



WOLVERINE MINE

QUARTZ MINING LICENSE QML-0006

2014 ANNUAL REPORT

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Table of Contents

1	Introduction	1
1.1	Quartz Mining License Requirements	2
2	2014 Mine Activities	3
2.1	Mine Development – Surface Infrastructure	3
2.2	Tailings Facility Activities.....	3
2.3	Underground Mine.....	7
2.4	Updates to Estimates of Ore Reserves and Mine Life.....	10
2.5	Underground Stability Incidents	10
2.6	Paste Backfill	10
2.7	Mill Operations.....	10
3	Annual Engineering Inspections.....	10
3.1	Mill and Associated Infrastructure Inspection	10
3.2	Tailings Storage Facility Inspection	12
3.3	Underground Mine Inspection.....	13
4	Hydrogeology Studies	15
5	Environmental Monitoring and Surveillance	15
5.1	Surface Water Quality Monitoring and Acute Lethality Testing	16
5.2	Groundwater Quality Monitoring	16
5.3	Environmental Monitoring for Construction Activities	17
6	Environmental Incidents	17
7	Access Road Operation	18
7.1	2014 and Projected 2015 Use	18
7.2	2014 Work and Upgrades Conducted	18
7.3	Access Control Issues	18
7.4	Projected Road Construction Activities.....	19
7.5	Wildlife Incidents or Other Accidents	19
8	Reclamation Activities.....	19
9	Socio-Economic Assessment.....	20
10	Project Development and Production for 2015.....	21

List of Tables

Table 1-1:	QML Annual Report Information Requirements and Corresponding Report Section	1
Table 1-2:	QML Submissions in 2014	3
Table 2-1:	Total Amount and Average Grade of Concentrate Produced, Stockpiled and Transported by End of 2014.....	10
Table 3-1	2014 Inspection Recommendations and Actions taken for Mill and Mine Associated Infrastructure	11
Table 3-2	2014 Inspection Recommendations and Actions taken for Tailings Storage Facility.....	12
Table 5-1:	2014 Surface Water Monitoring Sites and Sampling Frequency.....	16
Table 5-2:	Groundwater Monitoring Sites and Sampling Frequency	17
Table 6-1:	Environmental Incidents in 2014.....	17
Table 7-1:	2014 Access Road Vehicle Usage	18
Table 7-2:	2014 Wildlife Incidents.....	19
Table 9-1:	Goods and Services Procured From and Payments Made to Ross River, Watson Lake and Yukon for 2014	21

List of Figures

Figure 2-1:	Wolverine Mine General Site Plan End of 2014	5
Figure 2-2:	Wolverine Mine Industrial Complex End of 2014	6
Figure 2-3:	Overall 2014 Underground Development	8
Figure 2-4:	Overall 2014 Paste and Waste Backfill Locations.....	9
Figure 4-1:	2009-2014 Daily Average Underground Recharge Rates	15

List of Pictures

Picture 2-1: Tailings storage facility after dam lift construction project, looking east (top) and west (bottom). 4

List of Appendices

Appendix A: Monthly Tailings Monitoring Reports

1 Introduction

This Annual Report has been prepared to satisfy requirements contained within Quartz Mining License QML-0006 (QML) Condition 10.5 for activities that occurred during the period of January 1 to December 31, 2014 at the Wolverine Mine.

Table 1-1 outlines the QML Annual Report documentation requirements and the corresponding report section where the information is provided herein. A Socio-Economic Assessment summary is provided in Section 9 of this report, to satisfy requirements of the Environmental Assessment Screening Document (issued September 20, 2006 by the Development Assessment Branch, Government of Yukon).

Table 1-1: QML Annual Report Information Requirements and Corresponding Report Section

QML Section	Requirement	Section
10.5 a)	A summary of mining activities at the mine.	2.3
10.5 b)	A map showing all structures, works and installations associated with the Undertaking.	2.1
10.5 c)	The total amount of ore and waste removed from the mine.	2.7
10.5 d)	The total amount and the average head grade of ore processed through the mill.	2.7
10.5 e)	The total amount and grade of all stockpiled ore.	2.7
10.5 f)	The total amount and grade of concentrate produced, stockpiled, and transported from the Undertaking.	2.7
10.5 g)	As-built drawings of the mine and of all structures, works and installations constructed or altered in the mine.	2.3
10.5 h)	Details respecting any action taken as a result of the recommendations made by the engineer in relation to the inspection referred to in paragraph 10.1.	3
10.5 i)	A summary of any updates to estimates of ore reserves and mine life, including reserve category, tonnage and grade.	2.4
10.5 j)	A summary of any underground stability incidents.	2.5
10.5 k)	A summary of paste backfill placement activities conducted and their locations in the mine.	2.6
10.5 l)	A summary of humidity cell tests undertaken for waste rock and paste backfill.	2.6
10.5 m)	A summary of quantity and related analysis of leachate collected from paste backfill.	2.6
10.5 n)	The total amount of tailings deposited in the tailings impoundment.	2.2
10.5 o)	An evaluation of the performance of the tailings facility, including an estimate of	2.2

QML Section	Requirement	Section
	remaining available storage capacity in the facility.	
10.5 p)	The data generated from the full depth sampling of the tailings.	2.2
10.5 q)	A summary of any hydrogeology studies undertaken and related analysis of these data, including groundwater flow pathways as influenced by underground workings.	4
10.5 r)	A summary and evaluation of data results from the field pilot test of the bio-pass system.	8
10.5 s)	A summary of surface water quality monitoring, including any acute lethality testing conducted.	5.1
10.5 t)	A summary of groundwater quality monitoring in wells downslope of the mine workings.	5.2
10.5 u)	A summary of the programs undertaken for environmental monitoring and surveillance as outlined in the Monitoring and Surveillance Plan and the Wildlife Protection Plan, including an analysis of these data and any action taken or adaptive management strategies implemented to monitor or address any changes in environmental performance.	5
10.5 v)	A summary of progressive and ongoing reclamation activities.	8
10.5 w)	A summary of proposed development and production for the coming year.	0
10.5 x)	A summary of activities related to care and maintenance of the Undertaking, including any temporary closure activities, if applicable.	8
10.5 y)	A summary of spills and accidents that occurred as a result of the Undertaking.	6
10.5 z)	A summary of the previous and projected use of the access road, including maintenance work conducted, a summary of the level of traffic, access control issues, wildlife incidents and other accidents, and upgrade or maintenance work planned for the upcoming year.	7

1.1 Quartz Mining License Requirements

All major and minor permits are in place for the Wolverine Mine, with all infrastructure located on YZC mineral claims. All QML requirements pertaining to monitoring and reporting were achieved in 2014, and the submissions to Yukon Energy, Mines and Resources (EMR) are summarized in Table 1-2. All plans and reports submitted to EMR are available on the EMR website: <http://www.emr.gov.yk.ca/mining/wolverine.html>.

Table 1-2: QML Submissions in 2014

Submission	Date Submitted
2013 Annual Report for QML-0006	26-Mar-14
2013 Annual Report for QML-0006: Wildlife Protection Plan	26-Mar-14
2013 Annual Report for QML-0006: Monitoring and Surveillance Plan	26-Mar-14
Tailings Facility and Waste Rock Pad Inspection by Design Engineer (Klohn)	1-Aug-14
EBA Engineering Consultants Annual Inspections of the On-Site Earth Structures	1-Aug-14
Underground Geotechnical Inspection	1-Aug-14

2 2014 Mine Activities

Mine activities in 2014 focused on continuing milling and underground mine operations a 75% production, as well as continued underground development, due to poor metal values.

2.1 Mine Development – Surface Infrastructure

Figure 2-1 and Figure 2-2 provide the location of major surface infrastructure for the overall site, and at the industrial complex area, respectively. These figures are updates to the proposed construction figures provided in *General Site Plan V2011-05*.

There was no major construction activities associated with the mine development-surface infrastructure in 2014.

2.2 Tailings Facility Activities

The total amount of tailings deposited into the tailings impoundment in 2014 was 197,506 tonnes derived from 433,064 tonnes (compared to 260,213 tonnes derived from 519,625 tonnes of ore and waste milled in 2013). In addition to the 667,677 tonnes deposited in 2010, 2011, 2012, and 2013 the total amount of tailings stored in the facility is estimated at 865,183 tonnes as of the end of 2014. However, this is believed to be inaccurate based on the bathymetry measurements taken in 2013 and 2014.

On August 1st, 2014 a bathymetry of the pond was conducted to get an accurate estimate of the tailings volume to water volume ratio. The bathymetry resulted in an estimated tailings volume of 489,600 m³ (up from a total of 371,778 m³ when measured on August 31st, 2013) translating to 407,300 m³ (up from 339,262 m³ when measured on August 31st, 2013) of water based on the total surveyed volume of 896,900 m³ (up from 711,040 m³ when measured on August 31st, 2013).

The tailings facility has performed as planned and as of January 1st, 2015 was surveyed to contain 963,151 m³ of tailings and water (up from 810,300 m³ measured on December 31st, 2013). As the ultimate tailings facility has a capacity of 1,513,900 m³, the available volume remaining is 36%.



Picture 2-1: Tailings storage facility after dam lift construction project, looking east (top) and west (bottom).

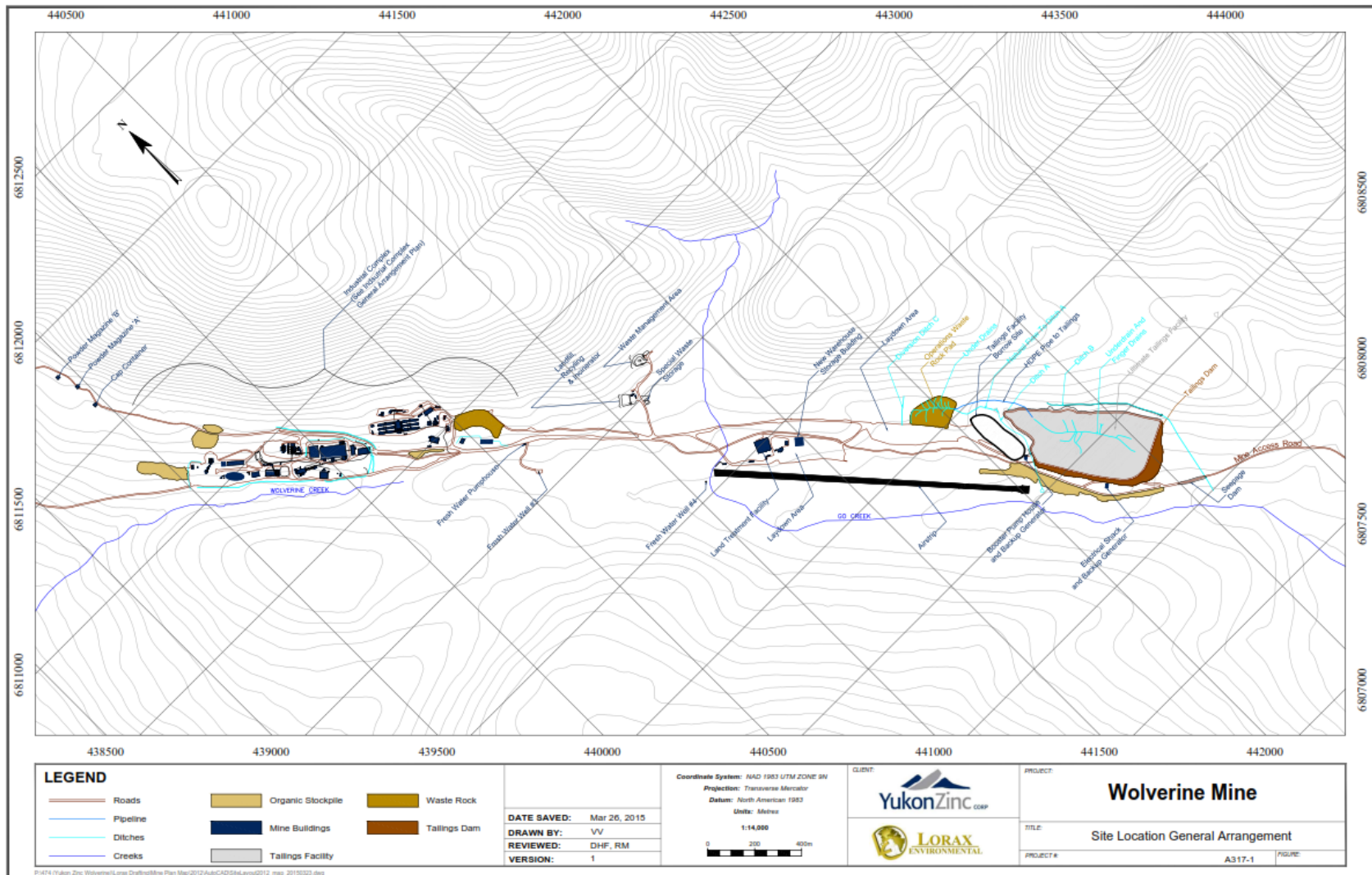


Figure 2-1: Wolverine Mine General Site Plan End of 2014

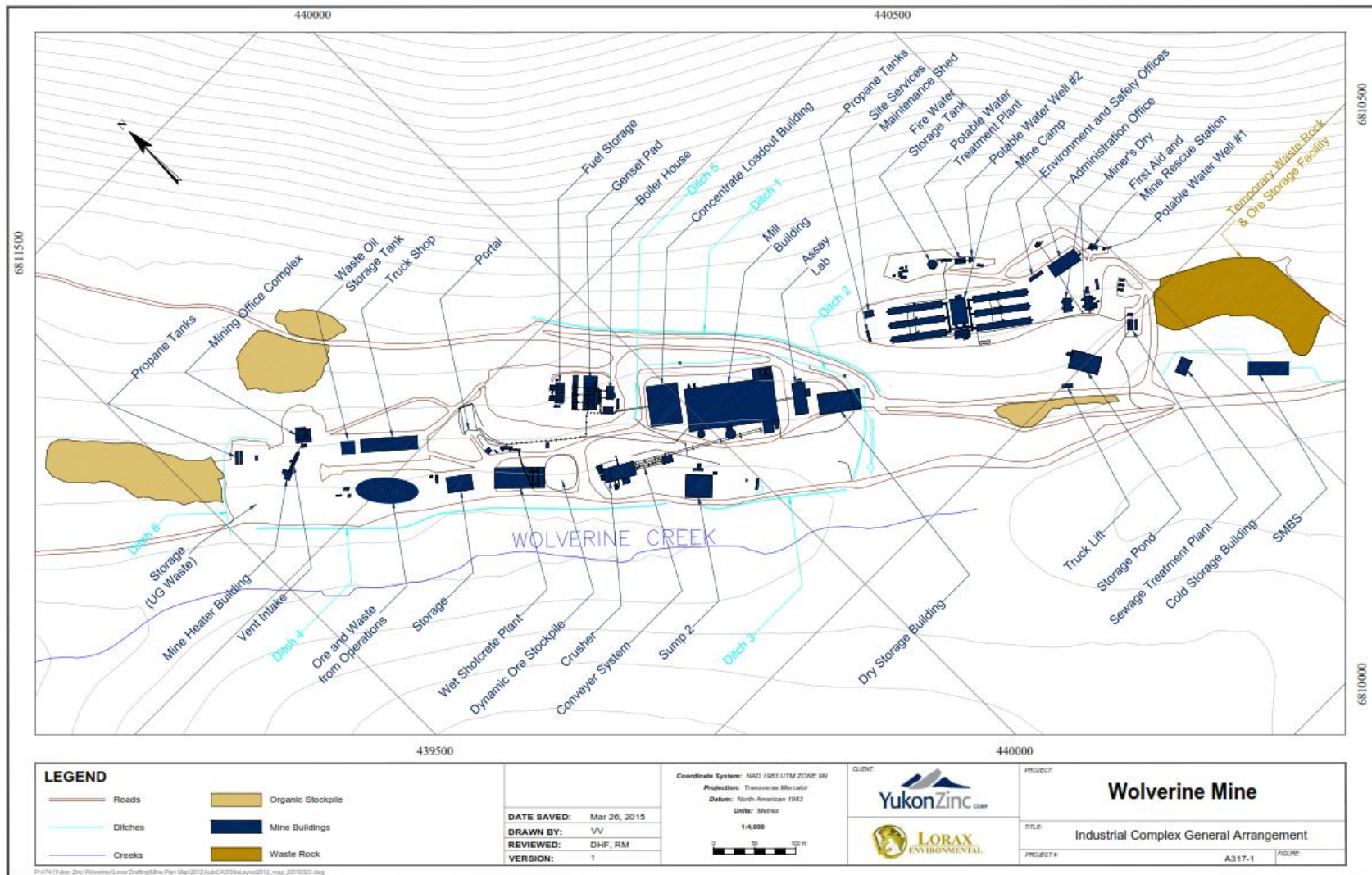


Figure 2-2: Wolverine Mine Industrial Complex End of 2014

2.3 Underground Mine

The primary objectives of underground development were to increase the number of stopes available for development to increase the production of ore and the extraction of waste safely and cost effectively. A number of initiatives were completed to facilitate increasing production, including:

- Review and optimization of the Ground Control Management Plan and other systems such as the paste fill system;
 - Wolverine GCMP 2014-002:
 - Pillar support method
 - Additional pull-test procedure to ensure pillar stability
 - Application of cemented sand backfill: reduced idle time of the production heading for paste backfill
- establishment of grade cut-off criteria in mine planning to improve milling efficiencies;
 - Application of double blending procedure from underground and surface
 - Mine scheduling for heading by heading relate to grade of ore
- Use of controlled blasting for minimization of damaged ground surrounding underground openings to reduce ground supports and dilution; and,
- Plan of overhand, underhand, and side drift mining adjacent to paste fill, as well as retreat slashing to maximize ore recovery.

Two main levels and 2 sub levels were developed in 2014 with development of 25 lift and side headings over paste filled main drifts:

- Main level including ramp development: 1125 Lynx level and 1115 Wolverine level
- Sub level development between main level:
 - Wolverine: 1160
 - Lynx: 1315
- Lift headings over paste filled drift:
 - Wolverine: 1250 L1, 1230 L4, 1210 L2, L3 & L4, 1190 L3 & L4, 1170 L2 & L3, 1150 L1
 - Lynx: 1315 L1, 1300 L1 & L2, 1280 L1 & L2, 1260 L1 & L3, 1240 L3 & L4, 1220 L2 & L3, 1200 L2, 1180 L2, 1160 L1, 1145 L1

The following drawings to illustrate the development completed in 2014 are provided below:

- Figure 2-3: Underground workings emphasizing 2014 development; and
- Figure 2-4: Paste backfill locations highlighted 2014 completion.

