	1.80	3.02	17	
192	PH3	223	DC5	9/1/2018	7254650.876	607144.739	18	15	8	0.75	2.60	1.80	2.88	16	
193	PH3	222	DC5	9/1/2018	7254642.190	607143.710	18	15	8	0.75	2.80	1.80	3.17	18	
194	PH3	221	DC5	9/1/2018	7254647.186	607136.530	18	15	8	0.65	2.60	1.80	2.50	14	
195	PH3	220	DC5	9/1/2018	7254638.500	607135.501	18	15	8	0.70	2.70	1.80	2.82	16	
196	PH3	219	DC5	9/1/2018	7254643.496	607128.321	18	15	8	0.70	2.70	1.80	2.82	16	
197	PH3	218	DC5	9/1/2018	7254634.810	607127.292	18	15	8	0.70	2.80	1.80	2.95	16	
198	PH3	217	DC5	9/1/2018	7254639.806	607120.113	18	15	8	0.80	2.90	1.80	3.53	20	
199	PH3	216	DC5	9/1/2018	7254631.120	607119.083	18	15	8	0.80	2.80	1.80	3.38	19	
200	PH3	215	DC5	9/1/2018	7254636.116	607111.904	18	15	8	0.70	2.70	1.80	2.82	16	
201	PH3	214	DC5	9/1/2018	7254627.430	607110.874	18	15	8	0.60	2.70	1.80	2.42	13	
202	PH3	213	DC5	9/1/2018	7254632.426	607103.695	18	15	8	0.90	3.20	1.80	4.53	25	
203	PH3	212	DC5	9/1/2018	7254623.740	607102.666	18	15	8	0.70	2.90	1.80	3.09	17	
204	PH3	211	DC5	9/1/2018	7254628.736	607095.486	18	15	8	0.70	2.70	1.80	2.82	16	
205	PH3	210	DC5	9/1/2018	7254620.051	607094.457	18	15	8	0.75	2.80	1.80	3.17	18	
206	PH3	209	DC5	9/1/2018	7254625.046	607087.277	18	15	8	0.70	2.60	1.80	2.69	15	
207	PH3	208	DC3	9/1/2018	7254616.361	607086.248	18	15	8	0.65	2.70	1.80	2.62	15	
208	PH3	207	DC3	9/1/2018	7254621.356	607079.069	18	15	8	0.65	2.50	1.80	2.38	13	
209	PH3	206	DC3	9/1/2018	7254612.671	607078.039	18	15	8	0.65	2.60	1.80	2.50	14	
210	PH4	428	DC3	9/1/2018	7254622.586	607081.805	18	15	2	0.20	2.20	1.80	0.63	1	
211	PH4	437	DC5	9/1/2018	7254622.946	607094.800	18	15	2	0.20	2.40	1.80	0.70	1	
212	PH4	440	DC5	9/1/2018	7254625.841	607095.143	18	15	2	0.30	2.40	1.80	1.05	1	
213	PH4	445	DC5	9/1/2018	7254626.636	607103.009	18	15	2	0.30	2.40	1.80	1.05	1	
214	PH4	457	DC5	9/1/2018	7254629.890	607116.347	18	15	2	0.30	2.40	1.80	1.05	1	
215	PH4	477	DC5	9/1/2018	7254641.395	607135.844	18	15	2	0.30	2.40	1.80	1.05	1	
216	PH4	491	DC5	9/1/2018	7254647.545	607149.525	18	15	2	0.30	2.40	1.80	1.05	1	
217	PH4	497	DC7.5	9/1/2018	7254648.340	607157.391	18	15	2	0.30	2.40	1.80	1.05	1	
218	PH4	503	DC7.5	9/1/2018	7254650.800	607162.863	18	15	2	0.30	2.30	1.80	1.00	1	

LEGEND

TREATMENT LIMIT
(10m EFFECTIVE WIDTH)

PHASE 1
PHASE 2
PHASE 3
PHASE 4

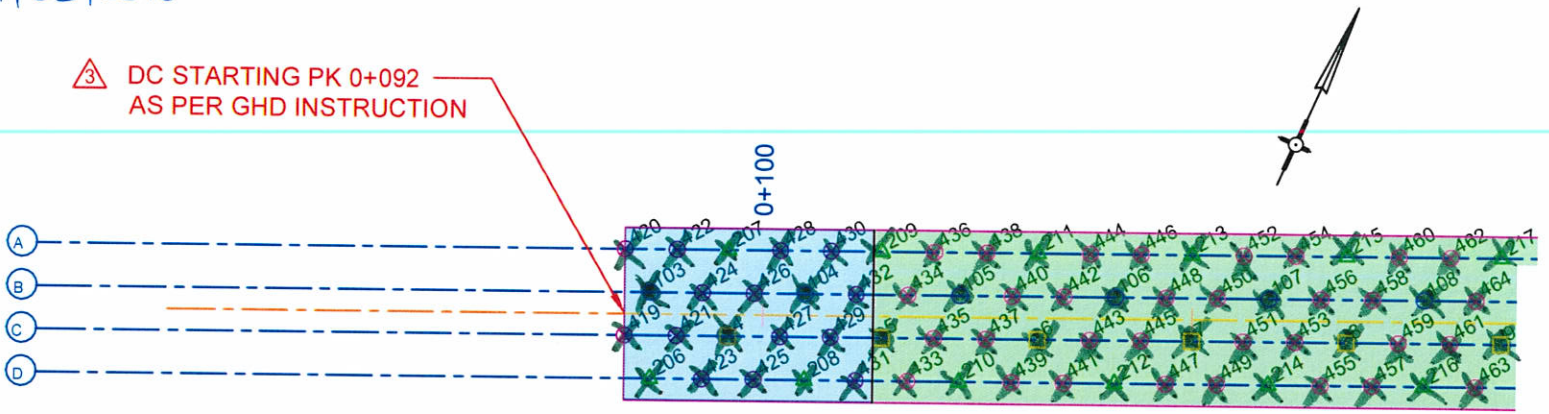
DC DEPTH
0m-3m
0m-5m



KEY PLAN

☐ 31/08/2018
☒ 01/09/2018

③ DC STARTING PK 0+092
AS PER GHD INSTRUCTION



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)
3	AUG-31-2018	REVISED SURVEYED BEDROCK (AUG 31ST)

DRAWN BY: S. DZANOUNI
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
DESIGNED BY: A. VIATEAU, EIT.
FROM:
VERIFIED BY: H. GUIMONT, P.Eng.
DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE

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info@menardcanada.ca
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FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM SECTION A
SCALE: 1:425 (0 4.3 8.6 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R4.dwg
DRAWING N°: 200A
DATE: AUG-31-2018

X:\QC\PROJETS\CONTRATS 2018\18M004_Whale_Tail_Dyke_Amaruq\7-Dessins\MENARD\18M004_DWG-R4.dwg

LEGEND

TREATMENT LIMIT
(10m EFFECTIVE WIDTH)

PHASE 1
PHASE 2
PHASE 3
PHASE 4

DC DEPTH

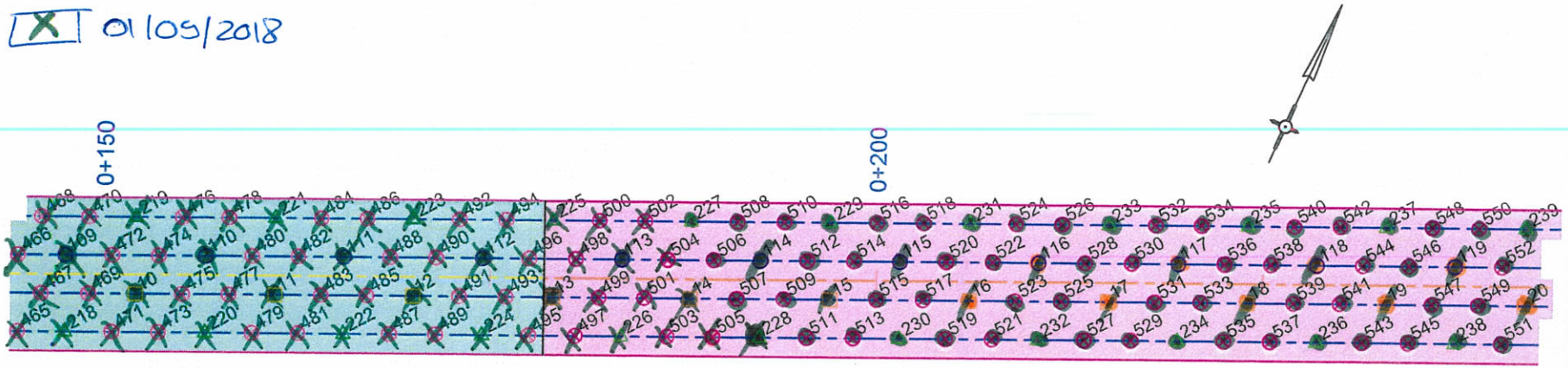
0m-5m
0m-7.5m

KEY PLAN

30/08/2018

31/08/2018

01/05/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)

DRAWN BY: S. DZANOUNI
DESIGNED BY: A. VIATEAU, EIT.
VERIFIED BY: H. GUIMONT, P.Eng.
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
FROM:
DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE

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info@menardcanada.ca
TÉL.: (450)449-2633
FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM SECTION B
SCALE: 1:425 (0 4.3 8.6 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R2.dwg
DRAWING N°: 200B
DATE: AUG-20-2018

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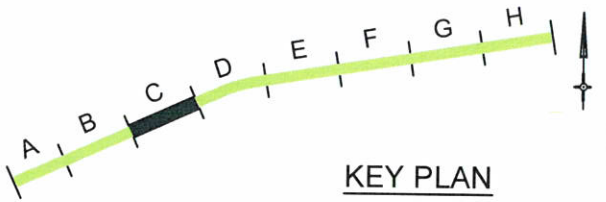
LEGEND

TREATMENT LIMIT
(10m EFFECTIVE WIDTH)

PHASE 1
PHASE 2
PHASE 3
PHASE 4

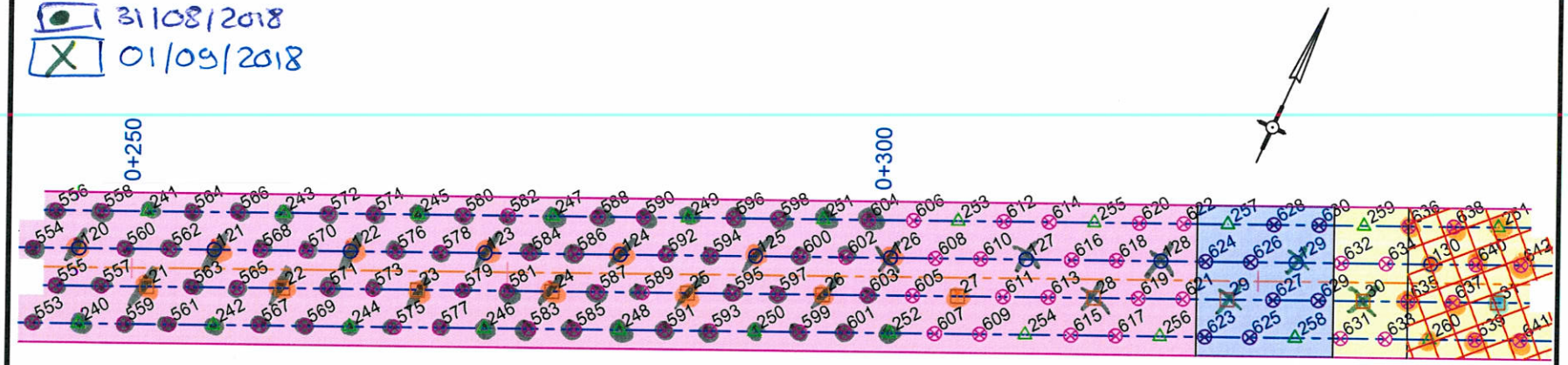
DC DEPTH

0m-7.5m
0m-9m
0m-10m
0m-11m from EL 154.5



KEY PLAN

29/08/2018
30/08/2018
31/08/2018
[X] 01/09/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)
3	AUG-31-2018	REVISED SURVEYED BEDROCK (AUG 31ST)

DRAWN BY: S. DZANOUNI
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
DESIGNED BY: A. VIATEAU, EIT.
FROM:
VERIFIED BY: H. GUIMONT, P.Eng.
DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE

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J4B 7L4
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TÉL.: (450)449-2633
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PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM SECTION C
SCALE: 1:425 (0 4.3 8.6 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R4.dwg
DRAWING Nº: 200C
DATE: AUG-31-2018

X:\QC\PROJETS\CONTRATS 2018\18M004_Whale_Tail_Dyke_Amaruq\7-Dessins\MENARD\18M004_DWG-R4.dwg

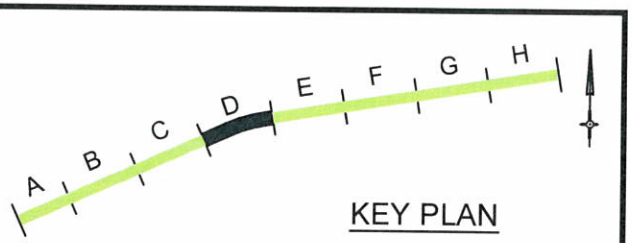
LEGEND

TREATMENT LIMIT (10m EFFECTIVE WIDTH)

PHASE 1
PHASE 2
PHASE 3
PHASE 4

DC DEPTH

0m-9m
0m-10m
0m-11m from EL 154.5

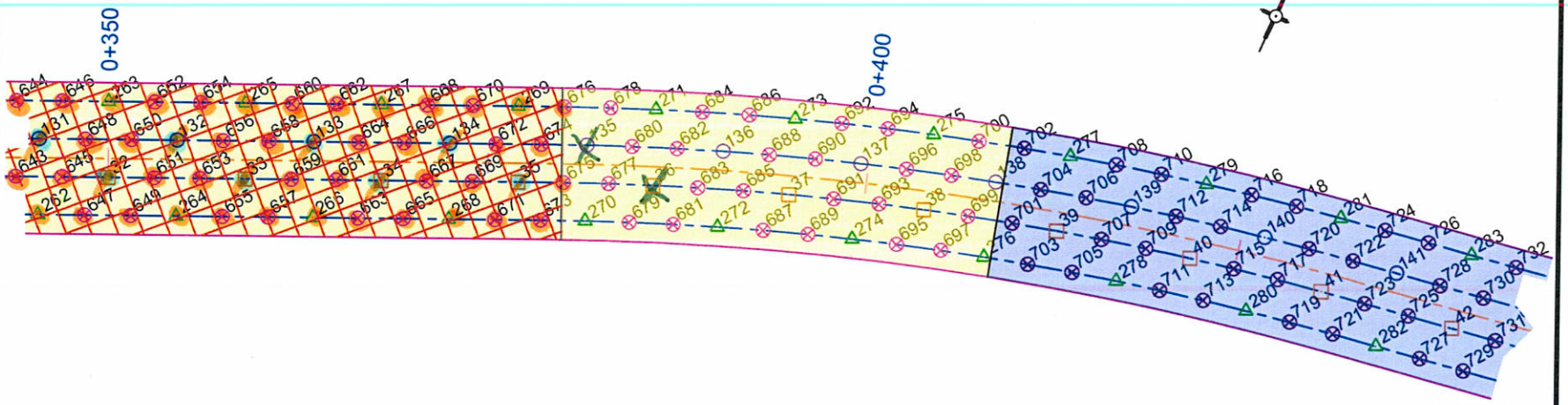


KEY PLAN

29 | 29/08/2018

30/08/2018

X | 01/09/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
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DRAWN BY: S. DZANOUNI

DRAWING REFERENCE: 651298-2500-4GDD-0004-01

DESIGNED BY: A. VIATEAU, EIT.

