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

2014 RECLAMATION ACTIVITIES AND AS-BUILT REPORT

Submitted to:
Teck Resources Limited
Bag 2000
Kimberley, BC
V1A 3E1

Submitted by:
Amec Foster Wheeler Environment & Infrastructure,
a Division of Amec Foster Wheeler Americas Limited
495 Prospect Street, Suite 1
Fredericton, New Brunswick
E3B 9M4

March 2015

TE133102

March 30, 2015

Teck Resources Limited
Bag 2000
Kimberley, BC
V1A 3E1

Att: Mr. Gerry Murdoch, AScT
Project Manager, Legacy Properties

Re: Sä Dena Hes Mine, Yukon Territory
2014 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 2014 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 2014 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.

John Pugh, M.Eng., P.Eng.
Project Manager
Tel.: + 1 506 458 1000
Fax: + 1 506 450 0829
E-mail: john.pugh@amecfw.com

Amec Foster Wheeler Environment & Infrastructure,
a Division of Amec Foster Wheeler Americas Limited
495 Prospect Street, Suite 1
Fredericton, NB E3B 9M4
Tel +1 (506) 458-1000
Fax +1 (506) 450-0829
www.amecfw.com

EXECUTIVE SUMMARY

The 2014 decommissioning and reclamation activities associated with the Sä Dena Hes Mine Decommissioning and Reclamation project, at the SDH Mine in the Yukon Territory, were carried out between April 19, 2014 and October 14, 2014. Amec Foster Wheeler provided Construction Monitoring services for the work throughout this period. This report includes a description of all Teck-managed decommissioning and reclamation activities completed during the 2014 phase of the overall reclamation project.

Key decommissioning and reclamation activities included:

- 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 relocation 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 and landfill maintenance
  - (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

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, 2013) for the project. Changes, deviations from, and additions to the original design or proposed construction are documented in the appropriate report sections.

Other activities (site tours, installation of monitoring wells, surveying, consultation activities, seed collection program, site infrastructure work, etc.) also took place at the site during the 2014 work period. These activities are also briefly discussed.

Included in this report are general site plans, figures showing various work locations, Issued for Construction drawings, as-built drawings, photographic logs, and other pertinent information from the construction period.

TABLE OF CONTENTS

PAGE

1.0 INTRODUCTION 1

2.0 BACKGROUND 2

3.0 PROJECT ORGANIZATION 3

4.0 2014 WORK OVERVIEW AND IMPLEMENTATION APPROACH 4

5.0 TAILINGS MANAGEMENT AREA DECOMMISSIONING 5
5.1 GENERAL DECOMMISSIONING ACTIVITIES 5
5.1.1 Dewatering of Reclaim and South Ponds 5
5.1.2 Water Management during Construction 7
5.1.3 Deconstruction of Reclaim Dam 8
5.1.4 Deconstruction of South Dam 9
5.1.5 Channel Construction 10
5.1.6 Cover Construction 11
5.1.7 Quarry Operations 14
5.2 TAILINGS MANAGEMENT AREA DECOMMISSIONING DESIGN DEVIATIONS 14
5.2.1 Decommissioning of Camp Creek Diversion 14
5.2.2 Sediment Retaining Structure and Spillway Elevation 15
5.2.3 Re-alignment of North Drainage Channel 15
5.2.4 Removal of Camp Creek Drainage Channel Section “R” 15
5.2.5 Camp Creek Drainage Channel Outfall 16
5.2.6 Rock Cofferdam 16
5.2.7 Cover Construction across Northwest Corner of North Tailings Pond 16
5.2.8 Cover Construction across Grassy Area North of South Pond 17
5.2.9 Borrow Pit “G” 17

6.0 MOUNTAIN WORKS 18
6.1 GENERAL DECOMMISSIONING ACTIVITIES 18
6.1.1 Jewelbox Zone 18
6.1.1.1 Portal Closures 18
6.1.1.2 Waste Rock Dump Reshaping 19
6.1.1.3 Open Pit Infilling 20
6.1.1.4 Ventilation Raise Closures 21
6.1.2 Burnick Zone 22
6.1.2.1 Portal Closures 22
6.1.2.2 Waste Rock Dump Reshaping 23
6.2 MOUNTAIN WORKS DESIGN DEVIATIONS 24
6.2.1 Jewelbox Zone 24
6.2.1.1 Jewelbox 1380 Portal Closure 24
6.2.1.2 Main Zone Open Pit Infill 24

6.2.1.3 Ventilation Raise Closures 25
6.2.1.4 Hydrocarbon Capping 25
6.2.2 Burnick Zone 26
6.2.2.1 Burnick 1200 Sampling Location 26
6.2.2.2 Hydrocarbon Capping 26
6.3 OTHER ACTIVITIES 26
6.3.1 Ore Haul 27
6.3.2 Concentrate and Concrete Haul 27
6.3.3 Core Disposal 27
6.3.4 Remote Core Rack Work 27
6.3.5 Construction of Exploration Camp Access Road 28
6.3.6 Sediment Pond Excavation, Capping and Liner Removal 28
6.3.7 Groundwater Monitoring Well Extensions 28
6.3.8 Removal and Disposal of Used Oil Drum 29

7.0 ELECTRICAL DECOMMISSIONING 30
7.1 GENERAL DECOMMISSIONING ACTIVITIES 30
7.2 ELECTRICAL CABLE / ELECTRICAL PANEL REMOVAL 30
7.3 POLE REMOVAL 31
7.4 TRANSFORMER DECOMMISSIONING 31

8.0 TANK DECOMMISSIONING 32
8.1 GENERAL DECOMMISSIONING ACTIVITIES 32
8.2 TANK REMOVAL 32
8.3 PUMPING OF CONTAMINATED WATER 32
8.4 REMOVAL OF LINER 32

9.0 OTHER DECOMMISSIONING AND RECLAMATION WORKS 33
9.1 GENERAL SITE CLEAN-UP 33
9.2 MILL CONCRETE BREAKING / CAPPING / RESHAPING AND GOLDEN HILLS SHOP AREA CAPPING 33
9.3 ROAD MAINTENANCE 34
9.4 LANDFILL ACTIVITIES 35
9.5 NORTH CREEK DYKE 37
9.6 PIPELINE WORKS 37
9.6.1 Installation of 200 mm HDPE Pipeline for TMA Decommissioning 38
9.6.2 Removal of Pipeline from Site Access Roads 38
9.6.3 Pipeline Salvage 38
9.7 REMOVAL OF NON-PERMITTED WASTE 38
9.8 CORE RACKS 39
9.9 ROLLED EROSION CONTROL BLANKET INSTALLATION 39
9.10 GROUNDWATER MONITORING WELL DECOMMISSIONING 40
9.11 SEED APPLICATION 41
9.12 HELIPAD CONSTRUCTION 41
9.13 EXPLORATION CAMP 41

10.0 PROJECT MILESTONE TIMELINE 42

11.0 OTHER 2014 SITE ACTIVITIES 43
11.1 TECK CONSULTATION ACTIVITIES 43
11.1.1 SRK Consulting 43
11.1.2 Golder Associates 43
11.1.3 Azimuth Consulting Group 43
11.1.4 Summit Environmental Consultants / Liard First Nation Development Corporation 44
11.2 SEED COLLECTION PROGRAM 44
11.3 SITE INFRASTRUCTURE / TECK GENERATOR WORK 44
11.4 CARETAKER MOBILE HOME WORK 44
11.5 SITE VISITS 45

12.0 CLOSING REMARKS 46

LIST OF FIGURES PAGE

Figure 3.1: 2014 Decommissioning Phase Organizational Structure 3

LIST OF TABLES PAGE

Table 5.1: Reclaim Pond Daily Discharge 6
Table 5.2: South Pond Daily Discharge 7
Table 5.3: Turbidity Exceedances at MH28-A Construction Compliance Point 8
Table 9.1: 2014 Reclamation Activities Water Usage 35
Table 10.1: Major Project Milestones and Completion Dates 42
Table 11.1: Yukon Regulatory Site Visits 45

LIST OF APPENDICES

Appendix A Figures
Appendix B TMA Decommissioning Issued for Construction Drawings
Appendix C TMA Decommissioning As-built Drawings
Appendix D TMA Decommissioning Photographs
Appendix E Mountain Works Issued for Construction Drawings
Appendix F Mountain Works As-built Drawings
Appendix G Mountain Works Photographs
Appendix H Ventilation Raise Laboratory Concrete Strength Testing Documentation
Appendix I Ventilation Raise Modified Design Drawings
Appendix J Tracking Documentation for Hazardous Waste and Contaminated Material
Appendix K Electrical Decommissioning Photographs
Appendix L Transformer PCB Testing Documentation
Appendix M Tank Decommissioning Photographs
Appendix N Other Site Activities Photographs
Appendix O Mill Area As-built Drawings
Appendix P Landfill As-built Drawings
Appendix Q Groundwater Monitoring Well Decommissioning Logs

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 2014. 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 2014 construction phase. Section 3.0 provides the project organizational chart for the 2014 construction phase. Section 4.0 provides a breakdown of the various work packages and implementation approach for the reclamation project. Sections 5.0 through 9.0 describe the work activities carried out and as-built conditions from the 2014 decommissioning program for each work package. Section 10.0 provides a project milestone timeline. Section 11.0 describes other activities carried out in 2014 including consultant works and regulator site visits.

Also included in this report are figures and drawings from various locations of the work site which describe the as-built conditions.

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) 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 bulk 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

A general site plan is provided in Appendix A as Figure SDH00_FIG_12.

3.0 PROJECT ORGANIZATION

Figure 3.1 below describes the organizational structure for the 2014 implementation phase of the decommissioning and reclamation project.

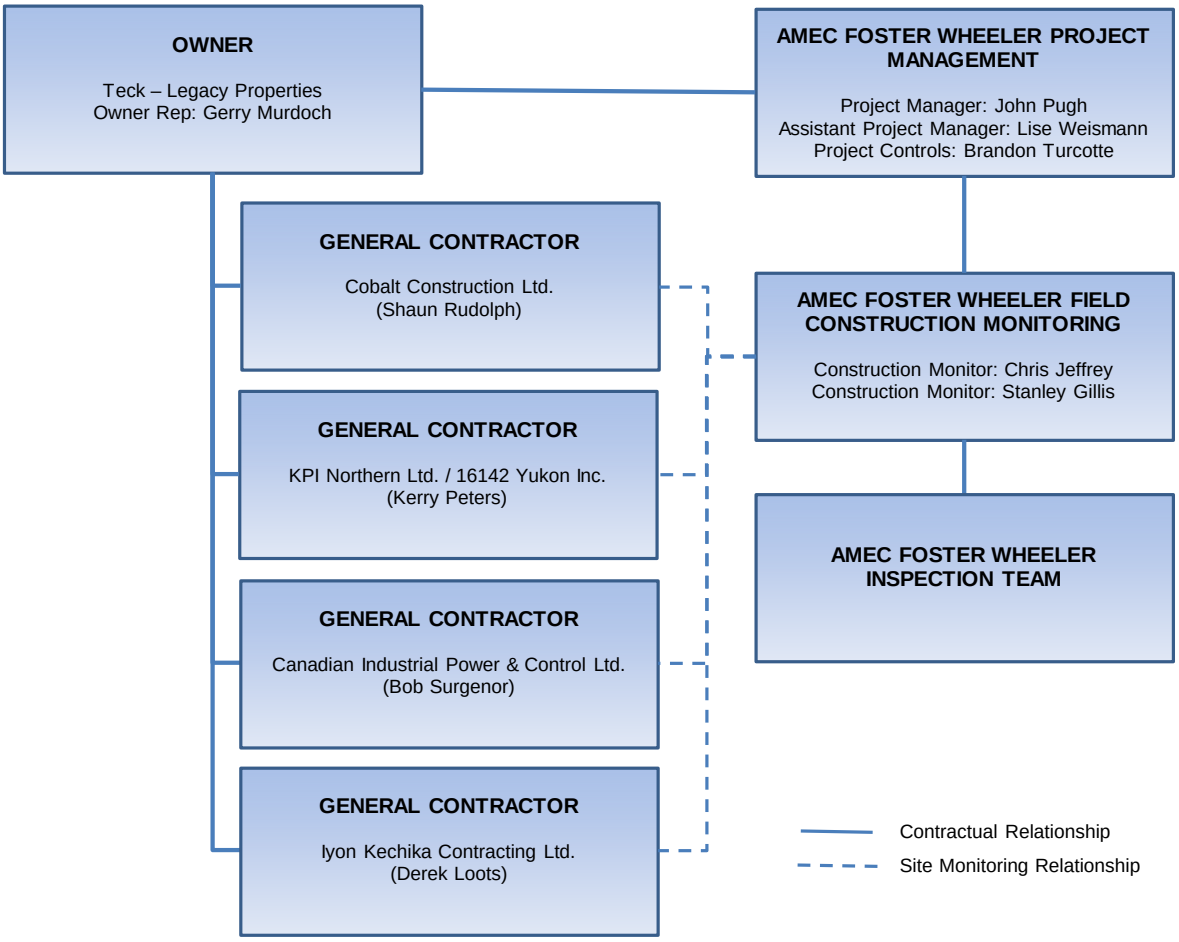


Figure 3.1: 2014 Decommissioning Phase Organizational Structure

4.0 2014 WORK OVERVIEW AND IMPLEMENTATION APPROACH

The majority of the decommissioning and reclamation activities associated with the overall project were carried out in 2014. In order to achieve the aggressive 2014 scope of work and schedule, an implementation strategy was developed and activities were separated into several main work packages for tendering:

- Tailings Management Area (TMA) Decommissioning
- Mountain Works
- Electrical Decommissioning
- Tank Decommissioning

In addition to the above-noted main work packages, several work activities were carried out by local First Nations Contractors, including:

- Road maintenance
- Mill site concrete breaking and capping
- Pipeline removal
- Demolition of small structures
- Groundwater monitoring well decommissioning

Details from all work activities presented above are described in Sections 5.0 through 9.0 of this report.

