TECK RESOURCES LIMITED – LEGACY PROPERTIES
SÄ DENA HES MINE
DECOMMISSIONING AND RECLAMATION

2015 RECLAMATION ACTIVITIES AND AS-BUILT REPORT

Submitted to:
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Submitted by:
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November 2015

TE133102

November 17, 2015

Teck Resources Limited
Bag 2000
Kimberley, BC
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Att: Mr. Gerry Murdoch, AScT
Project Manager, Legacy Properties

Re: Sä Dena Hes Mine, Yukon Territory
2015 Reclamation Activities and As-Built Report

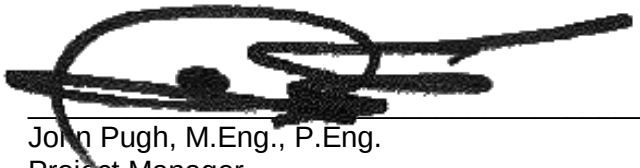
Amec Foster Wheeler Environment & Infrastructure, a Division of Amec Foster Wheeler Americas Limited (Amec Foster Wheeler), has prepared this report to describe the 2015 decommissioning and reclamation activities as part of the overall Sä Dena Hes Mine closure, at the Sä Dena Hes Mine, near Watson Lake, Yukon Territory.

The report provides a description of decommissioning and reclamation activities completed in 2015 and related as-built documentation. The activities were completed under the monitoring of Amec Foster Wheeler's field Construction Monitoring Team.

We trust this report is satisfactory and meets your approval. If you have any questions or comments regarding the information contained herein, please contact the undersigned.

Sincerely,

Amec Foster Wheeler Environment & Infrastructure,
a Division of Amec Foster Wheeler Americas Ltd.



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EXECUTIVE SUMMARY

The 2015 decommissioning and reclamation activities associated with the Sä Dena Hes (SDH) Mine Decommissioning and Reclamation project, at the SDH Mine in the Yukon Territory, were carried out between May 27, 2015 and September 11, 2015. Amec Foster Wheeler provided Construction Monitoring services for the work throughout this period.

Key decommissioning and reclamation activities included:

- Regrading of the North Tailings Pond cover material to promote drainage from the surface
- Placement of additional rock within the Sediment Retaining Structure (SRS) spillway and at the toe of the SRS to repair spring erosion damage
- Capping of previously reclaimed Jewelbox waste rock dump surface
- Capping of previously reshaped mill areas displaying high metals
- Capping of other select site areas
- Decommissioning of site access roads including erosion protected creek crossing construction at watercourses (Camp Creek, North Creek)
- Revegetation (scarification, tree planting and seeding)
- Installation of site signage
- Removal of remaining debris from site
- Decommissioning of septic tanks
- Demobilization of remaining site infrastructure

The above-noted activities and associated as-built conditions are described in this report. The reclamation activities were generally completed in accordance with the design and parameters outlined in the Detailed Decommissioning and Reclamation Plan (DDRP) (Teck Sä Dena Hes Operating Corporation, 2015) for the project.

Included in this report are figures, a photographic log, and other pertinent information from the construction period.

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1.0 INTRODUCTION

This report has been issued by Amec Foster Wheeler Environment & Infrastructure, a Division of Amec Foster Wheeler Americas Limited (Amec Foster Wheeler), to describe the as-built conditions from activities associated with the decommissioning and reclamation activities of the Sä Dena Hes (SDH) Mine that were completed in 2015. Amec Foster Wheeler has compiled this report on behalf of Teck Resources Limited (Teck) by gathering information provided by the Amec Foster Wheeler Construction Monitoring Team who were on site daily and from information provided by the General Contractors carrying out the work.

This report contains various sections. Section 2.0 provides general background for the SDH Mine prior to the 2015 construction phase. Section 3.0 identifies the project organizational structure for the 2015 decommissioning phase. Section 4.0 describes the reclamation activities carried out. Section 5.0 describes other activities carried out in 2015 including consultant works and Regulator site visits.

Also included in this report in Appendix A are figures from various locations of the work site which describe the as-built conditions. Appendix B contains one as-built drawing from the work activities. Appendix C contains select photographs taken during the 2015 reclamation work. Appendix D contains well decommissioning logs for five wells.

2.0 BACKGROUND

The SDH property is located close to Yukon's southern boundary with British Columbia, approximately 70 km by road from the Town of Watson Lake. The mine site is reached via the Robert Campbell Highway, north of Watson Lake. At approximately km 47 of the Robert Campbell Highway, a 25 km access road leads to the mine site.

Mining commenced in September 1991 and ceased in December 1992. During the 16 months of production, approximately 700,000 tonnes of ore were mined and processed. Approximately 120,000 tonnes of zinc concentrates were produced at a grade of 59% zinc and 54,000 tonnes of lead concentrates at a grade of 77% lead. Production ceased in 1992 due to a downturn in metal prices. After that time both the mining and mill operations ceased and the property was placed in a state of care and maintenance. A full-time caretaker resided at the site over the duration of the care and maintenance period, which ended in April 2014.

The SDH Mine Detailed Decommissioning and Reclamation Plan (DDRP) (Teck Sä Dena Hes Operating Corporation, 2013), updated in 2015, details the closure plan for the mine, associated infrastructure and site features. The key activities associated with the overall project are as follows:

- Demolish and dispose of site infrastructure
- Seal underground mine workings
- Re-slope waste rock dumps
- Remove the Reclaim and South Dams
- Decommission, cap, and reclaim the tailings facility
- Cap and re-vegetate mine facilities
- Final closure works related to the reclamation and closure of the mine site

Implementation of the DDRP began in September 2013. In 2013, minor works were carried out to prepare for the majority of decommissioning and reclamation activities to take place in 2014 and 2015.

The key activities carried out in 2013 were as follows:

- Pumping of water from South Pond into Reclaim Pond
- Demolition of mine camp and office complex facilities
- Removal of some of the High Density Polyethylene (HDPE) and steel pipeline
- Landfill operation and maintenance for disposal of demolition debris

The 2013 decommissioning and reclamation activities were presented to Teck in *Fall 2013 Summary Report, 2013 (AMEC Environment & Infrastructure)*.

The key activities carried out in 2014 were as follows:

- Mill dismantling and salvage operations
  - (i) Removal and off-site disposal of hazardous waste and building materials
  - (ii) Demolition and landfilling of non-salvageable infrastructure

    (iii) Staged dismantling and removal of salvageable mill buildings and infrastructure
- Tailings Management Area (TMA) Decommissioning
    (i) Dewatering of South Pond and Reclaim Pond
    (ii) Deconstruction of South Dam and Reclaim Dam
    (iii) Construction of drainage channels through TMA and realignment of Camp Creek
    (iv) Quarry operations at km 17 of the main site access road
    (v) Cover construction across areas of exposed tailings
    (vi) Demolition of decant water control structure and decant pipeline
- Mountain Works
    (i) Permanent portal closures
    (ii) Infilling of open pits
    (iii) Reshaping of waste rock dumps
    (iv) Permanent sealing of ventilation raises
    (v) Removal of remote shops, shacks, ventilation equipment, core racks and cores
- Electrical Decommissioning
    (i) Removal of electrical cables
    (ii) Removal of electrical poles and associated components
    (iii) Removal of pad-mounted and above-ground transformers
    (iv) Removal of electrical panels from site pump shacks
- Tank Decommissioning
    (i) Removal of tanks associated with former mining operations
    (ii) Dewatering of Aboveground Storage Tank (AST) dyke and removal of liner
- Other works including:
    (i) Road maintenance
    (ii) Concrete breaking at mill site
    (iii) Mill site and Golden Hills shop area capping and shaping
    (iv) Removal of pipelines
    (v) Removal of core racks and core
    (vi) Landfill activities, maintenance and closure
    (vii) Decommissioning of groundwater monitoring wells
    (viii) Installation of erosion protection measures
    (ix) Construction of helipads for future monitoring
    (x) Demolition of exploration camp and other mining shacks
    (xi) Reclamation of North Creek Dyke
    (xii) General site clean-up

A summary of the 2014 mill dismantling operations, managed by the purchaser of the mill and associated infrastructure (JDS Energy & Mining Inc.), was presented in the *Mill Dismantling and Decommissioning Summary Report, 2015 (Amec Foster Wheeler)*.

The remainder of the 2014 reclamation activities, managed by Teck, were presented in the *2014 Reclamation Activities and As-Built Report, 2015 (Amec Foster Wheeler)*.

A general site plan is provided in Figure SDH00_FIG_16 (Appendix A).

3.0 PROJECT ORGANIZATION

Figure 3.1 below describes the organizational structure for the 2015 implementation phase of the decommissioning and reclamation project.

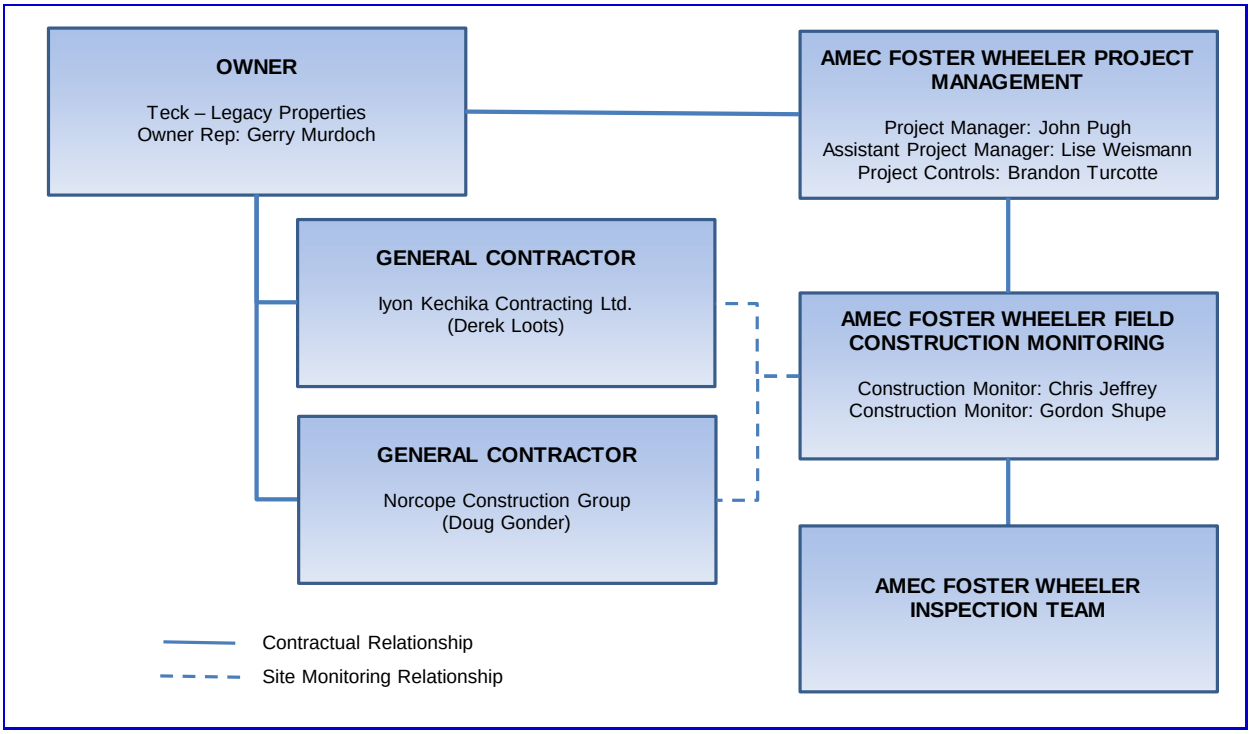

Figure 3.1: 2015 Decommissioning Phase Organizational Structure

4.0 2015 RECLAMATION ACTIVITIES

The 2015 reclamation activities are described by site area in the following subsections. Site-wide activities are described in Section 4.7. Other minor reclamation activities are described in Section 4.8. The various site areas described are shown in Figure SDH00_FIG_16 (Appendix A).

4.1 Tailings Management Area

The Tailings Management Area (TMA) is broken down into the North Tailings Pond Area (also referred to as the North Pond), South Pond Area, Reclaim Pond Area, Borrow Pit "G", and the Contractor Laydown Area. These locations are shown in Figure SDH00_FIG_16 (Appendix A). The activities carried out in each of these locations are described in the following subsections. Revegetation treatments at each location are briefly discussed but are discussed in more detail in Section 4.7.2.

4.1.1 North Tailings Pond Area

4.1.1.1 Additional Fill Placement and Regrading

To achieve the design of the North Tailings Pond cover of positive drainage away from the North Dam and to the south, some further fill placement and grading of the cover was required in 2015. During cover construction in 2014, heavy equipment had caused some liquefied tailings to migrate to the surface due to an in increase in pore pressures beneath the surface. To ensure all tailings were covered, more material was added to cover these tailings, which initially appeared effective. However, tailings continued to migrate to the surface in these areas and outside the perimeter of the areas. To avoid causing any further damage, the Contractor was required to leave the areas alone and wait for the tailings to finish migrating to the surface, drain and dry out. Once these tailings "volcanos" had dried out, they were scraped from the surface using a light excavator and the tailings were hauled to the South Pond for capping. The intent of the design of the North Tailings Pond cover was taken to mean uniform drainage to the south. However, due to the soft conditions of these areas, they were left alone to avoid having more tailings migrate and cause further pore pressures to be released from beneath the cover. This impeded some drainage to the south in 2014 in the northeast corner of the cover. Therefore, to achieve the design, a drainage channel was established from the northeast corner to the west side of the North Tailings Pond to promote drainage into a vegetated area to the west, with water then draining to the south.