FROM:

VERIFIED BY: H. GUIMONT, P.Eng.

DATE: JUL-20-2018

CLIENT: AGNICO-EAGLE

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info@menardcanada.ca
TÉL.: (450)449-2633
FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION

DRAWING TITLE: TREATMENT PROGRAM SECTION D

SCALE: 1:425 (0 4.3 8.6 12.9 m)

FOLDER: 18M004

FORMAT: 11 x 8.5

SYSTEM: METRIC

FILE: 18M004_DWG-R4.dwg

DRAWING N°: 200D

DATE: AUG-31-2018

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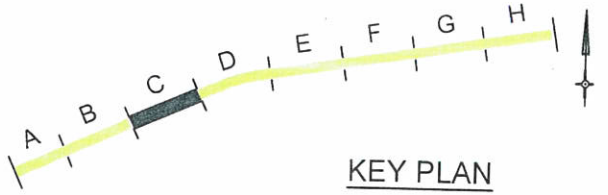
LEGEND

TREATMENT LIMIT
(10m EFFECTIVE WIDTH)

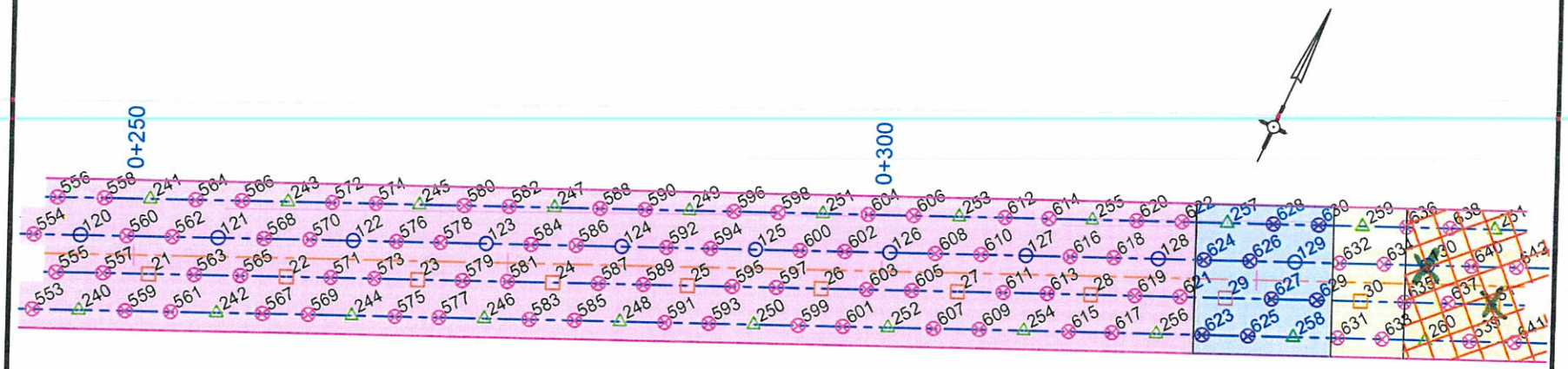
PHASE 1
PHASE 2
PHASE 3
PHASE 4

DC DEPTH
0m-7.5m
0m-9m
0m-10m
0m-11m from EL 154.5



KEY PLAN

X 01/09/2018



DC 3 area over DC 11 area
Daily Report.

REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)
3	AUG-31-2018	REVISED SURVEYED BEDROCK (AUG 31ST)

DRAWN BY: S. DZANOUNI
DESIGNED BY: A. VIATEAU, EIT.
VERIFIED BY: H. GUIMONT, P.Eng.
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
FROM:
DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE

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1590, RUE AMPÈRE B202 info@menardcanada.ca
BOUCHERVILLE, QC TÉL.: (450)449-2633
J4B 7L4 FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM SECTION C
SCALE: 1:425 (0 4.3 8.6 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R4.dwg
DRAWING N°: 200C
DATE: AUG-31-2018

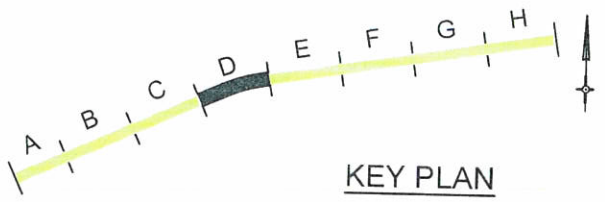
X:\QC\PROJETS\CONTRATS 2018\18M004_Whale_Tail_Dyke_Amaruq\7-Dessins\MENARD\18M004_DWG-R4.dwg

LEGEND

TREATMENT LIMIT
(10m EFFECTIVE WIDTH)

PHASE 1
PHASE 2
PHASE 3
PHASE 4

DC DEPTH
0m-9m
0m-10m
0m-11m from EL 154.5



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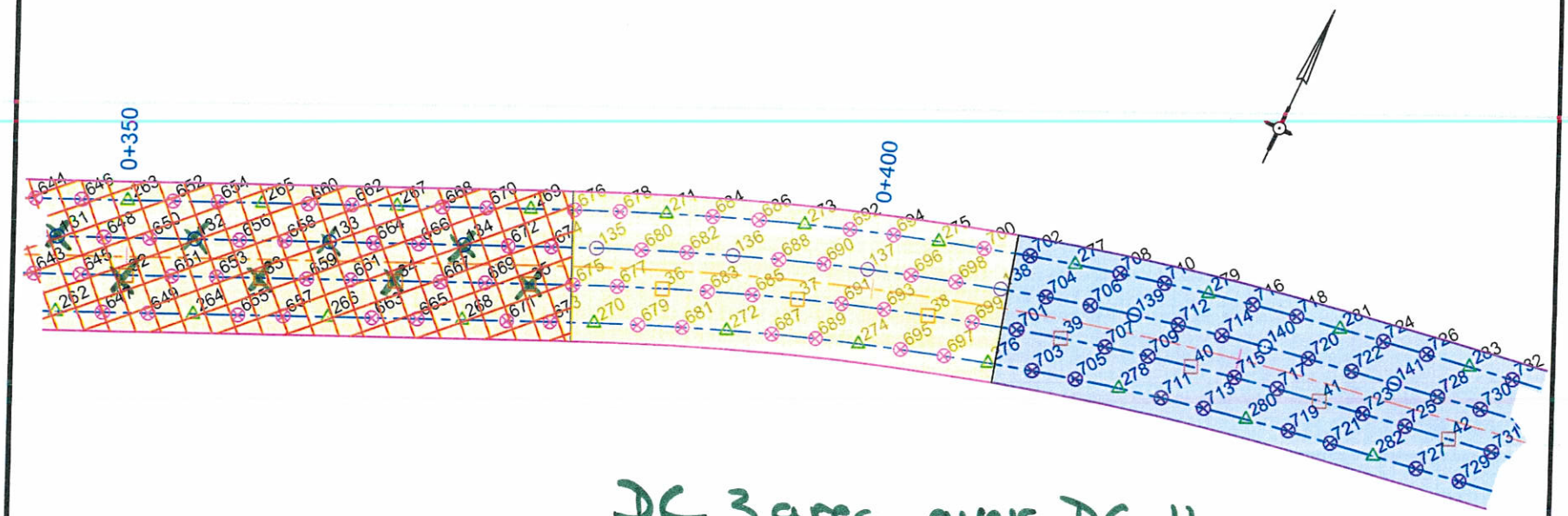

DC 3 area over DC 11 area
Daily Report.

REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)
3	AUG-31-2018	REVISED SURVEYED BEDROCK (AUG 31ST)

DRAWN BY: S. DZANOUNI
DESIGNED BY: A. VIATEAU, EIT.
VERIFIED BY: H. GUIMONT, P.Eng.
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
FROM:
DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE
PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

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1590, RUE AMPÈRE B202
BOUCHERVILLE, QC
J4B 7L4
info@menardcanada.ca
TÉL.: (450)449-2633
FAX: (450)449-2677

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM SECTION D
SCALE: 1:425 (0 4.3 8.6 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R4.dwg
DRAWING Nº: 200D
DATE: AUG-31-2018

X:\QC\PROJETS\CONTRATS 2018\18M004_Whale_Tail_Dyke_Amaruq\7-Dessins\MENARD\18M004_DWG-R4.dwg

check by surveyor	MARIE-Eve GAGNON
check by surveyor	Maxime Roy
check by quality	Jonathan A.C
date	SEPtember 01, 2018

SURVEY EQUIPEMENT VERIFICATION

no	equipement	integrity	note
	GPS R10	GOOD	
	GPS		

VERIFICATION DES SYSTÈME ACCUGRADE

Control point number	*Amq-cp-002*	
surveyor coordinate	x: 607430.232 y: 7255709.246 z: 165.002	ΔN 0,018 E 0,013 Z 0,019
Theoric coordinate	x: 607430.219 y: 7255709.256 z: 164.983	
Control point subcontractor	CP office-1	
surveyor FGL coordinate	x: 607951.893 y: 7254960.815 z: 162.098	ΔN 0.016 E 0,002 Z 0,001
Subcontractor coordinate	x: 607951.895 y: 7254960.831 z: 162.099	

Notes

18M004- WHALE TAIL DYKE - AMARUQ (NU)

Ground Improvement - Dynamic Compaction

menard

DAILY REPORT

Date:	9/2/2018	Report N°	13	Site Ref	18M004	Weather	Rain

Staff		
	Project Manager	1
	Site Supervisor	1
	HSE Manager	0
	Crane Operator	2
	Mechanic	0
	Visitor	0
	Bulldozer operator (by client)	0
	Total	4

Equipements		
	Site office (by client)	
	Crane Equipment Containers	2
	Pick-up (by client)	1
	Dynamic Compaction crane (NCK Rapier)	1
	Dynamic Compaction pounder	1
	Total Station	1
	Mobile Crane	
	Bulldozer (by client)	
	Total	6

Description of the work performed / Remarks

1- Zone DC10 / DC9 and DC7.5 : Dynamic Compaction PH1 and PH2
2- Volume Survey performed on all points for PH1 / PH2 prints
3-
4-
5-
6-
7-
8-
9-
10-
11-
12-
13-
14-
15-
16-
17-

Dynamic Compaction Works

Zone	Description	Total number of prints	Done Today	Done Previously	Cumulated	Percentage Completed
Dynamic Compaction - Zone DC3	Phase 1 print	8		6	6	75%
	Phase 2 print	9		7	7	78%
	Phase 3 print	17		3	3	18%
	Phase 4 print	74		14	14	19%
Dynamic Compaction - Zone DC5	Phase 1 print	9		8	8	89%
	Phase 2 print	9		8	8	89%
	Phase 3 print	18		16	16	89%
	Phase 4 print	74		64	64	86%
Dynamic Compaction - Zone DC7.5	Phase 1 print	40	8	16	24	60%
	Phase 2 print	38	7	16	23	61%
	Phase 3 print	78		28	28	36%
	Phase 4 print	308		108	108	35%
Dynamic Compaction - Zone DC9	Phase 1 print	17	6	1	7	41%
	Phase 2 print	18	6	1	7	39%
	Phase 3 print	35		0	0	0%
	Phase 4 print	144		0	0	0%
Dynamic Compaction - Zone DC10	Phase 1 print	8	2	2	4	50%
	Phase 2 print	8	3	1	4	50%
	Phase 3 print	16			0	0%
	Phase 4 print	58			0	0%
Dynamic Compaction - Zone DC11	Phase 1 print	5		5	5	100%
	Phase 2 print	5		5	5	100%
	Phase 3 print	10		10	10	100%
	Phase 4 print	42		42	42	100%

Signatures	MENARD CANADA INC.	CLIENT
	Nicolas.	