The dismantling, salvage, and demolition of the mill and associated infrastructure was carried out and managed by the mill purchaser (JDS Energy & Mining Inc.). Details of these activities are provided under separate cover.

5.0 TAILINGS MANAGEMENT AREA DECOMMISSIONING

The TMA consisted primarily of three earth structures (North Dam, South Dam, and Reclaim Dam), two water impoundments (South Pond and Reclaim Pond), tailings deposition zones (North Tailings Pond, South Tailings Zone), and a section of drainage channel known as the Camp Creek Diversion Channel. The Camp Creek Diversion Channel was constructed prior to the commencement of mining operations to divert Camp Creek to the west and keep water out of the TMA. The various features of the TMA are labelled in Figure SDH03_FIG_07 (Appendix A). Issued for Construction (IFC) drawings for the TMA decommissioning are provided in Appendix B with as-built drawings provided in Appendix C. Select photographs from TMA decommissioning construction are provided in Appendix D.

5.1 General Decommissioning Activities

The TMA decommissioning works were carried out by Cobalt Construction Ltd. (Cobalt). The objective was to dewater the impoundments behind the South Dam and Reclaim Dam structures, remove both structures, construct a cover across exposed tailings areas, restore the natural (pre-mining operations) alignment of Camp Creek through the Reclaim Pond area, and construct channels through the TMA to allow the passage of surface drainage water through the facility. A Sediment Retaining Structure (SRS) and spillway were also established for sedimentation control.

5.1.1 Dewatering of Reclaim and South Ponds

Dewatering of the impoundments behind the Reclaim Pond and South Pond were of critical importance to the successful execution of the project. The existing water license (Yukon Water Board License Number QZ99-045) stipulated the following: “In no case shall the periods of discharge exceed a cumulative total of ninety days. In no case shall the discharge exceed a rate of 228 m^3 per hour or a quantity of 490,000 m^3 per year.”

Under these parameters, dewatering was carried out starting with pumping from the Reclaim Pond. When the Reclaim Pond was dewatered, the pumping system was relocated to the South Pond.

For all pumping operations, a 0.15 m submersible pump intake was placed in the pond using a floating raft to support the pump. The pumping system was powered by a generator set up at the pumping location. Water discharge was monitored by two persons at all times and water was released under controlled pumping conditions into the lower end of Camp Creek below the Reclaim Dam through a diffuser. Pumping was monitored using a Grey Line Instruments Portable Doppler Flow Meter (PDFM) 5.0. The dewatering pipeline system included a 200 mm suction hose and a 150 mm discharge hose. They were connected with a 250 mm HDPE diameter section of pipe which included a steel gate valve for flow adjustments required based on flow meter readings. For dewatering of the South Pond, a 200 mm HDPE pipeline was installed along the east bank of the former Reclaim Pond to carry South Pond water around the

Reclaim Pond working area to discharge it into Camp Creek. The dewatering activities were monitored 24 hours per day, seven days per week.

During the early stages of pumping operations, the water elevation in the Reclaim Pond continued to rise despite continual pumping. This was primarily due to spring freshet inflows, precipitation and South Pond water discharging through the open decant tower culvert in the South Dam. The water elevation in the South Pond was initially below the invert elevation of the decant structure culvert. However, during the Spring the water level continued to rise and eventually water began discharging into the Reclaim Pond through the decant structure. Water discharged through the structure for several consecutive days, however, due to the criticality of emptying the Reclaim Pond to allow other construction activities to take place, stop logs were installed in the decant structure to block the flow of the water through the culvert. Once the stop logs were installed, the water level in the Reclaim Pond began to recede as spring freshet slowed and water from upstream of the South Dam was contained within the impoundment behind the dam.

Initial pumping timeframe estimates from the project designer, SRK Consulting (SRK), were in the range of 47 to 50 days to complete the dewatering of both impoundments. However, an increase in pumping days was required to complete dewatering, due primarily to spring freshet inflows and surface runoff from precipitation events during pumping operations. Despite the increase in pumping time, draining of both ponds was completed within permitted timeframes. A total of 47.83 days of pumping from the Reclaim Pond was achieved, with a total of 251,326 m^3 of water discharged from the Reclaim Pond between the dates of May 14, 2014 and July 1, 2014 (see Table 5.1 for daily breakdown of pumping volumes).

Table 5.1: Reclaim Pond Daily Discharge

Date (2014)	Discharge (m^3)	Date (2014)	Discharge (m^3)	Date (2014)	Discharge (m^3)
May 15*	4,386.17	May 31	5,370.81	June 16	5,375.92
May 16	5,382.14	June 1	5,377.72	June 17	5,371.68
May 17	5,378.55	June 2	5,390.43	June 18	5,367.35
May 18	5,372.53	June 3	5,366.57	June 19	5,381.33
May 19	5,373.18	June 4	5,381.31	June 20	5,299.89
May 20	5,379.92	June 5	5,184.75	June 21	5,389.37
May 21	5,390.89	June 6	5,381.73	June 22	5,391.50
May 22	5,370.44	June 7	5,378.05	June 23	5,393.34
May 23	5,403.40	June 8	5,381.63	June 24	5,399.73
May 24	5,388.22	June 9	5,403.45	June 25	5,390.18
May 25	5,382.74	June 10	5,386.41	June 26	5,371.69
May 26	5,378.86	June 11	1,007.64	June 27	5,390.56
May 27	5,397.00	June 12	5,390.74	June 28	5,280.10
May 28	5,386.28	June 13	5,385.80	June 29	5,389.74
May 29	5,381.76	June 14	5,360.75	June 30	5,386.90
May 30	5,387.59	June 15	5,380.12	July 01**	4,079.48

*Note: Pumping from the Reclaim Pond began at 3:40 PM on May 14. However, metrics were reported on a 24-hr basis from 12:00 PM to 12:00 PM. Therefore, all May 14 pumping hours were captured on the discharge volume for May 15.

**Note: Reclaim Pond pumping ended at 6:20 am on July 01.

A total of 32.50 days of pumping from the South Pond was achieved, for a combined total of 80.33 days of dewatering. A total of 163,002 m^3 of water was discharged from the South Pond between the dates of July 2, 2014 and August 4, 2014 (see Table 5.2 for daily breakdown of pumping volumes) for a combined total of 414,328 m^3 of water discharged during the TMA decommissioning works. Pumping was declared completed on August 4, 2014.

Table 5.2: South Pond Daily Discharge

Date (2014)	Discharge (m^3)	Date (2014)	Discharge (m^3)	Date (2014)	Discharge (m^3)
July 03*	4,271.98	July 14	675.61	July 25	5,373.98
July 04	5,376.86	July 15	900.00	July 26	5,372.80
July 05	5,370.20	July 16	5,376.00	July 27	5,408.61
July 06	5,384.29	July 17	5,376.00	July 28	5,355.45
July 07	5,376.92	July 18	1,680.00	July 29	5,365.82
July 08	5,373.20	July 19	5,381.46	July 30	5,358.35
July 09	5,376.96	July 20	5,367.11	July 31	5,365.42
July 10	5,387.07	July 21	5,402.81	August 01	5,292.42
July 11	5,376.48	July 22	5,380.87	August 02	5,370.32
July 12	5,370.02	July 23	5,367.11	August 03	5,364.75
July 13	5,375.97	July 24	5,381.46	August 04**	5,045.76

*Note: Pumping from the South Pond began at 5:00 PM on July 02. However, metrics were reported on a 24-hr basis from 12:00 PM to 12:00 PM thus all July 02 hours were captured on the discharge volume for July 03.
**Note: South Pond pumping ended at 10:30 am on August 04.

5.1.2 Water Management during Construction

Following dewatering of the Reclaim Pond and South Pond, water management in the TMA was controlled by Cobalt primarily by using two, 50 mm pumps installed in various sump locations in the Reclaim Pond area to collect surface water inflows coming from mountain runoff and spring freshet. The water management efforts facilitated construction of the drainage channels and the cover construction across exposed areas of pond bottoms. Some excess water was pumped back up into the South Pond and some was pumped into a Y-connection which fed to the South Pond 200 mm drainage pipeline. Inflows slowed following spring freshet but never ceased and continual water management was required through the duration of the work.

Sediment and erosion control was implemented throughout the duration of construction. Challenges were encountered with the control of sediment, particularly during periods of moderate to heavy precipitation. Mitigative measures taken to control these issues included installation of erosion and sediment control fencing and hay bales within the Reclaim Pond area, and at the lower end of the Camp Creek Drainage Channel near the lower tie-in. As work progressed and the new channels were being constructed, extra silt fencing and hay bales were installed in problem areas along the edges of the drainage channels.

The construction monitoring compliance point for the maximum allowable turbidity of 15 nephelometric turbidity units (NTU) was established at MH28-A, which was located just upstream of where Camp Creek intersects with Portal Creek. The location of MH28-A is shown in Figure SDH03_FIG_07 (Appendix A). During the construction period, a total of fourteen environmental non-compliances of turbidity exceedance were recorded. Of these exceedances,

eleven were recorded by Cobalt, two were recorded by Liard First Nation Development Corporation (LFNDC) environmental monitors, and one was recorded by Amec Foster Wheeler. Table 5.3 provides the dates on which exceedances were recorded. The Table also provides the turbidity reading that was taken on the date of exceedance, time of sample and sampling body (i.e. Cobalt, LFNDC, or Amec Foster Wheeler). It should be noted that exceedances were reported on a day by day basis. For example, if LFNDC and Cobalt reported an exceedance on the same day (which is noted in the table below), this was only documented as one exceedance.

Table 5.3: Turbidity Exceedances at MH28-A Construction Compliance Point

Date (2014)	MH28-A Reading (NTU)	Sample Time	Sampling Body
May 22	30.70	04:15:00 PM	LFNDC
May 23	25.90	08:00:00 AM	Cobalt
July 03	77.70	08:00:00 AM	Cobalt
July 04	59.03	08:00:00 AM	Cobalt
July 05	36.97	08:00:00 AM	Cobalt
August 24	27.73	08:00:00 AM	Cobalt
August 25	18.17*	08:00:00 AM	Cobalt
August 27	22.03*	08:00:00 AM	Cobalt
August 29	20.13	08:00:00 AM	Cobalt
September 06	> 15.00**	12:00:00 AM	Cobalt
September 07	54.80	08:00:00 AM	Cobalt
September 12	19.10	10:30:00 AM	LFNDC
September 16	18.60	02:45:00 PM	Cobalt
September 28	51.10	12:00:00 PM	Amec Foster Wheeler

* Note: LFNDC also reported exceedances on these dates.
** Note: Based on visual observation due to out of range turbidity values.

Mitigative measures were deployed to address the exceedances, including installation of additional erosion and sediment control fencing and hay bales. During the final phases of construction, frequent precipitation events caused several exceedances even with fencing and hay bales in place. Cobalt installed several additional control measures including construction of rills using a bulldozer running perpendicular to the slopes, additional erosion and sediment control fencing, hay bales and diversion of surface runoff where possible. Additionally, all areas on and around the Reclaim Pond and South Pond areas were seeded in October in an effort to promote vegetation growth (refer to Section 9.11).

5.1.3 Deconstruction of Reclaim Dam

Dam deconstruction closely followed dewatering operations. Excavation of the Reclaim Dam began on July 2, 2014 and excavation ended on September 13, 2014. Material from the excavation of the Reclaim Dam was primarily placed in Borrow Pit “G” (located just west of the Reclaim Dam). Some of the Reclaim Dam material was also used for cover construction across the former Reclaim Pond in zones identified by Golder Associates Ltd. (Golder) as requiring capping due to elevated metals concentrations. Excavation of the Reclaim Dam was carried out in multiple cuts (typically 2 to 3 m per cut) to restore original ground elevations.

Overall, 86,171 m^3 of material was excavated from the Reclaim Dam including the toe buttress rock which accounted for 2,992 m^3 of the overall quantity. The dam fill material from the Reclaim Dam excavation that has been stockpiled in Borrow Pit G will be available for use in 2015 as capping material across other disturbed site locations if required. The material stockpile was shaped and contoured in such a manner that would permit re-vegetation efforts to take place in the event no material is hauled from Borrow Pit G in 2015.

In completing the deconstruction of the Reclaim Dam, the dam footprint was excavated to original ground and blended into the surrounding topography on the upstream and downstream sides of the former dam. The as-built conditions associated with the deconstruction of the Reclaim Dam are shown in Drawing SDH_03_B_C_0006 (Appendix C).

The Camp Creek Diversion Channel, exit chute, and associated culverts near the west limit of the Reclaim Dam remain in place. Although these were to be decommissioned as part of the overall TMA decommissioning work, they were left in place due to field conditions encountered during construction. This deviation is further described in Section 5.2.1.

5.1.4 Deconstruction of South Dam

Excavation of the South Dam began on July 31, 2014 and ended on October 01, 2014. Excavated South Dam material was hauled and placed as cover across the North Tailings Pond, South Tailings Pond and the grassy area north of the South Pond. Excavation was conducted in multiple cuts (typically 2 to 3 m per cut) to restore original ground elevation.

During deconstruction, the concrete decant structure and associated culvert sections buried within the dam were demolished. The concrete structure was blasted using explosives. Blasted concrete segments and rebar were hauled to the on-site landfill for disposal. The culvert sections were removed from the dam during excavation and were crushed and hauled to the landfill for disposal. As excavation of the South Dam continued near the decant structure location, it was observed that the blast did not completely demolish the base of the concrete tower. To avoid further blasting and causing a large fill requirement, the base of the tower was left in place and covered with South Dam material. The area was blended into the surrounding topography.