Following the spring melt in 2015, ponded water was observed on the surface of the capped North Tailings Pond. The majority of the water was ponded in the northeast corner of the surface, between the North Dam and one of the problem areas noted above, and located approximately 200 m south of the North Dam. Other minor ponding was also observed across the remainder of the northern extent of the surface. It was observed that ice was blocking the drainage channel established in 2014. Once the ice melted, approximately half the volume of ponded water drained through the channel and flowed south toward the former cofferdam along

the west side of the North Tailings Pond. To drain the remainder of the ponded water, a drainage ditch was excavated along the west side of the North Tailings Pond and clean fill was imported from the gravel pit (just north of the landfill) to raise the grade of the northeast corner and force the remaining water through the drainage channel to the west and then to the south through the former cofferdam area. Once the majority of ponded water was removed from the surface, two graders and two bulldozers were used to shape and grade the overall surface of the North Tailings Pond cover to better promote southerly drainage and reduce ponding in other areas. However, during grading operations, similar, but more minor, occurrences of tailings migration to the surface began to be observed during grading in the same soft area in the northeast corner that was problematic in 2014.

Due to the areas of tailings migration, grading operations in these areas were halted and some areas did not fit into the uniform drainage paths, therefore a swale was left around these higher areas to convey water around them rather than through them, in order to achieve the design of southerly drainage, while avoiding potentially significant damage to the cover from further tailings migration. A minor amount of water remains within the northern portion of the swale itself which extends from the North Dam to the former cofferdam. The elevations within the swale were not lowered any further due to concerns of encountering tailings. During major rain events in 2015, runoff water drained to the south, although in some areas, due to limited grade, some pooling was observed to occur up-gradient of the swale. Typically the pooled water would drain off the surface within 24 hours of the rainfall event. The final topography of the North Tailings Pond cover is shown in Drawing SDH03_B_C_0009 in Appendix B. Photo 44 in Appendix C shows a helicopter view of the as-built conditions. Upon reviewing the as-built conditions / topography on Drawing SDH03_B_C_0009 there is some concern with regards to drainage that should be reviewed. A dam safety review is in progress.

4.1.1.2 Revegetation

Revegetation treatment across the North Tailings Pond Area consisted of tree planting. To facilitate tree planting, the surface was scarified with a grader or bulldozer prior to planting the plugs. Tree types and quantities are discussed in Section 4.7.2.

4.1.1.3 North Dam Settlement Pins and Casings

There are three rebar settlement pins installed in the North Dam with associated protective steel casings. Settlement of the steel protective casings had caused two of these to settle vertically into the dam, such that they were lying lower than the elevation of the pins. Per Teck's request, these settlement pin casings were raised such that they covered the rebar pins per original design. Prior to raising the casings, the North Dam settlement pins were surveyed on August 6 by Yukon Engineering Services (YES). The casings were raised on August 18 and the settlement pins were re-surveyed on September 10 by YES. The elevation readings taken during the surveys are provided in Table 4.1. No visible movement of the settlement pins themselves was noted during the raise operations.

Table 4.1: North Dam Settlement Pin Readings

Date	Elevation Readings (m)		
	Pin ID: NDS1	Pin ID: NDS2	Pin ID: NDS3
August 06, 2015	1100.412	1100.524	1100.572
September 10, 2015	1100.391	1100.512	1100.548

4.1.2 South Pond Area

4.1.2.1 Rock Placement at SRS and Spillway

During a late May 2015 inspection of the sediment retaining structure (SRS) and associated spillway, subsidence was observed within the spillway and migration of some riprap downstream was causing sub-lying geotextile to be visible. Additionally, erosion of the downstream toe of the SRS, east of the spillway, was observed. This was causing eroded sediment to migrate into the South Drainage Channel. A site visit with SRK (Project Designer) was held and it was agreed that the migration of riprap was likely due to an insufficient amount of rock within the spillway and the size of some of the rock (within the spillway) not meeting the required gradation specification. The subsidence within the spillway was not deemed to be a concern at this time. The erosion of the SRS downstream toe was likely caused by the spring melt washing some of the material toward the South Drainage Channel, combined with seepage flow from the former South Dam east abutment which flowed west along the toe of the SRS and into the South Drainage Channel.

To address both issues, large rock from the rock cofferdam (installed in the South Pond in 2014) were relocated to the SRS and placed in the spillway and along the SRS east downstream toe to stabilize both features. Nonwoven geotextile was placed beneath the rock along the SRS downstream toe. Photo 1 in Appendix C shows the early inspection conditions and Photos 3 and 4 in Appendix C show conditions after stabilization of the SRS and spillway with further rock.

4.1.2.2 Capping Operations

Several capping operations were carried out across the South Pond area in 2015. The extent of the areas capped in 2015 (and also in 2014) is shown in Figure SDH00_FIG_18 (Appendix A). The 2014 capping operations were described in the 2014 as-built and reclamation activities report. In 2015, material imported from a shop located in Watson Lake, previously owned by Teck, was relocated to the South Pond area, specifically immediately west of the rock cofferdam constructed in 2014, under Yukon Government Special Waste Relocation Permit (Permit #4201-45-043). The actual excavation and confirmatory sampling program carried out at the shop was documented by Golder Associates Ltd. (Golder). Capping was completed by hauling and placing former Reclaim Dam material from Borrow Pit “G” and placing a minimum 500 mm cover across the area where the contaminated soils were end-dumped.

Another area along the west side of the former South Pond, west of the 2014 cover area (shown in Figure SDH00_FIG_18 of Appendix A), was capped due to sampling activities completed by Golder showing soil conditions exceeding site-specific standards for metals concentrations. This area was also capped by importing former Reclaim Dam material from Borrow Pit "G" and placing a minimum 500 mm cover across the zone.

4.1.2.3 Revegetation

Revegetation treatment across the South Tailings Pond Area consisted of tree planting. To facilitate tree planting, the surface was scarified with a grader or bulldozer prior to planting the plugs. Tree types and quantities are discussed in Section 4.7.2.

4.1.3 Reclaim Pond Area

Revegetation treatment across the Reclaim Pond Area consisted of tree planting. To facilitate tree planting, the surface was scarified with a grader or bulldozer. Further details on revegetation including tree types and quantities are discussed in Section 4.7.2.

4.1.4 Borrow Pit "G"

In 2014, approximately 63,500 m^3 of sand and gravel material excavated from the Reclaim Dam was stockpiled in Borrow Pit "G" as it was not required for cover construction across exposed tailings areas. In 2015, material from this stockpile was excavated, loaded into rock trucks and hauled for various capping operations as described in other sections of this report. The primary capping operation involved hauling material to the Jewelbox waste rock dump for capping of the reclaimed surface, further described in Section 4.3.1. This work was completed by Norcope Construction Group (Norcope). In addition to hauling material to Jewelbox, Norcope also excavated and hauled material from the Borrow Pit "G" stockpile to the zones of the South Pond Area requiring capping as described in Section 4.1.2.2. Excavation associated with these capping operations began June 16 and ended July 31. Following excavation activities, Norcope reshaped the stockpile to remove steep excavation cuts and promote drainage from the surface. Following reshaping, Norcope also scarified the surface with their bulldozer in preparation for tree planting.

4.1.5 Contractor Laydown Area

In 2015, the Contractor Laydown Area (shown in Figure SDH00_FIG_16 of Appendix A) was used by General Contractors Iyon Kechika Contracting (Iyon) and Norcope as a laydown for their equipment, fuel storage tanks, tool storage containers, wash and sanitary facilities, and site trailers. Daily safety briefings were also typically held in this location.

At the end of the work activities, equipment and facilities were demobilized or relocated to the main gate allowing equipment to scarify the surface in preparation for seeding (described in Section 4.7.2).

Revegetation treatment across Borrow Pit "G" consisted of tree planting. To facilitate tree planting, the majority of the surface was scarified with a bulldozer prior to planting the plugs. Further details are discussed in Section 4.7.2.

4.2 Mill Site

Reclamation activities carried out in 2015 at the mill site are described in the following subsections.

4.2.1 Capping Operations

In 2014, following the dismantling and removal of the mill and associated infrastructure, the remaining foundations were capped with material from the former camp facilities area. Much of the remaining mill site area was reshaped for aesthetic purposes and to promote drainage. The mill site capping and reshaping exercise was carried out near the end of 2014 construction program and a subsequent sampling program across the entire mill area was carried out (in 2014). Sample results across capped areas showed metals concentrations generally within allowable limits with respect to surface soil conditions. However, some of the areas that were simply reshaped showed elevated levels of metals concentrations. Therefore, in 2015, capping of these areas of elevated metals concentrations was carried out. Similarly to 2014, material was excavated from the former camp facilities area and hauled and spread across the required capping areas. The areas across the mill site that were capped in 2015 are shown in Figure SDH00_FIG_18 (Appendix A). Capping was conducted to a minimum thickness of 200 mm. A significant amount of material was excavated from the camp facilities area to facilitate capping. Following capping operations, the area was shaped and blended into the surrounding topography.

4.2.2 Revegetation

Revegetation treatment across the Mill Site consisted of tree planting with the exception of the main gate and mobile home office and parking area which were scarified and seeded at the end of the construction program following demobilization of remaining infrastructure. To facilitate tree planting, the surface was scarified with a grader or bulldozer prior to planting the plugs. While scarifying capped areas of the mill site, particular care was given to avoid mixing capping material with sub-lying material. The extent of tree planting across the Mill Site, including types and quantities, is described in Section 4.7.2.

4.2.3 Removal of Infrastructure

Near the end of the 2015 construction program, the former mine guard shack and chain link gate fencing were demolished, crushed, and hauled to the Watson Lake landfill for disposal. The remaining infrastructure was disconnected and demobilized. The mobile home (including the entrance porch and wooden deck) was demobilized to Watson Lake. Two sea containers (one containing the gen sets that powered the mobile home and one used for storage) were also demobilized. Two septic tanks near the office area were drained by Northern

Environmental Services (NES) and then excavated, crushed and hauled off-site for disposal. Additionally, a dry septic tank located southeast of the former ball mill storage area was excavated and hauled off-site for disposal. Excavations from the removal of septic tanks were backfilled by an excavator using adjacent fill.

4.2.4 Gate installation

For security purposes, a steel gate was fabricated off-site and delivered and installed at the entrance to the site to prevent unauthorized access. The gate is approximately 7.5 m wide. On either side of the gate, a berm was erected to prevent traffic from driving around it. A small section of HDPE corrugated culvert was installed to permit drainage beneath the berm. The gate is locked.

4.3 Jewelbox

Reclamation activities carried out in 2015 at Jewelbox are described in the following subsections.

4.3.1 Capping of Waste Rock Dump

The majority of the reclaimed Jewelbox waste rock dump surface was capped by Norcope with material from the Borrow Pit “G” stockpile (formerly Reclaim Dam material). The surface was topped with clean sand and gravel material due to elevated levels of metals concentrations across the extent of the reshaped waste rock dump. The material also provided a more suitable growth medium for revegetation across the slope. The extent of the capped surface was surveyed by YES following completion of capping operations. A total of approximately 64,500 m^2 of area has been capped with a minimum 200 mm of cover material. This area is shown in Figure SDH00_FIG_18 (Appendix A). It should be noted that the limits of the capping area were extended as far as safely possible across the reclaimed surface. Sections of the waste rock dump that were not capped were unsafe to access due to the steep grade (some sections in excess of 50% grade). Material was hauled to the Jewelbox waste rock dump by rock truck. The material was spread across the surface using a D6 bulldozer. Throughout the construction activities, Amec Foster Wheeler inspected the cover thickness by means of test pits. Over the course of construction, 110 test pits were conducted and locations of these are shown in Figure SDH01_FIG_04 (Appendix A). Test pits were carried out to ensure the minimum depth of 200 mm had been achieved across the capped surface. For results showing thicknesses lower than the 200 mm specification, Norcope was asked to immediately address the area, adding sufficient material to achieve the 200 mm minimum cover thickness.

It should be noted that for safety reasons during the haul of material from Borrow Pit “G” to Jewelbox, a haul road berm was erected to allow for safe rock truck passage. The berm extended along the 5 km long haul road from Borrow Pit “G” to Jewelbox, along the long access road. At the end of the construction program, the berm was removed.