AEM/QC:

DYNAMIC COMPACTION
DC PRINT VOLUME AND RELATED SETTLEMENT

Project : Whale Tail Dyke - Amaruq
Project # : 18M004
Crane : NCK Rapier

Project Manager : Adrien Viateau
Site Supervisor : Maxime Roy
Crane Operator : Eric Bergeron
Crane Operator : Dany Menard

					Coordinates		DC Pounder			DC Prints Measurements					
N°	Phase	Print N°	DC-Zone	Date	NORTHING	EASTING	Height of Drop [m]	Weight [t]	Number of drops	Depth [m]	Upper Diameter [m]	Bottom Diameter [m]	Volume [m³]	Settlement - Phase [mm]	Remarks
219	PH1	37	DC10	9/2/2018	7254737.952	607352.158	18	15	45	1.40	4.05	1.80	9.87	110	
220	PH1	38	DC10	9/2/2018	7254740.774	607360.644	18	15	45	1.65	4.00	1.80	11.42	127	
221	PH1	39	DC9	9/2/2018	7254743.211	607369.248	18	15	40	1.30	4.00	1.80	9.00	100	
222	PH1	40	DC9	9/2/2018	7254745.259	607377.954	18	15	40	1.45	4.05	1.80	10.22	114	
223	PH1	41	DC9	9/2/2018	7254746.913	607386.743	18	15	40	1.35	4.00	1.80	9.34	104	
224	PH1	42	DC9	9/2/2018	7254748.347	607395.623	18	15	40	1.30	4.05	1.80	9.17	102	
225	PH1	43	DC9	9/2/2018	7254749.781	607404.508	18	15	40	1.40	4.05	1.80	9.87	110	
226	PH1	44	DC9	9/2/2018	7254751.216	607413.393	18	15	40	1.20	4.05	1.80	8.46	94	
227	PH1	45	DC7.5	9/2/2018	7254752.650	607422.278	18	15	20	1.20	3.75	1.80	7.56	84	
228	PH1	46	DC7.5	9/2/2018	7254754.084	607431.163	18	15	20	1.30	3.70	1.80	8.03	89	
229	PH1	47	DC7.5	9/2/2018	7254755.518	607440.048	18	15	20	1.10	3.50	1.80	6.28	70	
230	PH1	48	DC7.5	9/2/2018	7254756.952	607448.933	18	15	20	1.25	3.55	1.80	7.28	81	
231	PH1	49	DC7.5	9/2/2018	7254758.387	607457.818	18	15	20	1.10	3.65	1.80	6.66	74	
232	PH1	50	DC7.5	9/2/2018	7254759.821	607466.703	18	15	20	1.30	3.90	1.80	8.67	96	
233	PH1	51	DC7.5	9/2/2018	7254761.255	607475.588	18	15	20	1.30	3.90	1.80	8.67	96	
234	PH1	52	DC7.5	9/2/2018	7254762.689	607484.473	18	15	20	1.20	3.55	1.80	6.98	78	
235	PH2	136	DC10	9/2/2018	7254738.733	607347.070	18	15	30	1.25	3.80	1.80	8.02	89	
236	PH2	137	DC10	9/2/2018	7254741.783	607355.596	18	15	30	1.40	3.80	1.80	8.99	100	
237	PH2	138	DC10	9/2/2018	7254744.446	607364.251	18	15	30	1.40	3.75	1.80	8.82	98	
238	PH2	139	DC9	9/2/2018	7254746.717	607373.017	18	15	30	1.30	3.90	1.80	8.67	96	
239	PH2	140	DC9	9/2/2018	7254748.592	607381.877	18	15	30	1.25	3.75	1.80	7.87	87	
240	PH2	141	DC9	9/2/2018	7254750.098	607390.782	18	15	30	1.20	3.70	1.80	7.41	82	
241	PH2	142	DC9	9/2/2018	7254751.532	607399.667	18	15	30	1.20	3.60	1.80	7.13	79	
242	PH2	143	DC9	9/2/2018	7254752.967	607408.552	18	15	30	1.10	3.55	1.80	6.40	71	
243	PH2	144	DC9	9/2/2018	7254754.401	607417.437	18	15	30	1.30	3.55	1.80	7.57	84	
244	PH2	145	DC7.5	9/2/2018	7254755.835	607426.322	18	15	14	0.95	3.25	1.80	4.89	54	
245	PH2	146	DC7.5	9/2/2018	7254757.269	607435.207	18	15	14	0.90	3.15	1.80	4.44	49	
246	PH2	147	DC7.5	9/2/2018	7254758.703	607444.092	18	15	14	1.00	3.15	1.80	4.93	55	
247	PH2	148	DC7.5	9/2/2018	7254760.137	607452.977	18	15	14	1.00	3.30	1.80	5.25	58	
248	PH2	149	DC7.5	9/2/2018	7254761.572	607461.862	18	15	14	1.10	3.30	1.80	5.78	64	
249	PH2	150	DC7.5	9/2/2018	7254763.006	607470.747	18	15	14	1.10	3.25	1.80	5.66	63	
250	PH2	151	DC7.5	9/2/2018	7254764.440	607479.632	18	15	14	1.00	3.15	1.80	4.93	55	

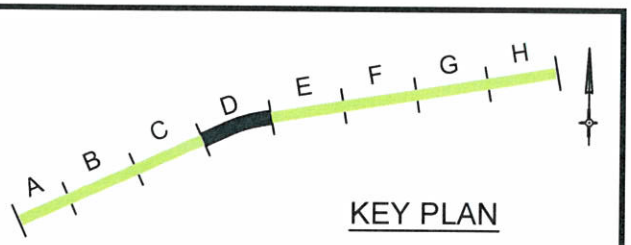
LEGEND

TREATMENT LIMIT
(10m EFFECTIVE WIDTH)

PHASE 1
PHASE 2
PHASE 3
PHASE 4

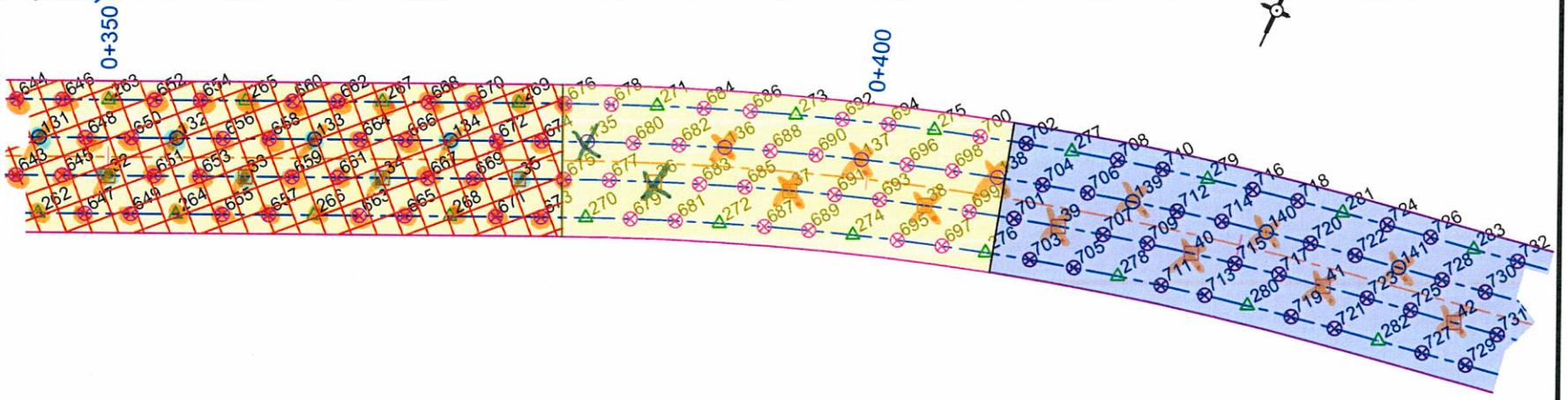
DC DEPTH

0m-9m
0m-10m
0m-11m from EL 154.5



KEY PLAN

29/08/2018
30/08/2018
01/09/2018
02/09/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)
3	AUG-31-2018	REVISED SURVEYED BEDROCK (AUG 31ST)

DRAWN BY: S. DZANOUNI
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
DESIGNED BY: A. VIATEAU, EIT.
FROM:
VERIFIED BY: H. GUIMONT, P.Eng.
DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE

menard
1590, RUE AMPÈRE B202
BOUCHERVILLE, QC
J4B 7L4
info@menardcanada.ca
TÉL.: (450)449-2633
FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM SECTION D
SCALE: 1:425 (0 4.3 8.6 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R4.dwg
DRAWING Nº: 200D
DATE: AUG-31-2018

X:\QC\PROJETS\CONTRATS 2018\18M004_Whale_Tail_Dyke_Amaruq\7-Dessins\MENARD\18M004_DWG-R4.dwg

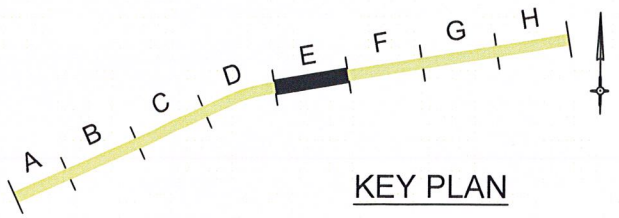
LEGEND

TREATMENT LIMIT
(10m EFFECTIVE WIDTH)

PHASE 1
PHASE 2
PHASE 3
PHASE 4

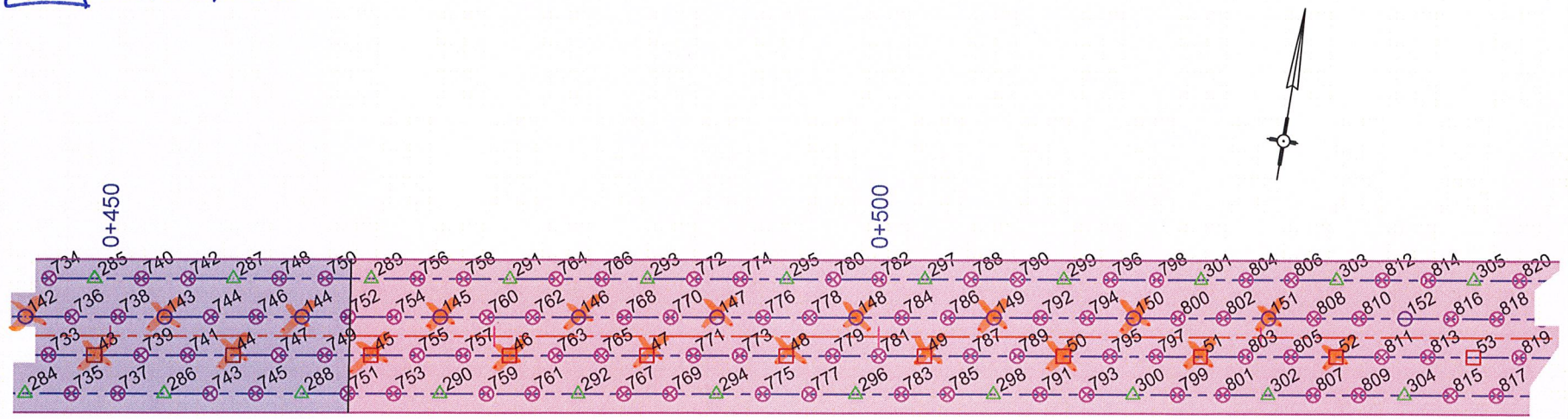
DC DEPTH

0m-7.5m
0m-9m



KEY PLAN

[X] 02/09/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)

DRAWN BY: S. DZANOUNI
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
DESIGNED BY: A. VIATEAU, EIT.
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DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE

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1590, RUE AMPÈRE B202
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TÉL.: (450)449-2633
FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ
MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM
SECTION E
SCALE: 1:425 (0 4.3 8.6 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R2.dwg
DRAWING N°: 200E
DATE: AUG-20-2018

X:\QC\PROJETS\CONTRATS 2018\18M004_Whale_Tail_Dyke_Amaruq\7-Dessins\MENARD\18M004_DWG-R2.dwg

check by surveyor	MARIE-PIER GAGNON
check by surveyor	MAXIME ROY Maxime R
check by quality	JONATHAN AUDET
date	~~August~~ September 03, 2018

SURVEY EQUIPEMENT VERIFICATION

no	equipement	integrity	note
	18-001 R10	GOOD	
	11-8602 R8	GOOD	

VERIFICATION DES SYSTÈME ACCUGRADE

Control point number	*Amq-cp-002*	
surveyor coordinate	x: 607430,220	ΔN 0,001
	y: 7255709.246	E 0,010
	z: 165.017	Z 0,034
Theoric coordinate	x: 607430.219	
	y: 7255709.256	
	z: 164.983	
Control point subcontractor	CtRL = OFFICE-1	
surveyor FGL coordinate	x: 607951.893	ΔN 0,001
	y: 7254960.815	E 0,004
	z: 162.098	Z 0,004
Subcontractor coordinate	x: 607951.894	
	y: 7254960.819	
	z: 162.102	

Notes

18M004- WHALE TAIL DYKE - AMARUQ (NU)

Ground Improvement - Dynamic Compaction

DAILY REPORT

Date:	9/3/2018	Report N°	14	Site Ref	18M004	Weather	Cloudy / Sunny

Staff		
	Project Manager	1
	Site Supervisor	1
	HSE Manager	0
	Crane Operator	2
	Mechanic	0
	Visitor	0
	Bulldozer operator (by client)	0
	Total	**4**

Equipements		
	Site office (by client)	
	Crane Equipment Containers	2
	Pick-up (by client)	1
	Dynamic Compaction crane (NCK Rapier)	1
	Dynamic Compaction pounder	1
	Total Station	1
	Mobile Crane	
	Bulldozer (by client)	
	Total	**6**

Description of the work performed / Remarks

1-	**DC9 and DC7.5 : Dynamic Compaction PH1 and PH2**
2-	**DC3 / DC7.5 / DC9 / DC10 : Dynamic Compaction PH3 and PH4**
3-	**DC3 / DC7.5 / DC9 / DC10 : 2 additional blows on PH1 and PH2 prints given when doing PH4 prints**
4-	**Volume Survey performed on all points for PH1 / PH2 prints**
5-	**Volume Survey performed on random PH4 prints**
6-	**Erratum in total number of Phase 4 print in DC3 zone (76 instead of 74 prints) - PK0+810**
7-	**Erratum in total number of Phase 4 print in DC5 zone (72 instead of 74 prints) - PK0+810**
8-	**Erratum in total number of Phase 2 print in DC7.5 zone (39 instead of 38 prints) - PK0+692**
9-	**Erratum in total number of Phase 3 print in DC7.5 zone (79 instead of 78 prints) - PK0+692**
10-	**Erratum in total number of Phase 2 print in DC9 zone (17 instead of 18 prints) - PK0+692**
11-	**Erratum in total number of Phase 3 print in DC9 zone (34 instead of 35 prints) - PK0+692**
12-	
13-	
14-	
15-	
16-	
17-	

Dynamic Compaction Works

Zone	Description	Total number of prints	Done Today	Done Previously	Cumulated	Percentage Completed
Dynamic Compaction - Zone DC3	Phase 1 print	8		6	6	75%
	Phase 2 print	9		7	7	78%
	Phase 3 print	17	10	3	13	76%
	Phase 4 print	76	42	14	56	74%
Dynamic Compaction - Zone DC5	Phase 1 print	9		8	8	89%
	Phase 2 print	9		8	8	89%
	Phase 3 print	18		16	16	89%
	Phase 4 print	72		64	64	89%
Dynamic Compaction - Zone DC7.5	Phase 1 print	40	4	24	28	70%
	Phase 2 print	39	4	23	27	69%
	Phase 3 print	79	4	28	32	41%
	Phase 4 print	308	18	108	126	41%
Dynamic Compaction - Zone DC9	Phase 1 print	17	3	7	10	59%
	Phase 2 print	17	3	7	10	59%
	Phase 3 print	34	4	0	4	12%
	Phase 4 print	144	21	0	21	15%
Dynamic Compaction - Zone DC10	Phase 1 print	8		4	4	50%
	Phase 2 print	8		4	4	50%
	Phase 3 print	16	8	0	8	50%
	Phase 4 print	58	28	0	28	48%
Dynamic Compaction - Zone DC11	Phase 1 print	5		5	5	100%
	Phase 2 print	5		5	5	100%
	Phase 3 print	10		10	10	100%
	Phase 4 print	42		42	42	100%