Overall, 140,846 m^3 of material was excavated from the South Dam including a small amount of rock from the downstream slope which accounted for approximately 600 m^3 of the overall quantity. The SRS was constructed by leaving in place a low-profile berm from the upstream toe of the former dam. A rock lined spillway, 33.3 m long, overlying nonwoven geotextile was constructed through the SRS. The spillway was constructed to accommodate a 1 in 1000 year discharge event. The SRS is approximately 80 m long and has a crest elevation of approximately 1,087.7 m (all elevations geodetic). The spillway through the SRS has an as-built invert elevation of approximately 1,085.7 m. The upstream face of the SRS is built with a 2H:1V slope. The downstream slope of the SRS is constructed at 2.5H:1V. The crest across the SRS is 4 m in width. The crest elevation and spillway invert elevation were set at approximately 1 m above original design elevations after SRK reviewed field conditions following the dewatering of

the South Pond impoundment. This design change is further described in Section 5.2.2. The as-built conditions associated with the construction of the SRS and spillway are shown in Drawing SDH_03_B_C_0003 (Appendix C).

Saturated conditions near the base of the former South Dam were encountered during excavation of the South Drainage Channel, which is connected to the spillway through the SRS. Seepage from the sediment retaining pond upstream of the SRS, and from the east abutment of the former dam, entered the channel excavation during construction. Seepage water was collected and pumped back up into the sediment retaining pond during construction in this area.

In completing the deconstruction of the South Dam, the dam footprint was excavated to original ground (with exception of the SRS) and blended into the surrounding topography on the upstream and downstream sides of the former dam. The as-built conditions associated with the deconstruction of the South Dam are shown in Drawing SDH_03_B_C_0007 (Appendix C).

In addition to excavation of South Dam material, the original overflow spillway near the west limit of the former dam was decommissioned. The overflow spillway consisted of two 900 mm diameter Corrugated Steel Pipe (CSP) culverts which were removed, crushed and hauled to the landfill for disposal. One smaller culvert (approximately 200 mm diameter) was installed to the immediate east of the two 900 mm diameter culverts during construction as a temporary means of diverting water away from the work area. This culvert was left in place to divert surface water from the west into a wooded area just south of the former South Dam and will be removed in 2015.

5.1.5 Channel Construction

Three riprap lined channels were constructed within the TMA to direct surface drainage water through the area following decommissioning activities; the South Drainage Channel, the Camp Creek Drainage Channel, and the North Drainage Channel. The following lengths of channels were constructed:

- South Drainage Channel: 212 m
- Camp Creek Drainage Channel: 805 m
- North Drainage Channel: 285 m

The South Drainage Channel was constructed from the SRS spillway through the footprint of the former South Dam, and south of the former South Dam to a convergence with the newly constructed Camp Creek Drainage Channel.

The Camp Creek Drainage Channel was constructed from the upstream end of the Camp Creek Diversion Channel through the former Reclaim Pond area and connects with Camp Creek approximately 100 m south of the former Reclaim Dam. The Camp Creek Drainage Channel upper tie-in was originally designed to connect with the Camp Creek Diversion Channel approximately 113 m upstream of the as-built tie-in. This design change is further described in Section 5.2.4. Additionally, at the lower tie-in, the Camp Creek Drainage Channel was connected roughly 25 m above the designed tie-in to Camp Creek. This change is further described in Section 5.2.5. Clearing and grubbing of the Camp Creek Drainage Channel was required for approximately 300 m of the upstream end of the channel, located west of the former

Reclaim Pond. Grubbings were crushed and placed alongside the channel through this area. Additionally, over 1,500 m^3 of organic material from channel excavation along this section of the alignment was hauled to the on-site landfill as described in Section 9.4. There was also a minor amount of clearing and grubbing required near the outfall of the Camp Creek Drainage Channel. Tree cover and brush were crushed and cast alongside the channel.

The North Drainage Channel was constructed along the east side of the former South Pond and serves to convey water from the North Tailings Areas through the former South Pond area and discharges the water into the sediment retaining pond, upstream of the SRS. The water conveyed through the North Drainage Channel is retained in the sediment retaining pond, allowing sediment to settle prior to water discharging through the SRS spillway. The alignment of the North Drainage Channel was altered from the design alignment which had the channel running through the low point of the South Pond. This change is further described in Section 5.2.3.

The as-built alignments of the newly constructed drainage channels are shown in Drawing SDH_03_B_C_0001 (Appendix C). Typical as-built cross-sections and profiles of the channels are also shown in Drawings SDH_03_B_C_0003, SDH_03_B_C_0004 and SDH_03_B_C_0005 (Appendix C).

All drainage channels were excavated, lined with nonwoven geotextile and covered with riprap to provide erosion protection. Material excavated from channel alignments was spread along the sides of the channels and was blended into the surrounding topography. The material was spread in such a manner that would not block surface flow toward the channels. Geotextile was installed using a labour crew with the assistance of an excavator. The geotextile material was either stitched or overlapped a minimum of 3 m to ensure sufficient cover.

Riprap for construction of drainage channels was obtained from two sources. The first source was from a rock quarry established at km 17 of the SDH main access road. Further details on the quarry operations are provided in Section 5.1.7. A total of 5,492 m^3 of rock from the quarry was used as riprap. The second source of rock was from the toe buttresses of the South Dam and Reclaim Dam. A total of 3,592 m^3 of rock was salvaged from the dam buttresses for use as riprap.

5.1.6 Cover Construction

Cover construction was carried out across areas of exposed tailings using excavated dam fill material. These areas (North Tailings Pond and South Pond) were capped to prevent wind erosion, to minimize the impact of dust and to provide growth medium over the tailings for future re-vegetation. The cover is also to reduce surface ponding and promote runoff of non-contact water. Cover construction consisted of a minimum 0.5 m lift of dam material across areas of exposed tailings. Dam material was hauled to cover locations using rock trucks and was generally spread by bulldozers. In soft areas, an excavator was used to place material across the exposed tailings.

On construction drawing SDH-DR-02 (Appendix B), the design for cover construction is shown in zones as “proposed tailings cover”, “borrow area to be decompacted and re-vegetated”, and “potential tailings cover area”. This Drawing has been updated showing the as-built areas of

cover construction (Appendix C, Drawing SDH_03_B_C_0001). There were several modifications to the cover design, as follows:

- The northwest corner of the North Tailings Pond, although classified as "Covered Tailings (Existing)" on the construction drawings, was covered with dam material (described in Section 5.2.7)
- A grassy area north of the "Proposed Tailings Cover" in the South Pond was covered (described in Section 5.2.8)
- Although Borrow Pit "G" was not identified as an area to be covered, excavated Reclaim Dam material was placed in this borrow pit (described further in Section 5.2.9)

As cover construction proceeded across the North Tailings Pond, difficulties were encountered with respect to placement of the cover material. Tailings were discovered to be piping up through the cover due to apparent increases in pore pressure beneath the surface. The tailings material formed small "volcanoes" on the surface. Upon investigation, it was observed that the tailings were piping up through small vertical pathways through the cover. These were repaired by waiting until the pressures had released (and the tailings had stopped coming to the surface and had dried out) and excavating and hauling the material to the working face of cover construction. The material was then covered with dam material. At the south end of the North Tailings Pond, the existing cofferdam was shaped to provide drainage from the tailings cover and the crest of the structure was reduced and tied into the downstream slope which was blended into the wooded area to the south of the cofferdam. At the north end of the North Tailings Pond, ponding of surface water was observed on the constructed cover, primarily near the northeast corner. To mitigate this, a shallow drainage trench was constructed from east to west to shed the ponded water off the cover toward a treed area along the west side of the North Pond.

A test pit program was conducted to confirm the minimum cover depth of 0.5 m had been achieved across the North Tailings Pond area. The test pit program involved digging 100 test holes to measure the depth of cover. The GPS coordinates of each test hole were plotted and the locations are shown in Figure SDH03_FIG_08 (Appendix A). All test holes achieved the minimum 0.5 m depth of cover, with the exception of two test holes in the northwest corner which had only 0.3 m of cover. However, these two test pit locations are in an area which had previously been capped and therefore a 0.5 m cover was present despite only 0.3 m of dam fill material having been placed across this location.

Areas identified as "Potential Tailings Cover" were partially covered as shown in as-built Drawing SDH_03_B_C_0001 (Appendix C). Within the South Pond potential tailings cover area, the South Pond above the rock cofferdam was covered with excavated South Dam material. Cover construction across the South Pond was challenging due to the slope of the area and the instability of the material on the pond bottom. Cobalt initially began placing cover in a north to south fashion. However, saturated pond bottom material sitting on the sloped bottom was observed to be sloughing southerly with the direction of the slope. Construction was ceased and Cobalt instead began working in a southwest to northeast fashion pushing material upslope and toward the eastern bank of the former South Pond. Cobalt continued to push cover material over the exposed pond bottom which pushed tailings into a localized area

along the east bank of the former South Pond. The depth of tailings in this zone is unknown; however is estimated to be in the order of 2 to 3 m deep. This area of the former South Pond is labelled on the various as-built drawings as a "deep tailings cell". In capping the remainder of the pond, the tailings material was pushed into this deep tailings cell and as cover proceeded in the direction of this cell, berms were constructed around the cell as cover proceeded higher and higher in elevation. For the final lift of material, an excavator was used to broadcast material across the cell from all sides as the area was too soft to cap using a machine to push material across the zone. The deep tailings cell comprises an area of approximately 1,121 m^2 of the overall South Pond area cover construction. Construction of the cover in this area was completed late in the year and limited monitoring of the performance of this area was able to be carried out. Additionally, groundwater was observed to be seeping through the cover just north of the deep tailings cell. This groundwater was channeled around the deep tailings cell and conveyed into the sediment retaining pond; however it is possible some of the groundwater is also entering the cell, potentially further affecting the integrity of the area. The deep tailings cell will potentially require additional remediation in 2015, particularly before significant vegetation is established across the area.

The former Reclaim Pond was also identified on the construction drawings as a potential cover area. Once the Reclaim Pond was dewatered and the pond bottom dried out, Golder conducted an assessment of the pond bottom to determine areas that needed to be capped based on the metals concentration of the soil. Cover construction consisted of a minimum 0.5 m lift of dam material across exposed areas. Golder determined areas on both sides of the proposed Camp Creek Drainage Channel alignment that would require capping with clean dam fill material. Cobalt covered these zones using material from the Reclaim Dam. As construction proceeded, it became apparent that ponding of water was occurring on exposed areas of pond bottom that were not classified as requiring cover. To ensure positive drainage into the newly constructed drainage channels was maintained throughout the entire Reclaim Pond area, Cobalt proceeded with cover construction across the remainder of the exposed areas of the former pond bottom, also to a minimum 0.5 m lift. This was established primarily by using material from the South Dam as it was being excavated. Areas covered in the former Reclaim Pond are shown in Drawing SDH_03_B_C_0001 (Appendix C).

Overall, 155,081 m^2 of area were covered with excavated dam material as part of the cover construction component of the TMA decommissioning works. Areas covered included:

- North Tailings Pond (including northwest corner): 87,745 m^2
- South Pond: 22,954 m^2
- Grassy area north of South Pond: 5,490 m^2
- Reclaim Pond: 38,892 m^2

In addition to the areas noted above, 15,064 m^2 of Borrow Pit "G" were covered with the stockpiled dam material from the Reclaim Dam. However, this area is not accounted for in the total area of cover construction as it was not identified as an area requiring cover material. Some of the material from Borrow Pit "G" will likely be excavated and used as cover across other disturbed site locations in 2015.

5.1.7 Quarry Operations

A quarry was developed at km 17 of the SDH main access road for production of riprap material for erosion protection as part of channel construction. SRK carried out a testing program prior to the 2014 construction phase to determine the quality of the rock from a material quantity and environmental perspective. Geochemical analysis of bedrock samples determined that the quarry rock was acceptable as quarried riprap.

The quarry was designed as a strip running parallel to the main access road. A culvert was installed to allow access across the existing ditch alongside the road at km 17. Cobalt spent significant effort stripping overburden material from the quarry site using an excavator. The overburden material was excavated, hauled in a rock truck and stockpiled at either end of the quarry footprint. Cobalt hired a subcontractor who carried out drilling and blasting activities at the quarry site using a series of blasts to generate riprap in the following sizes:

- D_{50} = 0.3 m
- D_{50} = 0.4 m
- D_{50} = 0.5 m

Once Cobalt had completed drilling and blasting activities, they began hauling material to the TMA for placement in the newly constructed drainage channels. Riprap was sorted and extracted from the quarry using an excavator and two end dump trucks transported rock to various locations of the TMA. Overall, 5,492 m^3 of rock were extracted from the quarry.

Reclamation of the quarry site was carried out near the end of the construction period and consisted of placing unused blasted rock and some overburden within the quarry blast holes and against the vertical faces of the quarry to promote positive drainage from the site. It is likely that further riprap material will be required from the quarry in 2015 and thus not all overburden was returned to the quarry footprint. Once all rock extraction is completed in 2015, the remainder of the overburden material will be placed and shaped to restore an aesthetically pleasing slope and for long-term stability.

5.2 Tailings Management Area Decommissioning Design Deviations

Over the course of the TMA decommissioning works, deviations from, or additions to, the original design of the works were carried out during the execution of the project. These deviations / changes were reviewed and approved by SRK (project designer) and/or Teck prior to their implementation. Many of the deviations were briefly introduced throughout Section 5.1 and are further described in the following subsections.