Table 4.2: Jewelbox Waste Rock Dump Test Pit Data

Test Pit #	Date	Cap Thickness (mm)	Test Pit #	Date	Cap Thickness (mm)	Test Pit #	Date	Cap Thickness (mm)
TP#1	18-Jun	229	TP#38	02-Jul	305	TP#75	20-Jul	229
TP#2	18-Jun	254	TP#39	02-Jul	254	TP#76	20-Jul	210
TP#3	18-Jun	203	TP#40	03-Jul	279	TP#77	20-Jul	200
TP#4	18-Jun	203	TP#41	03-Jul	229	TP#78	20-Jul	200
TP#5	18-Jun	203	TP#42	03-Jul	279	TP#79	20-Jul	212
TP#6	18-Jun	229	TP#43	03-Jul	229	TP#80	20-Jul	200
TP#7	19-Jun	203	TP#44	03-Jul	203	TP#81	20-Jul	214
TP#8	19-Jun	203	TP#45	03-Jul	191*	TP#82	23-Jul	226
TP#9	22-Jun	203	TP#46	03-Jul	203	TP#83	23-Jul	254
TP#10	22-Jun	191*	TP#47	07-Jul	203	TP#84	23-Jul	232
TP#11	22-Jun	203	TP#48	07-Jul	216	TP#85	23-Jul	334
TP#12	22-Jun	203	TP#49	07-Jul	216	TP#86	26-Jul	348
TP#13	22-Jun	203	TP#50	07-Jul	203	TP#87	26-Jul	312
TP#14	22-Jun	203	TP#51	10-Jul	203	TP#88	26-Jul	364
TP#15	22-Jun	229	TP#52	10-Jul	203	TP#89	26-Jul	210
TP#16	22-Jun	216	TP#53	10-Jul	216	TP#90	27-Jul	290
TP#17	23-Jun	241	TP#54	10-Jul	203	TP#91	27-Jul	302
TP#18	23-Jun	203	TP#55	10-Jul	203	TP#92	27-Jul	206
TP#19	23-Jun	229	TP#56	10-Jul	203	TP#93	27-Jul	232
TP#20	23-Jun	203	TP#57	15-Jul	265	TP#94	27-Jul	286
TP#21	23-Jun	229	TP#58	15-Jul	200	TP#95	27-Jul	370
TP#22	23-Jun	203	TP#59	15-Jul	210	TP#96	27-Jul	230
TP#23	23-Jun	203	TP#60	15-Jul	210	TP#97	29-Jul	229
TP#24	23-Jun	203	TP#61	15-Jul	305	TP#98	29-Jul	203
TP#25	25-Jun	254	TP#62	15-Jul	310	TP#99	29-Jul	254
TP#26	25-Jun	203	TP#63	16-Jul	212	TP#100	29-Jul	203
TP#27	25-Jun	229	TP#64	16-Jul	220	TP#101	29-Jul	254
TP#28	26-Jun	203	TP#65	16-Jul	222	TP#102	29-Jul	203
TP#29	26-Jun	229	TP#66	16-Jul	304	TP#103	30-Jul	203
TP#30	26-Jun	229	TP#67	16-Jul	240	TP#104	30-Jul	203
TP#31	26-Jun	229	TP#68	16-Jul	264	TP#105	30-Jul	216
TP#32	26-Jun	203	TP#69	17-Jul	284	TP#106	31-Jul	203
TP#33	29-Jun	254	TP#70	17-Jul	370	TP#107	31-Jul	203
TP#34	29-Jun	305	TP#71	17-Jul	290	TP#108	31-Jul	203
TP#35	29-Jun	241	TP#72	18-Jul	258	TP#109	31-Jul	203
TP#36	29-Jun	254	TP#73	18-Jul	304	TP#110	31-Jul	203
TP#37	29-Jun	229	TP#74	18-Jul	266			

*Areas with less than 200 mm were immediately addressed by the Contractor.

4.3.2 Switchback Decommissioning

Access to the former Jewelbox mine workings and waste rock dump (now reclaimed) was via a series of switchbacks extending from the mine site. The approximate distance of these switchbacks is 1.6 km. As part of the overall road decommissioning effort carried out across the site (described in Section 4.7.1), the Jewelbox switchbacks were also decommissioned.

However, due to metals concentrations of the existing road surface exceeding site-specific standards (specifically for lead and zinc) this decommissioning effort was conducted with a concurrent X-Ray Fluorescence (XRF) soil sampling program to ensure that the reclaimed surface at the completion of road decommissioning achieved acceptable site-specific soil conditions. The sampling program was carried out by Amec Foster Wheeler. Over the course of the decommissioning effort, approximately 450 XRF samples were collected. Teck identified the acceptable metals concentrations for lead and zinc to be 400 ppm and 665 ppm, respectively. Where material exceeded these concentrations during decommissioning, more material was excavated from the downslope side of the road and brought up the slope and spread across the surface. In some cases, multiple lifts were required. Once testing indicated that the material was acceptable, the decommissioned road was shaped and sloped and a final set of readings were taken across the final surface as a confirmatory check. A total of 123 confirmatory readings were taken along the finished surface. Locations of these confirmatory samples and their associated readings are presented in Figure SDH01_FIG_05 (Appendix A). The raw data from the XRF analyzer for the overall switchback decommissioning sampling program has been provided to Teck.

4.3.3 Revegetation

Revegetation treatments at Jewelbox are discussed in Section 4.7.2.

4.3.4 Sign Installation

A total of 12 signs were installed on Jewelbox to warn of hazards in the area in the event of public presence on site. Around the summit of Jewelbox, 8 signs were installed to warn of potential subsidence in the area due to underground mine workings. The signs read “WARNING, UNSTABLE MINE WORKINGS, DO NOT ENTER”. Around the edge of the Main Zone Open Pit (partially infilled in 2014), 4 signs were installed to warn of drop-off at the edge of the remaining open pit cut. The signs read “DANGER, HIDDEN DROP-OFF AREA, DO NOT PROCEED”.

All signs were installed on steel signposts which were secured to the ground by hand shoveling a hole, placing a section of 200 mm diameter HDPE pipe in the hole, inserting the signpost, and using a cement mixture to backfill the pipe. The locations of these signs are shown in Figure SDH00_FIG_19 (Appendix A).

4.4 Burnick

Reclamation activities carried out in 2015 at Burnick are described in the following subsections.

4.4.1 Revegetation

Revegetation efforts at Burnick are discussed in Section 4.7.2.

4.4.2 Helipad Construction

In 2014, a helipad for post-closure monitoring had been constructed at the northern extent of the Burnick 1200 waste rock dump. It was noted by helicopter pilots that the landing area could be dangerous for landing in high winds due to the proximity of tree cover and in such a situation, they may not be able to land. Therefore, a second larger and more open helipad was constructed at the southern extent of the waste rock dump. The location of both of these helipads are shown in Figure SDH00_FIG_20 (Appendix A).

4.5 Landfill

Reclamation activities carried out in 2015 at the Landfill are described in the following subsections.

4.5.1 Spreading of Organic Materials

In the 2014 reclamation activities and as-built report, it was noted that approximately 1,671 m^3 of organic materials from the excavation of the upper end of the Camp Creek Drainage Channel were hauled and stockpiled at the landfill. In June, these organic materials were spread across the landfill area to the maximum extent possible using a bulldozer. The materials were spread across approximately 50% of the overall landfill area.

4.5.2 Revegetation

Revegetation treatment across the landfill consisted of seeding and alder tree planting. To facilitate tree planting in August, the surface was scarified with a bulldozer prior to planting the plugs. Tree types, quantities, and further landfill revegetation details are discussed in Section 4.7.2.

4.6 Boneyard

Reclamation activities carried out in 2015 at the Boneyard are described in the following subsections.

4.6.1 Pipeline Removal

All tailings pipeline and the majority of water pipeline were removed from the overall site in 2014. A minor amount of non-insulated HDPE waterline was left in the boneyard for potential use in 2015. Some of the pipeline was used for the diversion of creeks during culvert removal, as further described in Section 4.7.1. Once all remaining pipe was no longer needed, it was cut into 12 m long sections and was hauled off-site for salvage by KPI Northern Ltd. (KPI). Approximately 800 m of pipe was salvaged.

4.6.2 Revegetation

Revegetation treatment across the Boneyard consisted of fertilizer application, seeding and a minor amount of tree planting. With the exception of a small capping area (described in Section 4.6.3), and a small area of tree planting, the remainder of the boneyard received a 400 kg/ha fertilizer application. The fertilizer was shipped to site by Teck. Prior to applying the fertilizer, the boneyard surface was scraped using a set of harrows pulled by Utility Task Vehicle (UTV). The harrows gently tilled the surface to avoid removing existing vegetation while also loosening the surface to promote growth following application of fertilizer and seed. To facilitate tree planting, the surface of this area was scarified with a grader. Further details on revegetation are provided in Section 4.7.2.

4.6.3 Capping

During sampling conducted in 2014 by Golder, surface material in a small area along the west side of the boneyard registered as containing high arsenic, exceeding site-specific standards. The area is shown in Figure SDH00_FIG_18 (Appendix A). A 200 mm thick cover was built across this area with material from the Borrow Pit “G” stockpile. Material was imported by rock truck and spread with a bulldozer across the extent of this area.

4.7 Overall Site

Reclamation activities carried out in 2015 across overall site areas or site locations are described in the following subsections.

4.7.1 Road Decommissioning

All on-site access roads were decommissioned with the exception of the long access road that extends from the Mill Site to the North Dam. Figure SDH00_FIG_21 (Appendix A) shows the roads that were decommissioned and the section of road that remains in place at the end of the 2015 construction program. Approximately 32 km of access roads were decommissioned. Road decommissioning was staged strategically throughout the reclamation works to accommodate remaining reclamation activities at various site areas by leaving sections of road in place until these activities were completed. Decommissioning was carried out with the general approach of excavating material from the downslope shoulder of the road and filling in the upslope ditch to restore natural drainage running parallel to the slope. Typically, excavators were used to bring material up the slope and a bulldozer was used to shape the final slope.

In some cases, access roads had been built in an area of fairly flat topography with no ditches or nearby drainage. Where such conditions existed, roads were simply scarified using an excavator to a minimum depth of 30 cm to provide a growth medium for revegetation. Where roads extended up a slope with more grade along the road alignment than perpendicular to the road, water bars were incorporated into the decommissioned road surface to carry water off the road alignment and into adjacent vegetation to prevent, as much as possible, sheet flow along the decommissioned road. Water bars were typically incorporated into the road a minimum of

every 100 m. This also helped preserve existing vegetation on the downslope side of the road by not needing to excavate more material than necessary to create drainage perpendicular to the road (parallel to the overall slope of the mountain).

As described in Section 4.3.2, decommissioning of the Jewelbox switchbacks was carried out with an integrated sampling program. However, the same general approach of bringing material up the slope, filling in the ditch on the uphill side, and shaping the former road footprint to tie into the original slope was carried out. It became apparent during decommissioning that the switchbacks were built by blasting much of the roadway out of the mountainside with some of the material transported to the switchback corners to construct the turns. Along lower sections of the Jewelbox switchbacks, material was pushed using a bulldozer from the switchback corners back up against the bedrock cut to provide sufficient backfill to promote drainage downslope.

As part of the overall road decommissioning procedure, all culverts encountered were removed. Culverts were crushed, loaded into dump trucks, and hauled to the Watson Lake landfill for disposal as scrap steel. The majority of the culverts were dry cross-drainage culverts which were removed and the area contoured to promote drainage.

In addition to cross-drainage culverts, four major watercourse crossing culverts were decommissioned. Two Camp Creek crossings (one along the short access road and one along the Borrow Pit G access road) and two North Creek crossings (one along the Burnick 1200 access road and one along the Landfill access road) were decommissioned. Two more minor watercourse crossings decommissioned included the Burnick Creek crossing along the Burnick 1200 access road, and an unnamed creek approximately mid-way between Burnick Creek and North Creek along the Burnick 1200 access road. To facilitate these culvert removals and to avoid sedimentation of the watercourses, several sections of 200 mm diameter HDPE pipe were installed to divert the creeks during culvert removal, allowing the work to take place “in the dry”. Once diversion pipes were installed, sand bags were used to block the existing CSP culverts to force the creek water into the HDPE diversion pipes. Upon diverting the water, culvert removal was carried out. Following culvert extraction, the new creek crossing channels were excavated to a minimum 2 m wide base and minimum 2H:1V side slopes. The creek channels were constructed to align with the approximate original natural alignment. Erosion protection was installed within the new channel by means of non-woven geotextile and riprap to cover the geotextile.

Riprap for these creek crossings was sourced from the km 17 quarry. Unused rock that was generated in 2014 was screened using a 150 mm grizzly screen, sorted and stockpiled. Rock was then hauled to the watercourse crossing locations by gravel truck. Geotextile was installed by excavator with assistance from laborers and rock was placed within the channel by excavator. Following construction of the new drainage channel, sand bags were removed slowly and the creek was allowed to flow through the newly constructed channel. Erosion blanket material was installed by laborers on the creek bed side slopes above the riprap and the slopes were seeded with a native sub-alpine seed mixture.

One access road remains in place. Once through the gate at the main site entrance, an access road roughly two light vehicles in width extends through the mill site to the North Dam. This remaining roadway is shown in Figure SDH00_FIG_21 (Appendix A).

4.7.2 Revegetation

Revegetation (tree planting, seeding, or both) was implemented across all disturbed site areas. Tables 4.3 and 4.4 provide a summary of the revegetation program for tree planting and seeding, respectively. It should be noted that tree counts in Table 4.3 are approximations based on the number of boxes of trees used in various areas using an average number of trees per box. Tree planting consisted of willow (*salix spp.*), poplar (*populus balsamifera*) and alder (*alnus viridis crispa*). The willow and poplar trees were planted together near the end of June. The alder trees were planted near the end of August. The extent of tree planting areas listed in Table 4.3 are shown in Figure SDH00_FIG_17 (Appendix A).

With respect to seeding, all seed was broadcasted at 25 kg/ha by laborers using hand seeders. Two different seed mixtures were used; a native sub-alpine seed mixture and a native alpine seed mixture. Table 4.4 identifies which type of seed each disturbed site area received. At Jewelbox, seeding was carried out once capping was complete across the capped area as well as areas of the Jewelbox waste rock dump surface which were unsafe to access with heavy equipment for capping (as described in Section 4.3.1). As noted in Section 4.6.2, seeding at the boneyard occurred following application of fertilizer. Seeding also occurred across the boneyard capping area (described in Section 4.6.3). Only a small area of the boneyard was planted, and this area did not receive seed. The Contractor Laydown Area was revegetated by applying a native sub-alpine seed mixture. At the landfill, following spreading of the organic materials in June, the area was seeded. A decision was made in August to plant alder trees across the surface of the landfill, therefore the surface was ripped and trees were planted.