Signatures	MENARD CANADA INC.	CLIENT	AEM Q/C
			

DYNAMIC COMPACTION
DC PRINT VOLUME AND RELATED SETTLEMENT

Project : Whale Tail Dyke - Amaruq
Project # : 18M004
Crane : NCK Rapier

Project Manager : Adrien Viateau
Site Supervisor : Maxime Roy
Crane Operator : Eric Bergeron
Crane Operator : Dany Menard

					Coordinates		DC Pounder			DC Prints Measurements					
N°	Phase	Print N°	DC-Zone	Date	NORTHING	EASTING	Height of Drop [m]	Weight [t]	Number of drops	Depth [m]	Upper Diameter [m]	Bottom Diameter [m]	Volume [m³]	Settlement - Phase [mm]	Remarks
251	PH1	53	DC7.5	9/3/2018	7254764.123	607493.358	18	15	20	1.10	3.45	1.80	6.15	68	
252	PH1	54	DC7.5	9/3/2018	7254765.557	607502.243	18	15	20	1.10	3.50	1.80	6.28	70	
253	PH1	55	DC7.5	9/3/2018	7254766.992	607511.128	18	15	20	1.15	3.60	1.80	6.83	76	
254	PH1	56	DC7.5	9/3/2018	7254768.426	607520.013	18	15	20	1.10	3.50	1.80	6.28	70	
255	PH1	57	DC9	9/3/2018	7254769.860	607528.898	18	15	40	1.35	4.05	1.80	9.52	106	
256	PH1	58	DC9	9/3/2018	7254771.294	607537.783	18	15	40	1.40	4.15	1.80	10.24	114	
257	PH1	59	DC9	9/3/2018	7254772.728	607546.668	18	15	40	1.60	4.10	1.80	11.49	128	
258	PH1	27	DC7.5	9/3/2018	7254701.665	607269.921	18	15	2	0.20	2.40	1.80	0.70	8	
259	PH1	28	DC7.5	9/3/2018	7254705.354	607278.130	18	15	2	0.25	2.30	1.80	0.83	9	
260	PH1	29	DC9	9/3/2018	7254709.044	607286.338	18	15	2	0.25	2.20	1.80	0.79	9	
261	PH1	30	DC10	9/3/2018	7254712.734	607294.547	18	15	2	0.30	2.50	1.80	1.10	12	
262	PH1	31	DC3	9/3/2018	7254716.424	607302.756	18	15	2	0.20	2.20	1.80	0.63	7	
263	PH1	32	DC3	9/3/2018	7254720.114	607310.965	18	15	2	0.20	2.30	1.80	0.66	7	
264	PH1	33	DC3	9/3/2018	7254723.804	607319.174	18	15	2	0.20	2.20	1.80	0.63	7	
265	PH1	34	DC3	9/3/2018	7254727.494	607327.382	18	15	2	0.15	2.20	1.80	0.47	5	
266	PH1	35	DC3	9/3/2018	7254731.184	607335.591	18	15	2	0.20	2.20	1.80	0.63	7	
267	PH1	36	DC10	9/3/2018	7254734.752	607343.807	18	15	2	0.20	2.20	1.80	0.63	7	
268	PH1	37	DC10	9/3/2018	7254737.952	607352.158	18	15	2	0.25	2.30	1.80	0.83	9	
269	PH1	38	DC10	9/3/2018	7254740.774	607360.644	18	15	2	0.25	2.40	1.80	0.87	10	
270	PH1	39	DC9	9/3/2018	7254743.211	607369.248	18	15	2	0.30	2.20	1.80	0.95	11	
271	PH1	40	DC9	9/3/2018	7254745.259	607377.954	18	15	2	0.25	2.10	1.80	0.75	8	
272	PH2	152	DC7.5	9/3/2018	7254765.874	607488.517	18	15	14	1.05	2.95	1.80	4.74	53	
273	PH2	153	DC7.5	9/3/2018	7254767.308	607497.402	18	15	14	1.00	2.95	1.80	4.52	50	
274	PH2	154	DC7.5	9/3/2018	7254768.743	607506.287	18	15	14	1.05	3.05	1.80	4.96	55	
275	PH2	155	DC7.5	9/3/2018	7254770.177	607515.172	18	15	14	1.10	3.10	1.80	5.31	59	
276	PH2	156	DC9	9/3/2018	7254771.611	607524.057	18	15	30	1.20	3.60	1.80	7.13	79	
277	PH2	157	DC9	9/3/2018	7254773.045	607532.942	18	15	30	1.10	3.55	1.80	6.40	71	
278	PH2	158	DC9	9/3/2018	7254774.479	607541.827	18	15	30	1.20	3.60	1.80	7.13	79	
279	PH2	127	DC7.5	9/3/2018	7254705.790	607273.000	18	15	2	0.20	2.20	1.80	0.63	7	
280	PH2	128	DC7.5	9/3/2018	7254709.480	607281.209	18	15	2	0.15	2.00	1.80	0.43	5	
281	PH2	129	DC9	9/3/2018	7254713.170	607289.418	18	15	2	0.20	2.20	1.80	0.63	7	
282	PH2	130	DC3	9/3/2018	7254716.860	607297.627	18	15	2	0.15	2.20	1.80	0.47	5	
283	PH2	131	DC3	9/3/2018	7254720.549	607305.835	18	15	2	0.20	2.20	1.80	0.63	7	
284	PH2	132	DC3	9/3/2018	7254724.239	607314.044	18	15	2	0.20	2.20	1.80	0.63	7	
285	PH2	133	DC3	9/3/2018	7254727.929	607322.253	18	15	2	0.20	2.30	1.80	0.66	7	
286	PH2	134	DC3	9/3/2018	7254731.619	607330.462	18	15	2	0.20	2.20	1.80	0.63	7	
287	PH2	135	DC10	9/3/2018	7254735.303	607338.689	18	15	2	0.25	2.30	1.80	0.83	9	
288	PH2	136	DC10	9/3/2018	7254738.733	607347.070	18	15	2	0.25	2.40	1.80	0.87	10	
289	PH2	137	DC10	9/3/2018	7254741.783	607355.596	18	15	2	0.25	2.30	1.80	0.83	9	
290	PH2	138	DC10	9/3/2018	7254744.446	607364.251	18	15	2	0.20	2.20	1.80	0.63	7	

					Coordinates		DC Pounder			DC Prints Measurements					
N°	Phase	Print N°	DC-Zone	Date	NORTHING	EASTING	Height of Drop [m]	Weight [t]	Number of drops	Depth [m]	Upper Diameter [m]	Bottom Diameter [m]	Volume [m³]	Settlement - Phase [mm]	Remarks
291	PH2	139	DC9	9/3/2018	7254746.717	607373.017	18	15	2	0.30	2.30	1.80	1.00	11	
292	PH3	253	DC7.5	9/3/2018	7254706.225	607267.871	18	15	8	0.80	2.85	1.80	3.45	19	
293	PH3	254	DC7.5	9/3/2018	7254701.229	607275.050	18	15	8	1.10	2.90	1.80	4.86	27	
294	PH3	255	DC7.5	9/3/2018	7254709.915	607276.080	18	15	8	0.90	2.85	1.80	3.89	22	
295	PH3	256	DC7.5	9/3/2018	7254704.919	607283.259	18	15	8	1.00	2.90	1.80	4.42	25	
296	PH3	257	DC9	9/3/2018	7254713.605	607284.288	18	15	8	0.80	2.80	1.80	3.38	19	
297	PH3	258	DC9	9/3/2018	7254708.609	607291.468	18	15	8	0.80	2.70	1.80	3.22	18	
298	PH3	259	DC10	9/3/2018	7254717.295	607292.497	18	15	8	0.90	2.80	1.80	3.80	21	
299	PH3	260	DC3	9/3/2018	7254712.299	607299.677	18	15	8	0.85	2.70	1.80	3.42	19	Operator has given 8 blows instead of 2
300	PH3	261	DC3	9/3/2018	7254720.985	607300.706	18	15	8	0.60	2.80	1.80	2.53	14	Operator has given 8 blows instead of 2
301	PH3	262	DC3	9/3/2018	7254715.989	607307.885	18	15	8	0.65	2.60	1.80	2.50	14	Operator has given 8 blows instead of 2
302	PH3	263	DC3	9/3/2018	7254724.675	607308.915	18	15	2	0.40	2.50	1.80	1.47	8	
303	PH3	264	DC3	9/3/2018	7254719.679	607316.094	18	15	2	0.40	2.50	1.80	1.47	8	
304	PH3	265	DC3	9/3/2018	7254728.365	607317.124	18	15	2	0.35	2.50	1.80	1.28	7	
305	PH3	266	DC3	9/3/2018	7254723.369	607324.303	18	15	2	0.40	2.50	1.80	1.47	8	
306	PH3	267	DC3	9/3/2018	7254732.055	607325.332	18	15	2	0.40	2.50	1.80	1.47	8	
307	PH3	268	DC3	9/3/2018	7254727.059	607332.512	18	15	2	0.30	2.70	1.80	1.21	7	
308	PH3	269	DC3	9/3/2018	7254735.745	607333.541	18	15	2	0.35	2.50	1.80	1.28	7	
309	PH3	270	DC10	9/3/2018	7254730.719	607340.687	18	15	8	0.80	2.80	1.80	3.38	19	
310	PH3	271	DC10	9/3/2018	7254739.379	607341.913	18	15	8	0.80	2.90	1.80	3.53	20	
311	PH3	272	DC10	9/3/2018	7254734.065	607348.859	18	15	8	0.90	2.90	1.80	3.97	22	
312	PH3	273	DC10	9/3/2018	7254742.660	607350.474	18	15	8	0.80	2.90	1.80	3.53	20	
313	PH3	274	DC10	9/3/2018	7254737.039	607357.174	18	15	8	0.80	2.30	1.80	2.65	15	
314	PH3	275	DC10	9/3/2018	7254745.553	607359.173	18	15	8	0.65	2.70	1.80	2.62	15	
315	PH3	276	DC10	9/3/2018	7254739.636	607365.614	18	15	8	0.60	2.60	1.80	2.31	13	
316	PH3	277	DC9	9/3/2018	7254748.051	607367.994	18	15	8	0.65	2.60	1.80	2.50	14	
317	PH3	278	DC9	9/3/2018	7254741.850	607374.162	18	15	8	0.50	2.70	1.80	2.01	11	
318	PH4	605	DC7.5	9/3/2018	7254700.435	607267.185	18	15	2	0.20	2.20	1.80	0.63	1	
319	PH4	612	DC7.5	9/3/2018	7254707.455	607270.607	18	15	2	0.35	2.40	1.80	1.22	2	
320	PH4	615	DC7.5	9/3/2018	7254702.459	607277.787	18	15	2	0.30	2.20	1.80	0.95	1	
321	PH4	625	DC9	9/3/2018	7254707.379	607288.732	18	15	2	0.30	2.40	1.80	1.05	1	
322	PH4	629	DC9	9/3/2018	7254711.504	607291.811	18	15	2	0.25	2.50	1.80	0.92	1	
323	PH4	646	DC3	9/3/2018	7254723.445	607306.179	18	15	2	0.30	2.60	1.80	1.15	2	
324	PH4	654	DC3	9/3/2018	7254727.135	607314.387	18	15	2	0.35	2.30	1.80	1.16	2	
325	PH4	662	DC3	9/3/2018	7254730.825	607322.596	18	15	2	0.35	2.30	1.80	1.16	2	
326	PH4	670	DC3	9/3/2018	7254734.515	607330.805	18	15	2	0.25	2.30	1.80	0.83	1	
327	PH4	678	DC10	9/3/2018	7254738.200	607339.093	18	15	2	0.25	2.20	1.80	0.79	1	
328	PH4	686	DC10	9/3/2018	7254741.609	607347.604	18	15	2	0.25	2.30	1.80	0.83	1	
329	PH4	645	DC3	9/3/2018	7254718.884	607308.229	18	15	2	0.25	2.20	1.80	0.79	1	
330	PH4	661	DC3	9/3/2018	7254726.264	607324.646	18	15	2	0.20	2.10	1.80	0.60	1	
331	PH4	677	DC10	9/3/2018	7254733.602	607341.057	18	15	2	0.25	2.20	1.80	0.79	1	
332	PH4	712	DC9	9/3/2018	7254747.387	607375.961	18	15	2	0.35	2.30	1.80	1.16	2	
333	PH4	707	DC9	9/3/2018	7254743.937	607372.140	18	15	2	0.20	2.10	1.80	0.60	1	
334	PH4	702	DC9	9/3/2018	7254747.263	607365.042	18	15	2	0.30	2.50	1.80	1.10	2	

LEGEND

TREATMENT LIMIT (10m EFFECTIVE WIDTH)

PHASE 1

PHASE 2

PHASE 3

PHASE 4

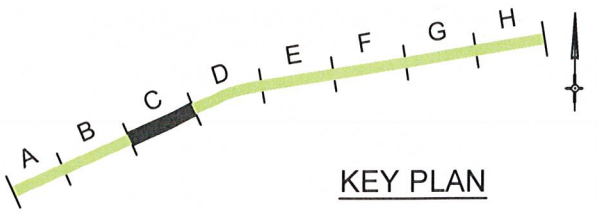
DC DEPTH

0m-7.5m

0m-9m

0m-10m

0m-11m from EL 154.5



KEY PLAN

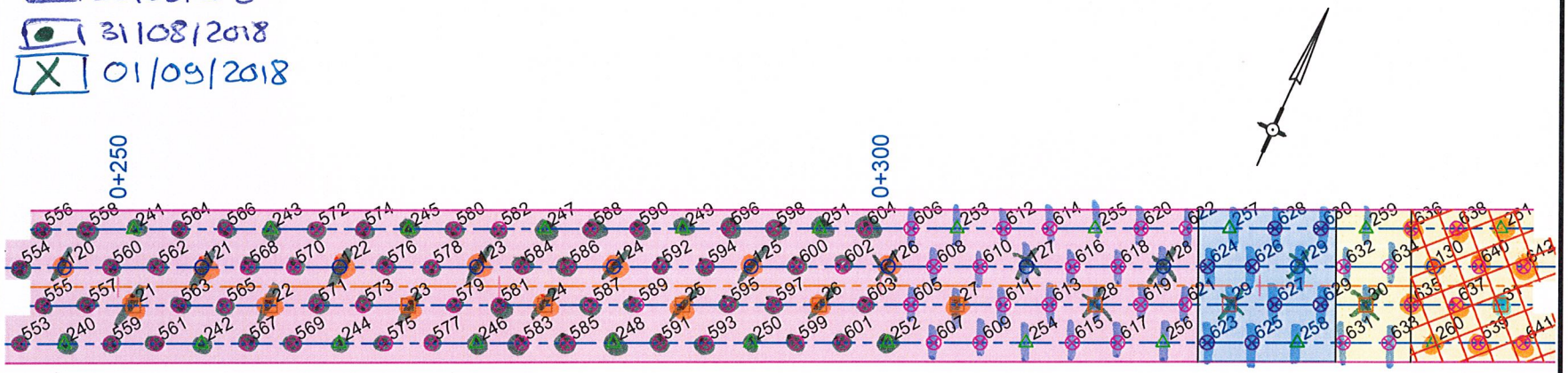
29/08/2018

30/08/2018

31/08/2018

X 01/09/2018

03/09/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)
3	AUG-31-2018	REVISED SURVEYED BEDROCK (AUG 31ST)

DRAWN BY: S. DZANOUNI

DRAWING REFERENCE: 651298-2500-4GDD-0004-01

DESIGNED BY: A. VIATEAU, EIT.