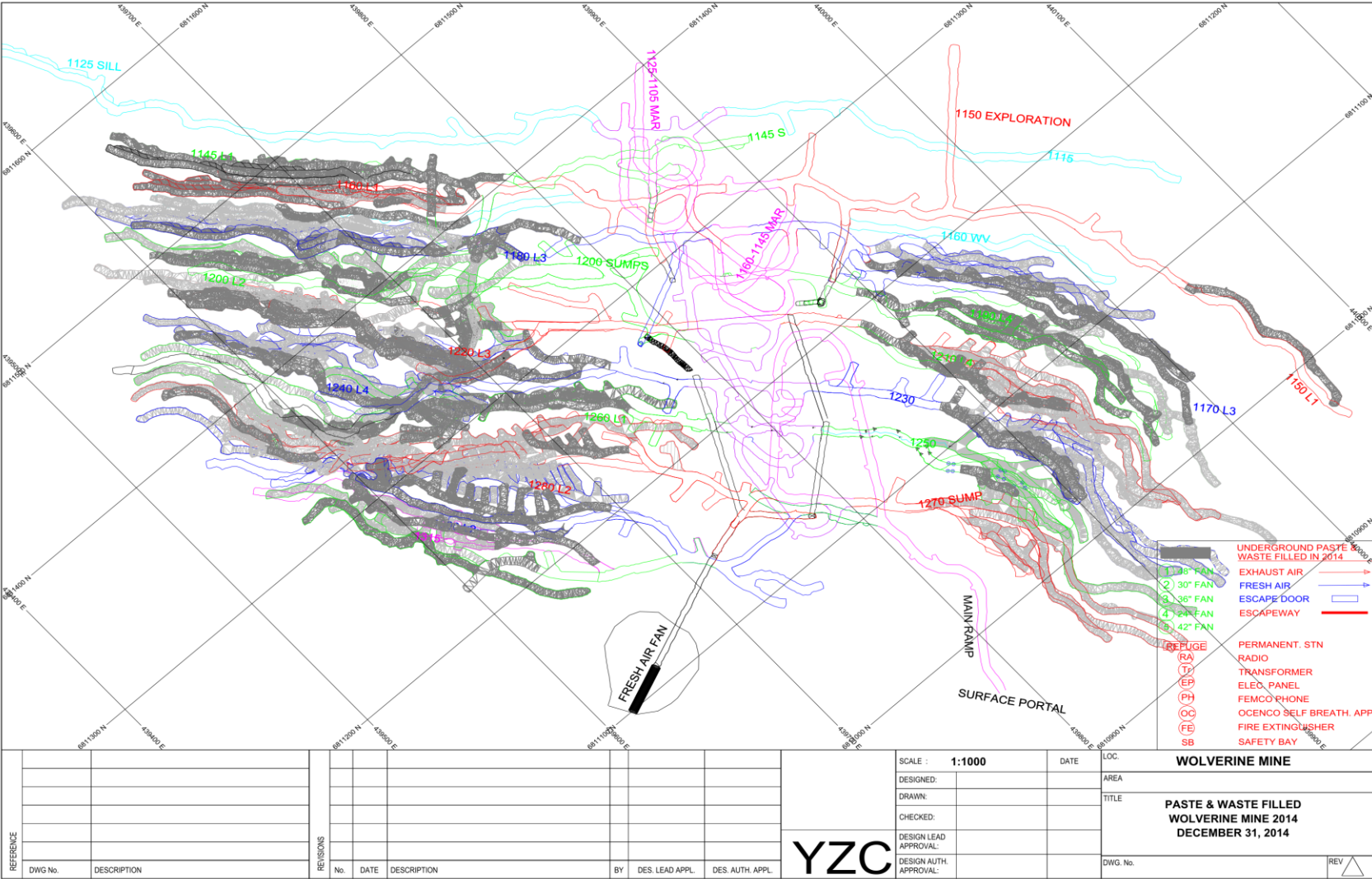


Figure 2-4: Overall 2014 Paste and Waste Backfill Locations

2.4 Updates to Estimates of Ore Reserves and Mine Life

An update was not determined for the ore reserve or mine life in 2014.

2.5 Underground Stability Incidents

There was one reportable incident related to underground stability in 2014. On January 31st, 2014, a fall of supported ground occurred at 1150 stope/1160 wolverine nose pillar. The three main factors that lead to the fall of ground were loss of rock bolt friction resistance, separation (or slip) of hidden fault plane and blasted vibration from 1160 SA. The full report can be made available upon request.

2.6 Paste Backfill

Paste and waste backfill placement underground continued in 2014 and the locations are shown in Figure 2-4. Every sill drives were filled with paste and lift drives were filled with paste and waste. In total, 138,120 cubic metre of underground space was filled with of paste (95,253 cubic metre), cemented sand and waste in 2014.

2.7 Mill Operations

A total of 433,064 tonnes were milled in 2014 with the average head grades of 9.72% Zn, 0.97% Cu, 1.16% Pb, 1.05 g/t Au and 250 g/t Ag. The total amount and grade of concentrate produced, stockpiled, and transported from the Wolverine Mine is summarized in Table 2-1.

Table 2-1: Total Amount and Average Grade of Concentrate Produced, Stockpiled and Transported by End of 2014

Concentrate	Cu (%)	Pb (%)	Zn (%)	Ag (g/t)	Dry Milled Tonnes		
					Produced	Stockpiled	Transported
Cu	18.2	3.2	6.9	3,058	15,897	193	15,704
Pb	2.8	17.7	9.1	1,478	11,586	144	11,442
Zn	0.7	1.5	45.9	214	73,470	73,470	72,282

Details of humidity cell tests conducted for mine waste rock and ore analysis are provided in the *Wolverine Mine Monitoring and Surveillance Plan 2014 Annual Report*.

3 Annual Engineering Inspections

Three engineering inspections occurred in 2014 and subsequent reports were submitted to EMR within 45 days of the inspections being completed. The results of these inspections are summarized below, as are the actions taken to date by YZC.

3.1 Mill and Associated Infrastructure Inspection

An annual inspection of water retaining structures (excluding the tailings storage facility) was conducted on June 24th and 25th, 2014 by EBA Engineering Consultants, and included a visual inspection of the following structures:

1. Industrial Complex – cut and fill slopes.

2. Industrial Complex Surface and Underground Water Treatment Sumps (1, 2, and 5) - liners and slopes.
3. Industrial Complex Diversion Ditch 1 – cut and fill slopes.
4. Industrial Complex Collection Ditches (2, 3, 4 and 5) – liners, cut and fill slopes.
5. Mine Camp Pad Area including upper generator and water treatment pad, sewage treatment plant pad, and treated effluent pond – liner, cut and fill slopes.
6. Temporary Waste Rock and Ore Storage Facility including seepage collection sump and ore waste stockpiles contained within the facility – cut and fill slopes.
7. Land Treatment Facility (Hydrocarbon Contaminated Material) including runoff collection sump – liners and fill slopes.
8. Vent Raise and Propane Tank Pad – cut slopes.
9. Truck Shop Pad – cut and fill slopes.

The report contained the recommendations for water bearing structures, summarized in Table 3-1 with the corresponding actions taken by YZC in 2014. EBA concluded that all of tension cracks, sloughing, erosion channels, and areas of settlement associated with the on-site earth structures pose no significant risk to the environment or human health and safety. However, these areas should be monitored and repaired as required.

Table 3-1 2014 Inspection Recommendations and Actions taken for Mill and Mine Associated Infrastructure

Structure	Recommendation	Actions
Industrial Complex	Fill erosion channels with coarse grained material. Genset Pad: The main drainage channels splash trough has broken loose and should be repaired to reduce amount of additional extensive erosion.	Splash trough was repaired and erosion channels along the slope were filled in with coarse material to prevent further erosion.
Industrial complex surface and underground water treatment sumps (1, 2, and 5)	The MSE has small rocks working their way through the mesh that are considered falling hazards and should be monitored. Sump 1: settlement in geomembrane anchor/key trench	Loose rocks that could be safely accessed were removed. Sump 1 was decommissioned in summer of 2014 (see full report in Appendix A)
Collection Ditches 1, 3, 4 & 5	Ditch 1: Fill tension cracks and areas of settlement along berm. Ditch 3: Minor tension cracks in new fill placement. Ditch 4: Repair liner, fill tension cracks, areas of settlement and erosion channels.	Monitored. Monitored. The section of liner that received significant damage was replaced by a 110 x 9 m length of new liner, lock-trenched in and fused to the existing liner (see full report in

Structure	Recommendation	Actions
		Appendix A)
	Ditch 5: Clean out discharge toward sump 2, and clean out debris from upper portion of ditch.	Completed.
Mine camp pad area including upper generator and water treatment pad, sewage treatment plant pad and treated effluent pond	Monitor tension cracks and erosion channels as necessary	Major southwestern channel has been filled in with rock.

3.2 Tailings Storage Facility Inspection

Weekly and monthly inspections of the tailings storage facility and associated infrastructure are conducted by site personnel. These inspections include routine inspections regarding the condition of the dam, liner, diversion ditches, seepage collection system and spillways and pipelines. Monthly monitoring of the dam conditions includes inflows, outflows and water level elevation. All 12 reports from January to December, 2014, are provided in Appendix A. Instrumentation (piezometers and inclinometers) is also downloaded monthly and the data reviewed for consistency.

The 2014 Annual Tailings Facility Physical Inspection was carried out by a design engineer with Klohn Crippen Berger from June 10th – 12th, and the full report was submitted to Energy, Mines and Resources on August 1st, 2014, entitled *Wolverine Mine 2014 Tailings Facility Physical Inspection*. The inspection report concluded that the tailings facility is performing as expected. No significant observations were made that would suggest any concerns with the stability of the facility or its ability to store tailings as per the design. The report contained recommendations for future monitoring and work on the facility, summarized in Table 6-2 with the corresponding actions taken by YZC in 2014.

Table 3-2 2014 Inspection Recommendations and Actions taken for Tailings Storage Facility

Recommendation	Actions
Continue to operate the facility as described in the Operation, Maintenance and Surveillance Manual V2010-01. Include regular monitoring of slumping and cracking at the north end as part of a regular surveillance of the facility.	Since the report was issued, YZC has continued to operate the facility as per the OM&S Manual and is monitoring the facility monthly. As recommended, the slumping and cracking at the north end of the facility was monitored weekly, and it was observed that the cracking got worse with time.
Conduct remedial works on Diversion Ditch A and on cracked and slumped area at north end of the impoundment.	As recommended, remedial works on Diversion Ditch A was completed – the ditch was extended upstream by ~50 m and completed lined to catch and divert surface and ground water away from the impoundment. The slumped area was left alone but did not worsened since the repairs to Ditch A, and will be repaired in 2015.

Recommendation	Actions
Finalize design and construct water treatment plant	Further pilot treatment test work and a preliminary design of the water treatment plant was completed by Envirogen Technologies, in conjunction with Inotec, in 2014. A scope of work and schedule was also prepared by Envirogen in September of 2014. However, YZC did not commit to the work due to a possible temporary closure of the Mine, based on poor metal market values. If this occurs, a new water treatment and management plan will need to be developed.
Assess alternatives for relocating the reclaim barge and put a plan in place for this work.	The discharge spigot was moved closer to the dam and a plan was developed by YZC personnel to move the barge to the northeast side of the impoundment in 2015
Install survey pins and around dam crest and include in monthly monitoring	A total of 6 survey pins were installed around the dam crest in September, 2014, and were surveyed 3 times to get a baseline of data moving into 2015. No indication of the dam moving was observed from the measurements.

3.3 Underground Mine Inspection

An inspection of the geotechnical aspects of the Wolverine underground mine was conducted by Woo Shin, P Eng on June 24th, 2014. Guidelines and recommendations contained within the report continue to be followed for underground mine development activities.

Specific deficiencies identified are being addressed as follows:

- A. 03 Blasting – The underground blasting is carried out once a day at the end of day shift by designated blasters holding valid or provisional Yukon blasting permits. No sulphide dust explosions have occurred since control measures were implemented and the number of misfires has gone down significantly. Gas testing is performed after blasting by workers in full SCBA to clear all headings of hazardous blast gases.
- B. 14.24 and 14.32 Explosive storage – The underground has one powder magazine (YT-543) and one detonator magazine (YT-544) underground on the 1230 level. The new licensed magazines were completed in 2013 and are permitted to store up to one week supply of explosives. The old underground magazines were decommissioned. Three additional licensed magazines are located on surface for additional inventory.
- C. 15.04 and 15.47 Mine plan – The technical services department maintains all mine plans and drawings on a central server. Driving layouts for all developments are provided to the mining contractor and posted in the underground mine office. The driving layouts include historic workings and diamond drill holes.
- D. 15.06 and 15.48 Ground control - The ground conditions of the active mining areas are inspected daily by dedicated technical services personnel. Ground control was fully complied with and covered by the Wolverine Ground Control Management Plan, and specific ground support instructions are prescribed for all active mining areas on a round by round basis. The Wolverine GCMP published May 18, 2011 and revised August 5, 2012. The most recent version of the GCMP is dated May 18, 2014.
- E. 15.14 Fire protection and emergency preparedness - The underground diesel equipment fleet is equipped with fire suppression equipment and fire extinguishers. Fire extinguishers are located

throughout the mine and clearly marked with signage. All fire extinguishers are checked monthly.

- F. 15.15 Refuge station - The mine has one permanent refuge station at the 1240m elevation and one additional portable refuge station was installed at the 1150 elevation in 2014. The refuge is in good condition and in compliance with regulations. The proper operation of the refuge station during an emergency is frequently reviewed with all workers.
- G. 15.15 Communications - The primary communication system underground is leaky feeder radio. The leaky feeder system was expanded in 2014. Mobile radios were installed in underground equipment and base station radios were installed in designated areas. The secondary communication system is Femco phone. Log books are maintained for ground support instructions, gas test readings and abnormal conditions affecting the safety of workers.
- H. 15.26 Escape ways - The fresh air raise on the Lynx side of the ore body is equipped with ladders and landings and serves as an escape way to surface. The Lynx fresh air raise is located near the ramp and is accessible from all Lynx levels and the ramp. The fresh air raise on the Wolverine side of the ore body serves as fresh air bases during an emergency. The fresh air raise is equipped with Femco phones that can be used to communicate with surface during an emergency. Escape way upgrades, including new steel ladders and landings, were completed and the Lynx fresh air raise extended down to 1125 elevation in 2014.
- I. 15.38 Electrical equipment - The underground is serviced by both high and low voltage distribution systems. New underground electrical sub stations were purchased to replace older equipment rented from the mining contractor.
- J. 15.46 and 15.47 Dewatering - The mine is dewatered by a series of sumps underground. Currently, the sumps pump mine water to a surface sump where the water is recycled for mill processing and underground drilling. Pump and pumping infrastructure, including development of new sumps and purchase of new pumps, was completed in 2014. The system is capable of handling the natural inrush of ground water and additional inrush during spring runoff.
- K. 15.58, 15.59, and 15.60 Diesel equipment - The underground diesel equipment fleet is good working order. Weekly tailpipe testing is performed on each piece of equipment by maintenance personnel. New equipment was purchased in 2012 and 2013 to replace older equipment rented from the mining contractor. Preventative maintenance programs are in place to keep equipment in good working order. The required ventilation air flow volumes for each piece of equipment are posted in the workplace.
- L. 15.61 Ramp - The mine is accessed by a single ramp driven at -15% from a surface portal at the 1,355m elevation to the current bottom of the mine at 1,105m elevation. The ramp is supported with steel culvert and sets at the portal and with rock bolts and shotcrete elsewhere underground. The ground support for all ramp development is outlined in the Wolverine Ground Control Management Plan (GCMP) and strictly followed. The support is regularly inspected by the geotechnical engineers and underground supervisors. Rehab work on the steel sets for the main ramp at the 1145 elevation was completed in 2014.
- M. 15.61 Ventilation - The mine is ventilated by a main surface fan that pushes fresh air down a single raise from surface to 1,280m elevation where it splits into two separate raises for the Wolverine and Lynx sides of the ore body. Auxiliary ventilation fans pull fresh air from these raises into the active levels. All air exhausts out of the mine by the ramp. Ventilation upgrades, including the purchase of new auxiliary fans, was completed in 2014. Raise development for ventilation will continue as the ramp is extended to new levels. Ventilation air flow volumes are adequate at all active levels and there is additionally capacity available from the main surface fan to ventilate additional future levels. Weekly ventilation surveys are performed by technical services personnel and posted in the workplace for all workers to review.

4 Hydrogeology Studies

Hydrological flow rates in the underground workings have been monitored since 2006; however, in 2007 – 2008 the rates were calculated based on discharge volumes from treatment sumps, whereas in 2009 -2014 the flow rates were more accurately monitored using a flow meter on the discharge pipe. These rates are presented in Figure 4-1. Flow rate increases during the summer months were evident in all five years, however, the onset of spring freshet occurred later in the year (June/July) compared to previous years. The average daily flow rates increased in 2014 to 311 m³/d from 290 m³/d in 2013. In 2014 recharge rates ranged from 204 m³/day (May 2013) to 418 m³/day (August 2013) and indicate seasonal variations consistent with previous years. Similarly to 2013, the surface water runoff was included in the April month calculations, since a valve had to be turned on to help manage the water during that time and was pushed through the same meter, artificially increasing this value.