Table 4.3: Revegetation Treatment Summary (Tree Planting)

Site Location	Willow and Poplar Trees Planted	Alder Trees Planted	Total Trees Planted
North Tailings Pond Area	8,176	20,800	28,976
South Pond Area	10,000	12,165	22,165
Reclaim Area	6,000	17,435	23,435
Borrow Pit G	-	4,900	4,900
Mill Site	2,000	10,300	12,300
Landfill	-	5,700	5,700
Boneyard	-	400	400
TOTAL	**26,176**	**71,700**	**97,876**

Table 4.4: Revegetation Treatment Summary (Seeding)

Site Location	Native Sub-Alpine Seed Mixture (25 kg/ha)	Native Alpine Seed Mixture (25 kg/ha)
Jewelbox waste rock dump		✓
Burnick 1200 waste rock dump	✓	
Burnick 1300 waste rock dump		✓
Gravel Pit	✓	
Boneyard*	✓	
Landfill**	✓	
Decommissioned access road surfaces***	✓	✓
Mill Site****	✓	

*Note: Seed applied after fertilizer as described in Section 4.6.2. Small area of tree planting was not seeded.
**Note: Seed was applied in June prior to a decision made in August to plant trees across the landfill.
***Note: Only access roads above the elevation of the Jewelbox waste rock dump received alpine seed.
****Note: Small portion of mill site only seeded near main gate and office area – described in Section 4.2.2.

4.7.3 Helipad Construction

Several helipads were constructed in 2014 for groundwater and surface water sampling as well as general site monitoring. During road decommissioning as described in Section 4.7.1, additional helipads were constructed as work progressed. Specifically, pads were constructed at the Burnick 1200 waste rock dump (as described in Section 4.4.2), MH-28A, MH-08, and near the Main Zone Open Pit. Figure SDH00_FIG_20 (Appendix A) shows the locations and coordinates of all helipads constructed during the overall reclamation project.

4.7.4 Revegetation Signage Installation

Although post-construction access to the site has been restricted by locked gate, in the event that that the gate is bypassed by the public or that the public accesses the site from other directions, signage has been installed at the beginning of all decommissioned roads off of the remaining long access road leading to the North Dam. The signs state “REVEGETATION IN PROGRESS, PLEASE KEEP OFF”. In addition to installation of these signs, “V-notch” ditches were excavated at the beginning of the decommissioned road segments to prevent passenger vehicle access across the revegetated surface.

4.7.5 Water Usage

The SDH access roads were shared by both General Contractors (Iyon and Norcope) and various consultants throughout the reclamation works. Both General Contractors were responsible for dust suppression in their work areas. Additionally, a minor amount of water for the site office was hauled by Iyon and this water was stored in a 19 m^3 storage tank near the mobile home office at the mill site. Water for both purposes was sourced primarily from the on-site permitted draw point at North Creek Dyke. Due to road decommissioning north of the North Dam near the end of the construction program, a Yukon Water Board Schedule 3 Notice of

Water Use was submitted to allow for drawing water from km 19.7 of the SDH main access road for the remainder of 2015, as access to North Creek Dyke was removed. Only three loads of water were taken from this draw point at km 19.7. Table 4.2 presents the water usage from each draw point location by contractor. Iyon used a 13.25 m^3 capacity water truck and Norcope used a 15.14 m^3 capacity water truck.

Table 4.5: 2015 Reclamation Activities Water Usage

Date (2015)	Truck loads				Date (2015)	Truck loads			
	North Creek		KM 19.7			North Creek		KM 19.7	
	Iyon	Norcope	Iyon	Norcope		Iyon	Norcope	Iyon	Norcope
Jun 3	1	-	-	-	Jun 30	9	-	-	-
Jun 5	2	-	-	-	Jul 1	9	5	-	-
Jun 7	2	-	-	-	Jul 2	3	-	-	-
Jun 10	2	-	-	-	Jul 3	4	1	-	-
Jun 12	2	-	-	-	Jul 6	13	2	-	-
Jun 14	2	-	-	-	Jul 7	10	4	-	-
Jun 16	2	2	-	-	Jul 8	4	-	-	-
Jun 17	2	5	-	-	Jul 10	2	-	-	-
Jun 18	1	2	-	-	Jul 13	7	-	-	-
Jun 19	-	5	-	-	Jul 14	4	-	-	-
Jun 20	-	5	-	-	Jul 15	10	-	-	-
Jun 22	6	5	-	-	Jul 16	9	-	-	-
Jun 23	11	6	-	-	Jul 29	-	2	-	-
Jun 24	7	2	-	-	Jul 30	-	2	-	-
Jun 25	3	2	-	-	Jul 31	-	1	-	-
Jun 26	3	1	-	-	Aug 8	-	-	2	-
Jun 27	7	4	-	-	Aug 17	-	-	1	-
Jun 29	8	3	-	-	**TOTAL**	**145**	**59**	**3**	**-**

Based on load counts, the following quantities of water were drawn from the two locations:

- North Creek Dyke: 2,815 m^3
- Km 19.7: 40 m^3

4.8 Other

Reclamation activities carried out in 2015 not described in previous subsections of Section 4.0 are presented below.

4.8.1 Gravel Pit

The majority of the gravel stockpiled in the pit just north of the landfill was hauled and placed at the North Tailings Pond as described in Section 4.1.1.1. Following the completion of hauling, the remaining gravel pit material was reshaped to reduce the slope and promote drainage from the area. Some overburden was pushed up against the slope to further soften the grade of the resulting pit slope. The re-contouring operation was completed with a bulldozer. In addition, the pit floor, which was hard due to the constant truck travel, was ripped to loosen the surface for revegetation (seeding) purposes, as described in Section 4.7.2.

4.8.2 Well Decommissioning

Five wells were decommissioned in 2015. These wells will not be used as part of the long-term monitoring program at the SDH site. Locations of decommissioned wells and remaining wells are shown in Figure SDH00_FIG_22 (Appendix A). The figure has been updated from the version provided in the 2014 as-built and reclamation activities report to include the decommissioned wells from 2015. Decommissioning logs for the wells removed in 2015 have been prepared and are included in Appendix D. These logs include a description of the decommissioning procedure, materials used and associated quantities, plug depth information, photographs, and a borehole log.

Decommissioned wells contained only steel casings and no PVC casings were discovered during decommissioning efforts. The general procedure used for decommissioning of the wells was as follows:

- Confirm diameter and depth of well
- Create a minimum 3 m plug using bentonite (plug was allowed to sit overnight for effectiveness)
- Excavate around the wellhead to approximately 2 m below grade
- Cut steel casing so top of well is approximately 1 m below grade
- Fill well with clean sand to approximately 3 m below top of pipe
- Fill remaining volume with bentonite-cement grout to the top of the casing
- Backfill the excavated area with excavated material

The following wells were decommissioned in 2015:

- TH01-90
- TH05-90
- TH04-91
- TH16-91
- TH23-91

Following the decommissioning of each well, the disturbed areas were re-graded.

It should be noted that the ground elevation of MW13-02 was altered during the Jewelbox switchback decommissioning activities and this elevation was re-surveyed and the elevation data updated on Figure SDH00_FIG_22 (Appendix A).

4.8.3 Decommissioning of Camp Creek Diversion and Culverts

In 2014, the Camp Creek Diversion Channel was left in place following the restoration of Camp Creek's natural alignment through the Reclaim Pond area. The diversion channel was left in place as it was continuing to catch surface runoff from west of the TMA. Just downstream of the twin 1.2 m diameter culverts at the west abutment of the former Reclaim Dam, this flow had been diverted into the wooded area south of Borrow Pit "G". Runoff water flows through this vegetated area into Camp Creek, downstream of the constructed riprap outfall. In 2015, it was observed that minor flow continued to be captured by the diversion channel. The Camp Creek

Diversion Channel was left in place with the exception of the twin culverts and fill material at the former Reclaim Dam west abutment. The culverts were excavated, crushed, and hauled to the Watson Lake landfill for disposal. Fill material was excavated and blended into the surrounding topography on both sides of the diversion channel. Careful consideration was given for the active osprey nest during excavation activities.

4.8.4 Quarry Reclamation

During extraction of required riprap from the km 17 quarry for creek crossing construction as described in Section 4.7.1, material screened out was returned to the quarry site and placed against the blast cut wall. Once all rock had been extracted, reclamation of the overall quarry site was completed by shaping overburden piles and pushing material to backfill the remaining quarry cut. The quarry site was shaped to promote drainage from the area and to restore, as much as possible, the natural slope along the quarry footprint.

5.0 OTHER 2015 SITE ACTIVITIES

In addition to the General Contractors who conducted the decommissioning activities described in Section 4.0, other firms visited the site to complete activities also associated with the reclamation project. These activities are briefly discussed in this section.

5.1 Teck Consultation Activities

Teck engaged multiple firms to carry out consultation activities as part of the project design and implementation. As noted previously, Amec Foster Wheeler was engaged by Teck to provide a construction monitoring team throughout the implementation of the project. The other 2015 on-site Consultant activities are briefly described herein.

5.1.1 SRK Consulting

SRK conducted multiple visits to carry out surface water sampling on a monthly basis, as part of the current Water License requirements. One SRK technician was on site to carry out the work and was typically assisted by members from Dena Cho Environmental (Dena Cho) or Iyon laborers. The surface water sampling program typically lasted for 2-3 days on site per month.

Additionally, one site visit was conducted in June by the SRK Project Designer who carried out an overall site inspection, provided recommendations for addressing spring damage to the SRS and spillway (as described in Section 4.1.2.1), and performed a Dam Safety Inspection on the North Dam.

5.1.2 Golder Associates

Golder conducted multiple visits to carry out various environmental sampling programs. Golder's primary task was to carry out groundwater monitoring, surface water monitoring associated with the landfill, and soil sampling at various site locations. Soil sampling was primarily confirmatory in nature, to check that various capping objectives had been achieved across the site.

5.1.3 Dena Cho Environmental

In addition to assisting SRK with monthly surface water monitoring, Dena Cho was engaged by Teck to carry out weekly surface water sampling at MH-01, MH-02, MH-04 and MH28-A.

5.1.4 Amec Foster Wheeler / Yukon Engineering Services

Amec Foster Wheeler and YES conducted site investigation work at the end of the 2015 construction program as part of engineering work related to potential future decommissioning of the SDH main access road from the Robert Campbell Highway to the North Dam. Work included surveying, road treatment analysis, culvert inventorying, test pits and watercourse crossing evaluations.

5.1.5 Laberge Environmental Services

The tree planting activities described throughout Section 4.0, in particular Section 4.7.2, of this report were managed by Laberge Environmental Services (Laberge), based out of Whitehorse. During the willow and poplar planting phase of the tree planting activities (June 22 to July 2), one Laberge staff member was present on-site and was assisted by six Iyon laborers to carry out the tree planting. During the alder planting phase (August 23 to 27), two Laberge staff members were present on-site and were assisted by 12 to 18 Iyon laborers. Additionally, two professional planters were hired by Iyon at the request of Teck to assist in the planting of the alder trees. Laberge has provided a final tree planting program report (*Tree Planting at the Reclaimed Sa Dena Hes Mining Site, 2015*) to Teck describing the program in detail.

5.2 Site Visits

Representatives from the Yukon Department of Energy, Mines and Resources (EMR) made several visits to site to carry out inspections for environmental compliance. The following Table 5.1 provides details on the visits conducted by EMR.

Table 5.1: Yukon Regulatory Site Visits

Date	Government Department	Inspectors	Reason for the Visit	Planned / Unplanned
June 22	Yukon Department of Energy, Mines and Resources (EMR) Client Services and Inspections	Sevn Bohnet Natural Resources Officer	Environmental Inspection	Unplanned
	EMR, Client Services and Inspections	Justin Hooper Mining Natural Resource Officer	Environmental Inspection	Unplanned
Aug 7	EMR, Client Services and Inspections	Sevn Bohnet Natural Resources Officer	Environmental Inspection	Unplanned
Sept 15	EMR, Client Services and Inspections	Robert Holmes Director, Mineral Resources	Final Site Inspection	Planned
	EMR, Client Services and Inspections	Steve Januszewski Principal Engineer, SteveJan Consultants Inc.	Final Site Inspection	Planned

Additionally, an Elders Tour was held on July 28 with members of local First Nations. Teck and Amec Foster Wheeler representatives were on-site to assist with the tour. The group visited Jewelbox, the landfill, the North Dam, and the Mill Site.

6.0 CLOSING REMARKS

The 2015 decommissioning and reclamation activities associated with the Sä Dena Hes Mine decommissioning and reclamation project were completed as outlined in this report. This report was prepared by Mr. Chris Jeffrey, P.Eng. and reviewed by Mr. John Pugh, M.Eng., P.Eng. We trust that this report satisfies your requirements. Please contact the undersigned if you have comments or questions.

Sincerely yours,

Amec Foster Wheeler Environment & Infrastructure,
a Division of Amec Foster Wheeler Americas Ltd.