FROM:

VERIFIED BY: H. GUIMONT, P.Eng.

DATE: JUL-20-2018

CLIENT: AGNICO-EAGLE

menard
1590, RUE AMPÈRE B202 BOUCHERVILLE, QC J4B 7L4
info@menardcanada.ca
TÉL.: (450)449-2633
FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION

DRAWING TITLE: TREATMENT PROGRAM SECTION C

SCALE: 1:425 (0 4.3 8.6 12.9 m)

FOLDER: 18M004

FORMAT: 11 x 8.5

SYSTEM: METRIC

FILE: 18M004_DWG-R4.dwg

DRAWING Nº: 200C

DATE: AUG-31-2018

X:\QC\PROJETS\CONTRATS 2018\18M004_Whale_Tail_Dyke_Amaruq\7-Dessins\MENARD\18M004_DWG-R4.dwg

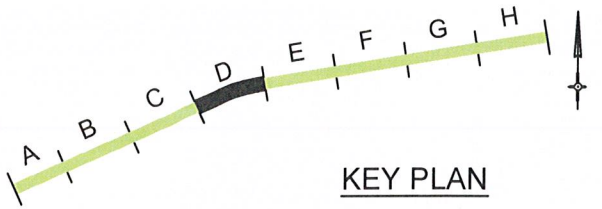
LEGEND

TREATMENT LIMIT
(10m EFFECTIVE WIDTH)

PHASE 1
PHASE 2
PHASE 3
PHASE 4

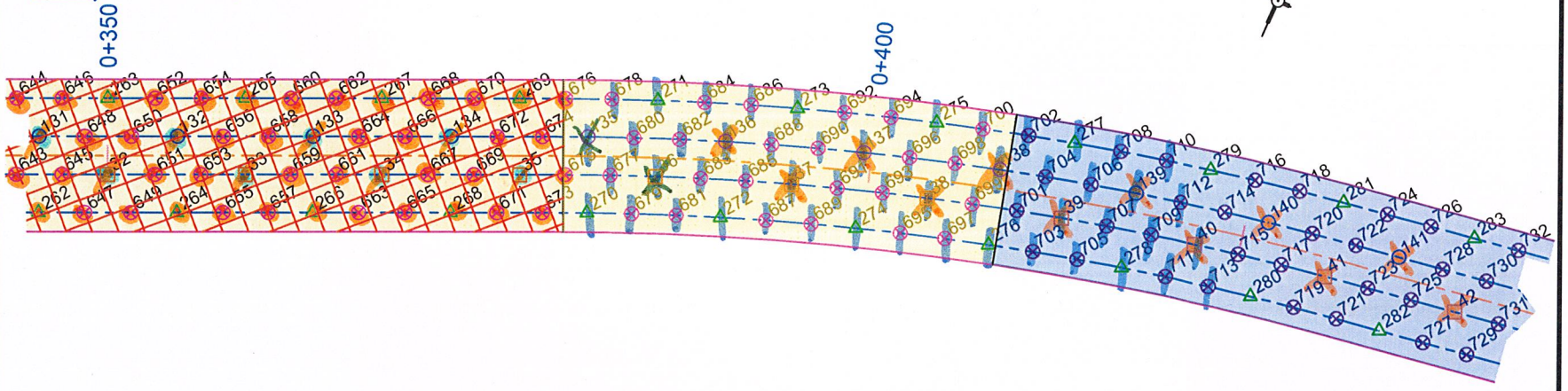
DC DEPTH

0m-9m
0m-10m
0m-11m from EL 154.5



KEY PLAN

29/08/2018
30/08/2018
01/09/2018
02/09/2018
03/09/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)
3	AUG-31-2018	REVISED SURVEYED BEDROCK (AUG 31ST)

DRAWN BY: S. DZANOUNI
DESIGNED BY: A. VIATEAU, EIT.
VERIFIED BY: H. GUIMONT, P.Eng.
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
FROM:
DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE

menard
1590, RUE AMPÈRE B202 info@menardcanada.ca
BOUCHERVILLE, QC TÉL.: (450)449-2633
J4B 7L4 FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM SECTION D
SCALE: 1:425 (0 4.3 8.6 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R4.dwg
DRAWING Nº: 200D
DATE: AUG-31-2018

X:\QC\PROJETS\CONTRATS 2018\18M004_Whale_Tail_Dyke_Amaruq\7-Dessins\MENARD\18M004_DWG-R4.dwg

LEGEND

TREATMENT LIMIT
(10m EFFECTIVE WIDTH)

PHASE 1
PHASE 2
PHASE 3
PHASE 4

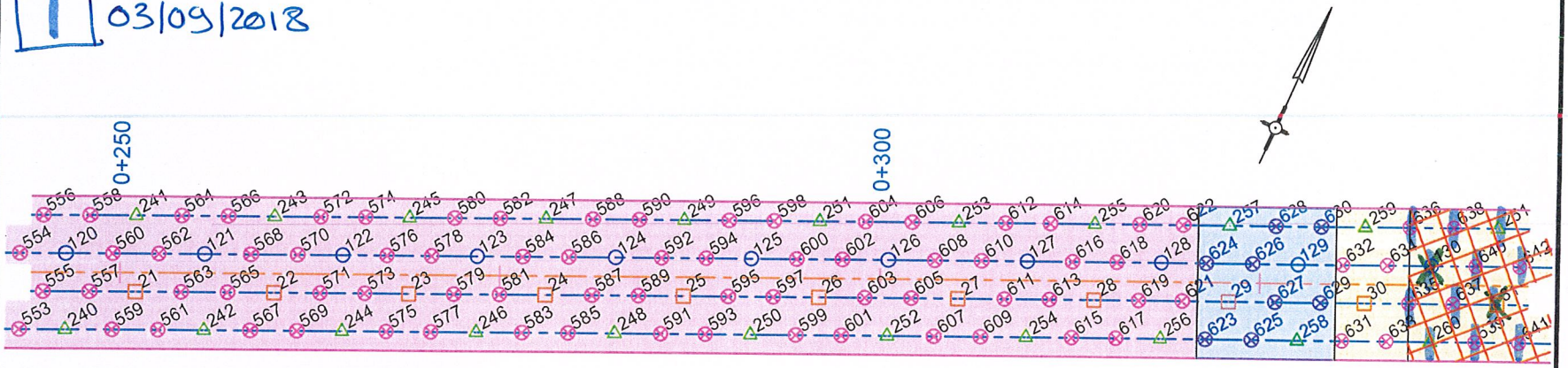
DC DEPTH

0m-7.5m
0m-9m
0m-10m
0m-11m from EL 154.5

KEY PLAN

[X] 01/09/2018

[1] 03/09/2018



DC 3 area over DC 11 area
Daily Report.

REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)
3	AUG-31-2018	REVISED SURVEYED BEDROCK (AUG 31ST)

DRAWN BY: S. DZANOUNI
DESIGNED BY: A. VIATEAU, EIT.
VERIFIED BY: H. GUIMONT, P.Eng.
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
FROM:
DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE

menard
1590, RUE AMPÈRE B202
BOUCHERVILLE, QC
J4B 7L4
info@menardcanada.ca
TÉL.: (450)449-2633
FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM SECTION C
SCALE: 1:425 (0 4.3 8.6 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R4.dwg
DATE: AUG-31-2018
DRAWING N°: 200C

X:\QC\PROJETS\CONTRATS 2018\18M004_Whale_Tail_Dyke_Amaruq\7-Dessins\MENARD\18M004_DWG-R4.dwg

LEGEND

TREATMENT LIMIT (10m EFFECTIVE WIDTH)

PHASE 1

PHASE 2

PHASE 3

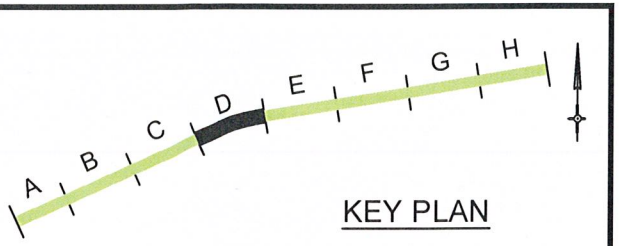
PHASE 4

DC DEPTH

0m-9m

0m-10m

0m-11m from EL 154.5



KEY PLAN

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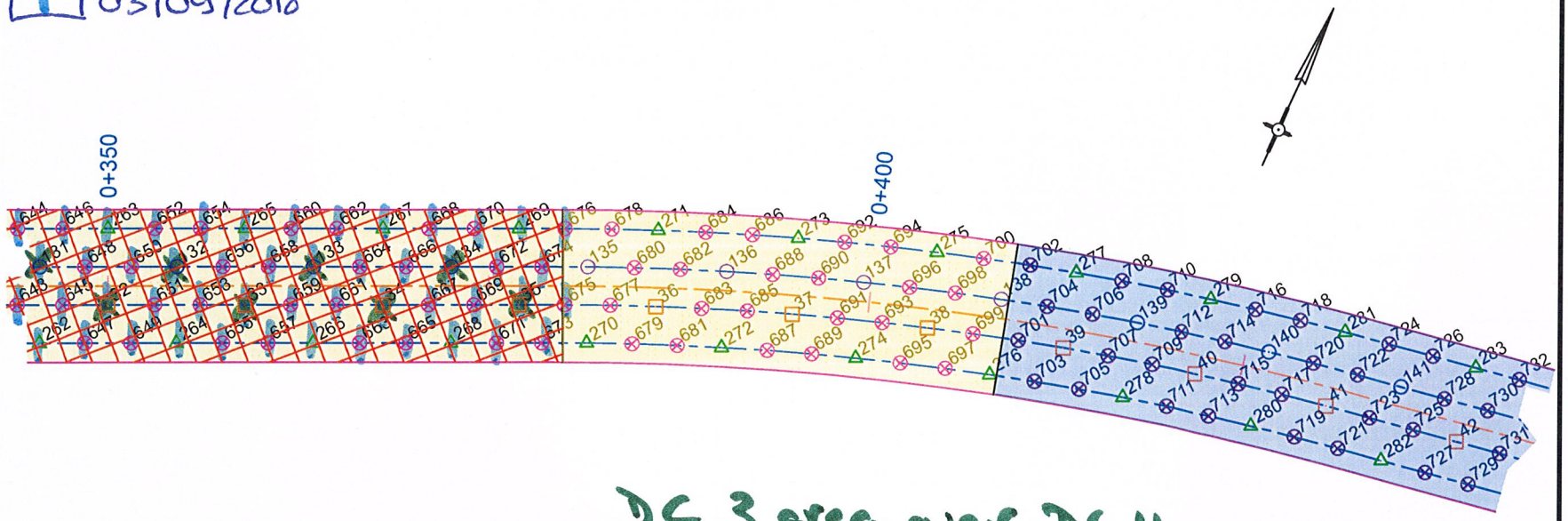
[ ] 03/09/2018



DC 3 area over DC 11 area

Daily Rapt.

REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
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DRAWN BY: S. DZANOUNI

DRAWING REFERENCE: 651298-2500-4GDD-0004-01

DESIGNED BY: A. VIATEAU, EIT.

FROM:

VERIFIED BY: H. GUIMONT, P.Eng.

DATE: JUL-20-2018

CLIENT: AGNICO-EAGLE

menard
1590, RUE AMPÈRE B202 BOUCHERVILLE, QC J4B 7L4
info@menardcanada.ca
TÉL.: (450)449-2633
FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION

DRAWING TITLE: TREATMENT PROGRAM SECTION D

SCALE: 1:425 (0 4.3 8.6 12.9 m)

FOLDER: 18M004

FORMAT: 11 x 8.5

SYSTEM: METRIC

FILE: 18M004_DWG-R4.dwg

DRAWING Nº: 200D

DATE: AUG-31-2018

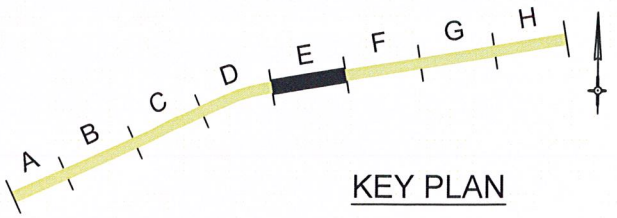
X:\QC\PROJETS\CONTRATS 2018\18M004_Whale_Tail_Dyke_Amaruq\7-Dessins\MENARD\18M004_DWG-R4.dwg

LEGEND

TREATMENT LIMIT
(10m EFFECTIVE WIDTH)

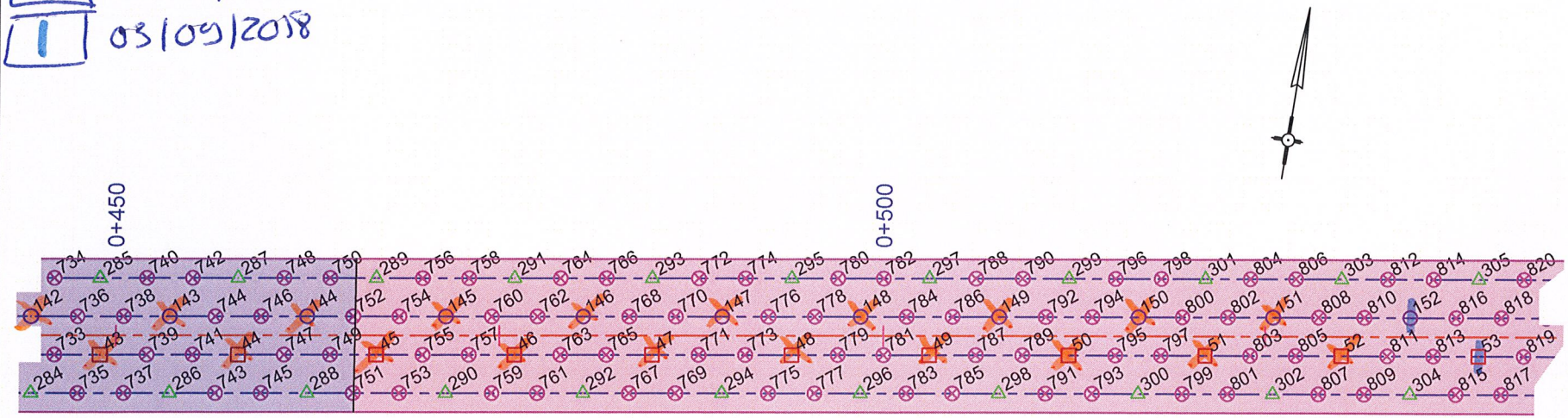
PHASE 1
PHASE 2
PHASE 3
PHASE 4

DC DEPTH
0m-7.5m
0m-9m



KEY PLAN

X 02/09/2018
1 03/09/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)