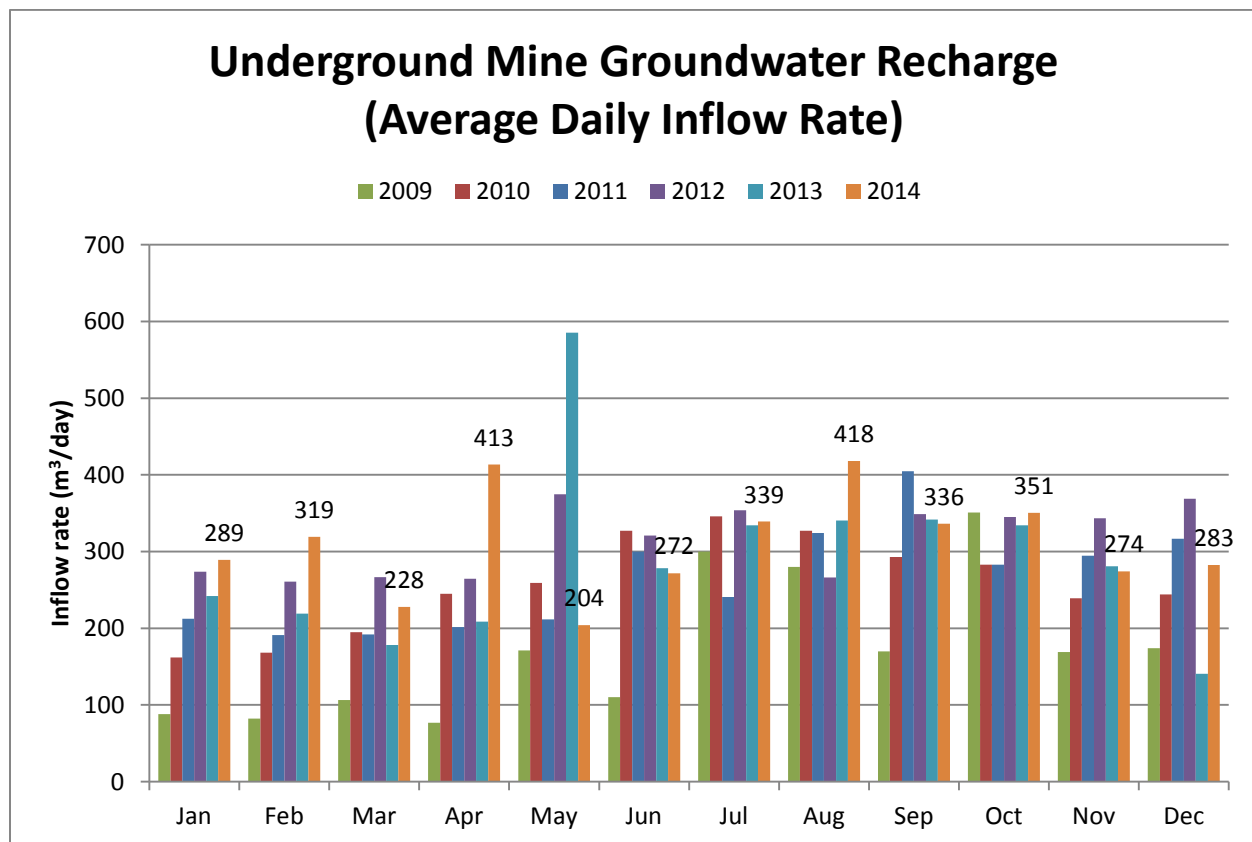


Figure 4-1: 2009-2014 Daily Average Underground Recharge Rates

5 Environmental Monitoring and Surveillance

As per annual report requirements, summaries are provided below for:

- Surface water quality monitoring and acute lethality testing; and,
- Groundwater quality monitoring in wells downslope of the mine workings.

In addition, Section 5.3 provides information on construction monitoring. Specific information on wildlife monitoring can be found in the *Wolverine Project Wildlife Protection Plan 2014 Annual Report*,

and on environmental monitoring and surveillance in the *Monitoring and Surveillance Plan 2014 Annual Report*. Specific water quality results (i.e., laboratory reports) for surface and groundwater test work are provided in *Type A Water Use Licence QZ04-065 2014 Annual Report*, which is available upon request.

5.1 Surface Water Quality Monitoring and Acute Lethality Testing

Surface water quality monitoring for the purposes of baseline monitoring (as per Type A Water Use Licence QZ04-065) was taken at the locations and dates summarized in Table 5-1. A total of 195 sample sets were analyzed for physical parameters, TSS, dissolved and total metals (by ICP-MS) and mercury (by CVAS), as well as cyanide and dissolved organic carbon for select sampling sites (W16 & W31).

Because all underground water was pumped, untreated, to the tailings storage facility in 2014, there were no discharges to the environment, and thus no acute lethality testing conducted in 2014.

Table 5-1: 2014 Surface Water Monitoring Sites and Sampling Frequency

Sampling Site	January	February	March	April	May	June	July	August	September	October	November	December
L1	11-Jan	08-Feb	10-Mar	02-Apr	A	21-Jun	26-Jul	22-Aug	13-Sep	A	A	20-Dec
W1	A	A	A	A	A	21-Jun	26-Jul	22-Aug	13-Sep	A	A	A
W8	11-Jan	08-Feb	A	A	26-May	21-Jun	26-Jul	E	13-Sep	D	D	D
W9	D	D	D	D	26-May	21-Jun	26-Jul	22-Aug	13-Sep	D	D	D
W12	08-Jan	10-Feb	A	A	A	01-Jun	01-Jul	04-Aug	01-Sep	A	01-Nov	21-Dec
W14	08-Jan	10-Feb	11-Mar	08-Apr	A	01-Jun	01-Jul	04-Aug	01-Sep	A	01-Nov	21-Dec
W15	15-Jan	19-Feb	29-Mar	05-Apr	24-May	29-Jun	08-Jul	08-Aug	23-Sep	06-Oct	08-Nov	10-Dec
W16	13-Jan	25-Feb	29-Mar	05-Apr	24-May	20-Jun	16-Jul	08-Aug	05-Sep	12-Oct	08-Nov	08-Dec
W21	10-Jan	03-Feb	07-Mar	06-Apr	06-May	28-Jun	21-Jul	20-Aug	12-Sep	19-Oct	21-Nov	19-Dec
W22	10-Jan	03-Feb	07-Mar	A	06-May	28-Jun	21-Jul	20-Aug	12-Sep	19-Oct	21-Nov	A
W31	D	D	D	D	11-May	20-Jun	02-Jul	13-Aug	02-Sep	22-Oct	17-Nov	D
W40	10-Jan	03-Feb	A	A	06-May	28-Jun	21-Jul	20-Aug	12-Sep	19-Oct	21-Nov	19-Dec
W71	10-Jan	05-Feb	A	06-Apr	06-May	18-Jun	02-Jul	12-Aug	12-Sep	19-Oct	21-Nov	03-Dec
W72	10-Jan	05-Feb	04-Mar	06-Apr	06-May	18-Jun	02-Jul	12-Aug	12-Sep	19-Oct	21-Nov	03-Dec
W73	10-Jan	05-Feb	04-Mar	06-Apr	06-May	18-Jun	02-Jul	12-Aug	07-Sep	19-Oct	21-Nov	03-Dec
W80	07-Jan	10-Feb	11-Mar	08-Apr	A	01-Jun	01-Jul	04-Aug	01-Sep	A	01-Nov	21-Dec
W81	12-Jan	19-Feb	30-Mar	09-Apr	24-May	29-Jun	08-Jul	08-Aug	22-Sep	06-Oct	09-Nov	10-Dec
W82	14-Jan	11-Feb	10-Mar	10-Apr	20-May	20-Jun	16-Jul	E	25-Sep	07-Oct	09-Nov	10-Dec
W85	12-Jan	11-Feb	29-Mar	05-Apr	24-May	20-Jun	16-Jul	E	25-Sep	12-Oct	08-Nov	10-Dec
T1	14-Jan	05-Feb	05-Mar	14-Apr	10-May	07-Jun	06-Jul	01-Aug	02-Sep	12-Oct	17-Nov	08-Dec

A = Site not sampled due to lack of safe access

D = Site dry (i.e., all water tied up in storage) or frozen through to ground

E = Transportation equipment under repair/Sampling equipment under repair

5.2 Groundwater Quality Monitoring

Groundwater wells downslope of the mine workings were sampled monthly in 2014, as required by A Licence QZ04-065. Sampling dates for groundwater wells downslope of the mine workings are summarized in Table 5-2. Gaps in Table 5-2 represent dates when the wells were frozen, and samples were not able to be taken. A total of 35 sample sets were collected from the groundwater

wells downslope of the mine workings, and they were analyzed for physical parameters, TSS, dissolved metals (by ICP-MS) and mercury (by CVAS).

Table 5-2: Groundwater Monitoring Sites and Sampling Frequency

Sampling Site	January	February	March	April	May	June	July	August	September	October	November	December
MW05-3A						27-Jun	30-Jul	26-Aug	28-Sep			
MW05-3B						27-Jun	30-Jul	26-Aug	28-Sep	21-Oct		
MW05-5A	22-Jan		05-Mar	30-Apr	27-May	24-Jun	22-Jul	17-Aug	14-Sep	21-Oct	05-Nov	28-Dec
MW05-5B	22-Jan		05-Mar		27-May	24-Jun	29-Jul	17-Aug	14-Sep	21-Oct	05-Nov	28-Dec
MW06-11S						27-Jun	29-Jul	26-Aug	28-Sep	24-Oct		

5.3 Environmental Monitoring for Construction Activities

The only construction activity that occurred in 2014 was the rehabilitation of Ditch A, a diversion ditch that captures and diverts water away from the Tailings Storage Facility. The report describing the activity is available in Appendix A.

6 Environmental Incidents

There were four reportable spills (defined by the *Yukon Spills Regulations* as “a release of a hazardous substance to the environment in quantities above the spill reporting thresholds, or any amount of spill onto a watercourse”) and one unauthorized discharges in 2014 (Table 6-1). Spills were immediately reported and full spill reports were submitted to EMR within 10 days of their respective occurrences. Follow up reports were submitted upon receipt of laboratory results, as required.

Table 6-1: Environmental Incidents in 2014

Date	Volume and Substance	Cause	Reporting and Follow-up Actions
14-Jan-14	~330 kg of Copper Sulphate	Operator accidentally contacted bag with forks	Initial Report: 16-Jan-14
3-May-14	~2.5 m ³ melt water from Ditch 4	Flow within Ditch 4 was restricted by ice built up	Initial Report: 15-Apr-14 Follow-up Report: 30-Apr-14
14-May-14	~4.04 wmt of Cu Concentrate	Haul truck fell off road losing 2 bags of concentrate	Initial Report: 25-May-14 Follow-up Report: 30-Jun-14
10-Oct-14	~7.3 wmt of Zn Concentrate	Haul truck fell off road decanting Zn concentrate went tipped over on side	Initial Report: 13-Oct-14
24-Nov-14	~0.3 m ³ of glycol	Damaged coupler in Batch Plant	Initial Report: 2-Dec-14

7 Access Road Operation

Access road activities outlined in the sections below include the 2013 use, maintenance work, access control, and road upgrade or maintenance activities.

7.1 2014 and Projected 2015 Use

In 2014, all freight and service vehicles entering and exiting site were recorded by site personnel and are summarized by month in Table 7-1. The total annual access road usage for 2014 was 3870 vehicles.

Table 7-1: 2014 Access Road Vehicle Usage

Month	Vehicle Traffic
January	285
February	355
March	340
April	383
May	440
June	365
July	329
August	296
September	322
October	331
November	286
December	138
Total	3870

In 2014, the number of concentrate haul trucks and service vehicles on the road is anticipated to be similar to significantly lower in 2015 due to entry into a temporary closure scenario.

7.2 2014 Work and Upgrades Conducted

Improvements to the access road included widening, raising and reducing grade, ditching and drainage control, decreasing side slopes, installation of berms, improvements to existing and additional pull out bays, surfacing and defining shoulders. Culverts and culvert extensions were installed and rip rap was placed at culvert entrances. All these works were ongoing throughout the spring, summer and fall months as the need arose. However, no major construction works were carried out on the Access Road in 2014.

Sediment and erosion control was conducted throughout construction and included silt fence and geotextile installation, as required.

7.3 Access Control Issues

There have been no issues with access control. There is one Wolverine Mine Access Control Gate at km 0.1, to prevent public use of the access road. A radio-controlled automated gate opener was

installed at the gate at km 0.1 in 2008 and is currently in use. The Access Road is patrolled daily by on-site employees for on-going road maintenance. All vehicles entering and leaving the site are required to call security, via radio, to gain access/exit through the radio-controlled gate.

7.4 Projected Road Construction Activities

YZC will continue with road improvements for concentrate haul trucks and service vehicle use as needed in 2015.

7.5 Wildlife Incidents or Other Accidents

In 2014, there were a total of nine wildlife related incidents, of which five were mortalities. Each incident is described in Table 2-7, along with the action taken by YZC employees.

Table 7-2: 2014 Wildlife Incidents

Date	Incident	Action Taken
20-Jan-14	Dead Ptarmigan discovered inside the Mill	Reminded crew to keep all doors closed if not in use
15-Apr-14	Dead Ptarmigan @ KM26 - assumed struck by truck	Removed from road and incinerated
15-Jun-14	Grizzly bears (x2) and a lone wolf observed occupying areas throughout site for past 2 weeks - getting close to entrances	Constantly monitored bear and wolf movement; implemented site wide 'buddy' policy for all work in the field; had garbage bins located outside brought inside to reduce wildlife attractants; issued bear spray to field work personnel for protection
26-Jun-14	Wolf becoming a common presence onsite - in landfill, camp pad, etc	Contacted the local Conservation Officer and received permission to shoot the Wolf in the hind quarters with rubber buckshot - was deterred and after another day, did not return
15-Jul-14	Small bird found near CLO that may have just left its nest	An employee captured the bird, and called the Environmental Department for assistance. The bird was placed in a soft towel and transported to a meadow off site. After a few minutes, the bird flew off and landed in the top of a spruce tree.
05-Aug-14	6 Wolves in Mill Laydown watching a worker on N/S	Once worker became aware of their presence they ran off. Environment department investigated area the next day - no sign of them.
10-Aug-14	Dead fox found in Sump 1 on the liner by the water	Not sure how long it was there, and cause unknown. They just started pumping out water a couple of days ago to prep for decommissioning the sump.
28-Sep-14	Dead marmot in Tailings Pond	Recent death - noticed by rope ladder at barge by the electrician.
19-Nov-14	Injured Ptarmigan	Still moving and ran off so not too badly injured

8 Reclamation Activities

An update to the Reclamation and Closure Plan (Plan) was completed in 2013, and was submitted to the Yukon Government Department of Energy, Mines and Resources on July 17th, 2013. As per *QML-0006 Section 8.0*, the updated Plan addresses care and maintenance of the mine site during a temporary

closure period, and decommissioning of operations and reclamation of the site at final closure. The Plan was developed to address two possible scenarios for permanent decommissioning:

1. The mine site in its current state (Existing Condition), or
2. The mine after ore reserves are exhausted (Life of Mine).

Changes to the following surface facilities and infrastructure for mine operations were described:

1. Site Access Road
2. Airstrip
3. Fuel storage pad
4. Power generation and distribution
5. Process buildings
6. Assay laboratory
7. Wet shotcrete plant
8. Waste rock storage pads
9. Tailings facility
10. Truck shop
11. Mining office complexes
12. Administration, first aid and mine rescue buildings, dry, and Camp

The results of reclamation and closure research programs, such as progress made on the Biopass Pilot Testing program, were detailed in the Plan, and recommendations for further testing were described. The extent to which disturbed areas (e.g., site Access Road, Ditches, Tailings facility, Industrial Complex) were progressively reclaimed through erosion mitigating techniques and seeding programs were also described, and illustrated using select photographs. The final security bond payment required to fully reclaim and close the mine for each of the three situations (i.e., Temporary Closure, Existing Condition closure, and Life of Mine closure) was estimated.

9 Socio-Economic Assessment

The EA Screening Report requires that YZC report annually on the following:

- The number of Yukoners and non-Yukoners employed at the mine; and,
- The value of goods and services procured from and payments made to Ross River, Watson Lake and the Yukon as a whole

Over the course of the year, 108 Yukoners and 258 non-Yukoners were employed at the Wolverine Mine by YZC and contracting companies. The contractors included ESS Support Services, Maple Leaf Loading (up to June 2014) and Procon Mining and Tunnelling Ltd. Wages from the local region are not included in the totals below.

The value of goods and services procured from and payments made to Ross River, Watson Lake and the Yukon as a whole in 2014 is estimated at \$30,557,000, not including outstanding payments (see Table 9-1). Approximately 80 Yukon vendors were utilized during the year. In addition to these YZC

expenditures, the Kaska First Nation communities (Ross River, Watson Lake and three in northern BC), who formed joint venture businesses with ESS Support Services, Maple Leaf Loading (up to June 2014), Procon Mining and Tunnelling and Tu Lidlini Petroleum/Alberta Fuel Distributors Petroleum, together with contractors ITC Global and Boart Longyear shared payments in 2014 estimated at \$0.96 million.

Table 9-1: Goods and Services Procured From and Payments Made to Ross River, Watson Lake and Yukon for 2014

Location	Amount
Ross River	~ \$174,000
Watson Lake	~ \$818,000
Yukon	~ \$30,557,000
Kaska Joint Venture Businesses	~ \$964,000

*Outstanding payments are not included in this table.

10 Project Development and Production for 2015

There is currently no plan for development and production for 2015.

Appendix A: Monthly Tailings Monitoring Reports

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**

Month <u>January, 2014</u>	Avg. Daily Temp. _____	Average: -7.9 C ; Low: -23 C; High: 6.2 C
----------------------------	------------------------	--

Mill Record Data:		
Total Monthly Tailings Deposition _____	10,775	Dry Tonnes
Average Monthly Tailings % Solids _____	20.9	%
Total Monthly Tailings Slurry Volume _____	44,632.6	m ³
Total Monthly Reclaimed Water Volume _____	40,912.0	m ³

Site Measurements:			
Date of survey <u>January 29, 2014</u>	Pond Elevation <u>1305.92</u>	m	Estimated volume <u>807,800</u> m ³
Total Monthly Precipitation _____	6.8		mm
Total Monthly Underground Input _____	8,963		m ³
Total Monthly STP Effluent Input _____	584		m ³
Total Monthly Industrial Complex Runoff Input _____	0		m ³
Total Volume from Seepage collection pond to Facility _____	0		m ³
Average Monthly Under drain Flow Rate _____	1.11		L/s
Average Monthly Ditch A Flow Rate _____	Unknown – but flowing		L/s
Average Monthly Ditch B Flow Rate _____	0		L/s
Total Monthly Volume Discharged from Water Treatment _____	0		m ³
Depth of Water at Reclaim Barge _____	31.7		Ft

See page 3 to Annotate Pond Diagram

Pictures Taken? Y N Photo Sheet Attached? Y N

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report

Special Remarks:

1. Milling rates averaged 1,803 dry tonnes per day (Total of 11 Operating Days), processing 17,673 tonnes ore with 2,359 dmt of tailings reported to underground for paste fill and 10,775 dmt tailings to TSF.