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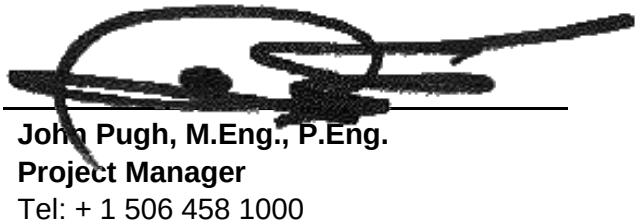

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APPENDIX A
Figures

NOTE: Some features shown (dam structures, mill buildings, ponds, roads, etc.) have been altered as part of decommissioning activities, since the date of the aerial photography

BURNICK

LOWER NORTH CREEK PUMP SHACKS

NORTH CREEK

BORROW & LANDFILL AREA

GRAVEL PIT

FLOW

NORTH CREEK DYKE

NORTH DAM

NORTH POND

BONEYARD

TAILINGS MANAGEMENT AREA

CONTRACTOR LAYDOWN AREA

SOUTH POND

SEDIMENT RETAINING STRUCTURE AND POND

LONG ACCESS ROAD

CAMP CREEK

FLOW

SHORT ACCESS ROAD

RECLAIM POND

BORROW PIT "G"

MILL SITE

MAIN GATE KM #24

PORTAL CREEK

JEWELBOX

FLOW

CAMP CREEK

ACCESS CREEK

FLOW

MAIN ACCESS ROAD

INSET MAP

N

TO MINE SITE

KM #18

QUARRY SITE

KM #17

KM #16

MAIN ACCESS ROAD

KM #15

0 250 500 1,000 1,500 2,000 Metres

LEGEND:

WATERCOURSE

The map shown here has been created with all due and reasonable care and is strictly for use with AmecFW Project Number: TE133102. This map has not been certified by a licensed land surveyor, and any third party use of this map comes without warranties of any kind. AmecFW assumes no liability,direct or indirect, whatsoever for any such third party or unintended use.

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 0 100 200 400 600 Metres 1:17,000

DATUM: NAD83 CSRS

PROJECTION: UTM Zone 9 North

PROJECT NO: TE133102

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: GENERAL SITE PLAN 2015 DECOMMISSIONING WORK

DWN BY: TM

CHK'D BY: CJ / LW / JP

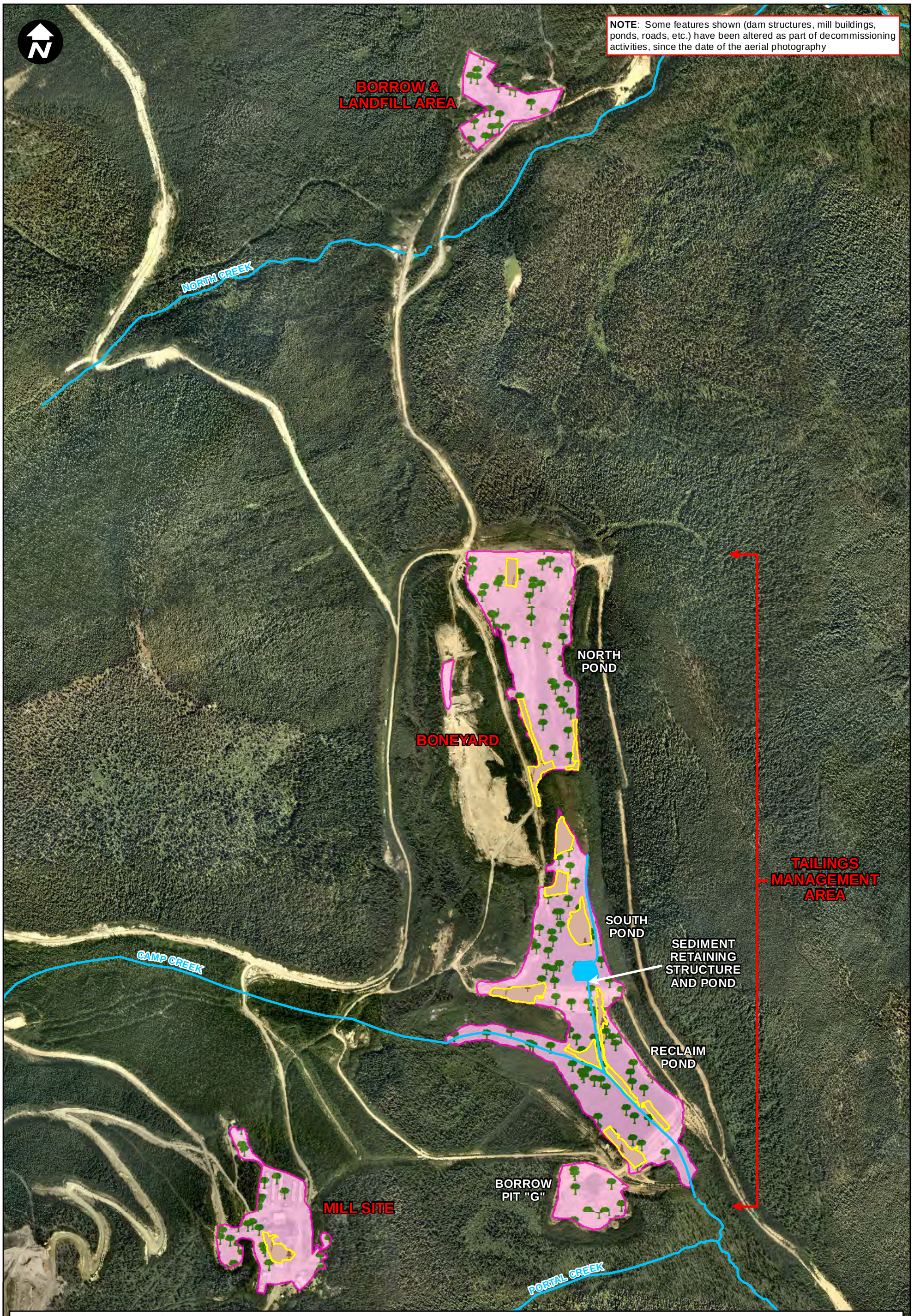
DATE: November 6, 2015

REV. NO: R0

FIGURE NO: SDH00_FIG_16

PATH: G:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\MXD\2015_FinalReport\SDH00_FIG_16_R0_20151106_GeneralOverview.mxd User: tanya.morehouse Date: 17/11/2015

SOURCE: TECK Topographic Data, TECK LiDAR Ortho Photo 2012



LEGEND:

- Planted Area Species: Willow/Poplar
- Planted Area Species: Alder

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 0 50 100 200 300 Metres 1:9,000

DATUM: NAD83 CSRS

PROJECTION: UTM Zone 9 North

PROJECT NO: TE133102

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2015 TREE PLANTING PROGRAM

DWN BY: TM

CHK'D BY: CJ / LW / JP

DATE: November 6, 2015

REV. NO: R0

FIGURE NO: SDH00_FIG_17

PATH: G:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\MXD\2015_FinalReport\SDH00_FIG_17_R0_20151106_PlantingProgram.mxd User: tanya.morehouse Date: 10/11/2015

SOURCE: TECK Topographic Data, TECK LiDAR Ortho Photo 2012

BURNICK (APPROX)
CAPPED HYDROCARBON
CONTAMINATED AREA

NOTE: Some features shown (dam structures, mill buildings, ponds, roads, etc.) have been altered as part of decommissioning activities, since the date of the aerial photography

BURNICK

BORROW & LANDFILL AREA

NORTH CREEK

YEAR	CAPPING AREA LOCATION	MINIMUM CAP THICKNESS (mm)
2014	Mill Site	400 - 500
	Golden Hills Shop	600
	Jewelbox Sediment Pond & Gully	1000
	Burnick Hydrocarbon Contaminated Area	600
	North Pond	500
	South Pond	500
	Reclaim Pond	500
	Landfill / Borrow Area (Disposal Cells)	1000
2015	Jewelbox	200
	Mill Site	200
	South Pond	500
	Boneyard	200

NORTH POND

BONEYARD CAPPING AREA

TAILINGS MANAGEMENT AREA

SOUTH POND

SEDIMENT RETAINING STRUCTURE AND POND

CAMP CREEK

RECLAIM POND

GOLDEN HILLS SHOP

JEWELBOX SEDIMENT POND & GULLY

MILL SITE

PORTAL CREEK

MAIN GATE / SECURITY

JEWELBOX

MAIN ACCESS ROAD

LEGEND:

- Mill Site Capping Area (2014)
- Mill Site Capping Area (2015)
- Golden Hills Shop Capping Area
- TMA Capping Area (2014) (North Pond, South Pond, Reclaim Pond)
- South Pond Capping Area (2015)
- Burnick Capped Hydrocarbon Contaminated Area (Approx Extents)
- Jewelbox Capping Area
- Jewelbox Sediment Pond & Gully Capping Area
- Boneyard Capping Area
- Landfill Capping Area (Disposal Cell Areas)

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 0 50 100 200 300 Metres 1:10,500

DATUM: NAD83 CSRS

PROJECTION: UTM Zone 9 North

PROJECT NO: TE133102

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: OVERVIEW OF REMEDIAL CAPPING AREAS

DWN BY: TM

CHK'D BY: CJ / LW

DATE: November 6, 2015

REV. NO: R0

FIGURE NO: SDH00_FIG_18

PATH: G:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\MXD\2015_FinalReport\SDH00_FIG_18_R0_20151106_RemedialCappingAreas.mxd User: tanya.morehouse Date: 10/11/2015

SOURCE: TECK Topographic Data, TECK LiDAR Ortho Photo 2012

NOTE: Some features shown (dam structures, mill buildings, ponds, roads, etc.) have been altered as part of decommissioning activities, since the date of the aerial photography

NORTH POND

BONEYARD

SOUTH POND

SEDIMENT RETAINING STRUCTURE AND POND

LONG ACCESS ROAD

CAMP CREEK

RECLAIM POND

MILL SITE

BORROW PIT "G"

MAIN ZONE OPEN PIT

JEWELBOX

SUMMIT

PORTAL CREEK

MAIN ACCESS ROAD

ACCESS CREEK

LEGEND:

SIGN

DANGER
HIDDEN DROP-OFF AREA
DO NOT PROCEED

REVEGETATION IN PROGRESS
PLEASE KEEP OFF

WARNING
UNSTABLE MINE WORKINGS
DO NOT ENTER

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 0 50 100 200 300 Metres 1:9,000

DATUM: NAD83 CSRS

PROJECTION: UTM Zone 9 North

PROJECT NO: TE133102

PROJECT: **DETAILED DECOMMISSIONING AND RECLAMATION PLAN**

TITLE: **2015 SIGNAGE INSTALLATION**

DWN BY: TM

CHK'D BY: CJ / LW / JP

DATE: November 6, 2015

REV. NO: R0

FIGURE NO: SDH00_FIG_19

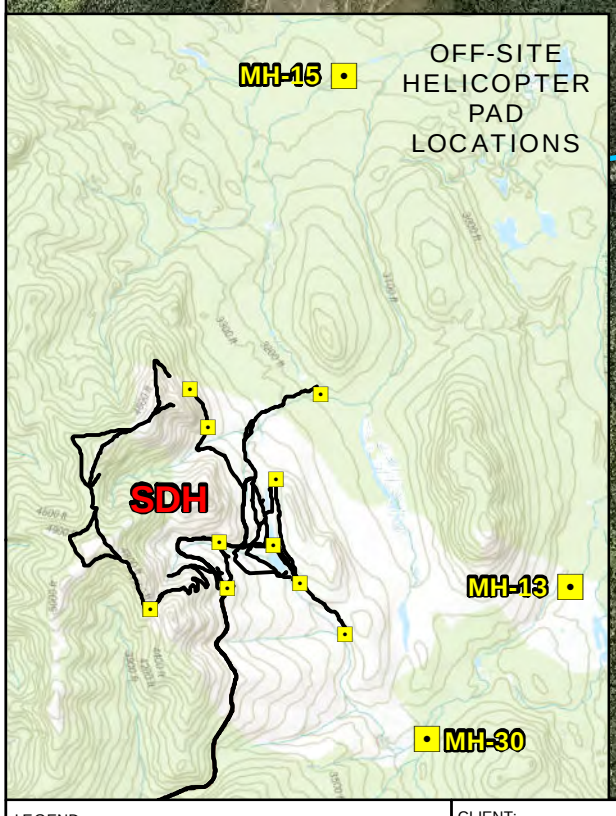
PATH: G:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\MXD\2015_FinalReport\SDH00_FIG_19_R0_20151106_SignageInstallation.mxd User: tanya.morehouse Date: 10/11/2015

SOURCE: TECK Topographic Data, TECK LiDAR Ortho Photo 2012

NOTE: Some features shown (dam structures, mill buildings, ponds, roads, etc.) have been altered as part of decommissioning activities, since the date of the aerial photography

MH-22 (ALTERNATE)
MH-22
BURNICK
MH-08
NORTH CREEK
BORROW & LANDFILL AREA
MH-12
NORTH CREEK
MH-02
TAILINGS MANAGEMENT AREA
MH-04
CAMP CREEK
MH-01
MILL SITE
MH-05
MAIN GATE
MH-28 / MH-28A
PORTAL CREEK
CAMP CREEK
JEWELBOX
MH-25 / SDH-S2
ACCESS CREEK
MH-11 / MH-29

OFF-SITE HELICOPTER PAD LOCATIONS



Station ID	Helipad Coordinates	
	Easting	Northing
MH-22	506808	6712911
MH-22 (Alternate)	506706	6713008
MH-08	507091	6712281
MH-12	508976	6712825
MH-02	508217	6711408
MH-01	508179	6710326
MH-04	507282	6710384
MH-05	507425	6709614
MH-28/MH-28A	508630	6709703
MH-25 / SDH-S2	506155	6709266
MH-11 / MH-29	509360	6708857
MH-13	513094	6709640
MH-15	509341	6718083
MH-30	510718	6707101

LEGEND:

HELICOPTER PAD LOCATIONS (2015)

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 0 100 200 400 Metres 1:15,000