DRAWN BY: S. DZANOUNI
DESIGNED BY: A. VIATEAU, EIT.
VERIFIED BY: H. GUIMONT, P.Eng.
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
FROM:
DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE

menARD
1590, RUE AMPÈRE B202
BOUCHERVILLE, QC
J4B 7L4
info@menardcanada.ca
TÉL.: (450)449-2633
FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM SECTION E
SCALE: 1:425 (0 4.3 8.6 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R2.dwg
DATE: AUG-20-2018
DRAWING Nº: 200E

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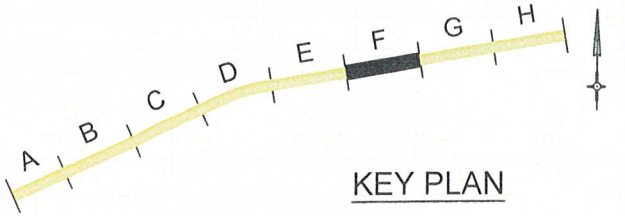
LEGEND

TREATMENT LIMIT
(10m EFFECTIVE WIDTH)

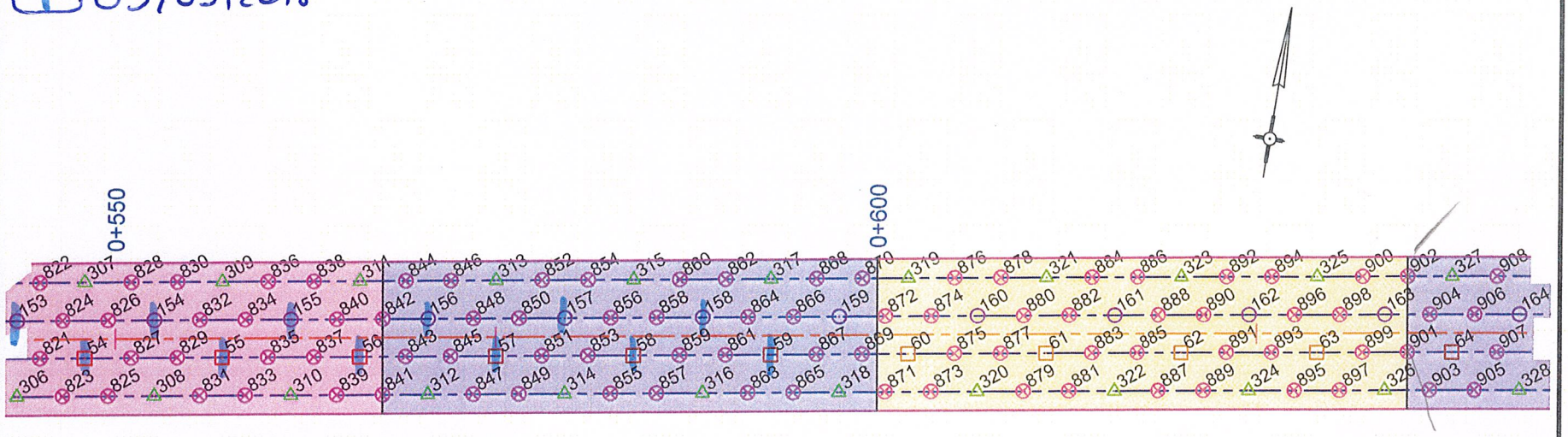
PHASE 1
PHASE 2
PHASE 3
PHASE 4

DC DEPTH
0m-7.5m
0m-9m
0m-10m



KEY PLAN

03/05/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-23-2018	REVISED SURVEYED BEDROCK (AUG 23RD)

DRAWN BY: S. DZANOUNI
DESIGNED BY: A. VIATEAU, EIT.
VERIFIED BY: H. GUIMONT, P.Eng.
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
FROM:
DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE

menARD
1590, RUE AMPÈRE B202
BOUCHERVILLE, QC
J4B 7L4
info@menardcanada.ca
TÉL.: (450)449-2633
FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ
MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM
SECTION F
SCALE: 1:425 (0 4.3 8.6 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R2.dwg
DRAWING N°: 200F
DATE: AUG-23-2018

X:\QC\PROJETS\CONTRATS 2018\18M004_Whale_Tail_Dyke_Amaruq\7-Dessins\MENARD\18M004_DWG-R2.dwg

check by surveyor	MARIE-PIER GAGNON
check by surveyor	MAXIME ROY Maxime Roy
check by quality	JONATHAN AUDET
date	September 03. 2018

SURVEY EQUIPEMENT VERIFICATION

no	equipement	integrity	note
	18-001 R10	GOOD	
	11 8602 R08	GOOD	

VERIFICATION DES SYSTÈME ACCUGRADE

Control point number	*Amq-cp-002*	
surveyor coordinate	x: 607430.230 y: 7255709.239 z: 165.020	ΔN 0,011 E 0,017 Σ 0,037
Theoric coordinate	x: 607430.219 y: 7255709.256 z: 164.983	
Control point subcontractor	CTRL = Office 1	
surveyor FGL coordinate	x: 607951.893 y: 7254960.815 z: 162.098	ΔN 0,005 E 0,006 Σ 0,015
Subcontractor coordinate	x: 607951.888 y: 7254960.809 z: 162.113	

Notes

18M004- WHALE TAIL DYKE - AMARUQ (NU)

Ground Improvement - Dynamic Compaction

DAILY REPORT

Date:	9/4/2018	Report N°	15	Site Ref	18M004	Weather	Snow / Sunny

Staff		
	Project Manager	1
	Site Supervisor	1
	HSE Manager	0
	Crane Operator	2
	Mechanic	0
	Visitor	0
	Bulldozer operator (by client)	0
	Total	**4**

Equipements		
	Site office (by client)	
	Crane Equipment Containers	2
	Pick-up (by client)	1
	Dynamic Compaction crane (NCK Rapier)	1
	Dynamic Compaction pounder	1
	Total Station	1
	Mobile Crane	
	Bulldozer (by client)	
	Total	**6**

Description of the work performed / Remarks

1-	**DC7.5 / DC9 : Dynamic Compaction PH3 and PH4**
2-	**DC7.5 / DC9 : 2 additional blows on PH1 and PH2 prints given when doing PH4 prints**
3-	**DC9 : Dynamic Compaction PH2**
4-	**DC10 : Dynamic Compaction PH1 and PH2**
5-	**Volume Survey performed on all points for PH1 / PH2 prints**
6-	**Volume Survey performed on random PH4 prints**
7-	
8-	
9-	
10-	
11-	
12-	
13-	
14-	
15-	
16-	
17-	

Dynamic Compaction Works

Zone	Description	Total number of prints	Done Today	Done Previously	Cumulated	Percentage Completed
Dynamic Compaction - Zone DC3	Phase 1 print	8		6	6	75%
	Phase 2 print	9		7	7	78%
	Phase 3 print	17		13	13	76%
	Phase 4 print	76		56	56	74%
Dynamic Compaction - Zone DC5	Phase 1 print	9		8	8	89%
	Phase 2 print	9		8	8	89%
	Phase 3 print	18		16	16	89%
	Phase 4 print	72		64	64	89%
Dynamic Compaction - Zone DC7.5	Phase 1 print	40		28	28	70%
	Phase 2 print	39		27	27	69%
	Phase 3 print	79	23	32	55	70%
	Phase 4 print	308	90	126	216	70%
Dynamic Compaction - Zone DC9	Phase 1 print	17		10	10	59%
	Phase 2 print	17	1	10	11	65%
	Phase 3 print	34	17	4	21	62%
	Phase 4 print	144	64	21	85	59%
Dynamic Compaction - Zone DC10	Phase 1 print	8	2	4	6	75%
	Phase 2 print	8	1	4	5	63%
	Phase 3 print	16		8	8	50%
	Phase 4 print	58		28	28	48%
Dynamic Compaction - Zone DC11	Phase 1 print	5		5	5	100%
	Phase 2 print	5		5	5	100%
	Phase 3 print	10		10	10	100%
	Phase 4 print	42		42	42	100%

Signatures	MENARD CANADA INC.	CLIENT	AEM Q/C
			

DYNAMIC COMPACTION
DC PRINT VOLUME AND RELATED SETTLEMENT

Project : Whale Tail Dyke - Amaruq
Project # : 18M004
Crane : NCK Rapier

Project Manager : Adrien Viateau
Site Supervisor : Maxime Roy
Crane Operator : Eric Bergeron
Crane Operator : Dany Menard

					Coordinates		DC Pounder			DC Prints Measurements					
N°	Phase	Print N°	DC-Zone	Date	NORTHING	EASTING	Height of Drop [m]	Weight [t]	Number of drops	Depth [m]	Upper Diameter [m]	Bottom Diameter [m]	Volume [m³]	Settlement - Phase [mm]	Remarks
335	PH1	41	DC9	9/4/2018	7254746.913	607386.743	18	15	2	0.30	2.00	1.80	0.85	9	
336	PH1	42	DC9	9/4/2018	7254748.347	607395.623	18	15	2	0.20	2.10	1.80	0.60	7	
337	PH1	43	DC9	9/4/2018	7254749.781	607404.508	18	15	2	0.20	2.10	1.80	0.60	7	
338	PH1	44	DC9	9/4/2018	7254751.216	607413.393	18	15	2	0.20	2.10	1.80	0.60	7	
339	PH1	45	DC7.5	9/4/2018	7254752.650	607422.278	18	15	2	0.25	2.20	1.80	0.79	9	
340	PH1	46	DC7.5	9/4/2018	7254754.084	607431.163	18	15	2	0.25	2.10	1.80	0.75	8	
341	PH1	47	DC7.5	9/4/2018	7254755.518	607440.048	18	15	2	0.20	2.10	1.80	0.60	7	
342	PH1	48	DC7.5	9/4/2018	7254756.952	607448.933	18	15	2	0.25	2.10	1.80	0.75	8	
343	PH1	49	DC7.5	9/4/2018	7254758.387	607457.818	18	15	2	0.30	2.20	1.80	0.95	11	
344	PH1	50	DC7.5	9/4/2018	7254759.821	607466.703	18	15	2	0.25	2.10	1.80	0.75	8	
345	PH1	51	DC7.5	9/4/2018	7254761.255	607475.588	18	15	2	0.25	2.20	1.80	0.79	9	
346	PH1	52	DC7.5	9/4/2018	7254762.689	607484.473	18	15	2	0.20	2.20	1.80	0.63	7	
347	PH1	53	DC7.5	9/4/2018	7254764.123	607493.358	18	15	2	0.20	2.30	1.80	0.66	7	
348	PH1	54	DC7.5	9/4/2018	7254765.557	607502.243	18	15	2	0.20	2.30	1.80	0.66	7	
349	PH1	55	DC7.5	9/4/2018	7254766.992	607511.128	18	15	2	0.20	2.20	1.80	0.63	7	
350	PH1	56	DC7.5	9/4/2018	7254768.426	607520.013	18	15	2	0.30	2.20	1.80	0.95	11	
351	PH1	57	DC9	9/4/2018	7254769.860	607528.898	18	15	2	0.30	2.20	1.80	0.95	11	
352	PH1	58	DC9	9/4/2018	7254771.294	607537.783	18	15	2	0.30	2.20	1.80	0.95	11	
353	PH1	59	DC9	9/4/2018	7254772.728	607546.668	18	15	2	0.30	2.20	1.80	0.95	11	
354	PH1	60	DC10	9/4/2018	7254774.162	607555.553	18	15	45	1.45	4.20	1.80	10.80	120	
355	PH1	61	DC10	9/4/2018	7254775.597	607564.438	18	15	45	1.30	3.90	1.80	8.67	96	
356	PH2	140	DC9	9/4/2018	7254748.592	607381.877	18	15	2	0.30	2.00	1.80	0.85	9	
357	PH2	141	DC9	9/4/2018	7254750.098	607390.782	18	15	2	0.20	2.10	1.80	0.60	7	
358	PH2	142	DC9	9/4/2018	7254751.532	607399.667	18	15	2	0.20	2.10	1.80	0.60	7	
359	PH2	143	DC9	9/4/2018	7254752.967	607408.552	18	15	2	0.20	2.10	1.80	0.60	7	
360	PH2	144	DC9	9/4/2018	7254754.401	607417.437	18	15	2	0.25	2.20	1.80	0.79	9	
361	PH2	145	DC7.5	9/4/2018	7254755.835	607426.322	18	15	2	0.25	2.10	1.80	0.75	8	
362	PH2	146	DC7.5	9/4/2018	7254757.269	607435.207	18	15	2	0.20	2.10	1.80	0.60	7	
363	PH2	147	DC7.5	9/4/2018	7254758.703	607444.092	18	15	2	0.25	2.10	1.80	0.75	8	
364	PH2	148	DC7.5	9/4/2018	7254760.137	607452.977	18	15	2	0.30	2.20	1.80	0.95	11	
365	PH2	149	DC7.5	9/4/2018	7254761.572	607461.862	18	15	2	0.25	2.10	1.80	0.75	8	
366	PH2	150	DC7.5	9/4/2018	7254763.006	607470.747	18	15	2	0.25	2.20	1.80	0.79	9	
367	PH2	151	DC7.5	9/4/2018	7254764.440	607479.632	18	15	2	0.20	2.20	1.80	0.63	7	
368	PH2	152	DC7.5	9/4/2018	7254765.874	607488.517	18	15	2	0.25	2.30	1.80	0.83	9	
369	PH2	153	DC7.5	9/4/2018	7254767.308	607497.402	18	15	2	0.25	2.20	1.80	0.79	9	
370	PH2	154	DC7.5	9/4/2018	7254768.743	607506.287	18	15	2	0.25	2.30	1.80	0.83	9	
371	PH2	155	DC7.5	9/4/2018	7254770.177	607515.172	18	15	2	0.25	2.20	1.80	0.79	9	
372	PH2	156	DC9	9/4/2018	7254771.611	607524.057	18	15	2	0.20	2.20	1.80	0.63	7	
373	PH2	157	DC9	9/4/2018	7254773.045	607532.942	18	15	2	0.25	2.10	1.80	0.75	8	
374	PH2	158	DC9	9/4/2018	7254774.479	607541.827	18	15	2	0.25	2.20	1.80	0.79	9	
375	PH2	159	DC9	9/4/2018	7254775.913	607550.712	18	15	30	1.20	3.70	1.80	7.41	82	
376	PH2	160	DC10	9/4/2018	7254777.348	607559.597	18	15	30	1.20	3.40	1.80	6.57	73	
377	PH3	279	DC9	9/4/2018	7254750.150	607376.919	18	15	8	0.65	2.50	1.80	2.38	13	
378	PH3	280	DC9	9/4/2018	7254743.678	607382.801	18	15	8	0.75	2.80	1.80	3.17	18	
379	PH3	281	DC9	9/4/2018	7254751.846	607385.929	18	15	8	0.70	2.60	1.80	2.69	15	
380	PH3	282	DC9	9/4/2018	7254745.162	607391.579	18	15	8	0.90	2.80	1.80	3.80	21	
381	PH3	283	DC9	9/4/2018	7254753.283	607394.826	18	15	8	0.75	2.60	1.80	2.88	16	
382	PH3	284	DC9	9/4/2018	7254746.596	607400.464	18	15	8	0.85	2.70	1.80	3.42	19	