2. Brief on any maintenance: De-icing at the barge resumed in month with the installation of new pump, as shown in attached pictures; de-icing has improved significantly.

3. The mill resumed normal operations during this month

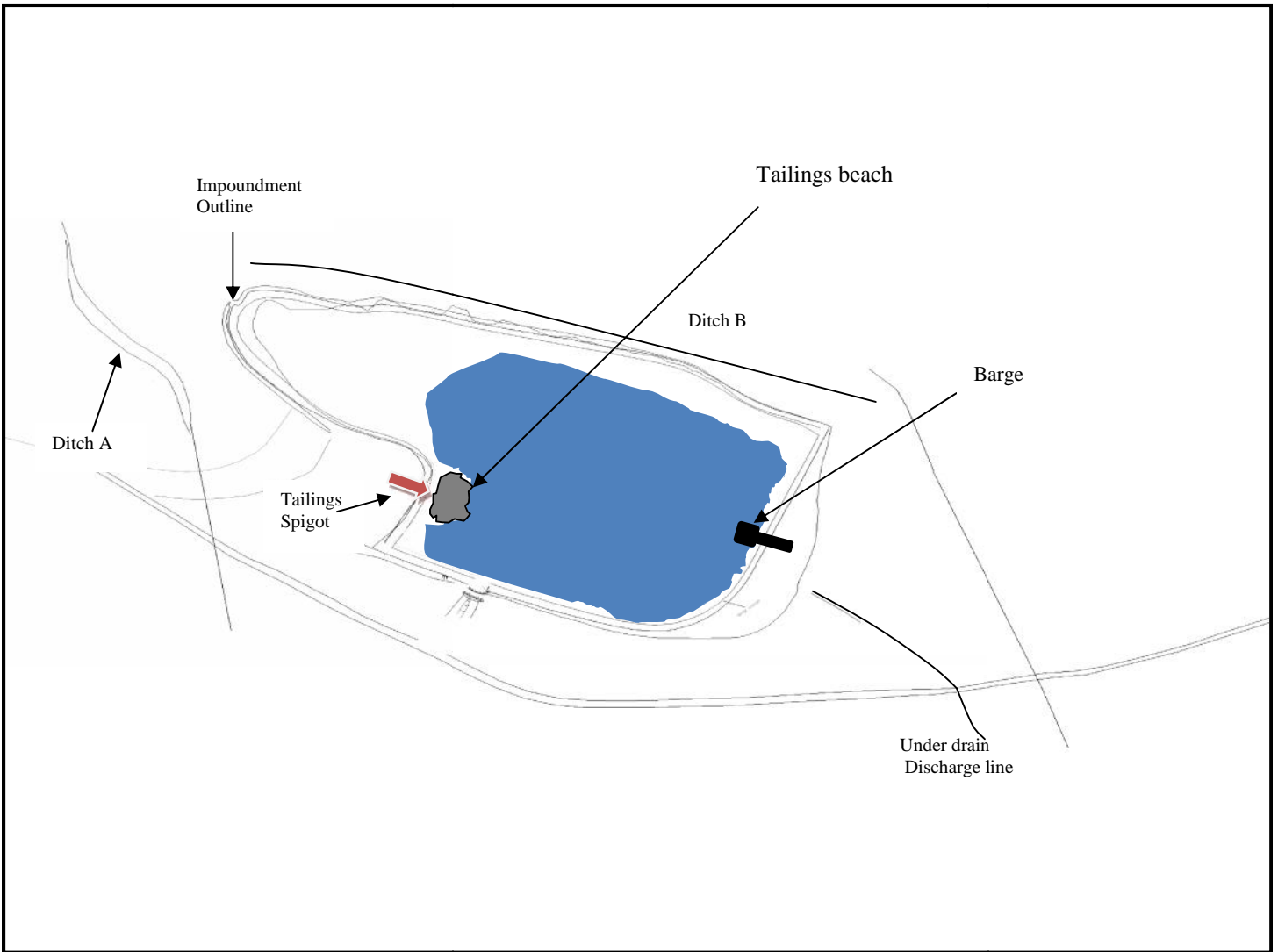
WOLVERINE PROJECT

Tailings Facility Monitoring

Monthly Impoundment Monitoring Report

Sketch to Include:

- Pond area
- Ice area
- Tailings spigot points
- Tailings beaches
- Reclaim barge location



Operator Robin McCall/ Dave Archibald

Signature _____

Supervisor/Manager Peter Nelega

Signature & Date _____

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report



Photo 1: Looking at mill tailings discharge line with pump reclaim water pump house overflow line in foreground



Photo 2: Looking towards barge from North West corner of TSF



Photo 3: South wall view with walk way to the barge.



Photo 4: Barge with new de-icing pump effectively opening up the area around barge

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**



Photo 5: looking at East wall from barge



Photo 6: looking west from barge capturing south west corner of TSF



Photo 7: looking north from barge ramp



Photo 8: looking west from south east corner of TSF

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**

Month <u>March, 2014</u>	Avg. Daily Temp. _____	Average: -12.1°C ; Low: -26.1°C; High: 0.6°C
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Mill Record Data:	
Total Monthly Tailings Deposition _____	20,394.2 Dry Tonnes
Average Monthly Tailings % Solids _____	19.8 %
Total Monthly Tailings Slurry Volume _____	89,649.3 m ³
Total Monthly Reclaimed Water Volume _____	82,616.8 m ³

Site Measurements:		
Date of survey <u>Mach 31, 2014</u>	Pond Elevation <u>1306.02</u> m	Estimated volume <u>818,500</u> m ³
Total Monthly Precipitation _____	0	mm
Total Monthly Underground Input _____	10,826	m ³
Total Monthly STP Effluent Input _____	652	m ³
Total Monthly Industrial Complex Runoff Input _____	1,272	m ³
Total Volume from Seepage collection pond to Facility _____	0	m ³
Average Monthly Under drain Flow Rate _____	1.14	L/s
Average Monthly Ditch A Flow Rate _____	Unknown – but flowing	L/s
Average Monthly Ditch B Flow Rate _____	0	L/s
Total Monthly Volume Discharged from Water Treatment _____	0	m ³
Depth of Water at Reclaim Barge _____	31.7	Ft

See page 3 to Annotate Pond Diagram

Pictures Taken? Y N Photo Sheet Attached? Y N

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report

Special Remarks:

1. Milling rates averaged 1,756 dry tonnes per day (total of 24 Operating Days); processing 42,138.2 tonnes ore with 10,337.1 dmt of tailings reported to underground for paste fill and 20,394.2 dmt tailings to TSF.

2. Brief on any maintenance: Barge pumps underperforming, significantly affected the supply of pond water to the mill. Installed 4" line & utilized de-icing pump as supplementary water. Significant scaling was observed on both pumps. Both pumps de-scaled & cleaned, used pump 1 on service & pump 2 on standby (out of water to avoid scaling). Windings on the pump motor was rewound (electrical issues) & were fixed.

3. Mill operating schedule continues to budget for 3 weeks operating and 1 week scheduled maintenance down time.

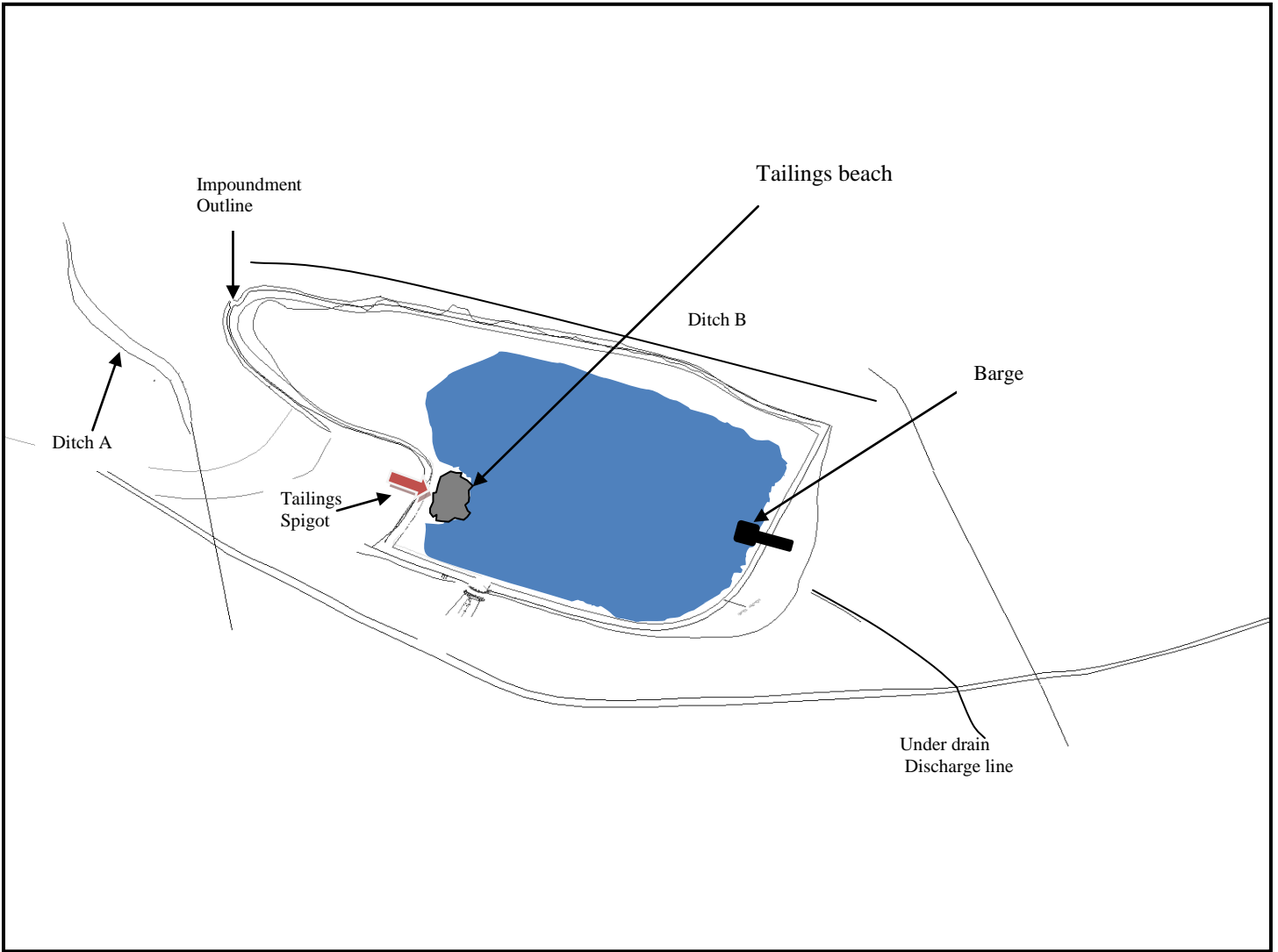
WOLVERINE PROJECT

Tailings Facility Monitoring

Monthly Impoundment Monitoring Report

Sketch to Include:

- Pond area
- Ice area
- Tailings spigot points
- Tailings beaches
- Reclaim barge location



Operator Robin McCall / Dave Archibald

Signature _____

Supervisor/Manager Dave Archibald

Signature & Date _____

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report



Photo 1: Looking at mill tailings discharge line with pump reclaim water pump house overflow line in foreground



Photo 2: Looking towards barge from North West corner of TSF



Photo 3: South wall view with walk way to the barge.

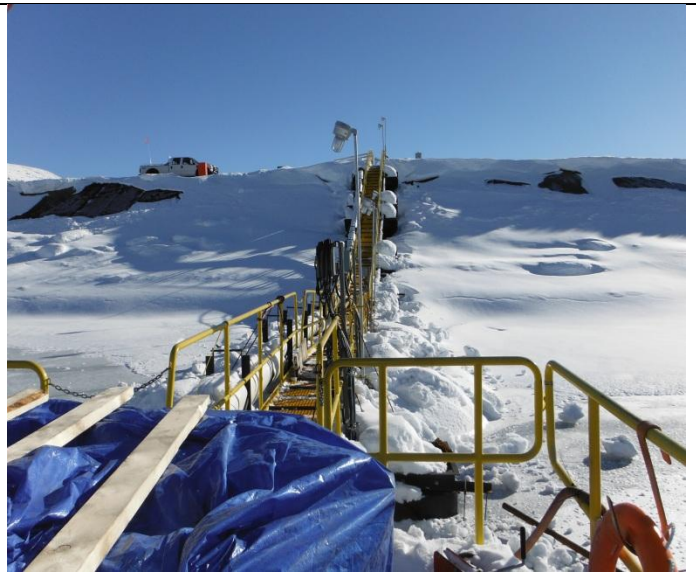


Photo 4: From Barge looking up walkway at South Wall

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report



Photo 5: looking at East wall from South East corner of TSF



Photo 6: looking at west wall from South wall of TSF

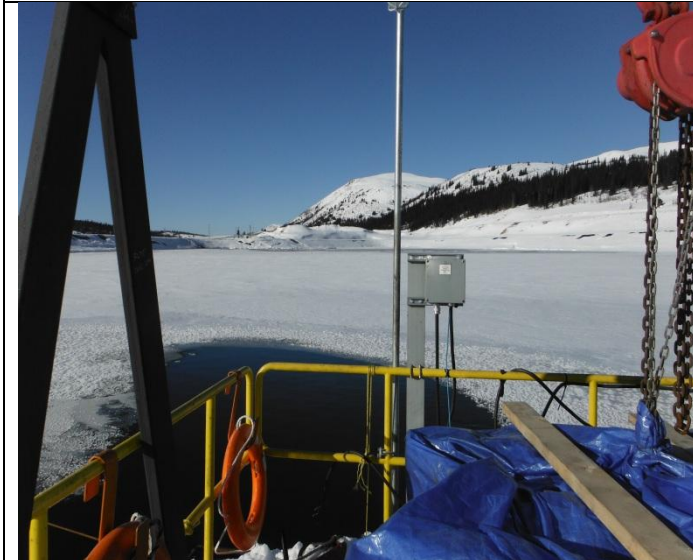


Photo 7: looking north from barge



Photo 8: looking west from south east corner of TSF

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**

Month <u>February, 2014</u>	Avg. Daily Temp. _____	Average: -17.2°C ; Low: -31.3°C; High: -4.3°C
-----------------------------	------------------------	--

Mill Record Data:		
Total Monthly Tailings Deposition _____	13999.9	Dry Tonnes
Average Monthly Tailings % Solids _____	15.4	%
Total Monthly Tailings Slurry Volume _____	81,686.7	m ³
Total Monthly Reclaimed Water Volume _____	76,859.1	m ³

Site Measurements:			
Date of survey <u>February 26, 2014</u>	Pond Elevation <u>1305.91</u>	m	Estimated volume <u>806,650</u> m ³
Total Monthly Precipitation _____	0		mm
Total Monthly Underground Input _____	9,864		m ³
Total Monthly STP Effluent Input _____	566		m ³
Total Monthly Industrial Complex Runoff Input _____	0		m ³
Total Volume from Seepage collection pond to Facility _____	0		m ³
Average Monthly Under drain Flow Rate _____	1.10		L/s
Average Monthly Ditch A Flow Rate _____	Unknown – but flowing		L/s
Average Monthly Ditch B Flow Rate _____	0		L/s
Total Monthly Volume Discharged from Water Treatment _____	0		m ³
Depth of Water at Reclaim Barge _____	31.7		Ft

See page 3 to Annotate Pond Diagram

Pictures Taken? Y N Photo Sheet Attached? Y N

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report

Special Remarks:

1. Milling rates averaged 1621 dry tonnes per day (Total of 21 Operating Days), processing 34061.3 tonnes ore with 9844.1 dmt of tailings reported to underground for paste fill and 13999.9 dmt tailings to TSF.

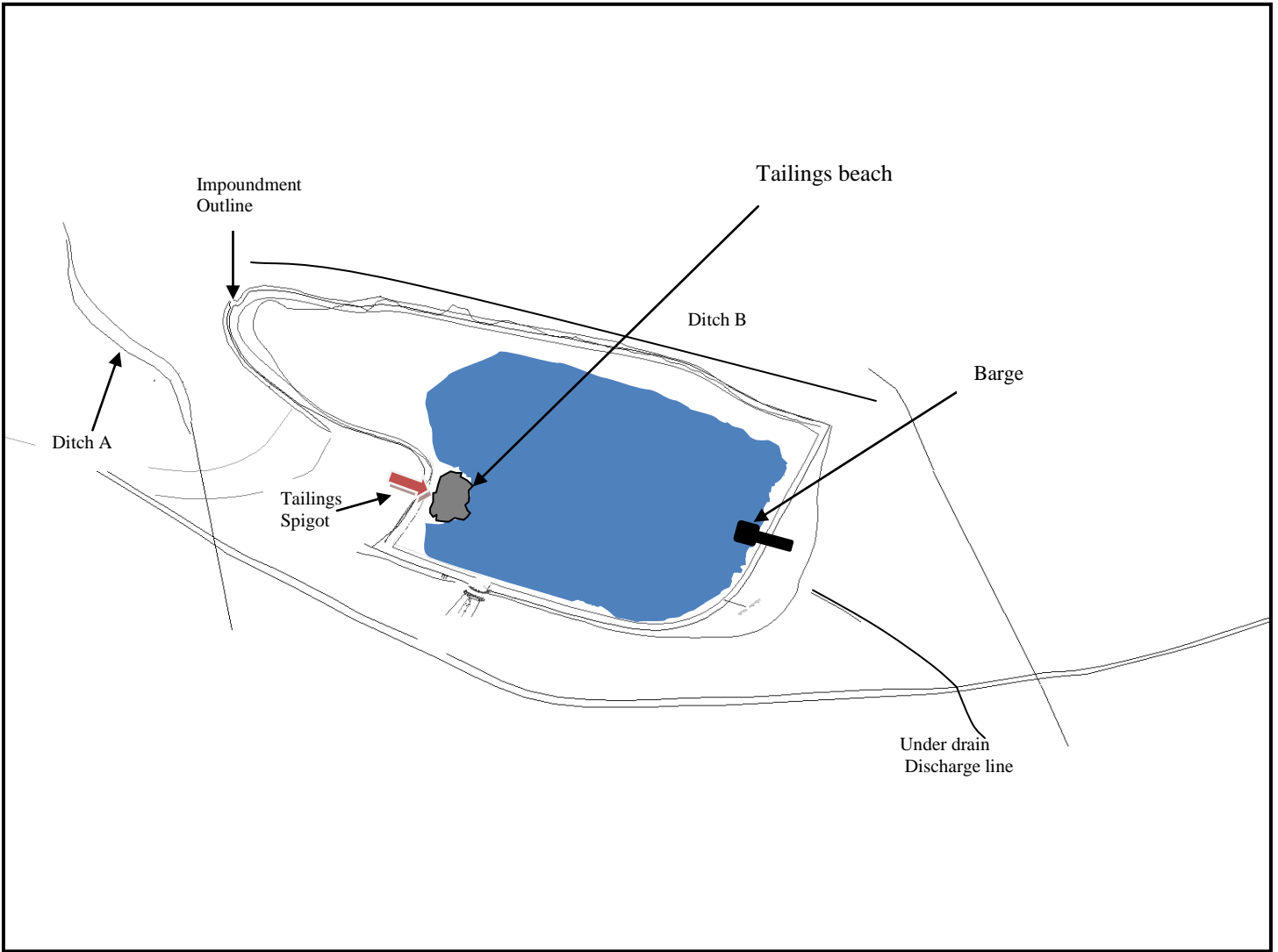
2. Brief on any maintenance: No maintenance was performed on pumps other than routine inspections

3. Mill operating schedule continues to budget for 3 weeks operating and 1 week scheduled maintenance down time.

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**

Sketch to Include:

- Pond area
- Ice area
- Tailings spigot points
- Tailings beaches
- Reclaim barge location



Operator	Andrea Kenward/ Dave Archibald	Signature	
Supervisor/Manager	Dave Archibald	Signature & Date	

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report



Photo 1: Looking at mill tailings discharge line with pump reclaim water pump house overflow line in foreground



Photo 2: Looking towards barge from North West corner of TSF



Photo 3: South wall view with walk way to the barge.