DATUM: NAD83 CSRS

PROJECTION: UTM Zone 9 North

PROJECT NO: TE133102

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: HELICOPTER PAD LOCATIONS

DWN BY: TM

CHK'D BY: CJ / LW / JP

DATE: November 6, 2015

REV. NO: R0

FIGURE NO: SDH00_FIG_20

PATH: G:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\MXD\2015_FinalReport\SDH00_FIG_20_R0_20151106_HeliPadLocations.mxd User: tanya.morehouse Date: 10/11/2015

SOURCE: TECK Topographic Data, TECK LiDAR Ortho Photo 2012

NOTE: Some features shown (dam structures, mill buildings, ponds, roads, etc.) have been altered as part of decommissioning activities, since the date of the aerial photography

BURNICK

BORROW & LANDFILL AREA

BONEYARD

MILL SITE

JEWELBOX

MAIN ACCESS ROAD

LEGEND:
- Remaining Access Road
- Decommissioned Access Road

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 0 100 200 400 600 Metres
1:20,000

DATUM: NAD83 CSRS

PROJECTION: UTM Zone 9 North

PROJECT NO: TE133102

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2015 ROAD DECOMMISSIONING

DWN BY: TM

CHK'D BY: CJ / LW / JP

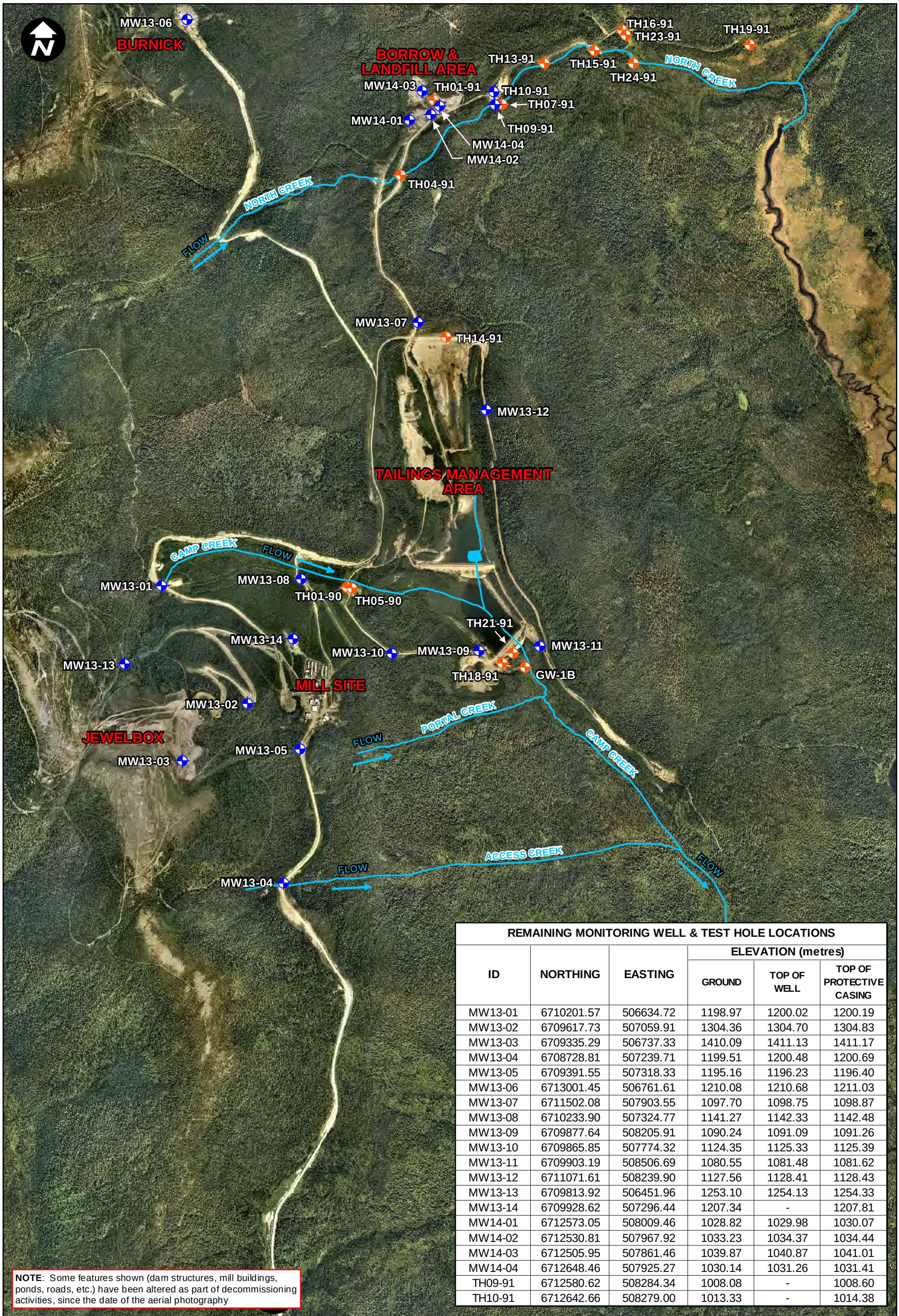
DATE: November 6, 2015

REV. NO: R0

FIGURE NO: SDH00_FIG_21

Path: G:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\MXD\2015_FinalReport\SDH00_FIG_21_R0_20151106_2015RoadDecommissioning.mxd User: tanya.morehouse Date: 10/11/2015

SOURCE: TECK Topographic Data, TECK LiDAR Ortho Photo 2012



NOTE: Some features shown (dam structures, mill buildings, ponds, roads, etc.) have been altered as part of decommissioning activities, since the date of the aerial photography

REMAINING MONITORING WELL & TEST HOLE LOCATIONS

ID	NORTHING	EASTING	ELEVATION (metres)		
			GROUND	TOP OF WELL	TOP OF PROTECTIVE CASING
MW13-01	6710201.57	506634.72	1198.97	1200.02	1200.19
MW13-02	6709617.73	507059.91	1304.36	1304.70	1304.83
MW13-03	6709335.29	506737.33	1410.09	1411.13	1411.17
MW13-04	6708728.81	507239.71	1199.51	1200.48	1200.69
MW13-05	6709391.55	507318.33	1195.16	1196.23	1196.40
MW13-06	6713001.45	506761.61	1210.08	1210.68	1211.03
MW13-07	6711502.08	507903.55	1097.70	1098.75	1098.87
MW13-08	6710233.90	507324.77	1141.27	1142.33	1142.48
MW13-09	6709877.64	508205.91	1090.24	1091.09	1091.26
MW13-10	6709865.85	507774.32	1124.35	1125.33	1125.39
MW13-11	6709903.19	508506.69	1080.55	1081.48	1081.62
MW13-12	6711071.61	508239.90	1127.56	1128.41	1128.43
MW13-13	6709813.92	506451.96	1253.10	1254.13	1254.33
MW13-14	6709928.62	507296.44	1207.34	-	1207.81
MW14-01	6712573.05	508009.46	1028.82	1029.98	1030.07
MW14-02	6712530.81	507967.92	1033.23	1034.37	1034.44
MW14-03	6712505.95	507861.46	1039.87	1040.87	1041.01
MW14-04	6712648.46	507925.27	1030.14	1031.26	1031.41
TH09-91	6712580.62	508284.34	1008.08	-	1008.60
TH10-91	6712642.66	508279.00	1013.33	-	1014.38

LEGEND:

ACTIVE MONITORING WELL / TEST HOLE

DECOMMISSIONED WELL / TEST HOLE

The map shown here has been created with all due and reasonable care and is strictly for use with AmecFW Project Number: TE133102. This map has not been certified by a licensed land surveyor, and any third party use of this map comes without warranties of any kind. AmecFW assumes no liability,direct or indirect, whatsoever for any such third party or unintended use.

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 0 100 200 400 600 Metres 1:17,000

DATUM: NAD83 CSRS

PROJECTION: UTM Zone 9 North

PROJECT NO: TE133102

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: MONITORING WELL AND TEST HOLE LOCATIONS

DWN BY: TM

CHK'D BY: CJ / LW / JP

DATE: November 6, 2015

REV. NO: R0

FIGURE NO: SDH00_FIG_22

PATH: G:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\MXD\2015_FinalReport\SDH00_FIG_22_R0_20151106_MonitoringWells.mxd User: tanya.morehouse Date: 10/11/2015

SOURCE: TECK Topographic Data, TECK LiDAR Ortho Photo 2012

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LEGEND:

- TEST PIT
- Final Completed Capping Area
- Trees (Area not Included in Capping)

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 0 5 10 20 30 40 50 Metres — 1:1,500

DATUM: NAD83 CSRS

PROJECTION: UTM Zone 9 North

PROJECT NO: TE133102

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: JEWELBOX TEST PIT LOCATIONS

DWN BY: TM

CHK'D BY: CJ / LW / JP

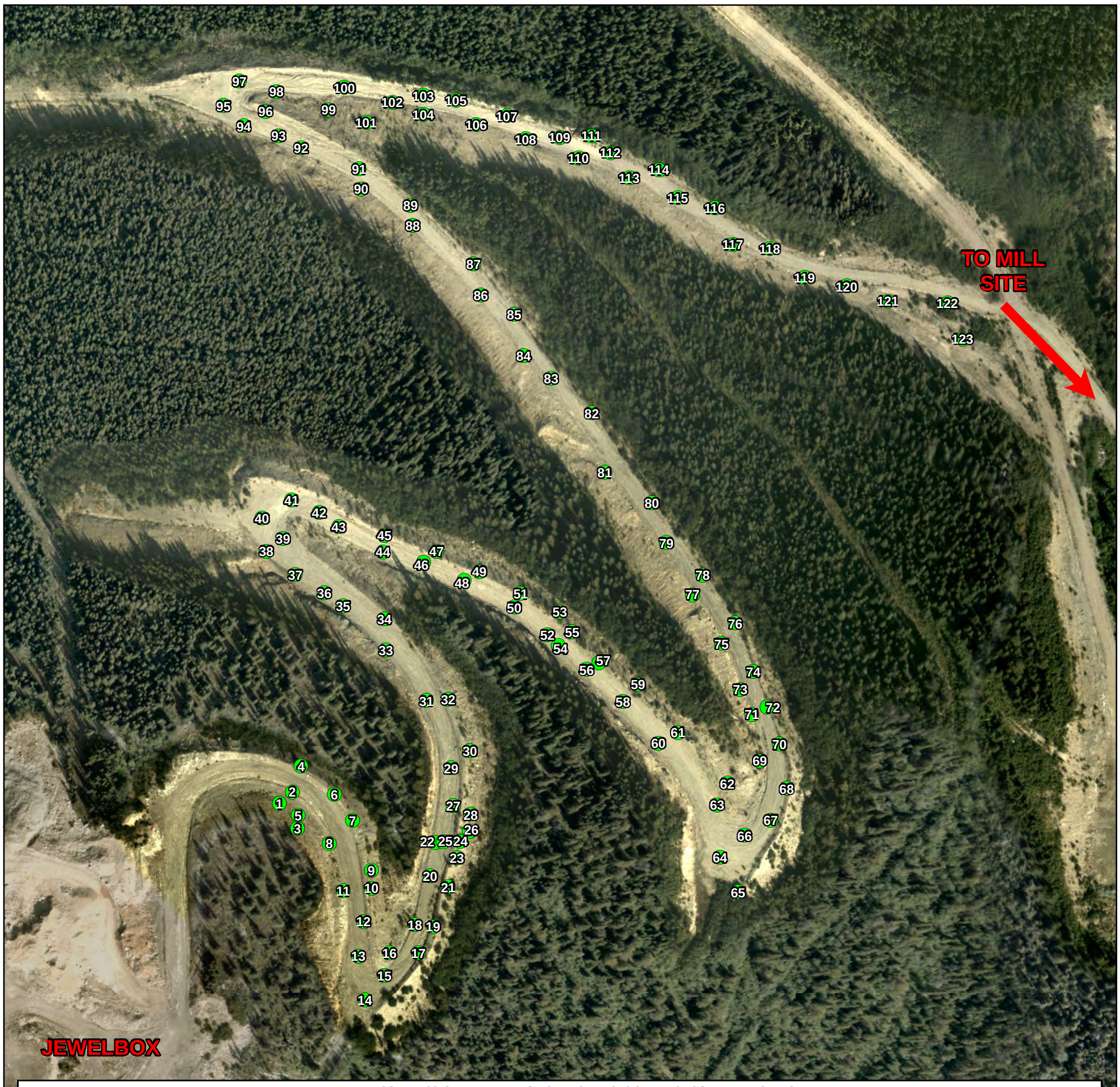
DATE: November 6, 2015

REV. NO: R0

FIGURE NO: SDH01_FIG_04

PATH: G:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\MXD\2015_FinalReport\SDH01_FIG_04_R0_20151106_JewelboxTestPitLocations.mxd User: tanya.morehouse Date: 10/11/2015