					Coordinates		DC Pounder			DC Prints Measurements					
N°	Phase	Print N°	DC-Zone	Date	NORTHING	EASTING	Height of Drop [m]	Weight [t]	Number of drops	Depth [m]	Upper Diameter [m]	Bottom Diameter [m]	Volume [m³]	Settlement - Phase [mm]	Remarks
383	PH3	285	DC9	9/4/2018	7254754.718	607403.711	18	15	8	0.85	3.00	1.80	3.93	22	
384	PH3	286	DC9	9/4/2018	7254748.030	607409.349	18	15	8	0.70	2.60	1.80	2.69	15	
385	PH3	287	DC9	9/4/2018	7254756.152	607412.596	18	15	8	0.70	2.60	1.80	2.69	15	
386	PH3	288	DC9	9/4/2018	7254749.465	607418.234	18	15	8	0.80	2.60	1.80	3.07	17	
387	PH3	289	DC7.5	9/4/2018	7254757.586	607421.481	18	15	8	0.80	2.70	1.80	3.22	18	
388	PH3	290	DC7.5	9/4/2018	7254750.899	607427.119	18	15	8	0.75	2.70	1.80	3.02	17	
389	PH3	291	DC7.5	9/4/2018	7254759.020	607430.366	18	15	8	0.80	2.70	1.80	3.22	18	
390	PH3	292	DC7.5	9/4/2018	7254752.333	607436.004	18	15	8	0.70	2.60	1.80	2.69	15	
391	PH3	293	DC7.5	9/4/2018	7254760.454	607439.251	18	15	8	0.75	2.70	1.80	3.02	17	
392	PH3	294	DC7.5	9/4/2018	7254753.767	607444.889	18	15	8	0.90	2.70	1.80	3.63	20	
393	PH3	295	DC7.5	9/4/2018	7254761.888	607448.136	18	15	8	0.90	2.90	1.80	3.97	22	
394	PH3	296	DC7.5	9/4/2018	7254755.201	607453.774	18	15	8	0.90	2.70	1.80	3.63	20	
395	PH3	297	DC7.5	9/4/2018	7254763.323	607457.021	18	15	8	0.90	2.80	1.80	3.80	21	
396	PH3	298	DC7.5	9/4/2018	7254756.636	607462.659	18	15	8	0.70	2.70	1.80	2.82	16	
397	PH3	299	DC7.5	9/4/2018	7254764.757	607465.906	18	15	8	0.75	2.60	1.80	2.88	16	
398	PH3	300	DC7.5	9/4/2018	7254758.070	607471.544	18	15	8	0.90	3.00	1.80	4.16	23	
399	PH3	301	DC7.5	9/4/2018	7254766.191	607474.791	18	15	8	0.90	2.50	1.80	3.30	18	
400	PH3	302	DC7.5	9/4/2018	7254759.504	607480.429	18	15	8	0.70	2.80	1.80	2.95	16	
401	PH3	303	DC7.5	9/4/2018	7254767.625	607483.676	18	15	8	0.70	2.90	1.80	3.09	17	
402	PH3	304	DC7.5	9/4/2018	7254760.938	607489.314	18	15	8	0.60	2.80	1.80	2.53	14	
403	PH3	305	DC7.5	9/4/2018	7254769.059	607492.561	18	15	8	0.80	2.70	1.80	3.22	18	
404	PH3	306	DC7.5	9/4/2018	7254762.372	607498.199	18	15	8	0.75	2.80	1.80	3.17	18	
405	PH3	307	DC7.5	9/4/2018	7254770.494	607501.446	18	15	8	0.80	2.70	1.80	3.22	18	
406	PH3	308	DC7.5	9/4/2018	7254763.806	607507.084	18	15	8	0.70	2.60	1.80	2.69	15	
407	PH3	309	DC7.5	9/4/2018	7254771.928	607510.331	18	15	8	0.80	2.80	1.80	3.38	19	
408	PH3	310	DC7.5	9/4/2018	7254765.241	607515.969	18	15	8	0.80	2.50	1.80	2.93	16	
409	PH3	311	DC7.5	9/4/2018	7254773.362	607519.216	18	15	8	0.95	2.80	1.80	4.01	22	
410	PH3	312	DC9	9/4/2018	7254766.675	607524.854	18	15	8	0.70	2.70	1.80	2.82	16	
411	PH3	313	DC9	9/4/2018	7254774.796	607528.101	18	15	8	0.70	2.50	1.80	2.56	14	
412	PH3	314	DC9	9/4/2018	7254768.109	607533.739	18	15	8	0.65	2.70	1.80	2.62	15	
413	PH3	315	DC9	9/4/2018	7254776.230	607536.986	18	15	8	0.70	2.70	1.80	2.82	16	
414	PH3	316	DC9	9/4/2018	7254769.543	607542.624	18	15	8	0.80	2.70	1.80	3.22	18	
415	PH3	317	DC9	9/4/2018	7254777.664	607545.871	18	15	8	0.80	2.80	1.80	3.38	19	
416	PH3	318	DC9	9/4/2018	7254770.977	607551.509	18	15	8	0.70	2.90	1.80	3.09	17	
417	PH4	716	DC9	9/4/2018	7254750.761	607379.914	18	15	2	0.30	2.30	1.80	1.00	1	
418	PH4	726	DC9	9/4/2018	7254752.805	607391.865	18	15	2	0.30	2.20	1.80	0.95	1	
419	PH4	742	DC9	9/4/2018	7254755.674	607409.635	18	15	2	0.25	2.10	1.80	0.75	1	
420	PH4	758	DC7.5	9/4/2018	7254758.542	607427.405	18	15	2	0.25	2.30	1.80	0.83	1	
421	PH4	774	DC7.5	9/4/2018	7254761.410	607445.175	18	15	2	0.35	2.30	1.80	1.16	2	
422	PH4	790	DC7.5	9/4/2018	7254764.279	607462.945	18	15	2	0.30	2.40	1.80	1.05	1	
423	PH4	806	DC7.5	9/4/2018	7254767.147	607480.715	18	15	2	0.20	2.20	1.80	0.63	1	
424	PH4	822	DC7.5	9/4/2018	7254770.015	607498.485	18	15	2	0.25	2.30	1.80	0.83	1	
425	PH4	838	DC7.5	9/4/2018	7254772.884	607516.255	18	15	2	0.35	2.30	1.80	1.16	2	
426	PH4	854	DC9	9/4/2018	7254775.752	607534.025	18	15	2	0.30	2.30	1.80	1.00	1	
427	PH4	713	DC9	9/4/2018	7254743.112	607379.912	18	15	2	0.30	2.30	1.80	1.00	1	
428	PH4	729	DC9	9/4/2018	7254746.118	607397.502	18	15	2	0.30	2.20	1.80	0.95	1	
429	PH4	745	DC9	9/4/2018	7254748.987	607415.272	18	15	2	0.30	2.30	1.80	1.00	1	
430	PH4	761	DC7.5	9/4/2018	7254751.855	607433.042	18	15	2	0.25	2.20	1.80	0.79	1	
431	PH4	777	DC7.5	9/4/2018	7254754.723	607450.812	18	15	2	0.30	2.10	1.80	0.90	1	
432	PH4	793	DC7.5	9/4/2018	7254757.592	607468.582	18	15	2	0.45	2.30	1.80	1.49	2	
433	PH4	809	DC7.5	9/4/2018	7254760.460	607486.352	18	15	2	0.45	2.50	1.80	1.65	2	
434	PH4	825	DC7.5	9/4/2018	7254763.328	607504.122	18	15	2	0.45	2.20	1.80	1.42	2	
435	PH4	841	DC7.5	9/4/2018	7254766.197	607521.892	18	15	2	0.50	2.50	1.80	1.83	3	
436	PH4	857	DC9	9/4/2018	7254769.065	607539.662	18	15	2	0.40	2.40	1.80	1.39	2	

LEGEND

TREATMENT LIMIT (10m EFFECTIVE WIDTH)

PHASE 1

PHASE 2

PHASE 3

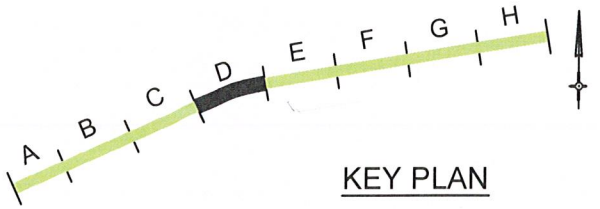
PHASE 4

DC DEPTH

0m-9m

0m-10m

0m-11m from EL 154.5



KEY PLAN

29/08/2018

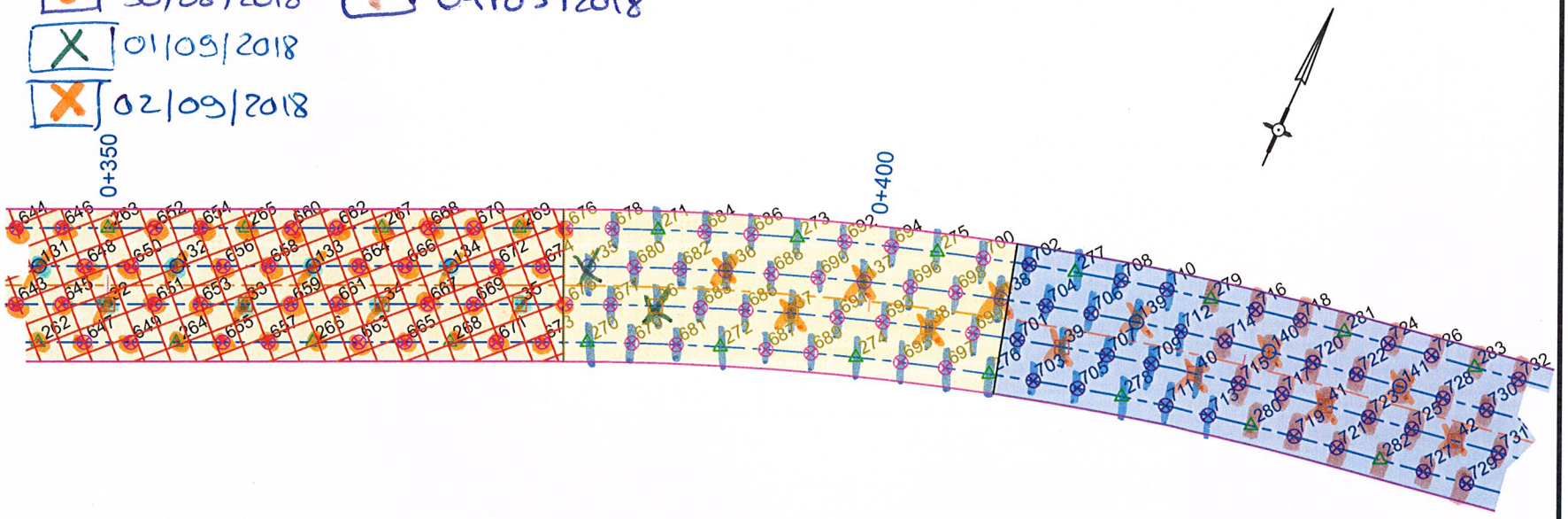
30/08/2018

01/09/2018

02/09/2018

03/09/2018

04/09/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)
3	AUG-31-2018	REVISED SURVEYED BEDROCK (AUG 31ST)

DRAWN BY: S. DZANOUNI

DRAWING REFERENCE: 651298-2500-4GDD-0004-01

DESIGNED BY: A. VIATEAU, EIT.

FROM:

VERIFIED BY: H. GUIMONT, P.Eng.