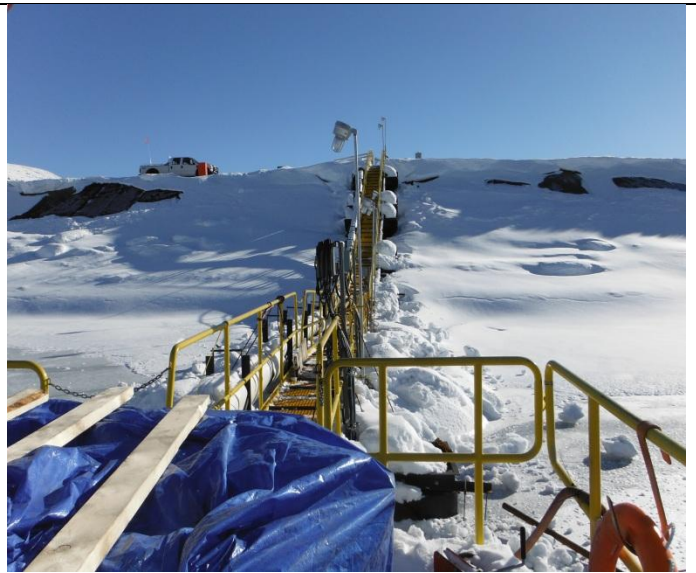


Photo 4: From Barge looking up walkway at South Wall

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report



Photo 5: looking at East wall from South East corner of TSF



Photo 6: looking at west wall from South wall of TSF

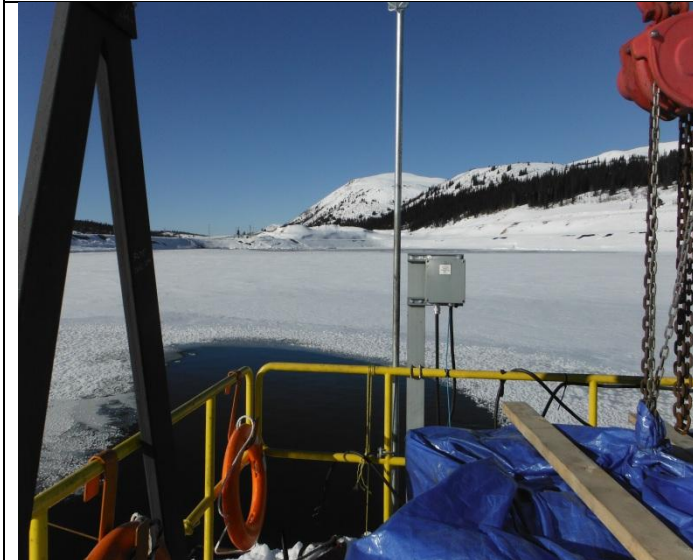


Photo 7: looking north from barge



Photo 8: looking west from south east corner of TSF

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**

Month <u>April, 2014</u>	Avg. Daily Temp. _____	Average: -3.0°C ; Low: -16.7°C; High: 7.8°C
--------------------------	------------------------	--

Mill Record Data:		
Total Monthly Tailings Deposition	<u>16,726.3</u>	Dry Tonnes
Average Monthly Tailings % Solids	<u>18.0</u>	%
Total Monthly Tailings Slurry Volume	<u>81,791.6</u>	m ³
Total Monthly Reclaimed Water Volume	<u>76,023.9</u>	m ³

Site Measurements:			
Date of survey <u>April 28, 2014</u>	Pond Elevation <u>1306.32</u>	m	Estimated volume <u>850,320</u> m ³
Total Monthly Precipitation	<u>5.4</u>		mm
Total Monthly Underground Input	<u>12,622</u>		m ³
Total Monthly STP Effluent Input	<u>608</u>		m ³
Total Monthly Industrial Complex Runoff Input	<u>3,636</u>		m ³
Total Volume from Seepage collection pond to Facility	<u>6,795</u>		m ³
Average Monthly Under drain Flow Rate	<u>1.01</u>		L/s
Average Monthly Ditch A Flow Rate	<u>Unknown – but flowing</u>		L/s
Average Monthly Ditch B Flow Rate	<u>0</u>		L/s
Total Monthly Volume Discharged from Water Treatment	<u>0</u>		m ³
Depth of Water at Reclaim Barge	<u>31.7</u>		Ft

See page 3 to Annotate Pond Diagram

Pictures Taken? Y N Photo Sheet Attached? Y N

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report

Special Remarks:

1. Milling rates averaged 1,765 dry tonnes per day (total of 23 Operating Days); processing 40,617.2 tonnes ore with 13,584.9dmt of tailings reported to underground for paste fill and 16,726.3 dmt tailings to TSF.

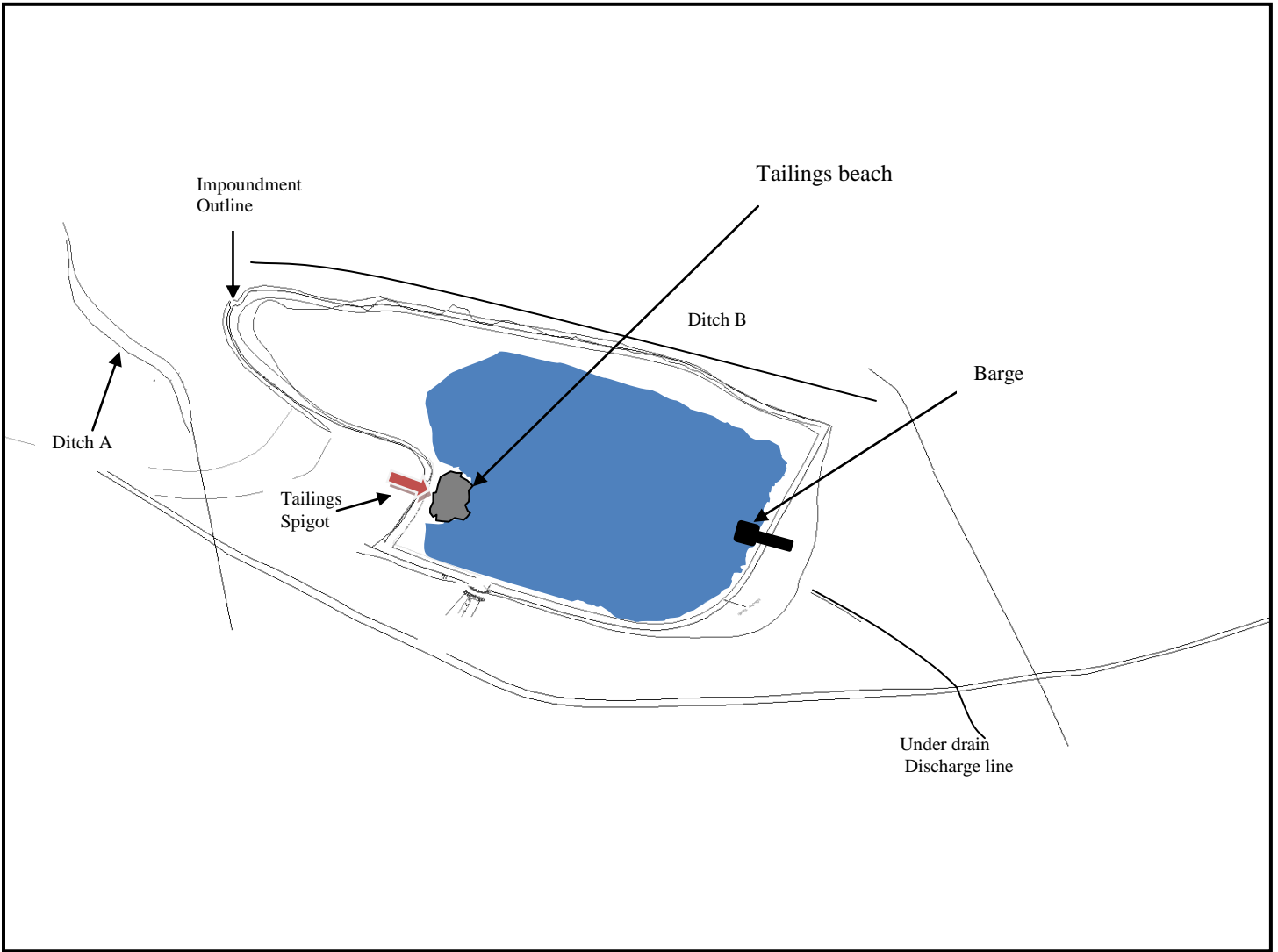
2. Brief on any maintenance: Switched from #1 pond pump to #2 barge pump due to continued scaling issues.

3. Mill operating schedule continues to budget for 3 weeks operating and 1 week scheduled maintenance down time.

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**

Sketch to Include:

- Pond area
- Ice area
- Tailings spigot points
- Tailings beaches
- Reclaim barge location



<p align="center">Andrea Kenward / Riley</p> <p>Operator _____ Mooney _____</p>	<p align="center">Signature _____</p>
<p>Supervisor/Manager _____ Derrick Colquhoun _____</p>	<p align="center">Signature & Date _____</p>

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report



Photo 1: Looking at transfer station over flow line from North West corner of TSF



Photo 2: Looking at south wall from North West corner of TSF



Photo 3: South wall view with walk way to the barge.



Photo 4: View of South Wall from North Wall

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report



Photo 5: looking at barge from south wall.



Photo 6: looking at east wall from South wall.



Photo 7: looking at tailings discharge from north west corner of TSF.



Photo 8: looking south east from transfer station.

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**

Month <u>May, 2014</u>	Avg. Daily Temp. _____	Average: 4.8°C ; Low: -8.38°C; High: 17.52°C
------------------------	------------------------	---

Mill Record Data:	
Total Monthly Tailings Deposition _____	<u>15,741</u> Dry Tonnes
Average Monthly Tailings % Solids _____	<u>22.9</u> %
Total Monthly Tailings Slurry Volume _____	<u>68,519.6</u> m ³
Total Monthly Reclaimed Water Volume _____	<u>52,778.6</u> m ³

Site Measurements:		
Date of survey <u>May 31, 2014</u>	Pond Elevation <u>1306.55</u> m	Estimated volume <u>881,400</u> m ³
Total Monthly Precipitation _____	<u>18.8</u> mm	
Total Monthly Underground Input _____	<u>8,204</u> m ³	
Total Monthly STP Effluent Input _____	<u>667</u> m ³	
Total Monthly Industrial Complex Runoff Input _____	<u>2,034</u> m ³	
Total Volume from Seepage collection pond to Facility _____	<u>9,630</u> m ³	
Average Monthly Under drain Flow Rate _____	<u>4.66</u> L/s	
Average Monthly Ditch A Flow Rate _____	<u>3.12</u> L/s	
Average Monthly Ditch B Flow Rate _____	<u>0</u> L/s	
Total Monthly Volume Discharged from Water Treatment _____	<u>0</u> m ³	
Depth of Water at Reclaim Barge _____	<u>33' 8"</u> Ft	

See page 3 to Annotate Pond Diagram

Pictures Taken? Y N Photo Sheet Attached? Y N

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report

Special Remarks:

1. Milling rates averaged 1,750.6 dry tonnes per day (total of 22 Operating Days); processing 39,421.4 tonnes ore with 15,741.3dmt of tailings reported to underground for paste fill and 13,967.7 dmt tailings to TSF.

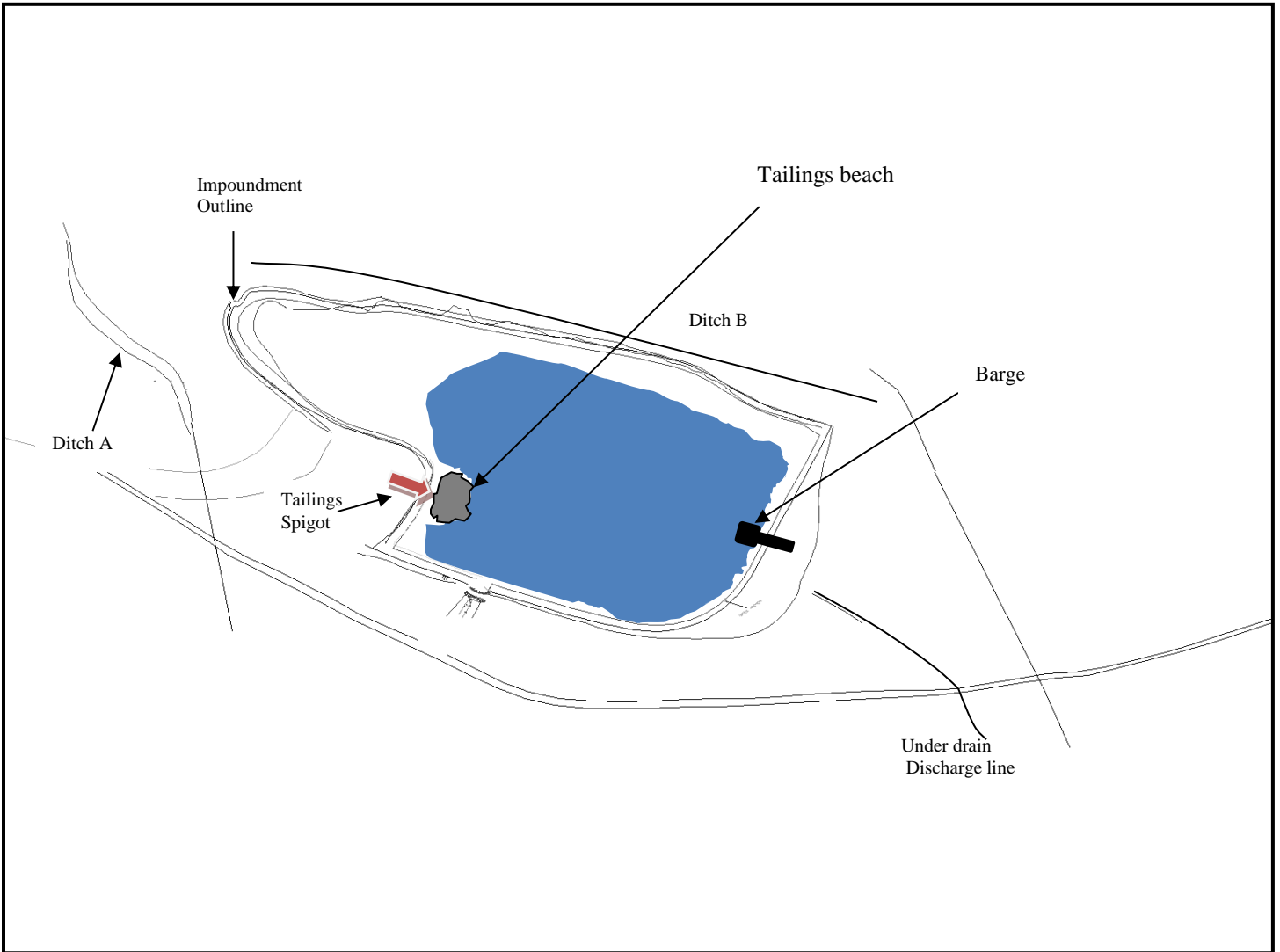
2. Brief on any maintenance: Switched from #2 pond pump to #1 barge pump due to continued scaling issues. During our week scheduled down time we descaled booster station pump headers. Mill shut down 18 hrs. Early due to ripped belt in mill.

3. Mill operating schedule continues to budget for 3 weeks operating and 1 week scheduled maintenance down time.

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**

Sketch to Include:

- Pond area
- Ice area
- Tailings spigot points
- Tailings beaches
- Reclaim barge location



Operator	Andrea Kenward / Riley Mooney	Signature	
Supervisor/Manager	Dave Archibald	Signature & Date	

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report



Photo 1: Looking at transfer station over flow line from North West corner of TSF



Photo 2: Looking at south wall from North West corner of TSF with Tailing discharge line in foreground.



Photo 3: South wall view with walk way to the barge.



Photo 4: View of South Wall from North Wall

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**



Photo 5: looking at barge from south wall.



Photo 6: looking at east wall from South wall.



Photo 7: looking at south west corner of TSF.



Photo 8: looking east from transfer station.