SOURCE: TECK Topographic Data, TECK LiDAR Ortho Photo 2012



FINAL DECOMMISSIONED JEWELBOX SWITCHBACKS SURFACE SOIL XRF RESULTS

Sample ID	Pb (ppm)	Zn (ppm)	Sample ID	Pb (ppm)	Zn (ppm)	Sample ID	Pb (ppm)	Zn (ppm)	Sample ID	Pb (ppm)	Zn (ppm)	Sample ID	Pb (ppm)	Zn (ppm)
1	51.17	112.20	**26**	353.43	598.92	**51**	105.56	222.79	**76**	237.01	372.55	**101**	207.87	479.97
2	69.00	105.41	**27**	135.93	147.15	**52**	91.76	279.30	**77**	239.18	365.70	**102**	120.46	374.53
3	119.69	320.33	**28**	297.79	529.82	**53**	108.79	216.60	**78**	115.55	228.46	**103**	218.78	421.36
4	109.49	350.07	**29**	150.75	234.74	**54**	97.79	263.85	**79**	76.52	210.47	**104**	159.70	378.00
5	251.91	511.52	**30**	106.93	172.60	**55**	143.08	319.58	**80**	87.19	146.00	**105**	229.16	534.15
6	107.85	339.19	**31**	65.66	166.67	**56**	223.66	295.53	**81**	123.44	331.20	**106**	279.56	511.60
7	121.52	346.85	**32**	171.71	248.33	**57**	239.50	332.88	**82**	181.19	422.98	**107**	201.83	393.52
8	185.70	641.11	**33**	99.20	235.91	**58**	153.77	365.64	**83**	339.60	646.13	**108**	172.31	461.12
9	151.17	316.43	**34**	117.63	226.76	**59**	125.07	252.92	**84**	237.61	508.53	**109**	210.09	443.36
10	112.09	322.52	**35**	91.94	280.65	**60**	327.83	585.45	**85**	171.61	371.66	**110**	202.14	430.72
11	126.00	299.78	**36**	197.83	446.90	**61**	160.60	274.59	**86**	215.29	476.00	**111**	238.39	438.75
12	263.45	480.09	**37**	271.87	492.45	**62**	131.16	224.13	**87**	175.90	407.70	**112**	81.87	248.77
13	133.69	401.40	**38**	261.41	640.12	**63**	86.25	306.28	**88**	299.22	412.86	**113**	204.13	461.77
14	203.31	368.57	**39**	335.99	636.65	**64**	162.04	313.28	**89**	233.89	394.48	**114**	149.16	362.92
15	246.81	467.67	**40**	297.72	545.65	**65**	158.99	435.25	**90**	191.28	325.40	**115**	152.31	336.43
16	194.91	459.12	**41**	227.38	433.70	**66**	98.08	229.04	**91**	185.45	523.69	**116**	185.45	426.16
17	295.62	413.70	**42**	283.80	526.05	**67**	102.05	230.88	**92**	129.47	315.80	**117**	107.64	346.86
18	130.16	237.87	**43**	231.73	462.31	**68**	148.54	462.20	**93**	154.19	324.34	**118**	103.00	255.82
19	129.25	296.44	**44**	110.70	252.23	**69**	90.43	185.42	**94**	164.08	395.09	**119**	176.15	374.69
20	120.57	397.35	**45**	106.26	200.02	**70**	105.18	166.45	**95**	56.94	207.31	**120**	172.82	306.12
21	104.30	306.79	**46**	77.12	179.96	**71**	105.60	189.29	**96**	43.29	99.09	**121**	140.10	296.53
22	286.70	351.01	**47**	129.89	212.73	**72**	101.30	150.92	**97**	37.92	238.25	**122**	162.59	408.12
23	127.58	221.46	**48**	147.02	327.98	**73**	196.21	412.74	**98**	248.84	596.56	**123**	228.34	328.07
24	101.79	188.45	**49**	130.44	226.82	**74**	96.52	267.79	**99**	135.89	215.37			
25	187.44	366.05	**50**	216.47	255.90	**75**	204.11	377.44	**100**	244.74	465.39			

LEGEND:
- X-Ray Fluorescence (XRF) Final Decommissioned Surface Sample Location
- 100 Surface Sample ID

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 0 10 20 40 60 Metres — 1:2,000

DATUM: NAD83 CSRS

PROJECTION: UTM Zone 9 North

PROJECT NO: TE133102

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: XRF SOIL SAMPLING- JEWELBOX SWITCHBACK DECOMMISSIONING

DWN BY: TM

CHK'D BY: CJ / LW / JP

DATE: November 6, 2015

REV. NO: R0

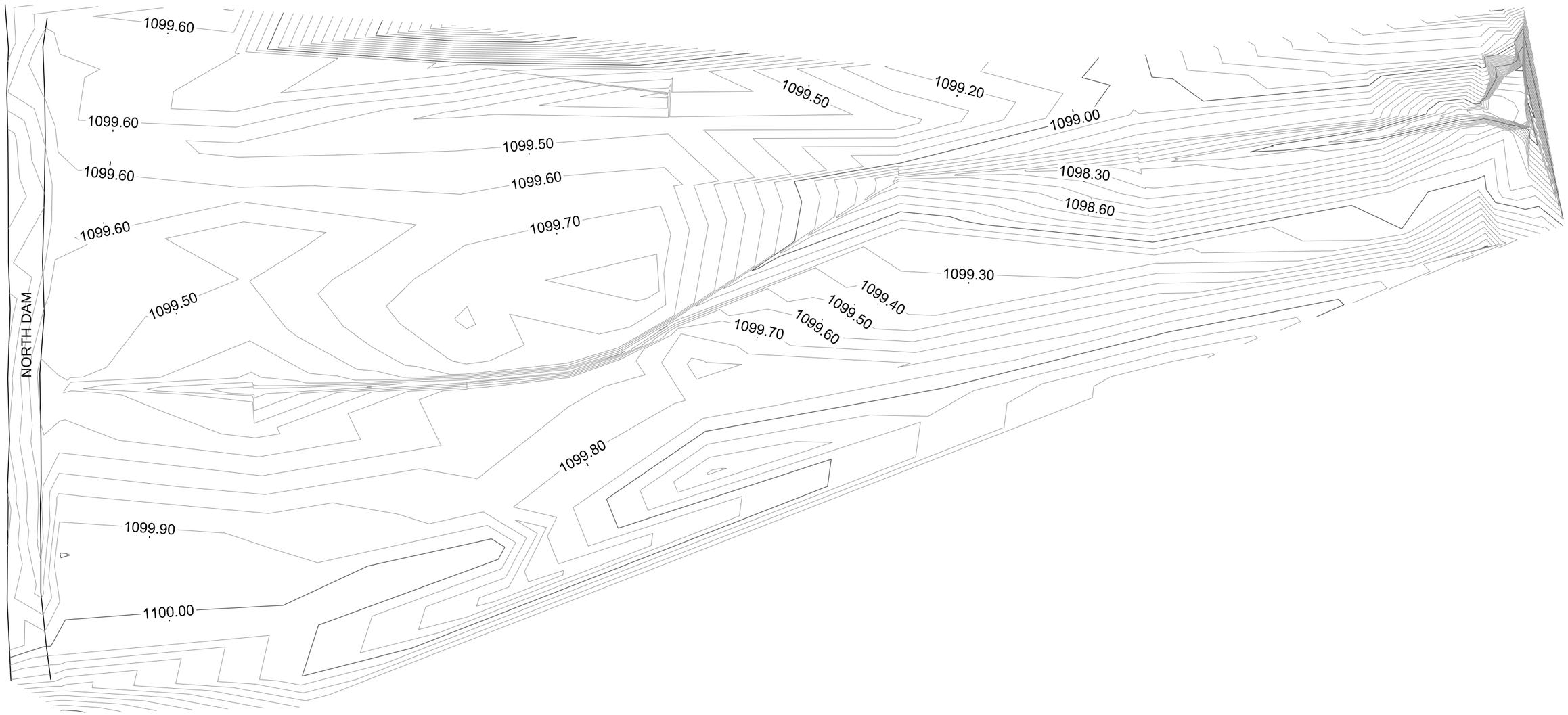
FIGURE NO: SDH01_FIG_05

PATH: G:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\MXD\2015_FinalReport\SDH01_FIG_05_R0_20151106_XRF_SoilSampling.mxd User: tanya.morehouse Date: 06/11/2015

SOURCE: TECK Topographic Data, TECK LiDAR Ortho Photo 2012

APPENDIX B
As-Built Drawing

Drawing SDH03_B_C_0009……North Tailings Pond Topography



LEGEND:

1485.00 TOPOGRAPHIC CONTOUR (0.1m INTERVALS)

CLIENT:

Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 1:1500

0m 10 20 30 40 50 60

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133102

FILE NO: SDH03-B-C-0009_R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: NORTH TAILINGS POND TOPOGRAPHY

DWN BY:	N.A.
CHK'D BY:	C.J.
DATE:	2015/11/10
REV. NO:	R0
FIGURE NO:	SDH03-B-C-0009

P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH_NorthPond.dwg - 11/10/2015 4:20 PM - Attari, Nojan

APPENDIX C
Photographs

Photograph 1: **Photo taken during spring inspection showing erosion on east downstream toe of SRS (right of photo) with sediment in channel and sloughing within spillway causing rock migration (May 27).**

Photograph 2: **Excavator removing top layer of rock from rock cofferdam in South Pond and placing in truck to haul to spillway and SRS to repair spring damage (June 24).**

Photograph 3: **Excavator placing additional rock in spillway and along east (right) downstream toe of SRS (June 27).**

Photograph 4: **Excavator placing rock from rock cofferdam along east downstream toe of SRS. Underlain geotextile was placed below rock material. Seepage seen running along toe was diverted away from toe following placement of rock fill (June 27).**

Photograph 5: **Excavator constructing berm along long access road in preparation for hauling material from Borrow Pit "G" to Jewelbox for capping of the waste rock dump (June 6).**

Photograph 6: **Gravel from pit north of the landfill being dumped and spread at northeast corner of North Pond to raise the grade of the cover, push ponded water to the south, and promote drainage from the surface (June 10).**

Photograph 7: **Bulldozers and graders grading the surface of the North Pond after the grade had been raised and all ponded water had been pushed to the south (June 18).**

Photograph 8: **Laborers planning willow / poplar trees in northern end of former Reclaim Pond area (June 22).**

Photograph 9: **Norcope loading rock truck at Borrow Pit "G" with former Reclaim Dam material for haul to Jewelbox for capping of the reclaimed waste rock dump surface (June 23).**

Photograph 10: **Helipad for post-closure monitoring constructed near MH28/MH28-A during road decommissioning (road shown decommissioned at both ends) (June 27).**

Photograph 11: **Decommissioning of former South Dam east access road (June 29).**

Photograph 12: **Completed re-sloping / reshaping of gravel pit (north of landfill) (June 29).**

Photograph 13: **Laberge Environmental Services and labour crew planting willow / poplar tree plugs at North Pond (June 30).**

Photograph 14: **Organic material stockpiled at landfill in 2014 spread across surface (June 30).**

Photograph 15: **Burnick Creek diverted into HDPE pipe using sand bags (right) to allow removal of culvert (left) in the dry (July 8).**

Photograph 16: **Decommissioning of short access road with excavator bringing material up the slope and bulldozer shaping final surface (July 13).**

Photograph 17: **Norcope spreading clean sand and gravel across reclaimed Jewelbox waste rock dump (July 16).**

Photograph 18: **Material from former mill camp facilities area being excavated and hauled to various capping locations around the mill area (July 18).**

Photograph 19: **Screening rock at km 17 quarry for use as erosion protection in site watercourses following culvert removal as part of road decommissioning (July 22).**

Photograph 20: **Photo taken at Camp Creek crossing along short access road (MH-04 sample point) following road decommissioning and culvert removal. Erosion protection installed including rolled erosion control blanket on upper portion of slopes (July 22).**

Photograph 21: **Norcope placing minimum 200 mm thick lift of capping material across Jewelbox waste rock dump surface (July 23).**

Photograph 22: **Decommissioning of Camp Creek Diversion culverts and fill material (July 26).**

Photograph 23: **First load of remaining pipe being loaded at boneyard for off-site salvage (July 26).**

Photograph 24: **Culverts from road decommissioning being crushed and loaded into truck for hauling to Watson Lake landfill (July 29).**

Photograph 25: **Road decommissioning near North Creek crossing along Burnick 1200 access road (July 29).**

Photograph 26: **Capping of former crusher area with material excavated from former mill camp facilities area. Rolled erosion blanket in photo was placed along the crusher slope (left) in 2014 (July 29).**

Photograph 27: **Material from Borrow Pit "G" stockpile being spread as capping material across area in South Pond (August 03).**

Photograph 28: **Decommissioning of road from North Dam to landfill (August 11).**

Photograph 29: **Reclamation of km 17 quarry site (August 11).**

Photograph 30: **Decommissioning of Jewelbox switchbacks, with two excavators and one bulldozer moving material up the slope (August 14).**

Photograph 31: **Bulldozer with ripper attachment tilling soil at North Pond in preparation for alder tree planting (August 14).**

Photograph 32: **Decommissioning of Jewelbox switchbacks, with two excavators and one bulldozer moving clean material up the slope (August 19).**

Photograph 33: **Alder trees planted at landfill (August 23).**

Photograph 34: **Decommissioning of Jewelbox switchbacks, with two excavators bringing clean material up the slope and one bulldozer shaping the slope (August 25).**

Photograph 35: **Amec Foster Wheeler carrying out confirmatory XRF sampling on final surface of decommissioned Jewelbox switchback (August 29).**

Photograph 36: **One of the "Revegetation In Progress – Please Keep Off" signs installed at mill site (September 8).**

Photograph 37: **Locked gate installed at entrance to mill site with berms on both sides, preventing access (September 11).**

Photograph 38: **Helicopter view of Tailings Management Area, from south end looking north (September 3).**

Photograph 39: **Helicopter view of mill site (foreground) and Jewelbox (background) (September 15).**

Photograph 40: **Helicopter view of reclaimed Jewelbox switchbacks and Jewelbox waste rock dump, looking southwest (September 15).**

Photograph 41: **Helicopter view of reclaimed and capped Jewelbox waste rock dump looking west (September 15).**

Photograph 42: **Helicopter view of reclaimed and capped Jewelbox waste rock dump, Jewelbox Open Pit area, and upper Jewelbox switchback (September 15).**

Photograph 43: **Helicopter view of landfill area from north end looking south (September 15).**

Photograph 44: **Helicopter view of reclaimed Tailings Management Area from northeast looking southwest, with Mill Site and Jewelbox in background (September 15).**

APPENDIX D
Well Decommissioning Logs

Sä Dena Hes Mine Decommissioning & Reclamation
Well Decommissioning Report: TH01-90

Weather Conditions: Foggy	**Amec Foster Wheeler Construction Monitor:** Chris Jeffrey
Temperature: 10°C	**Amec Foster Wheeler Inspector:** Gordon Shupe
Completion Date: July 27, 2015	**Contractor:** IKC

This report provides details from the well decommissioning activities at TH01-90.