5.2.1 Decommissioning of Camp Creek Diversion

It was determined that the Camp Creek Diversion Channel would be left in place in 2014 as it was observed to be gathering surface runoff from west of the TMA and directing the flow away from the newly exposed areas of the former Reclaim Pond, with the accumulated runoff water ultimately discharging through the exit chute. The only work conducted was the extraction of

salvageable rock from the exit chute for use as riprap in the rock cofferdam constructed in the South Pond. Immediately downstream of the culverts near the west abutment of the former Reclaim Dam, the exit chute was diverted into the wooded area to the west. The diversion channel will continue to provide a catch basin to prevent spring thaw and heavy rain runoff from this catchment area from entering the former Reclaim Pond area. This will assist with sediment and erosion control in early 2015. Once vegetation is established in 2015, the diversion channel may be decommissioned as planned or it may remain with culverts removed and side slopes blended into the surrounding topography.

5.2.2 Sediment Retaining Structure and Spillway Elevation

The SRS and associated spillway elevations were modified based on field conditions following the dewatering of the South Pond. The original design SRS crest elevation and design spillway invert elevation were raised 1 m due to the elevation of the South Pond bottom being higher than anticipated. SRK had based their design for the SRS and spillway on a historical bathymetric survey and had assumed the low point of the pond to be at elevation 1083.0 m. Survey data from Yukon Engineering Services (YES) confirmed that the lowest elevation of the bottom of the sediment retaining pond behind the SRS was approximately 1084.1 m. Therefore, using the surveyed field conditions following pond dewatering, SRK revised the design by raising the design crest elevation of the SRS from 1086.7 m to 1087.7 m and raising the design spillway invert elevation from 1085.0 m to 1086.0 m.

5.2.3 Re-alignment of North Drainage Channel

The alignment and length of the North Drainage Channel were modified based on field conditions. Channel construction required all channels to be built on suitable (i.e. non-tailings) material, which was not possible along the original design alignment. Approximately 100 m of the design alignment was eliminated as the area north of the proposed tailings cover was also capped as part of the cover construction. Water discharging through the grassy area was forced to the east of the newly constructed cover in this area. Additionally, the alignment of the remainder of the channel was altered to run east of the original design, along the east side of the former South Pond, which kept the drainage water away from the tailings area and allowed the channel to be built in competent ground.

5.2.4 Removal of Camp Creek Drainage Channel Section “R”

Approximately 113 m of the design alignment of the Camp Creek Drainage Channel was eliminated. Section “R” of the design alignment was removed and the upper tie-in of the new drainage channel to the diversion channel was constructed at roughly Station 0+820 of the design alignment. The position downstream was modified and a smooth hydraulic transition into the tie-in location was constructed to avoid an abrupt angle in the channel. This revised tie-in location was practical for the following reasons:

- Avoided disturbing natural vegetation cover upstream of the tie-in location
- Reduction in the amount of clearing and grubbing required
- Reduction in quantity of riprap material required

5.2.5 Camp Creek Drainage Channel Outfall

The alignment of the Camp Creek Drainage Channel near the outfall was altered slightly to the west and the tie-in itself was constructed approximately 25 m upstream of the proposed tie-in shown on the construction drawings. The channel was tied in at this location to avoid, as much as possible, aligning it through soft subgrade caused by a beaver dam and pond that were removed as part of the works (under Yukon Environment's Wildlife Act Permit, License 5682). The new channel was tied in to Camp Creek to aesthetically connect the channels, providing a natural appearance. Constructing the additional 25 m of channel downstream of the as-built tie-in as per original design would have necessitated an additional diversion of water through undisturbed land and would have required further clearing, excavation, and riprap.

5.2.6 Rock Cofferdam

A rock cofferdam was constructed to improve ground stability at the South Pond during cover construction and to prevent migration of tailings material from the bottom of the South Pond toward the sediment retaining pond. It was observed during early stages of cover construction near the northern portion of the South Pond that construction methodology created a wave of tailings material from the pond bottom that was being pushed southerly toward the sediment retaining pond. Construction ceased and Cobalt, Amec Foster Wheeler, and Teck held discussions regarding altering the methodology of cover construction from north-south to south-north and also discussed the concept of constructing a rock cofferdam as a protection structure in the event of further sloughing of tailings material toward the sediment retaining pond and SRS. The rock cofferdam concept was presented to SRK, who accepted its construction.

The rock cofferdam was constructed near the southern portion of the former South Pond, just north of the sediment retaining pond. The location of the structure is shown in Appendix C on various as-built drawings. The rock cofferdam was constructed using rock sourced primarily from the exit chute of the Camp Creek Diversion Channel. Much of the rock from the exit chute was large in diameter, ranging between 0.8 m to 1.2 m. Larger rock was placed at the base of the rock cofferdam for stability. Smaller rock was placed near the top of the cofferdam. The structure was built with a crest width of approximately 6 m and base width of approximately 8 m. The structure has a height of approximately 1 m with side slopes at roughly 1H:1V. Much of the bottom layer of rock sank into the pond bottom due to the soft nature of the tailings material. Overall, approximately 294 m^3 of rock were used to construct the cofferdam.

The rock cofferdam achieved its purpose of providing a barrier in the event of tailings material from the pond bottom migrating toward the sediment retaining pond during cover construction, which was not observed upon alteration of the cover construction methodology as noted above. Further assessment of the overall South Pond cover will be carried out in 2015.

5.2.7 Cover Construction across Northwest Corner of North Tailings Pond

According to the construction drawings (Appendix B), cover construction across the North Tailings Pond was to exclude a section in the northwest corner labeled "Covered Tailings (Existing)". Cover construction across this area was directed by Teck during a site visit.

Although cover material had been placed across this area in previous years, the cover thickness was unknown. Teck requested cover construction be carried out across this area in 2014 to ensure a minimum 0.5 m of cover material was in place.

5.2.8 Cover Construction across Grassy Area North of South Pond

Cover construction across the South Pond was extended to the north across a grassy area between a tailings mound at the north extent of the area and a treed area that exists just south of the cofferdam. Overall, 5,490 m^2 of area was covered outside of the designed "potential cover area". This task was added to the scope of work due to test pits conducted by Golder which confirmed the presence of tailings beneath the vegetation. Although the majority of this area was successfully covered with a minimum of 0.5 m of dam fill material, the northeast corner of this grassy area was left uncovered to ensure drainage was sustained through the area. Previously, water draining from the North Tailings Pond through the cofferdam would flow through the treed and grassy areas along the west edge. The water would then flow to the east around the tailings mound into the South Pond. With the re-alignment of the North Drainage Channel (as discussed in Section 5.2.3), water needed to flow along the edge of the constructed cover into the inlet of the North Drainage Channel. Further capping across the remainder of the grassy area may be carried out in 2015 upon review of drainage pathways.

5.2.9 Borrow Pit "G"

Borrow Pit "G" is located west of the former Reclaim Dam and comprises an area of just over 15,000 m^2. It was not designated as an area requiring cover construction as part of the TMA Decommissioning works. Much of the material removed from the Reclaim Dam was placed in Borrow Pit "G" in a stockpile, as Cobalt determined that the material was not required for cover construction and that the majority of material for cover construction could be sourced from the South Dam excavation activities. In order to achieve the design for the TMA decommissioning works, all of the Reclaim Dam material needed to be excavated to original ground. Therefore, unneeded excavated material was stockpiled in Borrow Pit G. The material was shaped and contoured to promote drainage in the event that no material is relocated from this location and re-vegetation efforts are carried out over this area in 2015.

6.0 MOUNTAIN WORKS

Mining operations at the SDH Mine described in Section 2.0 were carried out in two mountain zones of the site known as Jewelbox and Burnick. The locations of these zones are shown in Figures SDH01_FIG_03 and SDH02_FIG_04, respectively (Appendix A). Mining operations within the Jewelbox Zone included underground and open pit mining while mining within the Burnick Zone included only underground mining. IFC drawings for the Mountain Works are provided in Appendix E with as-built drawings provided in Appendix F. Select photographs from Mountain Works construction are provided in Appendix G.

6.1 General Decommissioning Activities

The Mountain Works reclamation activities generally consisted of permanent sealing of mine workings, reshaping of waste rock dumps, infilling of open pits, and construction of permanent reinforced concrete caps over ventilation raises. Other minor decommissioning activities were carried out including demolition of remote small shacks and core racks, removal of mine workings infrastructure, and excavation of sediment ponds. The Mountain Works were carried out by KPI Northern Ltd. / 16142 Yukon Inc. (KPI). Work began on June 16, 2014 and was substantially completed on October 1, 2014.

6.1.1 Jewelbox Zone

Jewelbox Hill is located immediately west of the mill complex. As part of the closure activities at Jewelbox Hill, three Portal closures, two open pit infills, construction of two ventilation raise caps, and reshaping of four waste rock dumps were carried out.

6.1.1.1 Portal Closures

Within the Jewelbox Zone, there are three Portal entrances into the hillside: Jewelbox 1250 Portal, Jewelbox 1380 Portal, and Jewelbox 1408 Portal.

The Jewelbox 1250 Portal extended 3 m into the mountain. There was no temporary plug previously installed. No ventilation pipes were installed in this Portal due to the shallow Portal opening. An excavator used material from the adjacent waste rock dump to seal the Portal and contour the seal to a 2H:1V slope. Fencing above the Portal opening was also removed and the seal was blended into the surrounding terrain. The Jewelbox 1250 Portal access road was left in place as it extends beyond the Portal to provide access to a groundwater monitoring well. The as-built conditions associated with the construction of the Jewelbox 1250 Portal plug are shown in Drawing SDH01_B_C_0005 (Appendix F).

The Jewelbox 1380 Portal has drainage water exiting the Portal opening which drains into the mountain via cracks in the bedrock at the base of the Main Zone Open Pit. A French drain with geotextile cover was installed to promote the continued draining of Portal water into the mountain. This was a design change which is described in Section 6.2.1.1. Two ventilation pipes, separated by 1 m vertically, were then installed using an excavator. The pipes were

bedded with fine-grained material from the SDH gravel pit to protect them from being damaged during the open pit infilling process. The HDPE pipes were installed approximately 5 m into the Portal opening. The pipes extended through the open pit and out past the slope of the adjacent waste rock dump. The ends of the pipes were capped with a wire mesh and clamp to minimize blockage. To complete the Portal seal above the French drain and ventilation pipes, waste rock material was pushed into the Main Zone Open Pit as part of the open pit infill operation which sealed the remainder of the Portal entrance while also infilling the Main Zone Open Pit. This is further discussed in Section 6.1.1.3. The Jewelbox 1380 Portal plug was constructed with minor deviations from the original design shown on the Construction Drawings. These deviations are discussed further in Section 6.2.1.1. Due to safety considerations, foot personnel were not permitted near the Portal entrance and all work was carried out using heavy equipment. Due to safety considerations, the as-built conditions of the Portal plug were confirmed using visual inspection and photographic documentation, rather than survey. The as-built conditions based on the visual inspection are shown in Drawing SDH01_B_C_0001 (Appendix F).

The Jewelbox 1408 Portal had previously been sealed with a non-engineered temporary plug. The plug was removed using an excavator reaching in as far as safely possible. Material used for the plug was sourced from the Jewelbox waste rock dump and screened to +100 mm using a loader, excavator and grizzly screen. Two HDPE ventilation pipes were installed approximately 9 m into the Portal opening using an excavator. The pipes were separated by a vertical distance of 1 m and covered using the plug material. The pipes extended out from the plug and were cut off from where they were found protruding from the reshaped waste rock dump slope. The ends of the pipes were capped with a wire mesh with clamp to prevent blockage. After the pipes were installed, the remaining +100 mm material was used to plug the Portal and re-shape the plug slope to 2H:1V. The as-built conditions are shown in Drawing SDH01_B_C_0003 (Appendix F).

6.1.1.2 Waste Rock Dump Reshaping

Waste rock dump reshaping was carried out to reduce the steepness of slopes and increase the stability of the disturbed areas. On Jewelbox Hill, several waste rock dumps existed between elevations of approximately 1380 m to 1408 m around the eastern and northern faces of the mountain from mining operations that took place within the Main Zone Open Pit, Jewelbox Open Pit, Jewelbox 1408 Portal, and Jewelbox 1380 Portal. At Jewelbox 1250 level, a small waste rock dump existed from mining operations within the shallow Jewelbox 1250 Portal.

The general procedure for waste rock dump reshaping involved excavators pulling back the crest, pulling up the slope and depositing material at higher elevations for reshaping using bulldozers. This reshaping effort included covering newly constructed Portal seals at all Jewelbox Portal locations except for the Jewelbox 1380 Portal closure which was covered during the infilling of the Main Zone Open Pit. Once the waste rock dump reshaping was completed, the only visual indication of a Portal existing beneath the surface is the HDPE ventilation/drainage pipes protruding from the reshaped slopes.

Previously, the Jewelbox waste rock dumps (other than Jewelbox 1250) were connected via a series of access roads, ramps, and switchbacks. Steep slopes existed along the crests of the waste dumps and access roads were steep and contained drop offs in several areas. The end product of the reshaping effort of these waste rock dumps included removal of the access roads and ramps and blending together all of the various waste rock dumps. The reshaped slopes were also blended into the newly infilled Jewelbox Open Pit, described in Section 6.1.1.3. The Jewelbox mountain slope is now one continuous graded slope extending from the former location of the Jewelbox 1408 Portal to the eastern limit of the Main Zone Open Pit. To produce the continuous slope, bulldozers were first used to create benches for the excavators to travel on and pull up material. Additional considerations were given for the reshaping of the waste rock dump near the former 1408 Portal location as Golder had identified zones of hydrocarbon contamination that required the area to be covered rather than excavated and then reshaped (refer to Section 6.2.1.4). Upon completion of the reshaping effort, an access road was left in place to access the groundwater monitoring well (MW13-03) that exists in the slope near the former Jewelbox 1408 Portal. This monitoring well was extended as part of the reclamation of the slope. This is further described in Section 6.3.7. Additionally, an access road remains below the Main Zone Open Pit to the former Exploration Camp location to provide access to the upper levels of Jewelbox Hill and Burnick Hill for 2015 construction activities.