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**

Month <u>June 2014</u>	Avg. Daily Temp. _____	Average: 9.1°C ; Low: -0.2°C; High: 21°C
------------------------	------------------------	---

Mill Record Data:		
Total Monthly Tailings Deposition	<u>13,304.8</u>	Dry Tonnes
Average Monthly Tailings % Solids	<u>16.9</u>	%
Total Monthly Tailings Slurry Volume	<u>65,324.2</u>	m ³
Total Monthly Reclaimed Water Volume	<u>69,911.9</u>	m ³

Site Measurements:			
Date of survey	<u>July 2, 2014</u>	Pond Elevation	<u>1306.66</u> m
		Estimated volume	<u>894,500</u> m ³
Total Monthly Precipitation	<u>64.2</u>		mm
Total Monthly Underground Input	<u>6063</u>		m ³
Total Monthly STP Effluent Input	<u>507</u>		m ³
Total Monthly Industrial Complex Runoff Input	<u>3356</u>		m ³
Total Volume from Seepage collection pond to Facility	<u>368</u>		m ³
Average Monthly Under drain Flow Rate	<u>4.76</u>		L/s
Average Monthly Ditch A Flow Rate	<u>2.19</u>		L/s
Average Monthly Ditch B Flow Rate	<u>0.47</u>		L/s
Total Monthly Volume Discharged from Water Treatment	<u>0</u>		m ³
Depth of Water at Reclaim Barge	<u>34'2"</u>		Ft

See page 3 to Annotate Pond Diagram

Pictures Taken? Y N Photo Sheet Attached? Y N

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report

Special Remarks:

1. Milling rates averaged 1,769 dry tonnes per day (total of 23 Operating Days); processing 40,685 dry tonnes ore with 17,728.3 dmt of tailings reported to underground for paste fill and 13,304.8 dmt tailings to TSF.

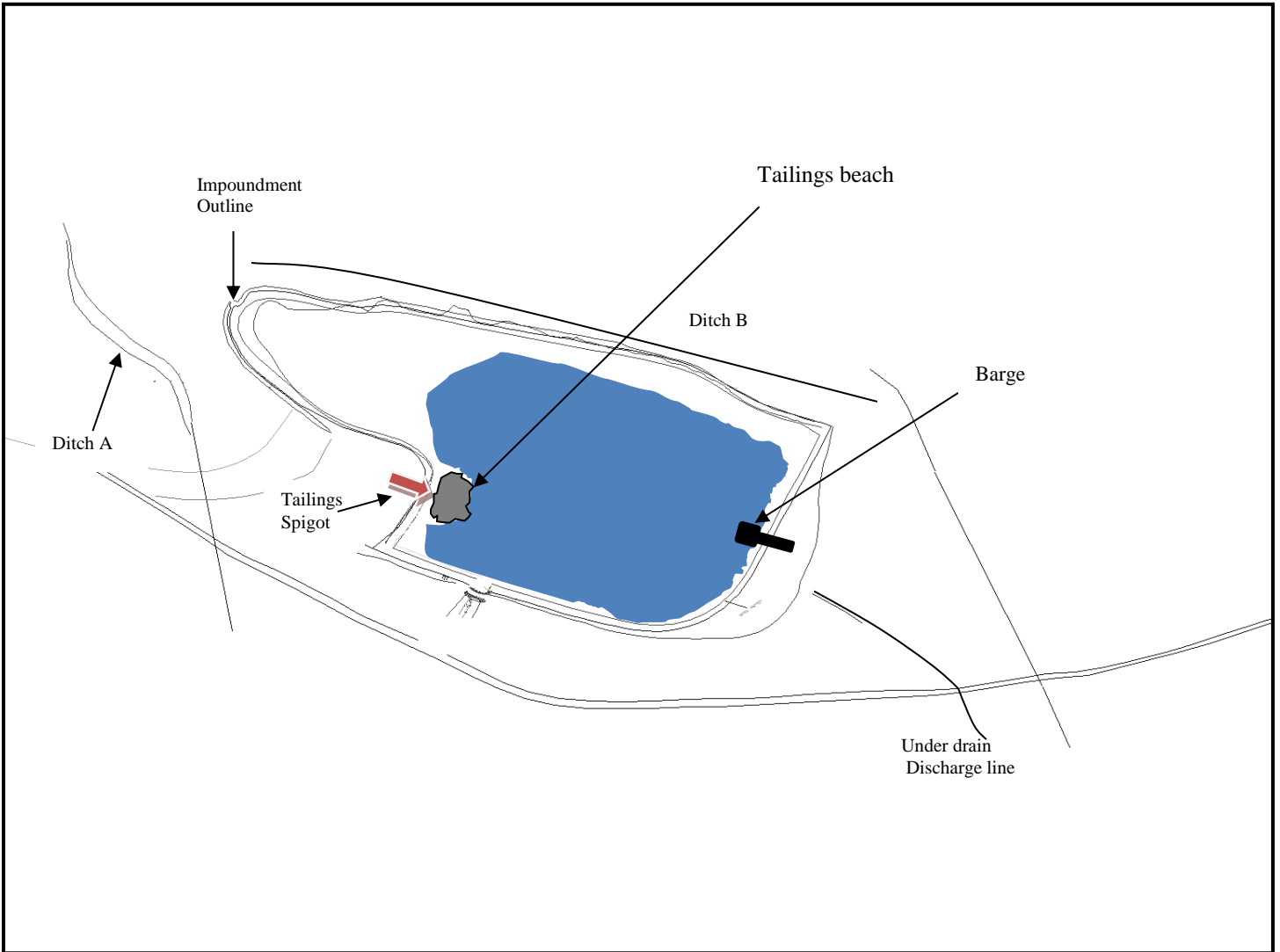
2. Brief on any maintenance: Continue using #1 barge pump for mill water supply. On Jun 7th, started adding Winterhib anti-scalent into the #1 barge pump suction intake at dose rate of 30 cc/min to effectively de-scale the line from barge to booster pump tank and pumps, pump manifold & water line to the mill. Test coupons were installed Jun 7th to monitor and determine if scales are formed 30, 60 & 90 days.

3. Mill operating schedule continues to budget for 3 weeks operating and 1 week scheduled maintenance down time.

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**

Sketch to Include:

- Pond area
- Ice area
- Tailings spigot points
- Tailings beaches
- Reclaim barge location



Operator	Andrea Kenward / Manny Rejano	Signature	
Supervisor/Manager	Dave Archibald	Signature & Date	

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report



Photo 1: Looking at barge pumping station and discharge line –walk way @East dam & the South wall of TSF



Photo 2: Looking at south wall from North West corner of TSF with Tailing discharge line in foreground.



Photo 3: West wall view with slough at upper crest of west wall & disturbance/movements underneath the liners.



Photo 4: Expanded view of the Photo 3- West wall & South Wall at fore ground.

WOLVERINE PROJECT Tailings Facility Monitoring Monthly Impoundment Monitoring Report



Photo 5: looking at the north wall.



Photo 6: looking at Northwest corner from barge bathometric survey being performed.



Photo 7: looking at Winterhib anti-scalent at east dam of TFS.



Photo 8: looking barge pump 1 with Winterhib anti-scalent line being added & tested.

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**

Month <u>July 2014</u>	Avg. Daily Temp. _____	Average: 9.1°C ; Low: -0.2°C; High: 21°C
------------------------	------------------------	---

Mill Record Data:		
Total Monthly Tailings Deposition _____	18,014.5	Dry Tonnes
Average Monthly Tailings % Solids _____	20.2	%
Total Monthly Tailings Slurry Volume _____	77,341.7	m ³
Total Monthly Reclaimed Water Volume _____	71,129.8	m ³

Site Measurements:			
Date of survey <u>August 2, 2014</u>	Pond Elevation <u>1306.68</u>	m	Estimated volume <u>896,900</u> m ³
Total Monthly Precipitation _____	64.2		mm
Total Monthly Underground Input _____	10,194		m ³
Total Monthly STP Effluent Input _____	789		m ³
Total Monthly Industrial Complex Runoff Input _____	706		m ³
Total Volume from Seepage collection pond to Facility _____	368		m ³
Average Monthly Under drain Flow Rate _____	4.09		L/s
Average Monthly Ditch A Flow Rate _____	0.92		L/s
Average Monthly Ditch B Flow Rate _____	0		L/s
Total Monthly Volume Discharged from Water Treatment _____	0		m ³
Depth of Water at Reclaim Barge _____	-		Ft

See page 3 to Annotate Pond Diagram

Pictures Taken? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Photo Sheet Attached? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>
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WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report

Special Remarks:

1. Milling rates averaged 1,785 dry tonnes per day (total of 24 Operating Days); processing 42,844.9 dry tonnes ore with 16,252.5 dmt of tailings reported to underground for paste fill and 18,014.5 dmt tailings to TSF. Reclaim water flow rates to the mill was steady as high as 200 m³/hr during the month. On July 28th, the reclaim water discoloration was observed into orange-reddish color.

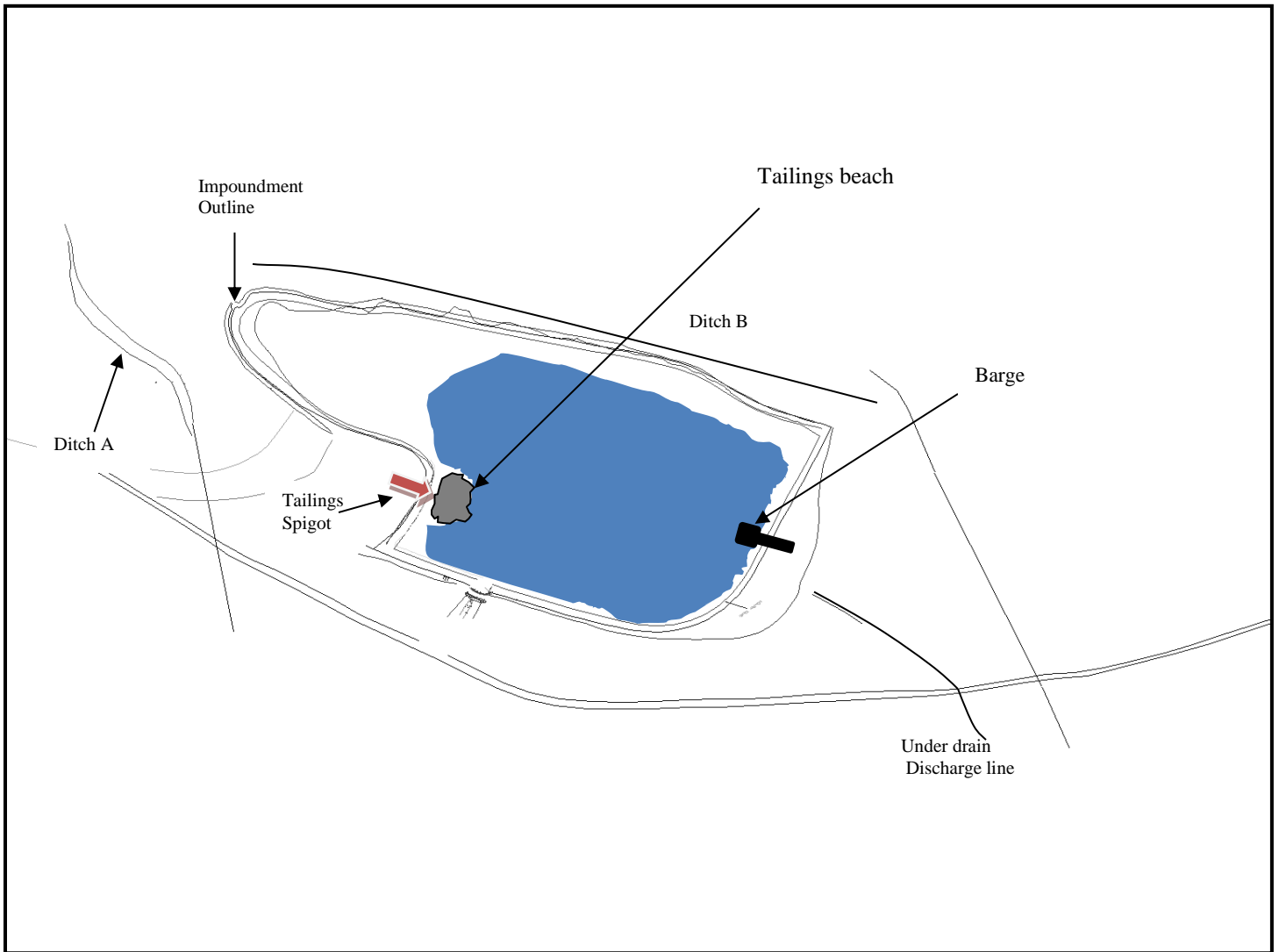
2. Brief on any maintenance: No major reported service\repair maintenance on barge or booster pump during the month. Winterhib Anti-scalant application into suction inlet the barge pump #1 continues at dose rate of 30 cc/min. The stainless steel coupon that was installed in reclaim water system in the mill will to be removed on Aug 6th to analyze for scale formation after 60-days of anti-scalent application & will send to Power Chemicals in Vancouver. Maintenance is preparing to work on the barge\pumps de-icing blower & moving the 20' sea-can for de-scalant system & lines winterization.

3. Mill operating schedule continues to budget for 3 weeks operating and 1 week scheduled maintenance down time.

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**

Sketch to Include:

- Pond area
- Ice area
- Tailings spigot points
- Tailings beaches
- Reclaim barge location



Operator	Andrea Kenward / Manny Rejano	Signature	
Supervisor/Manager	Manny Rejano	Signature & Date	

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report



Photo 1: Looking at Barge pump station & its discharge line from East side of TSF

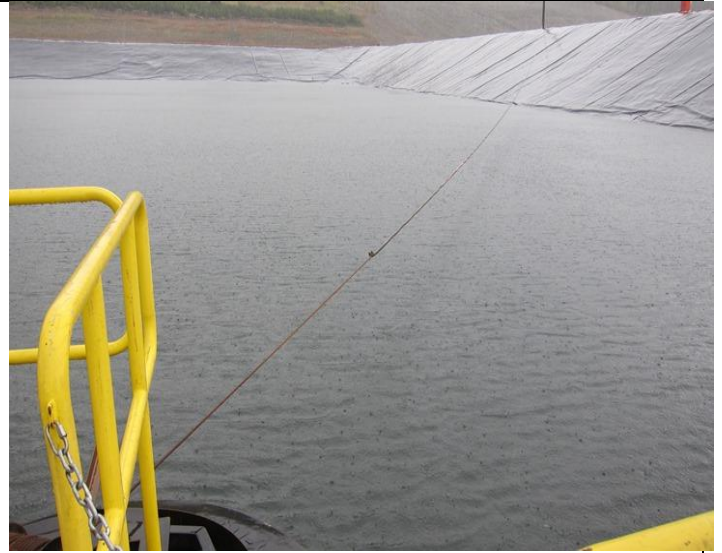


Photo 2: Looking at north-east corner of TSF from Barge, with only one-cable attached at north side of barge.



Photo 3: South-east corner view from east side of TSF.



Photo 4: View of South Wall with tailing slurry discharging- enough room for the tailings.



Photo 5: looking at south-west corner bank showing distorted liner at left corner of west wall.

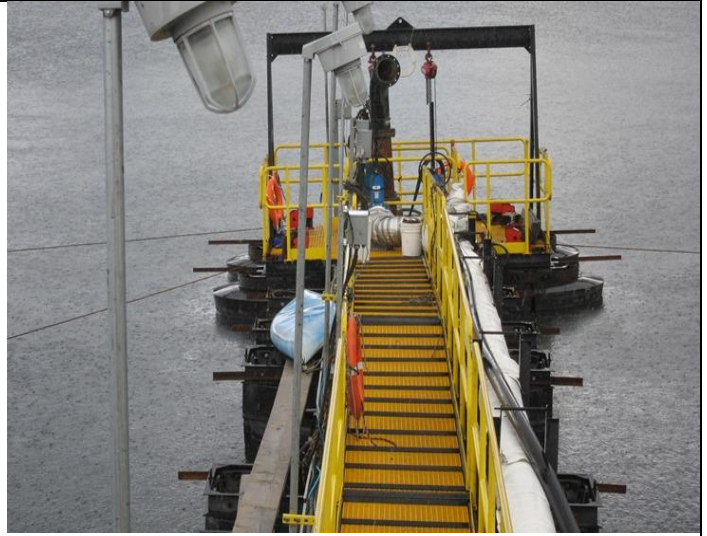


Photo 6: Closer view of barge pump system...showing the 3-anchor cables.



Photo 7: looking at north side of TSF showing ripples on the left corner liner of wall.



Photo 8: looking east from transfer station.

WOLVERINE PROJECT Tailings Facility Monitoring Monthly Impoundment Monitoring Report

Month <u>August 2014</u>	Avg. Daily Temp. _____	Average: 9.5°C ; Low: 2°C; High: 23°C
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Mill Record Data:		
Total Monthly Tailings Deposition	<u>19,861</u>	Dry Tonnes
Average Monthly Tailings % Solids	<u>16.1</u>	%
Total Monthly Tailings Slurry Volume	<u>11,0485</u>	m ³
Total Monthly Reclaimed Water Volume	<u>103,637</u>	m ³

Site Measurements:			
Date of survey	<u>August 31, 2014</u>	Pond Elevation	<u>1306.75</u> m
		Estimated volume	<u>905,300</u> m ³
Total Monthly Precipitation	<u>41.6</u>		mm
Total Monthly Underground Input	<u>12,698</u>		m ³
Total Monthly STP Effluent Input	<u>794</u>		m ³
Total Monthly Industrial Complex Runoff Input	<u>811</u>		m ³
Total Volume from Seepage collection pond to Facility	<u>0</u>		m ³
Average Monthly Under drain Flow Rate	<u>1.91</u>		L/s
Average Monthly Ditch A Flow Rate	<u>0.91</u>		L/s
Average Monthly Ditch B Flow Rate	<u>0</u>		L/s
Total Monthly Volume Discharged from Water Treatment	<u>0</u>		m ³
Depth of Water at Reclaim Barge	<u>41.5</u>		Ft

See page 3 to Annotate Pond Diagram

Pictures Taken? Y N
 Photo Sheet Attached? Y N

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report

Special Remarks:

1. Milling rates averaged 1,806 dry tonnes per day (total of 25 Operating Days); processing 44,642 dry tonnes ore with 15,277 dmt of tailings reported to underground for paste fill and 19,861 dmt tailings to TSF. Reclaim water flow rates to the mill averaged 180 m³/hr during the month.