DATE: JUL-20-2018

CLIENT: AGNICO-EAGLE

menARD
1590, RUE AMPÈRE B202 BOUCHERVILLE, QC J4B 7L4
info@menardcanada.ca
TÉL.: (450)449-2633
FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION

DRAWING TITLE: TREATMENT PROGRAM SECTION D

SCALE: 1:425 (0 4.3 8.6 12.9 m)

FOLDER: 18M004

FORMAT: 11 x 8.5

SYSTEM: METRIC

FILE: 18M004_DWG-R4.dwg

DRAWING Nº: 200D

DATE: AUG-31-2018

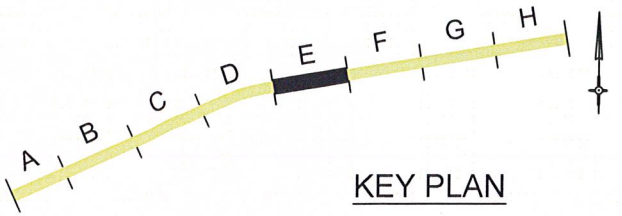
X:\QC\PROJETS\CONTRATS 2018\18M004_Whale_Tail_Dyke_Amaruq\7-Dessins\MENARD\18M004_DWG-R4.dwg

LEGEND

TREATMENT LIMIT
(10m EFFECTIVE WIDTH)

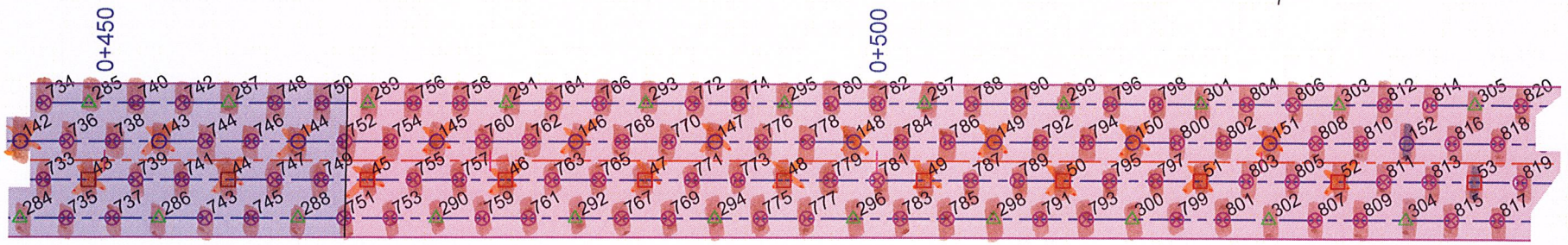
PHASE 1
PHASE 2
PHASE 3
PHASE 4

DC DEPTH
0m-7.5m
0m-9m



KEY PLAN

☒ 02/09/2018
☐ 03/09/2018
☐ 04/09/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-20-2018	REVISED SURVEYED BEDROCK (AUG 20TH)

DRAWN BY: S. DZANOUNI
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
DESIGNED BY: A. VIATEAU, EIT.
FROM:
VERIFIED BY: H. GUIMONT, P.Eng.
DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE

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1590, RUE AMPÈRE B202
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TÉL.: (450)449-2633
FAX: (450)449-2677

PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM SECTION E
SCALE: 1:425 (0 4.3 8.6 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R2.dwg
DRAWING Nº: 200E
DATE: AUG-20-2018

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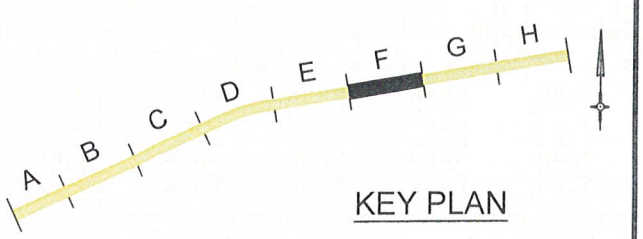
LEGEND

TREATMENT LIMIT
(10m EFFECTIVE WIDTH)

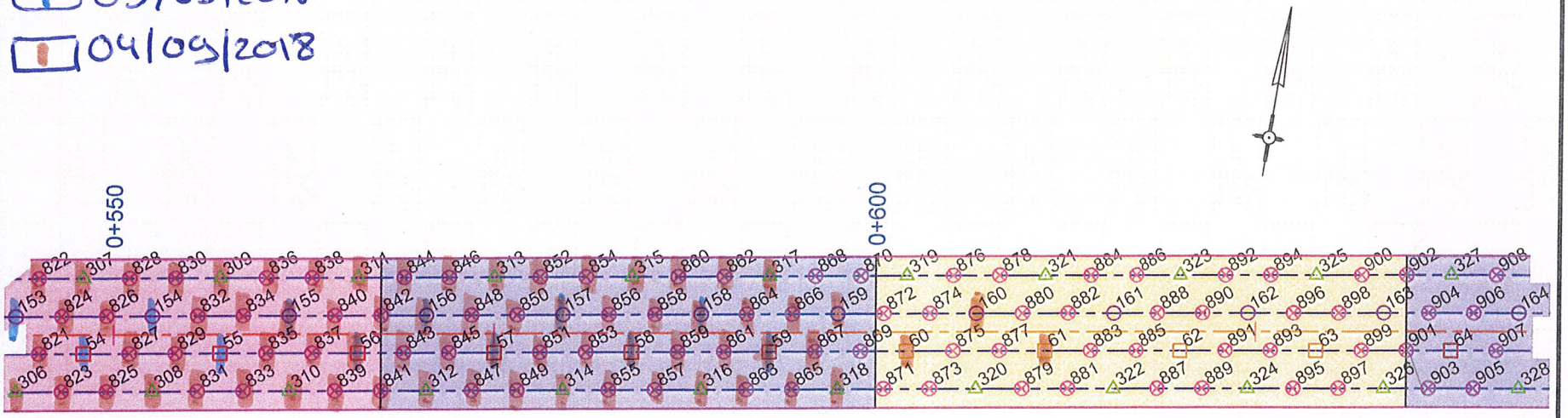
PHASE 1
PHASE 2
PHASE 3
PHASE 4

DC DEPTH
0m-7.5m
0m-9m
0m-10m



KEY PLAN

03/09/2018
04/09/2018



REVISIONS		
No.	DATE	DESCRIPTION
0	JUN-08-2018	FOR CONSTRUCTION
1	JUL-23-2018	FOR CONSTRUCTION
2	AUG-23-2018	REVISED SURVEYED BEDROCK (AUG 23RD)

DRAWN BY: S. DZANOUNI
DRAWING REFERENCE: 651298-2500-4GDD-0004-01
DESIGNED BY: A. VIATEAU, EIT.
FROM:
VERIFIED BY: H. GUIMONT, P.Eng.
DATE: JUL-20-2018
CLIENT: AGNICO-EAGLE

menARD
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PROJECT: WHALE TAIL DYKE AMARUQ MEADOWBANKS

WORK: DYNAMIC COMPACTION
DRAWING TITLE: TREATMENT PROGRAM SECTION F
SCALE: 1:425 (0 4.3 8.6 12.9 m)
FOLDER: 18M004
FORMAT: 11 x 8.5
SYSTEM: METRIC
FILE: 18M004_DWG-R2.dwg
DRAWING N°: 200F
DATE: AUG-23-2018

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check by surveyor	Marie-Pier Gagnon
check by surveyor	Maxime Roy Maxime Roy
check by quality	Jonathan Audet
date	September 04, 2018

SURVEY EQUIPEMENT VERIFICATION

no	equipement	integrity	note
	18-001 R10	GOOD	
	11 8602 R08	GOOD	

VERIFICATION DES SYSTÈME ACCUGRADE

Control point number	Amq-cp-002	
surveyor coordinate	x: 607 430.214 y: 7255709.235 z: 165.001	DN 0,005 E 0,021 Z 0,018
Theoric coordinate	x: 607430.219 y: 7255709.256 z: 164.983	
Control point subcontractor		
surveyor FGL coordinate	x: 607951.893 y: 7254960.815 z: 162.098	DN 0,000 E 0,012 Z 0,003
Subcontractor coordinate	x: 607951.893 y: 7254960.003 z: 162.095	

Notes

18M004- WHALE TAIL DYKE - AMARUQ (NU)

Ground Improvement - Dynamic Compaction

DAILY REPORT

Date:	9/5/2018	Report N°	16	Site Ref	18M004	Weather	Cloudy / Rainy

Staff		
	Project Manager	1
	Site Supervisor	1
	HSE Manager	0
	Crane Operator	2
	Mechanic	0
	Visitor	0
	Bulldozer operator (by client)	0
	Total	**4**

Equipements		
	Site office (by client)	
	Crane Equipment Containers	2
	Pick-up (by client)	1
	Dynamic Compaction crane (NCK Rapier)	1
	Dynamic Compaction pounder	1
	Total Station	1
	Mobile Crane	
	Bulldozer (by client)	
	Total	**6**

Description of the work performed / Remarks

1-	**DC10 : Dynamic Compaction PH1 and PH2**
2-	**DC9 : Dynamic Compaction PH1 and PH2**
3-	**DC7.5 : Dynamic Compaction PH1 and PH2**
4-	**Volume Survey performed on all points for PH1 / PH2 prints**
5-	
6-	
7-	
8-	
9-	
10-	
11-	
12-	
13-	
14-	
15-	
16-	
17-	

Dynamic Compaction Works

Zone	Description	Total number of prints	Done Today	Done Previously	Cumulated	Percentage Completed
Dynamic Compaction - Zone DC3	Phase 1 print	8		6	6	75%
	Phase 2 print	9		7	7	78%
	Phase 3 print	17		13	13	76%
	Phase 4 print	76		56	56	74%
Dynamic Compaction - Zone DC5	Phase 1 print	9		8	8	89%
	Phase 2 print	9		8	8	89%
	Phase 3 print	18		16	16	89%
	Phase 4 print	72		64	64	89%
Dynamic Compaction - Zone DC7.5	Phase 1 print	40	9	28	37	93%
	Phase 2 print	39	9	27	36	92%
	Phase 3 print	79		55	55	70%
	Phase 4 print	308		216	216	70%
Dynamic Compaction - Zone DC9	Phase 1 print	17	7	10	17	100%
	Phase 2 print	17	6	11	17	100%
	Phase 3 print	34		21	21	62%
	Phase 4 print	144		85	85	59%
Dynamic Compaction - Zone DC10	Phase 1 print	8	2	6	8	100%
	Phase 2 print	8	3	5	8	100%
	Phase 3 print	16		8	8	50%
	Phase 4 print	58		28	28	48%
Dynamic Compaction - Zone DC11	Phase 1 print	5		5	5	100%
	Phase 2 print	5		5	5	100%
	Phase 3 print	10		10	10	100%
	Phase 4 print	42		42	42	100%

Signatures	MENARD CANADA INC.	CLIENT	AEM Q/C
			

DYNAMIC COMPACTION
DC PRINT VOLUME AND RELATED SETTLEMENT

Project : Whale Tail Dyke - Amaruq
Project # : 18M004
Crane : NCK Rapier

Project Manager : Adrien Viateau
Site Supervisor : Maxime Roy
Crane Operator : Eric Bergeron
Crane Operator : Dany Menard

					Coordinates		DC Pounder			DC Prints Measurements					
N°	Phase	Print N°	DC-Zone	Date	NORTHING	EASTING	Height of Drop [m]	Weight [t]	Number of drops	Depth [m]	Upper Diameter [m]	Bottom Diameter [m]	Volume [m³]	Settlement - Phase [mm]	Remarks
437	PH1	62	DC10	9/5/2018	7254777.031	607573.323	18	15	45	1.60	4.00	1.80	11.08	123	
438	PH1	63	DC10	9/5/2018	7254778.465	607582.208	18	15	45	1.50	3.95	1.80	10.19	113	
439	PH1	64	DC9	9/5/2018	7254779.899	607591.093	18	15	40	1.45	4.00	1.80	10.04	112	
440	PH1	65	DC9	9/5/2018	7254781.333	607599.978	18	15	40	1.40	3.85	1.80	9.16	102	
441	PH1	66	DC9	9/5/2018	7254782.768	607608.863	18	15	40	1.45	4.10	1.80	10.41	116	
442	PH1	67	DC9	9/5/2018	7254784.202	607617.748	18	15	40	1.50	4.10	1.80	10.77	120	
443	PH1	68	DC9	9/5/2018	7254785.636	607626.633	18	15	40	1.30	3.85	1.80	8.51	95	
444	PH1	69	DC9	9/5/2018	7254787.070	607635.518	18	15	40	1.40	4.10	1.80	10.05	112	
445	PH1	70	DC9	9/5/2018	7254788.504	607644.403	18	15	40	1.40	4.00	1.80	9.69	108	
446	PH1	71	DC7.5	9/5/2018	7254789.938	607653.288	18	15	20	1.00	3.35	1.80	5.36	60	
447	PH1	72	DC7.5	9/5/2018	7254791.373	607662.173	18	15	20	1.05	3.50	1.80	5.99	67	
448	PH1	73	DC7.5	9/5/2018	7254792.807	607671.058	18	15	20	1.05	3.45	1.80	5.87	65	
449	PH1	74	DC7.5	9/5/2018	7254794.241	607679.943	18	15	20	1.10	3.30	1.80	5.78	64	
450	PH1	75	DC7.5	9/5/2018	7254795.675	607688.828	18	15	20	1.00	3.35	1.80	5.36	60	
451	PH1	76	DC7.5	9/5/2018	7254797.109	607697.713	18	15	20	0.90	3.30	1.80	4.73	53	
452	PH1	77	DC7.5	9/5/2018	7254798.543	607706.598	18	15	20	0.90	3.00	1.80	4.16	46	
453	PH1	78	DC7.5	9/5/2018	7254799.978	607715.483	18	15	20	1.10	3.20	1.80	5.54	62	
454	PH1	79	DC7.5	9/5/2018	7254801.412	607724.368	18	15	20	1.05	2.95	1.80	4.74	53	
455	PH2	161	DC10	9/5/2018	7254778.782	607568.482	18	15	30	1.15	3.40	1.80	6.30	70	
456	PH2	162	DC10	9/5/2018	7254780.216	607577.367	18	15	30	1.10	3.45	1.80	6.15	68	
457	PH2	163	DC10	9/5/2018	7254781.650	607586.252	18	15	30	1.30	3.45	1.80	7.27	81	
458	PH2	164	DC9	9/5/2018	7254783.084	607595.137	18	15	30	1.20	3.55	1.80	6.98	78	
459	PH2	165	DC9	9/5/2018	7254784.518	607604.022	18	15	30	1.30	3.65	1.80	7.87	87	
460	PH2	166	DC9	9/5/2018	7254785.953	607612.907	18	15	30	1.25	3.45	1.80	6.99	78	
461	PH2	167	DC9	9/5/2018	7254787.387	607621.792	18	15	30	1.25	3.75	1.80	7.87	87	
462	PH2	168	DC9	9/5/2018	7254788.821	607630.677	18	15	30	1.20	3.65	1.80	7.27	81	
463	PH2	169	DC9	9/5/2018	7254790.255	607639.562	18	15	30	1.20	3.40	1.80	6.57	73	
464	PH2	170	DC7.5	9/5/2018	7254791.689	607648.447	18	15	14	1.05	3.40	1.80	5.75	64	
465	PH2	171	DC7.5	9/5/2018	7254793.124	607657.332	18	15	14	0.85	2.90	1.80	3.75	42	
466	PH2	172	DC7.5	9/5/2018	7254794.558	607666.217	18	15	14	1.00	3.05	1.80	4.72	52	
467	PH2	173	DC7.5	9/5/2018	7254795.992	607675.102	18	15	14	1.10	2.90	1.80	4.86	54	
468	PH2	174	DC7.5	9/5/2018	7254797.426	607683.987	18	15	14	1.00	2.90	1.80	4.42	49	
469	PH2	175	DC7.5	9/5/2018	7254798.860	607692.872	18	15	14	0.95	2.90	1.80	4.20	47	
470	PH2	176	DC7.5	9/5/2018	7254800.294	607701.757	18	15	14	0.90	2.80	1.80	3.80	42	
471	PH2	177	DC7.5	9/5/2018	7254801.729	607710.642	18	15	14	0.90	2.85	1.80	3.89	43	
472	PH2	178	DC7.5	9/5/2018	7254803.163	607719.527	18	15	14	0.75	3.00	1.80	3.46	38	