At the Jewelbox 1250 waste rock dump, a single excavator was able to reshape the waste rock dump due to the small footprint. The reshaping effort was blended into the Portal seal for the Jewelbox 1250 Portal plug. No ventilation/drainage pipes had been required for this particular Portal. An access road exists through the reshaped slope to reach a groundwater monitoring well (MW13-13) west of the waste rock dump location.

6.1.1.3 Open Pit Infilling

There were two open pits infilled on Jewelbox Hill; the Jewelbox Open Pit and Main Zone Open Pit. These open pits were blasted into the hillside during historical mining operations and the highest portion of the cut was approximately 20 to 30 m above the pit floors.

The Jewelbox Open Pit was filled by using a bulldozer to rip and push material from the adjacent waste rock dump to the east. The open pit was infilled sufficiently such that it was blended into the reshaped waste rock dump slopes as previously described. Material from the sediment ponds on Jewelbox Hill was also deposited into the Jewelbox Open Pit and covered with fill material. The sediment pond excavation and reclamation activities are further described in Section 6.3.6. Infilling operations were ceased when it was determined by Teck that the open pit was sufficiently infilled and tied into the surrounding topography. A minor vertical bedrock face remains near the southwestern extent of the former open pit. Otherwise, all sides of the open pit infill have been tied into the surrounding terrain and original slopes and the infill material shaped to shed water and prevent ponding.

At the Main Zone Open Pit, the initial infill was completed by pushing material adjacent to the Jewelbox 1380 Portal into the open pit using a bulldozer. This infill also served to complete the remainder of the Jewelbox 1380 Portal plug, by placing material above the previously installed plug material as described in Section 6.1.1.1. Once the adjacent waste rock material was exhausted, the infill procedure was modified. This modification is described in Section 6.2.1.2. The final product of the Main Zone Open Pit infill has left a minor vertical face along the southern and western faces of the open pit. The open pit infilling was ceased when it was determined by Teck that the pit had been sufficiently infilled. The open pit was infilled such that it achieved substantial tie-in with the surrounding topography. The ventilation pipes that were installed as part of the Jewelbox 1380 Portal plug were protected from the infilling process, and extend through the open pit, to bottom out to the side of the mountain as previously described.

6.1.1.4 Ventilation Raise Closures

Two ventilation raises (Jewelbox Summit and Jewelbox 1408) on Jewelbox Hill were permanently sealed with reinforced concrete caps. The mine workings on Jewelbox Hill were ventilated by two raises that extended up from the underground workings to “daylight” on the hillside. One of the ventilation raises (Jewelbox Summit Ventilation Raise) is located near the summit of Jewelbox Hill, while the other (Jewelbox 1408 Ventilation Raise) is located immediately up-slope from 1408 Portal. Both ventilation raises required significant upgrades to the access roads using an excavator to allow access for construction of reinforced concrete caps over both raises. These roads were decommissioned once all work was completed. Prior to installation of the caps, concentrate material from the mill site, core material, ore material, and metals-contaminated concrete were deposited into the raises prior to permanent covers being constructed. This work is further discussed in Sections 6.3.1 through 6.3.3.

The Jewelbox 1408 Ventilation Raise had been temporarily sealed with a piece of horizontal CSP culvert to block the entrance. The culvert was removed using an excavator and concentrate material was placed in the ventilation raise and covered with local borrow material to the top of the raise. The Jewelbox Summit Ventilation Raise had been temporarily sealed with a chain link fence across wooden supports which were removed prior to filling the raise. This was removed and subsequently KPI deposited material within the shaft.

Once both ventilation raises were filled with concentrate and other material, formwork was constructed at each ventilation raise and steel reinforcing bar (rebar) was installed in preparation for the concrete pour. Anchoring steel bars were installed as specified. Once the formwork and reinforcing bars were in place for each cap, a monolithic concrete pour was carried out. The concrete was mixed on site using delivered materials and KPI’s volumetric cement mix truck. Six test cylinders were collected (three at each ventilation raise) in order to conduct 7-day, 14-day, and 28-day concrete test breaks. Following the concrete pour at each location, the ventilation raises caps were covered with an insulating blanket to protect them from the elements and promote curing of the concrete. After 7 days had passed, and the 7-day break results had been received, the blankets were removed. A stainless steel ventilation pipe was installed through the center of each cap. The concrete caps were buried using locally available material to construct a minimum cover of 1 m. The ventilation pipes were left

protruding from the fill material overtop of both ventilation raise caps. The locations of each ventilation raise are shown in Figure SDH01_FIG_03 (Appendix A). The as-built conditions associated with each of the ventilation raises, including cover material, are provided in Drawing SDH01_B_C_0006 (Appendix F).

The concrete was tested for 7-day, 14-day, and 28-day strength. The results for the 28-day strength were as follows:

- Jewelbox 1408 Ventilation Raise: 32.4 MPa (minimum required: 30 MPa)
- Jewelbox Summit Ventilation Raise: 31.5 MPa (minimum required: 30 MPa)

All laboratory test results documentation for the ventilation raise concrete caps are provided in Appendix H. It should be noted that the original design for the ventilation raise caps, prepared by Yukon Engineering Services (YES), was modified based on field conditions and Contractor (KPI) requests. These modifications are described in Section 6.2.1.3.

6.1.2 Burnick Zone

Burnick Hill is located approximately 4 km north of the mill complex. As part of the closure activities at Burnick, three Portals were closed and two waste rock dumps were re-shaped.

6.1.2.1 Portal Closures

Within the Burnick Zone, there are three Portal entrances into the hillside: Burnick 1200 Portal, Burnick 1200 Ventilation Portal, and Burnick 1300 Portal.

The Burnick 1200 Portal had previously been sealed with a non-engineered plug. The Portal had existing drainage which was conveyed through a culvert beneath the Burnick 1200 access road. The plug was removed using an excavator reaching in as far as safely possible. Material used for the plug was sourced from the Burnick 1200 waste rock dump. Plug material was screened to +100 mm using a loader, excavator and grizzly screen. Two HDPE ventilation pipes were installed approximately 9 m into the Portal opening using an excavator. The pipes were separated by a vertical distance of 1 m and covered using the plug material. The pipes extended out from the plug and were cut off from where they were found protruding from the reshaped slope. The ends of the pipes were capped with a wire mesh and clamp to prevent blockage. After the pipes were installed the remaining +100 mm material was used to plug the Portal and re-shape the plug slope to 2H:1V. Existing water drainage from the Portal was retained. A water sampling station was connected to the existing drainage culvert. This change from the initial plan for the Burnick drainage water is further discussed in Section 6.2.2.1.

The Burnick 1200 Ventilation Portal was previously sealed with ventilation and heating units from former mine operations. These units were removed using an excavator and were hauled off-site by KPI. Rock material used for the plug was sourced from the Burnick 1200 waste rock dump and was screened to +100 mm. Two HDPE ventilation pipes were installed approximately 9 m into the Portal opening using an excavator. The pipes were separated by a vertical distance of 1 m and covered using the plug material. The pipes extended out from the

plug and were cut off from where they were found protruding from the reshaped slope. The ends of the pipes were capped with a wire mesh with clamp to prevent blockage. After the pipes were installed the remaining +100 mm material was used to plug the Portal and re-shape the plug slope to 2H:1V.

The Burnick 1300 Portal had previously been sealed with a non-engineered plug. The plug was removed using an excavator reaching in as far as safely possible. Material used for the plug was sourced from the Burnick 1300 waste rock dump screened to +100 mm using a loader, excavator, and grizzly screen. Two HDPE ventilation pipes were installed approximately 9 m into the Portal opening using an excavator. The pipes were separated by a vertical distance of 1 m and covered using the plug material. The pipes extended out from the plug and were cut off from where there were found protruding from the reshaped slope. The ends of the pipes were capped with a wire mesh with clamp to prevent blockage. After the pipes were installed the remaining +100 mm material was used to plug the Portal and re-shape the plug slope to 2H:1V.

6.1.2.2 Waste Rock Dump Reshaping

The two waste rock dumps reshaped at Burnick were the 1200 waste rock dump and the 1300 waste rock dump. These were reshaped using the same general procedure as the waste rock dumps reshaped on Jewelbox Hill, with reclaimed material being brought up the slope and tied into the original mountain slopes to improve the overall stability of the mountainside. The Burnick 1200 waste rock dump comprised an area of approximately 14,000 m^2 and contained the steepest slopes of all of the site's waste rock dumps. Reclamation of waste rock was conducted in several lifts with KPI reclaiming material from near the bottom of the waste rock pile bringing it up the slope to the plateau of the dump. Excavators were used to reclaim material and bulldozers were used to tie the reclaimed material into the original slope. The Burnick 1300 waste rock dump comprised an area of approximately 5,000 m^2. Reshaping of the 1300 waste rock dump was carried out using two excavators to reclaim waste rock from below the crest and bring the material up the slope. A bulldozer was used to spread the reclaimed material and to shape the final slope.

Ventilation / drainage pipes from the 1200 Portal and 1200 Ventilation Portal were left protruding from the 1200 waste rock dump reshaped slope. The ventilation / drainage pipes from the 1300 Portal were left protruding from the reshaped 1300 waste rock dump slope. The as-built conditions associated with the waste rock dump reshaping (and associated Portal plug closures) are shown in Drawings SDH02_B_C_0001, SDH02_B_C_0002 and SDH03_B_C_0003 (Appendix F).

Golder had identified zones of hydrocarbon contamination in the plateau of the 1200 waste rock dump and these zones were covered with reclaimed material and the cover was tied into the overall waste rock dump reshaped slope (refer to Section 6.2.1.4). A groundwater monitoring well (MW13-06) is located at the 1200 waste rock dump. The reshaping process projected to cover the monitoring well below its original height. Therefore, the well casing was lowered by KPI. This is further discussed in Section 6.3.7. Additionally, a helipad was constructed at the

northern extent of the 1200 waste rock dump. A narrow access road was constructed across the reshaped slope to the helipad location to maintain vehicular access. A rock fence that existed above the 1200 Portal and 1200 ventilation Portal was removed when the waste rock dump was tied into the original slope. The fencing was deposited in the on-site landfill.

6.2 Mountain Works Design Deviations

Over the course of the mountain works, deviations from, or additions to, the original design of the works were carried out during the execution of the project. These deviations / changes were reviewed and approved by Teck prior to their implementation. Many of the deviations were briefly introduced throughout Section 6.1 and are further described in the following subsections.

6.2.1 Jewelbox Zone

6.2.1.1 Jewelbox 1380 Portal Closure

The initial design for the closure of the Jewelbox 1380 Portal consisted of two HDPE ventilation / drainage pipes bedded in crusher fines at the bottom of the Portal opening (separated by a vertical distance of 1 m) and extending across the base of the Main Zone Open Pit to its northern extent at the northern face of Jewelbox Hill. The initial design also included the construction of a berm at the mouth of the Portal opening which was designed to capture existing seepage flow from within the Portal and discharge it through the HDPE pipe which runs through the open pit. The water would then have been discharged from the open pit on the northern face of Jewelbox Hill. The water has historically drained from the Portal into cracks in the bedrock in the base of the open pit. The design for this Portal plug was altered to allow the drainage to maintain its historical drainage pattern. The Portal plug design was changed to include construction of a French drain extending from the Portal entrance to the cracks in the bedrock in the base of the open pit. The Portal plug HDPE ventilation / drainage pipes were raised by the thickness of the French drain (1 m). The French drain was constructed approximately 1 m high and consisted of coarse waste rock from adjacent waste rock dumps which was screened to +100 mm using a loader, excavator and grizzly screen. The French drain was overlain by a layer of non-woven geotextile to prevent fines from the pipe bedding layer to enter the French drain and potentially block the drainage path of the Portal water. The remainder of the Portal plug was built per original design, and as previously described in Section 6.1.1.1. Photographs of the Jewelbox 1380 Portal plug are provided in Appendix G.

6.2.1.2 Main Zone Open Pit Infill

The Main Zone Open Pit was originally designed to be infilled using local material located above the open pit and along the sides. The adjacent material was depleted early during the infill operation. To facilitate further infill, material from the Jewelbox waste rock dump was transported using an excavator and rock truck to a plateau above the open pit. A bulldozer was used for pushing the material down into the open pit. The concept for the infilling of both open pits on Jewelbox Hill was to completely infill them and tie the sides into the surrounding topography with promotion of positive drainage. Due to the size of the Main Zone Open Pit and

lack of nearby fill material, not all of the open pit was infilled. However, the infill of the Main Zone Open Pit promotes positive drainage and is tied into the surrounding topography as much as possible.

6.2.1.3 Ventilation Raise Closures

The designs for the ventilation raise caps constructed at the Jewelbox 1408 ventilation raise and the Jewelbox Summit ventilation raise required changes to accommodate field conditions. The original design for both ventilation raises had assumed that a vertical shaft existed below the entrance and that the entrance itself would be symmetrically regular or square in shape to allow the construction of a symmetrical cap. The original design drawings for the ventilation raises are provided in Appendix E.