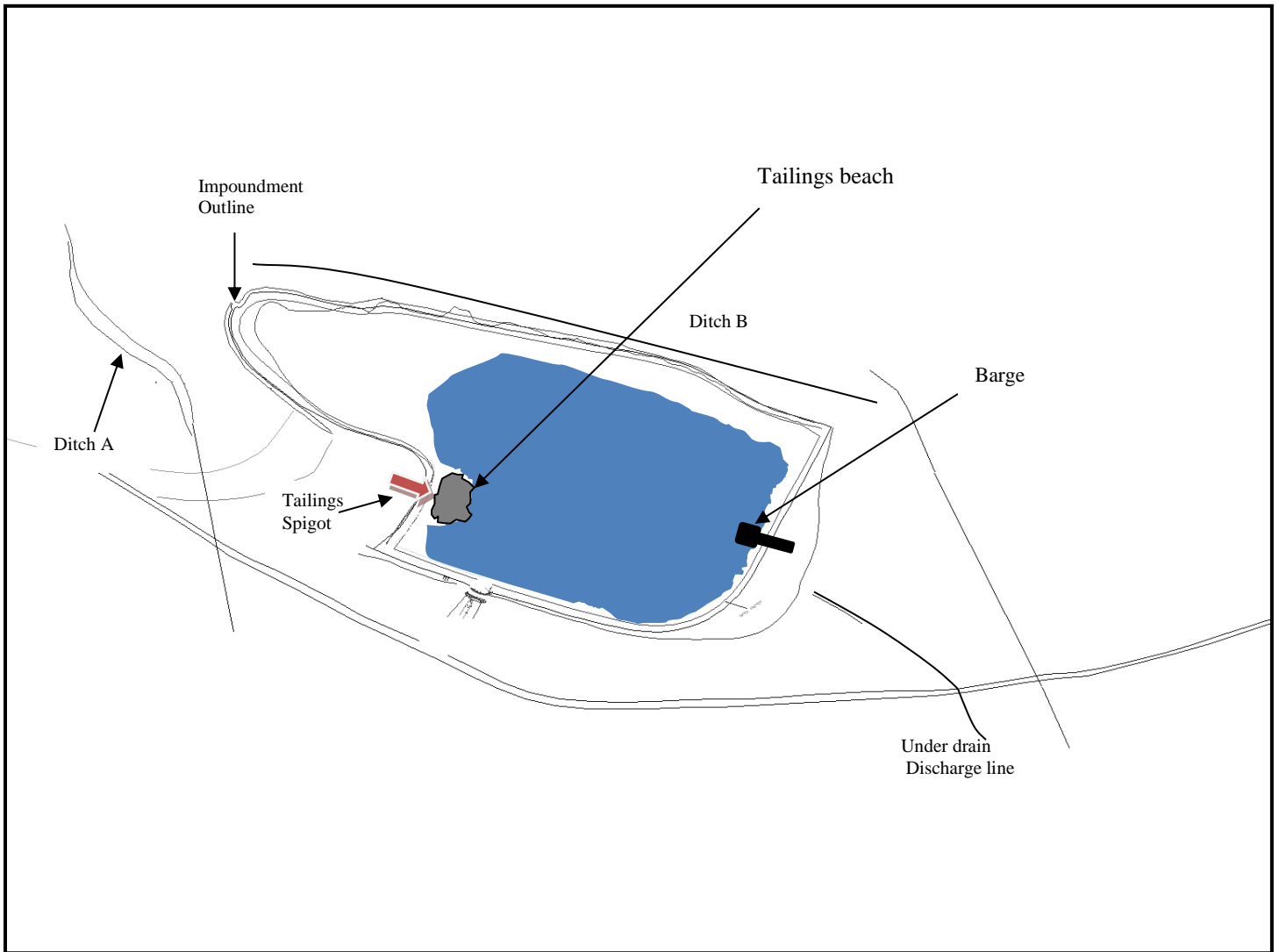
2. Brief on any maintenance: No major reported service\repair maintenance on barge or booster pump during the month. Winterhib Anti-scalant application into suction inlet the barge pump #1 continues. The stainless steel coupon that was removed on Aug 6th to analyze for scale formation after 60-days of anti-scalent application & will send to Power Chemicals in Vancouver. Mill maintenance work preparation on the barge\pumps de-icing blower & winterization continues.

3. Mill time is expected to continue running for September. No plans for maintenance at this point.
4. Rehabilitation of Ditch A and the North slope of the Tailings Pond was started during the month of August, construction of a new sump to divert overland and groundwater springs is currently underway and work will continue into the month of September.
5. Six survey monuments were installed in the Tailings Dam to replace damaged inclinometer casings. These points will require some further adjustment and then they will be monitored monthly by the surveyor.

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**

Sketch to Include:

- Pond area
- Ice area
- Tailings spigot points
- Tailings beaches
- Reclaim barge location



Operator	Andrea Kenward / Jaime Trejo-Gallardo	Signature	
Supervisor/Manager	Manny Rejano	Signature & Date	

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report



Photo 1: Looking at original discharge location on east side of TSF.



Photo 2: Looking at north-west corner of TSF showing current location of discharge line.



Photo 3: View of Barge for North-east side of TSF.



Photo 4: View of South-west wall from the South side of TSF.

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report



Photo 5: View of North-east slope from the South of TSF.



Photo 6: Closer view of barge pump system.



Photo 7: Current construction/rehabilitation of Ditch A on the North end of TSF.

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**

Month <u>September 2014</u>	Avg. Daily Temp. _____	Average: 3.2°C ; Low: -10.6°C; High: 16.8°C
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Mill Record Data:		
Total Monthly Tailings Deposition	<u>17,018</u>	Dry Tonnes
Average Monthly Tailings % Solids	<u>18.5</u>	%
Total Monthly Tailings Slurry Volume	<u>93,800.0</u>	m ³
Total Monthly Reclaimed Water Volume	<u>76,400.4</u>	m ³

Site Measurements:			
Date of survey	<u>September 30,2014</u>	Pond Elevation	<u>1306.69</u> m
		Estimated volume	<u>898,100</u> m ³
Total Monthly Precipitation	<u>40</u>		mm
Total Monthly Underground Input	<u>9,150</u>		m ³
Total Monthly STP Effluent Input	<u>705</u>		m ³
Total Monthly Industrial Complex Runoff Input	<u>1,478</u>		m ³
Total Volume from Seepage collection pond to Facility	<u>0</u>		m ³
Average Monthly Under drain Flow Rate	<u>1.92</u>		L/s
Average Monthly Ditch A Flow Rate	<u>0.76</u>		L/s
Average Monthly Ditch B Flow Rate	<u>0</u>		L/s
Total Monthly Volume Discharged from Water Treatment	<u>0</u>		m ³
Depth of Water at Reclaim Barge	<u>40.8</u>		Ft

See page 3 to Annotate Pond Diagram

Pictures Taken? Y N Photo Sheet Attached? Y N

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report

Special Remarks:

1. Milling rates averaged 1,797 dry tonnes per day (total of 20.7 Operating Days); processing 37,200 dry tonnes ore with 12,457.3 dmt of tailings reported to underground for paste fill and 17,018 dmt tailings to TSF. Reclaim water flow rates to the mill averaged 178 m³/hr during the month.

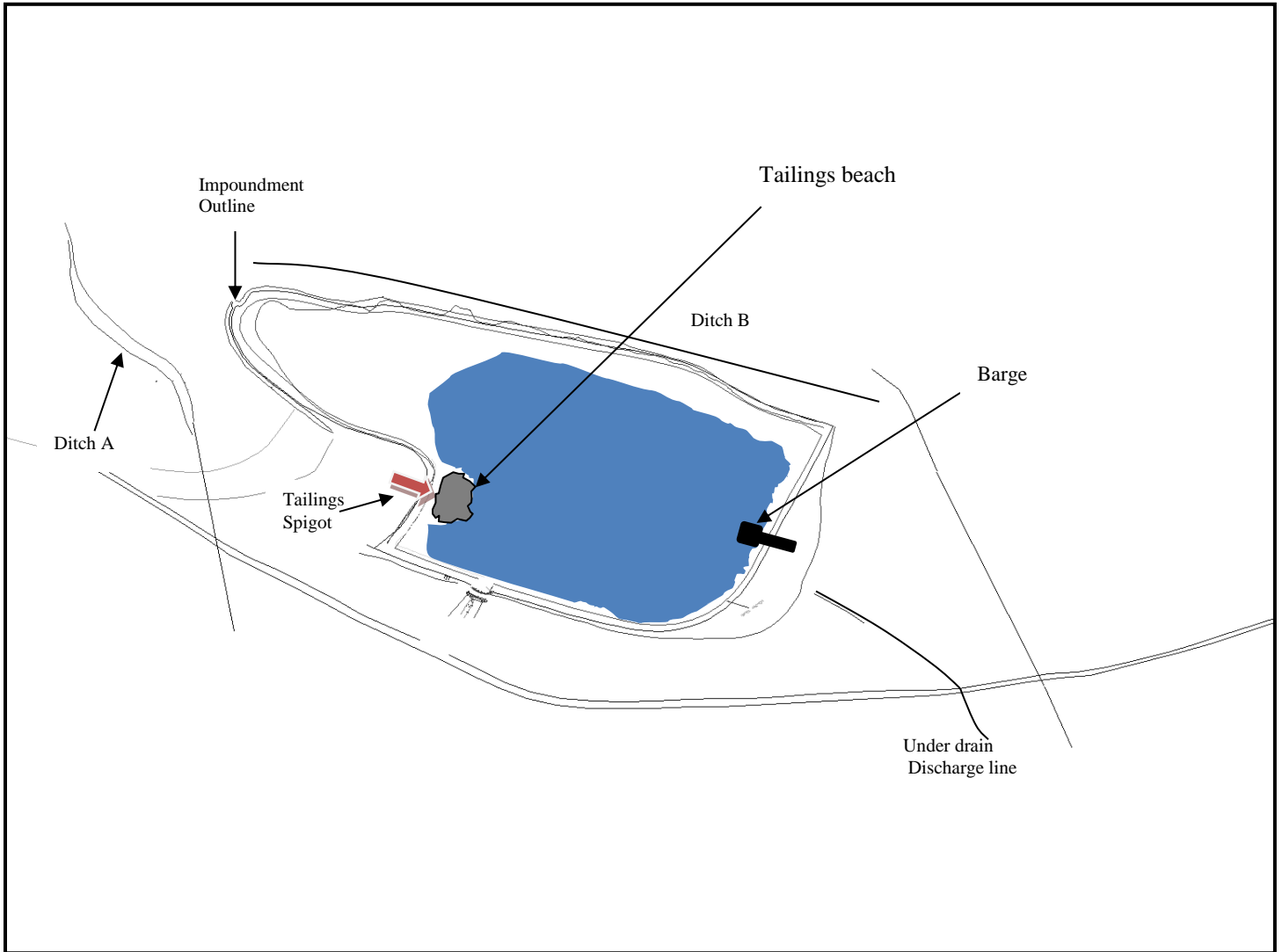
2. Brief on any maintenance: No major reported service\repair maintenance on barge or booster pump during the month. Winterhib de-scalant application was stopped due to low temperatures in September that caused jelling of de-scalent. Mill maintenance work preparation on the barge\pumps de-icing blower & winterization continues.

3. Mill time is expected to continue running for September. No plans for maintenance at this point.
4. Rehabilitation of Ditch A and the North slope of the Tailings Pond was started during the month of August/September, construction of a new sump to divert overland and groundwater springs has been completed. The ditch was lined, sediment filter traps installed and road sloping to assist runoff were also completed during September.
5. Six survey monuments were installed in the Tailings Dam to replace damaged inclinometer casings. These points were surveyed for the first time in September.
6. Tailings Pond volume reflects a value lower than the previous month. This is due to the discovery of a elevation settings error in the GPS of 13.8cm, this has been corrected and the volume now reflects an accurate elevation.

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**

Sketch to Include:

- Pond area
- Ice area
- Tailings spigot points
- Tailings beaches
- Reclaim barge location



Operator	Andrea Kenward / Jaime Trejo-Gallardo	Signature	
Supervisor/Manager	Manny Rejano	Signature & Date	

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report



Photo 1: Looking at discharge location at south-west corner side of TFS showing liner movements in the west wall.

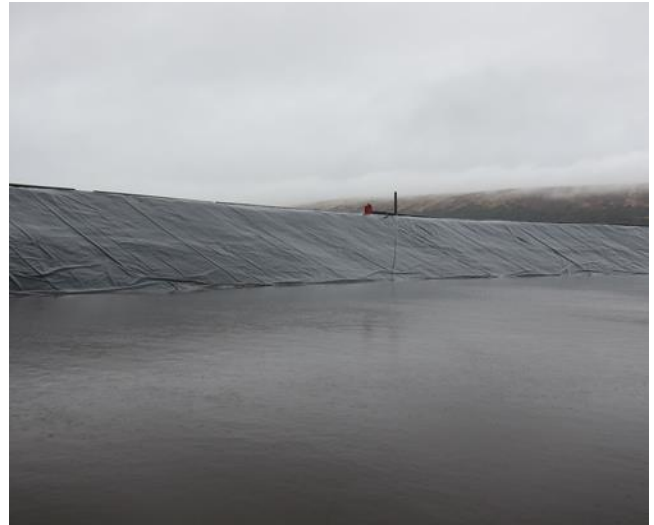


Photo 2: Looking at the south wall of TFS.



Photo 3: Closer view of discharge pipe location North-west corner of TFS.



Photo 4: View of North wall of TFS.



Photo 5: View of North-east slope from the South of TSF.

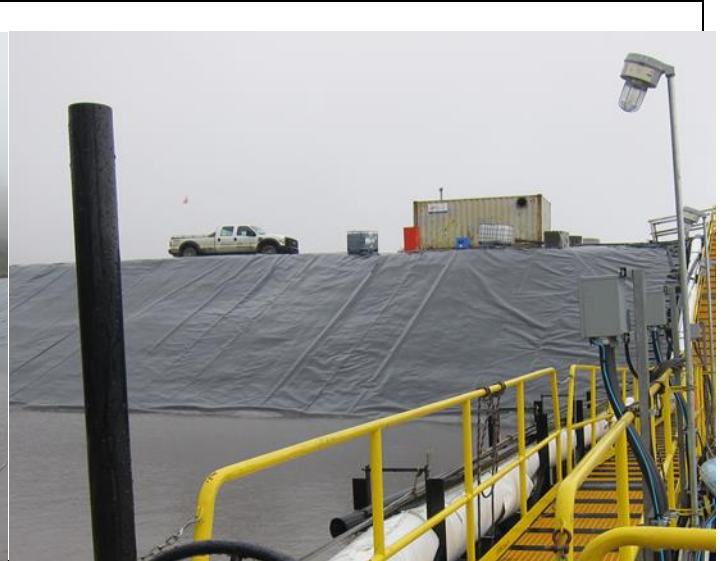


Photo 6: Closer view of barge pump system.



Photo 7: Closer picture of barge pumping station.

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**

Month <u>October 2014</u>	Avg. Daily Temp. _____	Average: 3.2°C ; Low: -10.6°C; High: 16.8°C
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Mill Record Data:		
Total Monthly Tailings Deposition	<u>18,273.3</u>	Dry Tonnes
Average Monthly Tailings % Solids	<u>20.7</u>	%
Total Monthly Tailings Slurry Volume	<u>94,741.6</u>	m ³
Total Monthly Reclaimed Water Volume	<u>88,440.4</u>	m ³

Site Measurements:			
Date of survey	<u>October 31, 2014</u>	Pond Elevation	<u>1306.93</u> m
		Estimated volume	<u>926,860</u> m ³
Total Monthly Precipitation	<u>24</u>		mm
Total Monthly Underground Input	<u>9,041</u>		m ³
Total Monthly STP Effluent Input	<u>771</u>		m ³
Total Monthly Industrial Complex Runoff Input	<u>0</u>		m ³
Total Volume from Seepage collection pond to Facility	<u>0</u>		m ³
Average Monthly Under drain Flow Rate	<u>1.38</u>		L/s
Average Monthly Ditch A Flow Rate	<u>0.79</u>		L/s
Average Monthly Ditch B Flow Rate	<u>0.28</u>		L/s
Total Monthly Volume Discharged from Water Treatment	<u>0</u>		m ³
Depth of Water at Reclaim Barge	<u>35' 3"</u>		Ft

See page 3 to Annotate Pond Diagram

Pictures Taken? Y N Photo Sheet Attached? Y N

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report

Special Remarks:

1. Milling rates averaged 1,740.7 dry tonnes per day (total of 21.3 Operating Days); processing 37,014 dry tonnes ore with 10,175.1 dmt of tailings reported to underground for paste fill and 18,273.3 dmt tailings to TSF. Reclaim water flow rates to the mill averaged 151 m³/hr during the month.