Procedure:

July 24, 2015

1. Excavated around the wellhead to approximately 2m below grade.
2. Confirmed diameter (0.150m) of well and measured depth of well (21.2m).
3. Created a 3.8m plug using bentonite (to 17.4m from top of pipe). Supplier suggested that 70.9 kg would create an approximate 3m plug. Plug was allowed to sit 48 hours to improve effectiveness.
4. Removed 1.0m of well pipe using electric grinder.

July 26, 2015

5. Filled well with sand to approximately 0.5m below top of pipe.
6. Used grout to fill remaining volume of well to top of casing.

July 27, 2015

7. Backfilled the excavated area with excavated material.

Materials Used:

Material	Quantity
Bentonite	3 buckets
Sand/Fill	100 shovel loads
Grout	¼ bucket grout mixed with water

Plug Information:

Material	Top (m)	Bottom (m)
Pipe Removed	0.0	1.0
Grout	1.0	1.5
Sand	1.5	17.4
Bentonite	17.4	21.2

Note 1: All measurements are based off original pipe height.
Note 2: Water level was 4.4m

Borehole Log:

See attached borehole log for TH01-90.

Photographs from TH01-90:

Photo 1: Water well TH01-90 cut down.

Photo 2: Iyon laborers installing grout cap for TH01-90.

LOG OF BOREHOLE TH01-90

PROJECT No.:	**TE133102**	ELEVATION:	**---**
CLIENT:	**Teck Resources Ltd.**	DATUM:	
PROJECT NAME:	**Sä Dena Hes Mine Decommissioning**	METHOD:	
LOCATION:	**Sä Dena Hes Mine, YT**	DIAMETER:	**150 mm**
DATE DRILLED:	**27-7-15**	WATER LEVEL:	**4.40 m**
LOGGED BY:	**G. Shupe**	CONTRACTOR:	**IKC**

amec foster wheeler

DEPTH (m)	ELEVATION (m)	STRATIGRAPHIC DESCRIPTION	STRATA PLOT	WATER LEVEL
0		Pipe removed		
		Grout Cap		
		Sand		
5				
10				
15				
		Bentonite plug		
20		End of Borehole @ 21.2 m		
		Elevations measured from original top of pipe		

Sä Dena Hes Mine Decommissioning & Reclamation
Well Decommissioning Report: TH05-90

Weather Conditions: Foggy	**Amec Foster Wheeler Construction Monitor:** Chris Jeffrey
Temperature: 10°C	**Amec Foster Wheeler Inspector:** Gordon Shupe
Completion Date: July 27, 2015	**Contractor:** IKC

This report provides details from the well decommissioning activities at TH05-90.

Procedure:

July 24, 2015

1. Excavated around the wellhead to approximately 2m below grade.
2. Confirmed diameter (0.150m) of well and measured depth of well (81.8m).
3. Created a 3.6m plug using bentonite (to 78.2m from top of pipe). Supplier suggested that 70.9 kg would create an approximate 3m plug. Plug was allowed to sit 48 hours to improve effectiveness.
4. Removed 1.5m of well pipe using electric grinder.

July 26, 2015

5. Filled well with sand to approximately 0.7m below top of pipe.
6. Used grout to fill remaining volume of well to top of casing.

July 27, 2015

7. Backfilled the excavated area with excavated material covering well.

Materials Used:

Material	Quantity
Bentonite	3 buckets
Sand/Fill	300 shovel loads
Grout	¼ bucket grout mixed with water

Plug Information:

Material	Top (m)	Bottom (m)
Pipe Removed	0.0	1.5
Grout	1.5	2.2
Sand	2.2	78.2
Bentonite	78.2	81.8

Note 1: All measurements are based off original pipe height.
Note 2: Water level was 14.5m

Borehole Log:

See attached borehole log for TH05-90.

Photographs from TH05-90:

Photo 1: Iyon laborer shoveling sand into TH05-90.

Photo 2: Iyon laborers mixing grout for capping TH05-90.

LOG OF BOREHOLE TH05-90

PROJECT No.:	**TE133102**	ELEVATION:	**---**
CLIENT:	**Teck Resources Ltd.**	DATUM:	
PROJECT NAME:	**Sä Dena Hes Mine Decommissioning**	METHOD:	
LOCATION:	**Sä Dena Hes Mine, YT**	DIAMETER:	**150 mm**
DATE DRILLED:	**27-7-15**	WATER LEVEL:	**14.50 m**
LOGGED BY:	**G. Shupe**	CONTRACTOR:	**IKC**

amec foster wheeler

DEPTH (m)	ELEVATION (m)	STRATIGRAPHIC DESCRIPTION	STRATA PLOT	WATER LEVEL
0		Pipe removed		
		Grout cap		
		Sand		
5				
10				
15				
20				
25				
30				
35				
40				
45				
50				
55				
60				
65				
70				
75				
80		Bentonite plug		
		End of Borehole @ 81.8 m		
		Elevations measured from original top of pipe		

Sä Dena Hes Mine Decommissioning & Reclamation
Well Decommissioning Report: TH04-91

Weather Conditions: Overcast	**Amec Foster Wheeler Construction Monitor:** Chris Jeffrey
Temperature: 12°C	**Amec Foster Wheeler Inspector:** Chris Jeffrey
Completion Date: August 18, 2015	**Contractor:** IKC

This report provides details from the well decommissioning activities at TH04-91.

Procedure:

August 16:

1. Excavated around the wellhead to approximately 1m below grade.
2. Confirmed diameter (0.150m) of well and measured depth of well (68.0m from top of pipe).
3. Created a 7.4m plug using bentonite (to 60.6m from top of pipe). Supplier suggested that 70.9 kg would create an approximate 3m plug. Plug was allowed to sit 48 hours to improve effectiveness.

August 18:

4. Removed 0.5m of well pipe using electric grinder.
5. Filled well with adjacent sand and gravel to approximately 0.5m below top of pipe.
6. Used grout to fill remaining volume of well to top of casing.
7. Backfilled the excavated area with excavated material covering well.

Materials Used:

Material	Quantity
Bentonite	1 bucket and 2 bags
Sand/Fill	300 shovel loads
Grout	¼ bucket grout mixed with water

Plug Information:

Material	Top (m)	Bottom (m)
Pipe Removed	0.0	0.5
Grout	0.5	1.0
Sand	1.0	60.6
Bentonite	60.6	68.0

Note 1: All measurements are based off original pipe height.
Note 2: Water level was 0.14m (well was dewatered using 50mm pump)

Borehole Log:
See attached borehole log for TH04-91.

Photographs from TH04-91:

Photo 1: Excavation around TH04-91.

Photo 2: Amec Foster Wheeler Construction Monitor measuring depth of well.

LOG OF BOREHOLE TH04-91

PROJECT No.:	**TE133102**	ELEVATION:	**---**
CLIENT:	**Teck Resources Ltd.**	DATUM:	
PROJECT NAME:	**Sä Dena Hes Mine Decommissioning**	METHOD:	
LOCATION:	**Sä Dena Hes Mine, YT**	DIAMETER:	**150 mm**
DATE DRILLED:	**18-8-15**	WATER LEVEL:	**0.14 m**
LOGGED BY:	**C. Jeffrey**	CONTRACTOR:	**IKC**

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DEPTH (m)	ELEVATION (m)	STRATIGRAPHIC DESCRIPTION	STRATA PLOT	WATER LEVEL
0		Pipe removed		
		Grout Cap		
		Sand		
60		Bentonite plug		
65		End of Borehole @ 68 m		
		Elevations measured from original top of pipe		

Sä Dena Hes Mine Decommissioning & Reclamation
Well Decommissioning Report: TH16-91

Weather Conditions: Sunny	**Amec Foster Wheeler Construction Monitor:** Chris Jeffrey
Temperature: 15°C	**Amec Foster Wheeler Inspector:** Gordon Shupe
Completion Date: July 16, 2015	**Contractor:** IKC

This report provides details from the well decommissioning activities at TH16-91.

Procedure:

July 15

1. Confirmed diameter (0.100m) of well and measured depth of well (40.0m)
2. Excavated around the wellhead to approximately 2m below grade.
3. Removed 2.2m of well pipe using electric grinder.
4. Discovered inner pipe and two cables. Inner pipe and cables were cut to the same height as outer pipe.
5. Created a 6.2m plug using bentonite (to 33.8m from top of pipe). Supplier suggested that 31.8kg would create an approximate 3m plug. Plug was allowed to sit overnight to improve effectiveness.

July 16

6. Filled well with sand to approximately 3m below top of pipe.
7. Used grout to fill remaining volume of well to top of casing.
8. Backfilled the excavated area with excavated material covering well.

Materials Used:

Material	Quantity
Bentonite	3 buckets
Sand/Fill	20 shovel loads
Grout	¼ bucket grout mixed with water

Plug Information:

Material	Top (m)	Bottom (m)
Pipe Removed	0.0	2.2
Grout	2.2	2.7
Sand	2.7	33.8
Bentonite	33.8	40.0

Note 1: All measurements are based off original pipe height.
Note 2: Water level was 2.8m

Borehole Log:

See attached borehole log for TH16-91.

Photographs from TH16-91:

Photo 1: View of excavation around TH16-91.

Photo 2: Iyon laborers installing grout cap of TH16-91.

LOG OF BOREHOLE TH16-91

PROJECT No.:	**TE133102**	ELEVATION:	**---**
CLIENT:	**Teck Resources Ltd.**	DATUM:	
PROJECT NAME:	**Sä Dena Hes Mine Decommissioning**	METHOD:	
LOCATION:	**Sä Dena Hes Mine, YT**	DIAMETER:	**100 mm**
DATE DRILLED:	**16-7-15**	WATER LEVEL:	**2.80 m**
LOGGED BY:	**G. Shupe**	CONTRACTOR:	**IKC**

amec foster wheeler

DEPTH (m)	ELEVATION (m)	STRATIGRAPHIC DESCRIPTION	STRATA PLOT	WATER LEVEL
0		Pipe removed		
		Grout cap		
		Sand		
5				
10				
15				
20				
25				
30				
35		Bentonite plug		
40		End of Borehole @ 40 m		
		Elevations measured from original top of pipe		

Sä Dena Hes Mine Decommissioning & Reclamation
Well Decommissioning Report: TH23-91

Weather Conditions: Sunny	**Amec Foster Wheeler Construction Monitor:** Chris Jeffrey
Temperature: 15°C	**Amec Foster Wheeler Inspector:** Gordon Shupe
Completion Date: July 16, 2015	**Contractor:** IKC

This report provides details from the well decommissioning activities at TH23-91.

Procedure:

July 15

1. Confirmed diameter (0.100m) of well and measured depth of well (40.0m).
2. Created a 4.6m plug using bentonite (to 35.4m from top of pipe). Supplier suggested that 31.8kg would create an approximate 3m plug. Plug was allowed to sit overnight to improve effectiveness.

July 16

3. Excavated around the wellhead to approximately 2m below grade.
4. Pumped water out of well to below excavated surface.
5. Removed 2.0m of well pipe using electric grinder.
6. Discovered inner pipe and two cables. Inner pipe and cables were cut to the same height as outer pipe.
7. Filled well with sand to approximately 3m below top of pipe.
8. Used grout to fill remaining volume of well to top of casing.
9. Backfilled the excavated area with excavated material.

Materials Used:

Material	Quantity
Bentonite	3 buckets
Sand/Fill	20 shovel loads
Grout	¼ bucket grout mixed with water

Plug Information:

Material	Top (m)	Bottom (m)
Pipe Removed	0.0	2.0
Grout	2.0	2.8
Sand	2.8	35.4
Bentonite	35.4	40.0

Note 1: All measurements are based off original pipe height.
Note 2: Water level was 0.3m

Borehole Log:

See attached borehole log for TH23-91.

Photographs from TH23-91:

Photo 1: Iyon laborers shoveling sand into TH23-91.

Photo 2: Grout cap of TH23-91.

LOG OF BOREHOLE TH23-91

PROJECT No.:	**TE133102**	ELEVATION:	**---**
CLIENT:	**Teck Resources Ltd.**	DATUM:	
PROJECT NAME:	**Sä Dena Hes Mine Decommissioning**	METHOD:	
LOCATION:	**Sä Dena Hes Mine, YT**	DIAMETER:	**100 mm**
DATE DRILLED:	**16-7-15**	WATER LEVEL:	**0.30 m**
LOGGED BY:	**G. Shupe**	CONTRACTOR:	**IKC**

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DEPTH (m)	ELEVATION (m)	STRATIGRAPHIC DESCRIPTION	STRATA PLOT	WATER LEVEL
0		Pipe removed		
		Grout cap		
		Sand		
5				
10				
15				
20				
25				
30				
35		Bentonite plug		
40		End of Borehole @ 40 m		
		Elevations measured from original top of pipe		