At Jewelbox 1408, the raise was not vertical and also appeared to extend into the mountain at an angle of approximately 45 degrees. Additionally, the raise had been built with vertical bedrock faces around a portion of the opening. The opening itself was not perfectly rectangular and did not have any side supports. Part of the opening appeared to have caved in at some point. The original design would not have covered the Portal. KPI brought an engineer from Liard Engineering & Management to site to review the field conditions and subsequently submitted a revised proposed design for the Jewelbox 1408 ventilation raise cap. The revised design was submitted to YES for review and was subsequently approved. The approved revised design drawing for the Jewelbox 1408 ventilation raise is provided in Appendix I. The actual size of Jewelbox 1408 vent raise was approximately 2 m x 2.5 m. The reinforced concrete cap was constructed 3 m x 3 m. KPI constructed the cap per their approved revised design.

For Jewelbox Summit, KPI's hired engineer assessed the field conditions and submitted a revised design for the monolithic concrete slab to cover the opening. The revised design was submitted to address the actual dimensions of the opening. The approved revised design drawing was reviewed and approved by YES and is provided in Appendix I. The ventilation raise opening was approximately 2.5 m x 2.5 m. The cap was constructed at 3.4 m x 3.4 m. KPI constructed the cap per their approved revised design.

6.2.1.4 Hydrocarbon Capping

In 2013, Golder informed Amec Foster Wheeler/Teck that there was an area near the Jewelbox 1408 Portal contaminated with hydrocarbons. These hydrocarbons required a minimum 60 cm thick cover. This area was delineated by YES surveyors directed by Golder during remediation efforts in 2013. The approximate area of hydrocarbon contamination is shown on Drawing SDH01_B_C_0002 (Appendix F). A cross section through this area (Drawing SDH01_B_C_0004) shows the original ground elevation, hydrocarbon cap layer, and the final as-built surface constructed. The hydrocarbons were capped by bringing layers of material up the slope from the lower levels of the waste rock dump.

6.2.2 Burnick Zone

6.2.2.1 Burnick 1200 Sampling Location

At Burnick 1200, the existing Portal drainage was initially to be discharged through the reshaped waste rock slope via a French drain constructed with coarse waste rock material. This would be done by excavating out the 1.8 m diameter CSP drainage culvert that existed below the Burnick 1200 access road and replacing it with the coarse rock. During the reshaping effort of the waste rock dump, a significant portion of the existing culvert was covered with waste rock material brought up the slope due to the steepness of the newly constructed slope. Excavating out the culvert would have required a significant effort to remove newly placed material and replacement of the material once the culvert was removed.

To facilitate continued drainage, the 1.8 m diameter CSP was left in place with a minor length cut off at the discharge end due to damage. SRK stipulated that sampling of the drainage water (surface water sampling Station MH-22) was required for post-closure monitoring. Therefore, a smaller PVC pipe was installed within the existing CSP to ensure continued flow. KPI constructed a connection piece of 1.8 m PVC pipe with a 0.2 m PVC pipe cemented inside. Extensions were added to the inner PVC and based on measurements of pipe length, the inner PVC pipe was extended 6.7 m inside the existing CSP towards the Portals. The 0.2 m PVC pipe was then extended 8.8 m from the connection out to the reshaped slope. The connection was installed using an excavator. The portion of the PVC pipe extending out to the slope was buried by the excavator and a rock drain was constructed below the discharge point. Sampling technicians can reach the discharge pipe by means of a newly constructed helipad (described in Section 9.12) and walking path to the sampling location.

6.2.2.2 Hydrocarbon Capping

Golder informed Amec Foster Wheeler/Teck that there was an area within the Burnick 1200 waste rock dump contaminated with hydrocarbons. These hydrocarbons required a minimum 60 cm thick cover. This area was delineated by Golder. The approximate area of hydrocarbon contamination is shown on Drawing SDH02_B_C_0001 (Appendix F). A cross section through this area (Drawing SDH02_B_C_0004) shows the original ground elevation, hydrocarbon cap layer, and the final as-built surface constructed. The hydrocarbons were capped by bringing layers of material up the slope from the lower levels of the waste rock dump.

6.3 Other Activities

Other activities conducted on Jewelbox Hill and Burnick Hill were carried out in conjunction with the main Mountain Works activities. These activities are described in the following subsections. The majority of these activities were carried out by the Mountain Works Contractor (KPI) with some of the work conducted by Iyon Kechika Contracting (IKC).

6.3.1 Ore Haul

Ore material located near the northeast section of the Jewelbox waste rock dumps (from historical mining activities) was hauled to the plateau of the waste rock dump near the Jewelbox 1408 Portal temporarily stockpiled at this location. A small portion of ore was accommodated in the Jewelbox Summit ventilation raise prior to the construction of the permanent reinforced concrete cap. However, due to limited capacity in the ventilation raise, the majority of the ore material was transported to the Jewelbox Open Pit where it was pushed into the open pit by bulldozer and capped with waste rock fill material. This work was carried out by KPI.

6.3.2 Concentrate and Concrete Haul

Process concentrate and contaminated concrete (containing concentrate residue) from the mill site concentrator and load-out area were hauled and stockpiled at the plateau of the Jewelbox waste rock dump, near the 1408 Portal location. The hauling of material to Jewelbox was carried out by the mill purchaser. Some of the concentrate extracted from the mill during dismantling operations was placed in drums while some of the material was collected in double-ply bags. Some of the material was also loose and was covered with clean material for transport. The concentrate and contaminated concrete material was then hauled from the 1408 plateau and deposited into both of the ventilation raises (Jewelbox 1408 and Jewelbox Summit) by KPI. Due to safety concerns over the dust from the concentrate being high in lead, all Amec Foster Wheeler and KPI personnel wore appropriate fit-tested respirators. All of the concentrate and contaminated concrete was deposited into one of the two ventilation raises.

6.3.3 Core Disposal

Core material from pre-mining exploration activities was hauled from various site locations by IKC and stockpiled on the plateau of the Jewelbox waste rock dump near the 1408 Portal location. The majority of the core material was deposited into the Jewelbox 1408 and Jewelbox Summit ventilation raises prior to the construction of the permanent reinforced concrete caps. However, other material was also deposited into the ventilation raises and both ventilation raises were filled before all core material could be disposed. The core material that could not be deposited into the ventilation raises was instead deposited into the Jewelbox Open Pit by KPI using a bulldozer, where it was capped with further infill material.

6.3.4 Remote Core Rack Work

There were several core racks from pre-mining exploration work that existed along the access road to the Burnick 1300 Portal and waste rock dump (see Figure SDH02_FIG_04 (Appendix A). These remote core racks were not safely accessible by dump truck and only tracked machines could reach the location, therefore KPI mobilized an excavator and a bulldozer to the location and dug several holes for disposal of the material. Core was deposited into the holes and core racks were crushed and also deposited into the holes. There was also a small wooden shack adjacent to the core racks which could not be safely burnt or hauled away. This shack was also demolished, crushed, and material was deposited into the holes. Surrounding fill material was used to cap the holes. The bulldozer re-contoured the area following completion of these works and shaped the area to provide positive drainage.

6.3.5 Construction of Exploration Camp Access Road

The access road just below the Main Zone Open Pit leading to the Exploration Camp was too steep for dump trucks to travel on safely. This road required improvement to allow the demolition of the Exploration Camp and hauling of debris to the site landfill. KPI used a bulldozer to reduce the slope. Some ripping of material was also required to smooth out the road. The access road remains in place and will be decommissioned following land reclamation and re-vegetation efforts in 2015.

6.3.6 Sediment Pond Excavation, Capping and Liner Removal

There were two sediment ponds located on Jewelbox Hill; one directly south of the Jewelbox 1408 Portal and the other located in the gully below the Jewelbox 1380 Portal. Both sediment ponds were excavated by KPI. The sediment material was trucked and deposited into the Jewelbox Open Pit, followed by placement of waste rock fill material as cover. At the request of Golder, sampling of the soil conditions following excavation activities was carried out by Amec Foster Wheeler using an X-Ray Fluorescence (XRF) analyzer. Sampling results were forwarded to Golder for their analysis and confirmation that the extent of sediment excavation was considered sufficient.

The sediment pond in the gully below the Jewelbox 1380 Portal did not contain a liner. The sediment material ranged in approximate depth between 0 to 1 m. The material was excavated and the area was capped with fill material from the waste rock dump and further capped with excess clean gravel from the construction of concrete ventilation raise caps. An excavator was also used to build a rock berm around the former sediment pond area below the Jewelbox 1380 Portal to help contain the cover material in place due to steep slopes. As-built Drawing SDH01-B-C-0007 shows a cross-sectional view of the sediment pond location showing the original ground surface, approximate excavation depth, and as-built surface.

The sediment pond near the Jewelbox 1408 Portal location included a liner. The sediment material ranged in depth but was approximately 1 to 2 m deep. The sediment was excavated and the liner was removed from site by KPI and disposed of at the Northern Environmental Services Watson Lake facility. Once the liner was removed, the area was capped during the waste rock dump reshaping efforts. As-built Drawing SDH01-B-C-0008 shows a cross-sectional view of the sediment pond location showing the original ground surface, approximate excavation depth, and as-built surface.

6.3.7 Groundwater Monitoring Well Extensions

Groundwater monitoring wells located within the reshaped areas of the Jewelbox 1408 waste rock dump (MW13-03) and the Burnick 1200 waste rock dump (MW13-06) are to remain in place for post-closure sampling activities. Both monitoring wells required extensions as they would have been covered during waste rock dump reshaping activities. To extend the wells, KPI removed the existing steel casing and added a section of PVC pipe to the existing pipe. The original steel casing was then replaced and KPI's welder added a piece of steel casing to

extend the height of the well. The monitoring wells were re-surveyed by YES and updated elevation information for these wells is provided in Figure SDH00_FIG_01 (Appendix A).

6.3.8 Removal and Disposal of Used Oil Drum

A ruptured 170 L drum of suspected oil from previous mining or exploration work was discovered on the access road to the Burnick 1300 Portal and waste rock dump. There was a minor historic spill in this area, which was remediated by KPI. The contaminated soil and drum were removed off site and taken to the Northern Environmental Services Watson Lake facility for disposal. All tracking documentation associated with hazardous waste and contaminated material hauled from site during the project is provided in Appendix J.

7.0 ELECTRICAL DECOMMISSIONING

During mining operations, power was distributed to various portions of the site by means of a 6 km long overhead power line system. The system also included associated power poles, transformers, and electrical panels found in various pump shacks around the site.

7.1 General Decommissioning Activities

The electrical decommissioning activities generally consisted of extracting and removing poles from site, removing four transformers from site, spooling and removing all electrical cable, and removing electrical panels from site shacks. The General Contractor carrying out the electrical decommissioning activities was Canadian Industrial Power & Control Ltd. (CIPC). The electrical decommissioning work began on July 3, 2014. Work was substantially completed on September 10, 2014. Select photographs from the Electrical Decommissioning works are provided in Appendix K.

7.2 Electrical Cable / Electrical Panel Removal

Over the course of the electrical decommissioning works, approximately 19.5 km of overhead power line and approximately 6.5 km of communication cable were detached, spooled, and removed from site. Where possible, a man lift was used to raise two technicians, who were safely tied off, to the top of the pole and disconnect the wires and hardware. Pulleys were used to slowly lower the wires to the ground. If the pole was not accessible by the man lift, CIPC technicians climbed the poles. This required them to be safely tied off to the pole and have climbing shoes on. Once the technician had reached the top of the pole they would follow the same procedure of lowering the cable to the ground. Once the cable was on the ground it was spooled by hand by CIPC technicians. The cable was laid out safely along the road to prevent kinking during spooling activities. The cables were removed from site to KPI's laydown area in Watson Lake.

Cables were removed from the following locations:

- Jewelbox 1408 to the Mill Site
- Around the Mill Site
- Short Access Road
- Landfill Road, from Short Access Road to the Landfill
- Landfill to the Gravel Pit down to Lower North Creek
- Access Road off the Short Access Road
- Wooded area between the Short Access Road and the Reclaim Pond
- Reclaim Dam
- North Creek Dyke

The electrical decommissioning works also involved the removal of electrical panels from various pump shacks. The following electrical panels were extracted from pump shacks and were removed from site by CIPC:

- North Creek Dyke pump shack
- Lower North Creek pump shack
- Reclaim Dam pump shack

7.3 Pole Removal

As part of the electrical decommissioning works, a total of 160 power poles (Douglas Fir) were taken down by CIPC and removed from site. The poles were approximately 15.25 m in length and were buried approximately 2.15 m into the ground.

For removal of the poles themselves, CIPC was initially going to use their pole removal truck to extract the poles for off-site salvage. However, due to logistical problems, the pole truck never reached site so an alternative extraction method was developed. CIPC engaged IKC for the pole removal process using an excavator. The poles were strapped to the excavator bucket for vertical extraction. Prior to extraction, the excavator removed some of the soil around the bottom of the pole to assist with the removal. Once the pole was hoisted it was gently laid down alongside the access road. CIPC removed all cross pieces and corresponding hardware once the poles were safely on the ground. Resulting holes were infilled by the excavator prior to moving to the next pole. Poles were stockpiled at various locations for future off-site transport. The poles were removed from site on logging trucks and taken to KPI's Watson Lake laydown location.

One power pole was left in place next to the location of the former Reclaim Dam pump shack as it has an active osprey nest atop it. The osprey were observed exhibiting natural behavior during decommissioning activities and only when they appeared to have left the nest for the season (i.e. they were not observed for several consecutive days) did CIPC climb the pole and disconnect the wires from the pole. The pole will remain in place following completion of closure activities at the site.