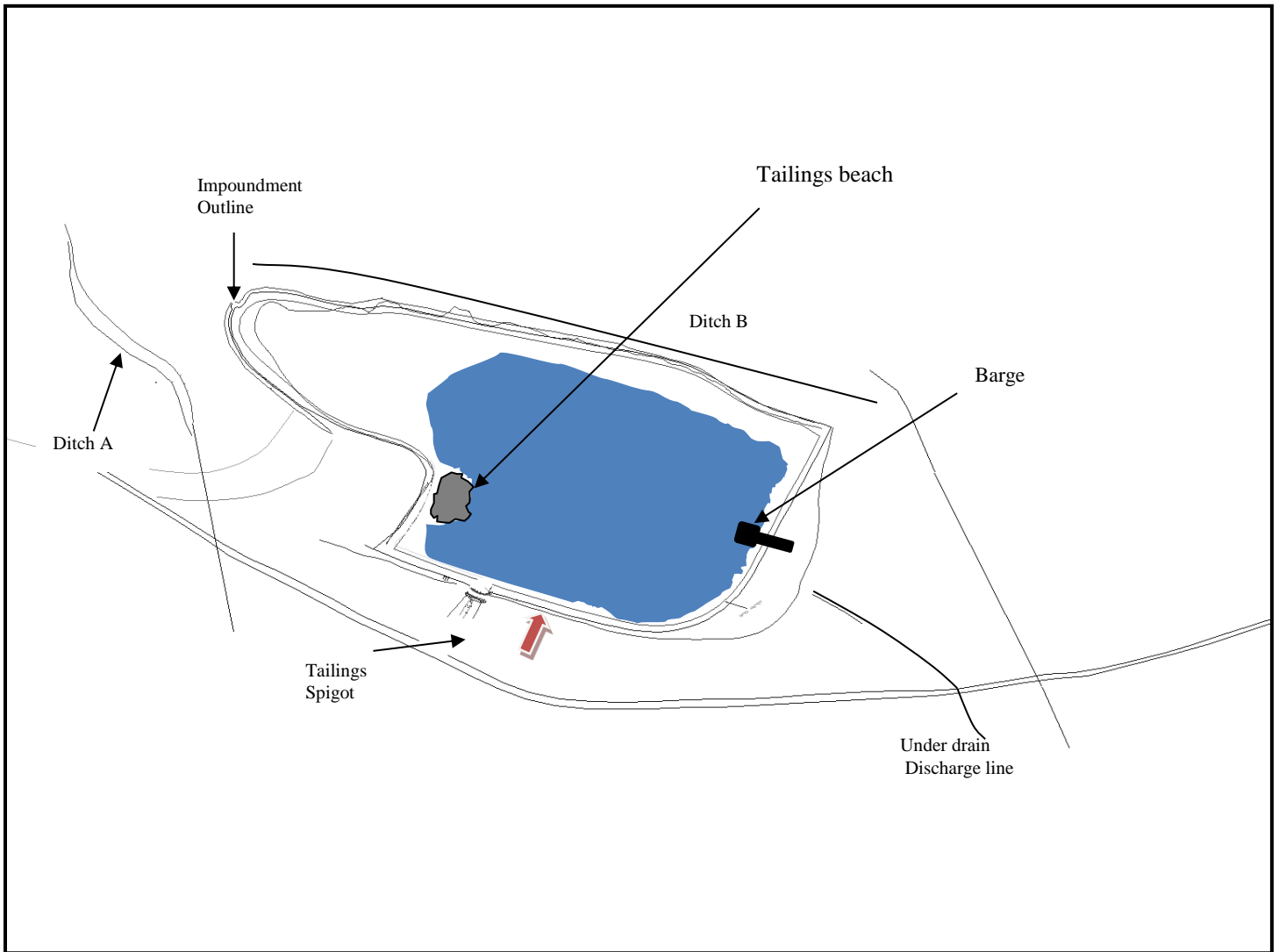
2. Brief on any maintenance: No major reported service\repair maintenance on barge or booster pump during the month. Winterhib de-scalant application was stopped due to low temperatures in September that caused jelling of de-scalent. Mill maintenance work the barge pumps de-icing blower is complete and operating.

3. Mill time is expected to continue running for November. No plans for maintenance at this point.
4. Rehabilitation of Ditch A and the North slope of the Tailings Pond was completed during the month of October, including the construction of a new sump to intercept groundwater springs and divert to the new lined Ditch A. The ditch was lined, sediment filter traps installed and road sloping to assist runoff.
5. Six survey monuments that were installed in the Tailings Dam to replace damaged inclinometer casings were surveyed in October.
6. Tailings Pond volume reflects a value lower than the previous month. This is due to the discovery of a elevation settings error in the GPS of 13.8cm, this has been corrected and the volume now reflects an accurate elevation.

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**

Sketch to Include:

- Pond area
- Ice area
- Tailings spigot points
- Tailings beaches
- Reclaim barge location



Operator Robin McCall / Mike Carney

Signature _____

Supervisor/Manager Manny Rejano

Signature & Date _____

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**



Photo 1: Looking at south-west corner side of TSF showing liner movements in the west wall.



Photo 2: Looking at the south wall of TSF.



Photo 3: Closer view of discharge pipe location North-west corner of TSF.



Photo 4: View of North wall of TSF.

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**



Photo 5: View of North-east slope from the South of TSF.



Photo 6: Closer view of barge pump system.



Photo 7: Closer picture of barge pumping station.

WOLVERINE PROJECT Tailings Facility Monitoring Monthly Impoundment Monitoring Report

Month <u>November 2014</u>	Avg. Daily Temp. _____	Average: -11°C ; Low: -26°C; High: -4°C
----------------------------	------------------------	--

Mill Record Data:		
Total Monthly Tailings Deposition	<u>20,528.6</u>	Dry Tonnes
Average Monthly Tailings % Solids	<u>21.3</u>	%
Total Monthly Tailings Slurry Volume	<u>82,864.7</u>	m ³
Total Monthly Reclaimed Water Volume	<u>75,785.89</u>	m ³

Site Measurements:			
Date of survey	<u>December 2, 2014</u>	Pond Elevation	<u>1307.10</u> m
		Estimated volume	<u>947,400</u> m ³
Total Monthly Precipitation	<u>0</u>		mm
Total Monthly Underground Input	<u>6,350</u>		m ³
Total Monthly STP Effluent Input	<u>639</u>		m ³
Total Monthly Industrial Complex Runoff Input	<u>0</u>		m ³
Total Volume from Seepage collection pond to Facility	<u>0</u>		m ³
Average Monthly Under drain Flow Rate	<u>1.09</u>		L/s
Average Monthly Ditch A Flow Rate	<u>Unknown but still flowing</u>		L/s
Average Monthly Ditch B Flow Rate	<u>0</u>		L/s
Total Monthly Volume Discharged from Water Treatment	<u>0</u>		m ³
Depth of Water at Reclaim Barge	<u>35' 6" (2 Dec, 2 pm)</u>		Ft

See page 3 to Annotate Pond Diagram

Pictures Taken? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Photo Sheet Attached?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>
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WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report

Special Remarks:

1. Milling rates averaged 1,743.0 dry tonnes per day (total of 18.6 Operating Days); processing 32,485.8 dry tonnes ore with 4,712.3 dmt of tailings reported to underground for paste fill and 20,528.6 dmt tailings to TSF. Reclaim water flow rates to the mill averaged 215 m³/hr during the month while operating the mill.

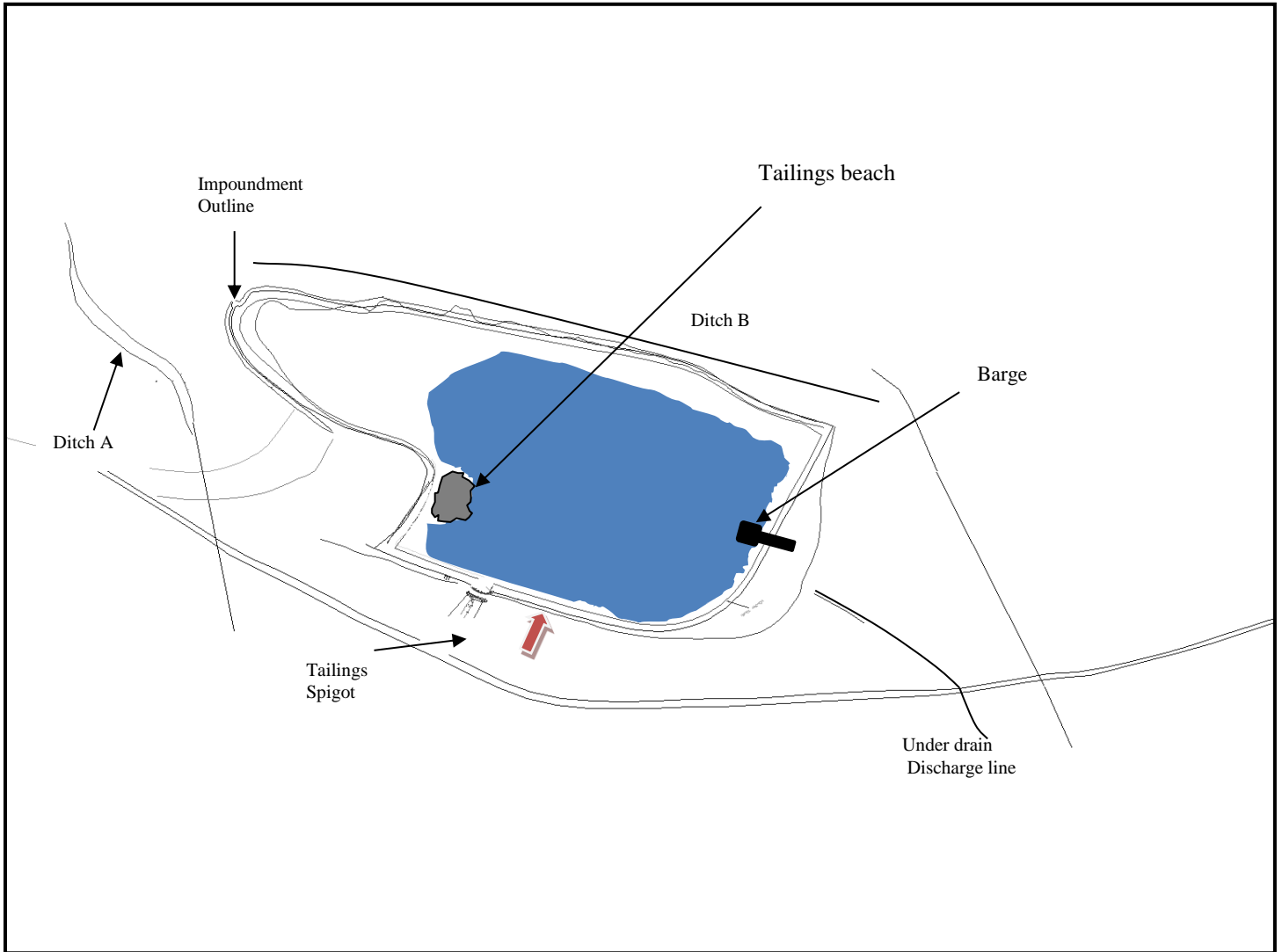
2. Brief on any maintenance: No major reported service\repair maintenance on barge or booster pump during the month. The Winterhib de-scalant was replaced with a low temperature variant called Winterhib MS-1 and is being applied to the tailings pumps. Mill maintenance worked on the barge pumps de-icing blower is complete and operating.

3. The Six survey monuments that were installed in the Tailings Dam to replace damaged inclinometer casings were re-surveyed in November. The results are being tracked.

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**

Sketch to Include:

- Pond area
- Ice area
- Tailings spigot points
- Tailings beaches
- Reclaim barge location



Operator Robin McCall / Mike Carney

Signature _____

Supervisor/Manager Manny Rejano

Signature & Date _____

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report



Photo 1: Looking at south east corner side of TSF and barge station.



Photo 2: Looking over the barge station towards the north side.



Photo 3: Closer view of discharge pipe location North-west corner of TSF.



Photo 4: View of north and west walls of TSF.

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report



Photo 5: View of east slope from the north side of the TSF.



Photo 6: Closer view of barge pumps.



Photo 7: Closer picture of barge pumping station.



Photo 8: View of north corner of TSF.

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**

Month <u>December 2014</u>	Avg. Daily Temp. _____	Average: -17°C ; Low: -34°C; High: -9°C
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Mill Record Data:		
Total Monthly Tailings Deposition	<u>12,837</u>	Dry Tonnes
Average Monthly Tailings % Solids	<u>21.8</u>	%
Total Monthly Tailings Slurry Volume	<u>50,488.0</u>	m ³
Total Monthly Reclaimed Water Volume	<u>46,062.4</u>	m ³

Site Measurements:			
Date of survey	<u>January 1, 2015</u>	Pond Elevation	<u>1307.23</u> m
		Estimated volume	<u>963,151</u> m ³
Total Monthly Precipitation	<u>0</u>		mm
Total Monthly Underground Input	<u>7198</u>		m ³
Total Monthly STP Effluent Input	<u>524</u>		m ³
Total Monthly Industrial Complex Runoff Input	<u>0</u>		m ³
Total Volume from Seepage collection pond to Facility	<u>0</u>		m ³
Average Monthly Under drain Flow Rate	<u>0.80</u>		L/s
Average Monthly Ditch A Flow Rate	<u>Unknown but still flowing</u>		L/s
Average Monthly Ditch B Flow Rate	<u>0</u>		L/s
Total Monthly Volume Discharged from Water Treatment	<u>0</u>		m ³
Depth of Water at Reclaim Barge	<u>35.8 (3 Jan 15, 4PM)</u>		Ft
See page 3 to Annotate Pond Diagram			
Pictures Taken?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Photo Sheet Attached?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report

Special Remarks:

1. Milling rates averaged 1,649.0 dry tonnes per day (total of 14 Operating days); processing 23,095 dry tonnes ore with 6,034 dmt of tailings reported to underground for paste fill and 12,837 dmt tailings to TSF.

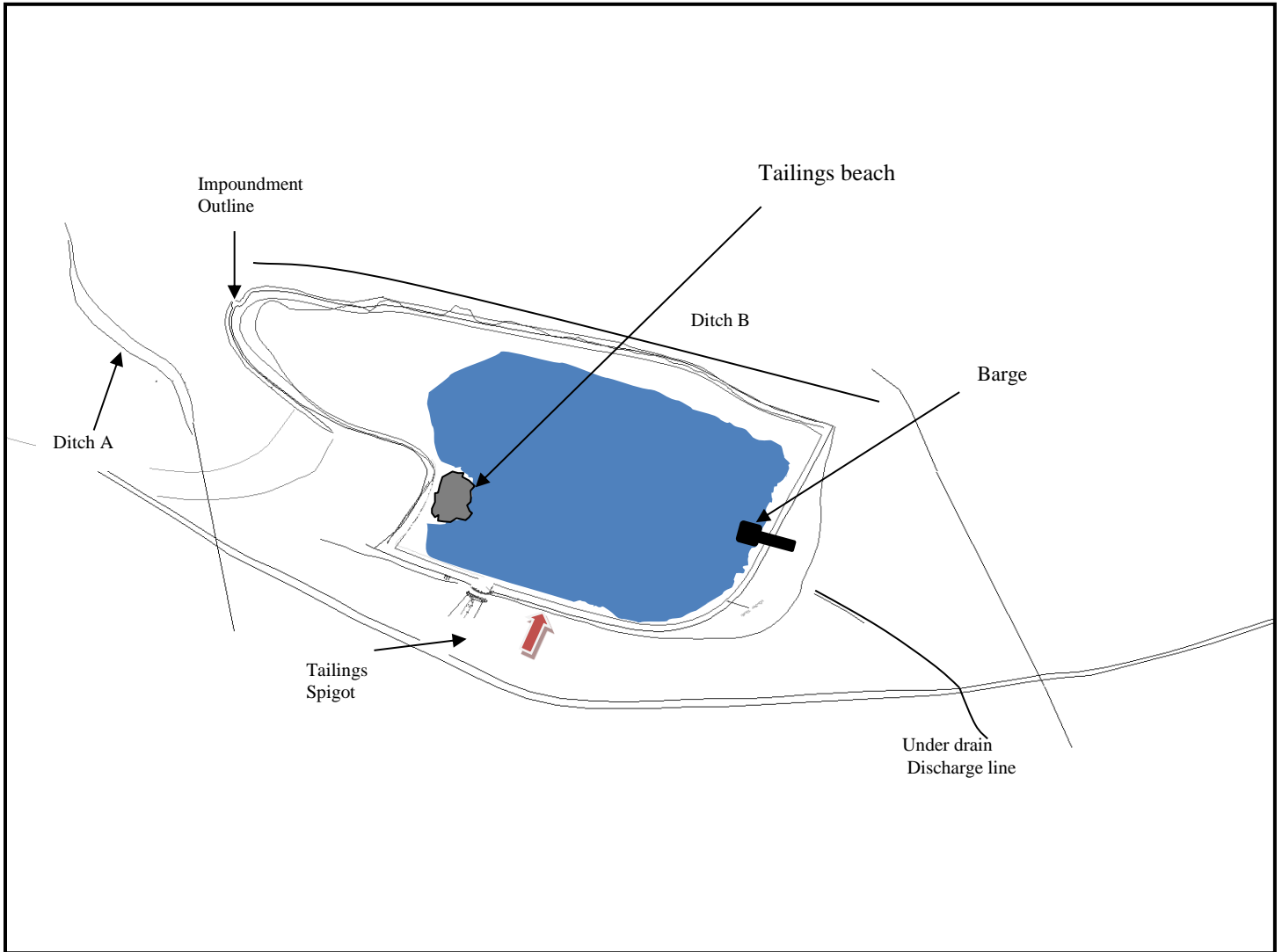
2. Brief on any maintenance: Minor service in removing ice buildup on both sides of walkway to barge pump platform. On Dec 31st the reclaim water booster pumps was checked, pumps are good and no observation of scaling inside the casing pump casing & discharge. The Winterhib MS1 was not running when inspected on Jan 4th. Resumed de-scalent at addition rate set at 40.

3. The mill resumed operation on Dec 8th and was shut down on D/S of Dec 22 for scheduled Christmas down to Jan 2' 2015.
4. The Six survey monuments that were installed in the Tailings Dam to replace damaged inclinometer casings were re-surveyed. The results are being tracked.

**WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report**

Sketch to Include:

- Pond area
- Ice area
- Tailings spigot points
- Tailings beaches
- Reclaim barge location



Operator _____	Andrea Kenward / Manny Rejano	Signature _____
Supervisor/Manager _____	Manny Rejano	Signature & Date _____

WOLVERINE PROJECT
Tailings Facility Monitoring
Monthly Impoundment Monitoring Report



Photo 1: Looking at barge station.

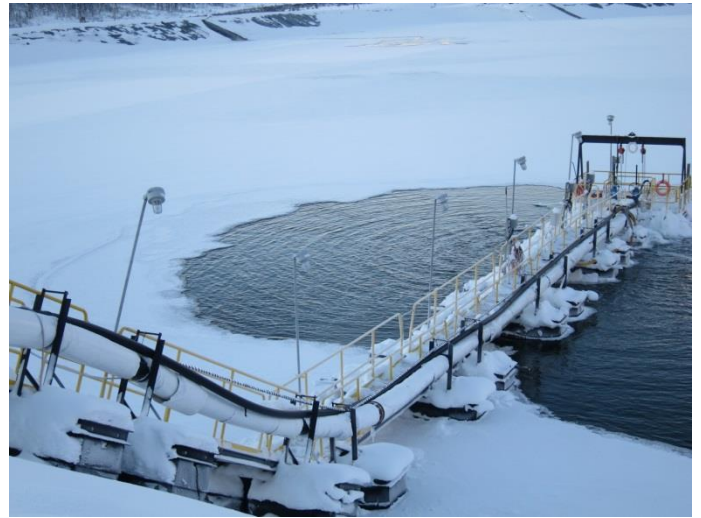


Photo 2: Looking over the barge station from East side of the dam.



Photo 3: Showing NE view corner from barge pump platform.



Photo 4: View of north side walls of TSF.

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Photo 5: View of east slope from the north side of the TSF.



Photo 6: East side of TSF view from barge pumps.



Photo 7: View of tails discharge pipe at center south of TSF.



Photo 8: View of north west corner of TSF.