7.4 Transformer Decommissioning

As part of the electrical decommissioning works, four transformers (two above-ground and two pad-mounted) were decommissioned:

- Lower North Creek (above-ground transformer)
- North Creek Dyke (above ground transformer)
- North Creek Dyke Pump Shack (pad-mounted transformer)
- Reclaim Dam Pump Shack (pad-mounted transformer)

The first three transformers listed above were tested for polychlorinated biphenyls (PCBs). The Reclaim Dam Pump Shack transformer was labelled as NON PCB OIL and thus was not tested. Sample results from the other three transformers were received on September 4, 2014 confirming no PCBs were present in the transformers. The transformers were hauled off site on September 9, 2014 to KPI's laydown area in Watson Lake. The PCB testing laboratory results are provided in Appendix L.

8.0 TANK DECOMMISSIONING

Tanks not associated with the sale of the mill infrastructure were decommissioned under the Tank Decommissioning works. This consisted of two tanks: one at Burnick Hill, and one just east of the mill site.

8.1 General Decommissioning Activities

Tank decommissioning activities were carried out by KPI intermittently between the dates of June 17, 2014 and August 13, 2014. The tank on Burnick Hill was located at the north end of the Burnick 1200 waste rock dump site near the location of an old shop, and resided on a plateau of a fairly steep slope. The tank located east of the mill site near the former ball mill storage area lies within a containment berm with liner. Select photographs from the Tank Decommissioning Works are provided in Appendix M.

8.2 Tank Removal

The tank from Burnick Hill was checked for contents but was observed to be dry. The tank was removed on June 17, 2014 by KPI. The tank was loaded as one piece onto a flatbed truck using an excavator and removed from site to KPI's Watson Lake laydown area. The tank was strapped in place for off-site transport. The area below and around the tank was investigated for hydrocarbon contamination by Golder and following tank removal, the area was capped as described in Section 6.2.2.2.

The tank near the ball mill storage area was checked for contents but was observed to be dry. The tank was removed on August 8, 2014 by KPI. The tank was loaded as one piece onto a flatbed truck using an excavator and removed from site to KPI's Watson Lake laydown area. The tank was strapped in place for off-site transport. To Amec Foster Wheeler's knowledge, the area below the tank was not sampled for potential hydrocarbon contamination. This will be carried out in 2015.

8.3 Pumping of Contaminated Water

On August 2, 2014, KPI pumped ponded water from the containment berm surrounding the tank near the ball mill storage area into a containment truck. The water was transported to KPI's licensed facility for disposal. Approximately 20,000 L of water was pumped from the dyke.

8.4 Removal of Liner

Following the dewatering of the ball mill storage area tank containment dyke, KPI removed the liner from the containment berm using an excavator and placed the liner material into a box truck. The liner was transported to KPI's licensed facility for disposal. The area below the tank and liner was reshaped by an excavator following removal.

9.0 OTHER DECOMMISSIONING AND RECLAMATION WORKS

A number of decommissioning and reclamation activities were carried out concurrently with the execution of the major work packages described in Sections 5.0 through 8.0. These other site activities were generally carried out by IKC other than as indicated in the subsections below. IKC began work activities on April 19, 2014 and completed the work on October 14, 2014. Select photographs from these activities are provided in Appendix N.

9.1 General Site Clean-up

A labor crew was used to carry out general site clean-up as reclamation activities were taking place. Much of this work included cleaning up work areas after Contractors had conducted work (e.g. pipeline extraction works causing insulation debris, shack demolition causing insulation debris and wood pieces). This was conducted to keep the work site as clean as possible. Debris was loaded into a pick-up truck and hauled to the landfill for disposal.

The labor crew also worked at removal of 25 mm water supply line that was used for drilling during historical mining activities. The steel water supply line extended from the mill site to Jewelbox Hill and from Burnick 1200 level to Burnick 1300 level. Some steel pipe was found littered across various levels of Jewelbox Hill and pipeline ran up as high as Jewelbox Summit. The pipe was extracted, disconnected or cut, and hauled to the on-site landfill for disposal. It should be noted that some of the steel pipe on Jewelbox and Burnick was not accessible due to safety concerns.

9.2 Mill Concrete Breaking / Capping / Reshaping and Golden Hills Shop Area Capping

In order to carry out capping and shaping operations of the mill area, a portion of the concrete foundations and walls from the former mill infrastructure were crushed and brought down to an elevation that would allow capping operations to take place without requiring a substantial amount of fill or creating steep slopes. An excavator with hydraulic hammer attachment was used for breaking the concrete and water was applied to the work area during the operation to suppress dust. The main concrete work involved bringing down walls from the former coarse ore bin and from the vertical crusher deck wall. Protruding rebar was also punched down using an excavator to prepare for capping. During the concrete breaking activities, appropriate respiratory protection was worn by the workers.

Capping operations began once concrete breaking and crushing was completed. An excavator was used to load fill material from the nearby former camp facilities area into tandem trucks. The trucks hauled the material to the mill site which was spread across the concrete foundations using a bulldozer. In addition to importing material from the former camp facilities area, bulldozers were used to knock steep slopes down around the mill area and tie them into the newly constructed cover across the mill site.

Cover construction across the mill foundations was completed to a minimum 1 m thickness. In some areas, more than 1 m of material was required to achieve gentle slopes. The material was placed in order to promote drainage from the area and the cover was constructed with subtle undulations to slow the velocity of water shedding from area. Drainage from the area was promoted generally to the south and to the north. Once the material haul from the former camp facilities was completed, bulldozers worked at shaping the area and tied it into the newly constructed cover across the mill site foundations for aesthetic purposes. Once the cover was completed, rolled erosion control blankets were installed in the steepest areas of the mill site to mitigate potential erosion of the newly constructed cover.

A survey of the mill area was carried out prior to commencing concrete breaking. A second survey of the mill area was completed once the concrete breaking, capping, and shaping operations were completed. The as-built conditions at the mill area are shown on Drawing SDH04_B_C_0001, SDH04_B_C_0002, SDH04_B_C_0003 and SDH04_B_C_0004 (Appendix O). The drawings depict the contours and conditions prior to and post reclamation.

An initial soil quality assessment of the constructed cover across the mill area was conducted in 2014 and results showed small zones of the mill site require further clean cover material due to elevated metals concentrations. This work will be carried out in 2015. Soil quality characterization will be carried out following final capping to ensure an adequate cover has been constructed.

The former Golden Hills Shop area (just northwest of the mill site) was also capped with a minimum 0.6 m of clean fill material from an existing stockpile along the long access road from the mill site to the TMA. Material was transported to the Golden Hills Shop area and spread using a bulldozer to cap the concrete foundation from the old shop and the surrounding area. An as-built survey was not completed on this area in 2014. This survey will be carried out in 2015 and provided in the 2015 as-built report.

9.3 Road Maintenance

The SDH main access road and site access roads were shared by multiple contractors. Beginning in April, two graders and a bulldozer were used to widen the road which was plowed by the site caretaker throughout the winter. The graders and bulldozer worked to clear snow off the main access road and other site access roads such that two way traffic could safely pass.

During the months of May and June, the access roads saw heavy traffic from all Contractors and road conditions deteriorated in some locations. Tandem trucks were used to haul gravel sourced from the SDH gravel pit for road repairs. A grader continued to work on the roads and a vibratory compactor was also mobilized to provide assistance in maintaining the roads.

Throughout the remainder of the construction period (late June to October), road maintenance continued in the form of grading and dust suppression on an as-needed basis. Two water trucks were used for dust suppression and water was sourced from three locations on site. The

primary draw point was North Creek Dyke. Other draw points were located at km 4.2 and km 19.7 of the SDH main access road.

Table 9.1 provides the quantity of water drawn from each location throughout the 2014 construction phase. The table is broken out to show water usage by draw point per day and presents the number of truck loads taken. Each truck load represents a quantity of approximately 13.25 m^3 of water.

Table 9.1: 2014 Reclamation Activities Water Usage

Date (2014)	Truck loads			Date (2014)	Truck loads			Date (2014)	Truck loads		
	North Creek	KM 19.7	KM 4.2		North Creek	KM 19.7	KM 4.2		North Creek	KM 19.7	KM 4.2
Jun 9	4	-	-	Jul 28	12	3		Aug 21	7	9	-
Jun 12	4	-	-	Jul 29	7	-		Aug 22	7	1	-
Jun 13	7	-	-	Jul 30	6	5		Aug 25	5	4	-
Jun 17	8	-	-	Jul 31	6	4		Aug 26	1	1	-
Jun 18	12	-	-	Aug 1	7	-		Aug 29	1	2	-
Jun 23	7	2	-	Aug 2	1	5		Sep 2	5	2	-
Jun 24	8	2	-	Aug 3	10	-		Sep 3	3	3	-
Jun 25	8	5	-	Aug 4	4	2		Sep 4	2	6	-
Jun 26	7	6	-	Aug 5	7	-		Sep 5	2	1	-
Jun 27	8	6	-	Aug 6	4	-		Sep 6	1	1	-
Jun 28	7	5	-	Aug 7	7	-		Sep 8	-	3	-
Jul 2	10	8	4	Aug 8	11	4	-	Sep 9	-	3	-
Jul 7	5	3	-	Aug 9	5	2	-	Sep 10	-	1	-
Jul 8	8	5	-	Aug 10	3	-	-	Sep 11	-	1	-
Jul 9	-	10	-	Aug 11	4	9	-	Sep 15	-	2	-
Jul 10	-	11	-	Aug 12	10	14	-	Sep 16	-	2	-
Jul 11	4	2	-	Aug 13	10	12	-	Sep 17	-	3	-
Jul 14	11	-	-	Aug 14	9	-	-	Sep 18	-	3	-
Jul 15	10	-	-	Aug 15	8	-	-	Sep 19	-	2	-
Jul 16	10	-	-	Aug 16	6	5	-	Sep 23	-	1	-
Jul 17	12	-	-	Aug 20	2	-	-	Sep 27	-	1	-
								TOTAL	**318**	**182**	**4**

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

- North Creek Dyke: 4,213 m^3
- Km 19.7: 2,411 m^3
- Km 4.2: 53 m^3

9.4 Landfill Activities

Landfill activities continued during the 2014 construction phase under Yukon Ministry of Environment Waste Management Permit No. 81-020. Concurrent landfill operations were carried out to accept permitted mill debris by the mill purchaser and other miscellaneous site debris by other Contractors. The following sources of permitted site debris were hauled for disposal in the on-site landfill:

- Mill rubble including insulation, steel, tin, cladding, wood, and electrical cable
- Materials from site boneyard (primarily scrap steel)
- Small shacks and structures
- Core boxes and core racks
- Steel water pipeline
- Culverts (CSP)
- Concrete from water decant structure from South Dam
- Pump house rubble from North Creek Dyke, Lower North Creek, and Reclaim Dam access road

A total of 7,364 m^3 of loose material was transported to the landfill in 2014. Combined with the 2013 landfill operations, which saw 7,042 m^3 of loose material hauled to the landfill, a total of approximately 14,406 m^3 of material has been hauled to the landfill to date as part of the decommissioning and reclamation activities. Landfill operations were carried out by excavating a deposition cell, placing layers of crushed debris mixed with fill to mitigate subsidence, further crushing and compacting material with a bulldozer, and capping deposition cells with a minimum of 1.0 m of cover material.

During landfill operations associated with the disposal of mill infrastructure, surface water was draining into deposition cells, causing constant dewatering of the cells to allow deposition to be carried out. The surface water appeared to be coming from mountain runoff caused by spring melt and precipitation. The water continued to drain into the landfill area throughout the summer. To mitigate the water draining into deposition cells and coming into contact with landfilled debris, a surface water drainage channel was constructed through the landfill to shed this water to the north toward Lower North Creek. The drainage channel was constructed through an alignment of the landfill that did not contain buried debris. Currently, the channel discharges into a 150 mm diameter steel cross culvert pipe which was installed beneath the access road that runs along the east side of the landfill. The water then discharges toward Lower North Creek. The drainage path was effective in promoting drainage during the remainder of the 2014 construction phase. In 2015, it will be confirmed that the drainage channel is performing adequately and the culvert will be removed following completion of all reclamation activities north of this location.

Once the mill purchaser had completed their landfill activities, IKC was engaged to cap these cells (and the IKC cells) with a minimum 1.0 m of clean fill sourced from the gravel pit below the landfill. IKC also completed contouring and shaping activities across these areas to promote positive drainage and drainage toward the new water drainage channel.

During the excavation of the Camp Creek Drainage Channel associated with the TMA Decommissioning works, a significant quantity of native organic material was excavated from the upper portion of the channel alignment following clearing and grubbing operations. This material was stockpiled by the TMA decommissioning Contractor. Once IKC had completed the capping and contouring of the landfill cover, Cobalt hauled approximately 1,671 m^3 of this organic material (quantity based on load counts) to the landfill and dumped the material in rows

across the landfill site. The material was not spread. This material will be tilled into the cover in 2015 and seeded as part of the final reclamation activities at the landfill site.

Golder also lead a program to install four new groundwater monitoring wells within the landfill footprint. Coordinates and elevations of these monitoring wells are provided in Figure SDH00_FIG_01 (Appendix A).

Drawing SDH_05_B_C_0001 (Appendix P) shows the various disposal cells in the landfill area and the locations of the new groundwater monitoring wells. This Drawing also shows the location of the surface water drainage channel through the landfill. The Drawing also depicts the location of proposed deposition cells that will be required during 2015 construction. Included is a cross sectional view through the landfill showing thickness of buried debris.

9.5 North Creek Dyke

North Creek Dyke is located south of the landfill/borrow area. The dyke crest formerly contained a pump shack equipped with electrical infrastructure (see Section 6.0) which was removed as part of the Electrical Decommissioning work package. Once the electrical infrastructure had been removed from the pump shack, the shack was demolished by IKC and rubble was crushed and hauled to the landfill for deposition. The concrete pump shack pad was crushed using an excavator with hydraulic attachment and the area was regraded. Segments of insulated HDPE water supply pipeline also ran along the dyke. These pipe segments were extracted and hauled off-site as described in Section 9.6.

The dyke itself contained CSP culverts within the structure which provided drainage of North Creek. One primary drainage culvert was located near the bottom of the dyke and three overflow culverts were located at a higher elevation through the structure. In accordance with DDRP requirements, all culverts were excavated, crushed and hauled to the landfill for disposal. Construction of a new rock lined channel through the dyke was completed through the section of dyke that formerly contained the culverts. The channel was constructed with 2H:1V side slopes and a 2 m wide base. The channel was lined with non-woven geotextile and riprap material was placed on top. The riprap was sourced from the km 17 quarry operations. The riprap was placed at a thickness of approximately 0.5 m. Material that was excavated from the channel alignment was placed along the downstream side of the remainder of the dyke and was blended into the surrounding topography.

9.6 Pipeline Works

Prior to the commencement of decommissioning and reclamation activities in 2013, roughly 8 km of steel and HDPE pipeline was present throughout the site, alongside access roads and in other areas. The pipeline included insulated and un-insulated steel/HDPE water supply line and insulated/un-insulated HDPE tailings line. In 2013, approximately 2.75 km of water supply line pipe was extracted from site access roads, disconnected or cut and stockpiled at the on-site boneyard.

9.6.1 Installation of 200 mm HDPE Pipeline for TMA Decommissioning

To facilitate pumping of South Pond water as part of the TMA Decommissioning activities, IKC utilized sections of 200 mm HDPE water supply line extracted in 2013 and assembled a discharge pipeline along the east bank of the Reclaim Pond area. This allowed the TMA decommissioning Contractor (Cobalt) to pump South Pond water around the Reclaim Pond work area, allowing work to proceed in this area. Cobalt's 150 mm submersible pump was fed into the newly constructed discharge pipeline which extended from the downstream side of the South Dam to the discharge location, roughly 600 m south of the South Dam in Camp Creek. Upon completion of the TMA works, this pipeline was decommissioned and pipe segments were returned to the on-site boneyard. They remain stockpiled in this location for potential use in 2015.

9.6.2 Removal of Pipeline from Site Access Roads

IKC continued to extract and disassemble segments of water supply pipeline and tailings line from site access roads and other site areas, continuing the activity which began in 2013. The remaining 5.25 km of pipeline was decommissioned. Pipeline segments were stockpiled in three primary locations: North Creek Dyke, Boneyard, and Short Access Road. The pipeline segments were disconnected or cut in roughly 10 m sections. Overall, combined with the 2013 activities, approximately 5.8 km of water supply line and 2.2 km of tailings line were decommissioned.

9.6.3 Pipeline Salvage

Rather than dispose the roughly 8 km long pipeline at the on-site landfill, Teck offered KPI the pipe for salvage under the condition that they would haul the pipe off-site. Once all pipeline segments were stockpiled, KPI used a loader and logging truck to load the pipe sections and haul them off-site. They were transported to KPI's laydown yard in Watson Lake for storage. KPI transported approximately 7 km of pipeline off-site to their laydown yard. Roughly 600 m of pipeline used for the dewatering of the South Pond as described in Section 9.6.1 remains in the on-site boneyard. Roughly 400 m of water supply pipe was damaged during extraction and these segments were crushed and hauled to the landfill for disposal.

9.7 Removal of Non-Permitted Waste

Throughout 2014, debris was encountered at various site locations that could not be placed in the on-site landfill (non-permitted debris). KPI was engaged to conduct the remediation of this waste which included off-site transportation and processing. KPI transported the materials to the Northern Environmental Services (NES) facility in Watson Lake (Waste Management Permit #81-049, Land Treatment Facility Permit #24-037). Much of the non-permitted material came from the mill area in zones outside the footprint of the sale of the mill and associated infrastructure. Some of the non-permitted material was also from the Boneyard, and the old Golden Hills Shop area. Materials transported to the NES facility included the following:

- Fire extinguishers
- Batteries
- Gas cylinders
- Paint cans
- Loader/tractor tires, light truck tires, heavy truck tires
- Pail of toluene
- Contaminated soil/sorbent materials
- Oil
- Diesel sludge
- Tar
- Light bulbs
- Oil drum (see Section 6.3.8)
- Sediment pond liner (see Section 6.3.6)
- Tank containment dyke liner (see Section 8.4)

An environmental spill (approximately 75 L diesel fuel) occurred along the Burnick 1200 access road. Additionally, two smaller environmental spills (approximately 1-5 L oil) occurred near the main gate of the SDH site. KPI also remediated the soil from these spills and hauled the impacted soil off-site to their land treatment facility.

All non-permitted waste transported to KPI's licensed facility was documented through movement documents / manifests and chain of custody documentation. Copies of all movement documentation are provided in Appendix J.

9.8 Core Racks

Core racks and core remaining from previous exploration at the property were found in three locations:

- Exploration Camp
- Ridge just east of the Mill Site
- Remote ridge near Burnick 1300

For the first two core rack locations listed above, the core was separated from the racks and stockpiled. The core rack and box material was crushed using an excavator, loaded into tandem trucks, and hauled to the landfill for disposal. The core was hauled to Jewelbox for disposal.

For the remote core racks at the ridge near Burnick 1300, refer to Section 6.3.4.

9.9 Rolled Erosion Control Blanket Installation

As part of the winterization work, rolled erosion control blankets (RECBs) were deployed across the Mill Area and Reclaim Pond.

Each roll of RECB consists of 86 m^2 of coverage (this correlates to roughly 75 m^2 of coverage with overlap taken into consideration). Overall, 160 rolls of RECB were deployed. The majority of these (120) rolls were deployed on steep slopes of the reshaped Mill Area. The other 40 were deployed in steeply sloped locations of the Reclaim Pond, along the southern side of the Camp Creek Drainage Channel.

The following procedure was carried out by laborers to install the matting:

- Roll out the matting and apply it by unrolling down the slope in the direction of the flow
- Secure the matting at the top by toeing it in the slope in a 0.15 m deep trench
- Place staples roughly 0.5 m apart in a grid pattern across the matting
- Overlap the matting by 0.5 m on all sides

The following coverage (area assuming overlap) was achieved:

- Mill Area: 9,000 m^2
- Reclaim Pond: 3,000 m^2

There were also 20 rolls shipped to site which were not deployed and which have been stored for winter. If required, these could be installed in spring to assist with freshet erosion protection. These rolls would comprise 1,500 m^2 of coverage.

9.10 Groundwater Monitoring Well Decommissioning

Groundwater monitoring wells that will not be used as part of the long term monitoring program at the SDH site were decommissioned. These wells contained only steel casings and no PVC casings were discovered with the exception of one well (GW-1B) which was found to be a depth of only 1.5 m. Ten wells were decommissioned and locations are shown in Figure SDH00_FIG_01 (Appendix A). Monitoring well decommissioning logs have been prepared for all wells which include a description of the decommissioning procedure, materials used and associated quantities, plug depth information, photographs, and a borehole log. These groundwater monitoring well decommissioning logs are located in Appendix Q of this report.

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 as part of the works:

- TH01-91
- TH07-91
- TH13-91
- TH14-91

- TH15-91
- TH18-91
- TH19-91
- TH20-91
- TH24-91
- GW-1B

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

9.11 Seed Application

To assist with sediment and erosion control within the TMA, a native seed mix and a fall rye seed was hand broadcasted across the exposed areas of the South Pond and Reclaim Pond. The seed was applied in early October in an effort to promote temporary vegetation cover to assist in the retention of sediment and the prevention of erosion across the exposed areas. The permanent re-vegetation efforts in 2015 can be applied over any vegetation established from the 2014 erosion and sediment control program.

9.12 Helipad Construction

Helipads were constructed for purposes of conducting surface water sampling during the winter months when site access via the main access road will not be possible. The helipads were constructed to a minimum size of 15 m x 17 m. Construction of the helipads was completed by bulldozer and typically involved levelling a pad across an existing open area. Helipads were constructed to facilitate surface water sampling at the following locations (Figure SDH00_FIG_11 (Appendix A) depicts the locations of these helipads):

- MH-01
- MH-02
- MH-04
- MH-05
- MH-11
- MH-22

9.13 Exploration Camp

Shacks and structures at the Exploration Camp / Gribbler's Ridge were demolished and disposed of. Many of the shacks from this area were dilapidated from lack of care and heavy precipitation. Debris was loaded into trucks and hauled to the landfill for disposal. Core racks were demolished as described in Section 9.8. There was also a hunter's cabin which was crushed and hauled to the landfill. The area was re-graded following demolition activities.

10.0 PROJECT MILESTONE TIMELINE

Sections 5.0 through 9.0 have detailed the major works undertaken during the 2014 construction phase of the reclamation project. Table 10.1 below provides a list of major 2014 milestones over the course of the project and their associated completion date.

Table 10.1: Major Project Milestones and Completion Dates

Major Project Milestone	Completion Date
Jewelbox 1250 Portal Plug	June 21, 2014
Jewelbox 1408 Portal Plug	June 27, 2014
Reclaim Pond Dewatering	July 1, 2014
Burnick 1200 Portal Plug	July 3, 2014
Burnick 1200 Ventilation Portal Plug	July 3, 2014
Burnick 1300 Portal Plug	July 8, 2014
South Pond Dewatering	August 4, 2014
Decant Tower Demolition	August 19, 2014
Final KM 17 Quarry Blast	August 19, 2014
Jewelbox 1380 Portal Plug	September 4, 2014
Restoration of Camp Creek	September 11, 2014
Jewelbox Summit Ventilation Raise Concrete Cap	September 12, 2014
Jewelbox 1408 Ventilation Raise Concrete Cap	September 12, 2014
Deconstruction of Reclaim Dam	September 13, 2014
Construction of SRS / Spillway	September 24, 2014
North Creek Dyke	September 26, 2014
Deconstruction of South Dam	October 1, 2014
Capping of North Tailings Pond	October 2, 2014
Capping of South Tailings Pond	October 8, 2014

11.0 OTHER 2014 SITE ACTIVITIES

In addition to the General Contractors who conducted the decommissioning activities described in Sections 5.0 through 9.0, other firms visited the site to complete activities also associated with implementation of the decommissioning & reclamation project. These activities are briefly discussed in this section.

11.1 Teck Consultation Activities

Teck engaged multiple firms to carry out various consulting 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 2014 on-site Consultant activities are briefly described herein.

11.1.1 SRK Consulting

SRK conducted multiple visits to carry out site inspections and surface water sampling. Site inspections were conducted by Project design engineers to confirm design objectives were being met in the field. An SRK technician was on site monthly to carry out surface water sampling. The surface water sampling program typically lasted for 3-4 days on site per month.

11.1.2 Golder Associates

Golder conducted multiple visits to carry out various environmental sampling programs. Golder's primary task was to carry out groundwater monitoring and soil sampling at various site locations. Multiple test pit programs were carried out to determine material suitability at the mill site, at Burnick 1200 and Jewelbox. Additionally, Golder conducted analytical testing of the Reclaim Dam and South Dam material to confirm suitability for use as clean cover across areas of exposed tailings.

Golder was also on-site to assist with delineation of areas of potential hydrocarbon contamination. Additional areas identified in 2014 as containing hydrocarbons were surveyed and these areas (located on the Burnick 1200 waste rock dump and Jewelbox 1408 waste rock dump) were capped with a minimum of 0.6 m of material as part of the reshaping effort of both waste rock dumps.

Golder was also on-site to supervise the installation of four new groundwater monitoring wells in the landfill area. These wells will form part of the long-term post-closure monitoring program associated with the site.

11.1.3 Azimuth Consulting Group

Azimuth Consulting Group conducted site visits throughout 2014 to carry out investigations associated with Human Health and Ecological Risk Assessment studies at the SDH site. Work conducted included electro-fishing and benthic sampling in surrounding watercourses, and collection of other environmental samples around the site.

11.1.4 Summit Environmental Consultants / Liard First Nation Development Corporation

Summit Environmental Consultants Inc. (Summit) was engaged by Teck to coordinate on-site environmental monitoring. Summit hired and trained members from the local Liard First Nation to conduct the monitoring. The monitors received training which enabled them to conduct monitoring of site activities from an environmental perspective, and to perform water quality sampling for comparison with regulatory criteria. The monitors also assisted Consultants in carrying out soil investigations and other aspects of overall site monitoring where required. The monitors reported directly to Teck and also kept the community apprised of site activities through their engagement in the project.

11.2 Seed Collection Program

Laberge Environmental Services (Laberge) conducted multiple trips to site in 2014 to collect seeds from various native species of plant including poplar and willow. The seeds were transported to a nursery to germinate and prepare plant plugs for re-vegetation efforts in 2015.

11.3 Site Infrastructure / Teck Generator Work

During care and maintenance operations of the SDH site, power for the caretaker's facilities and for lighting at the mill site was provided via two 50-kW generators located in a shack adjacent to the Water Distribution Pump House. In spring 2014, both generators were removed. One generator was relocated to near the main gate and power was commissioned from the generator to the on-site mobile home, the site office and First Aid Room infrastructure established near the main gate area. The second generator was loaded into a Teck sea container and transported to Whitehorse for upgrade. Industrial Electric Services Ltd. (Industrial Electric) used the sea container (referred to as the "gen set" sea container) to construct a secure facility for both generators. The sea container was equipped with ventilation, a fuel tank, and electrical connections and panel. Once the generator had been installed into the sea container and the system prepared for the second generator, the sea container was delivered back to the SDH site and the on-site generator was installed into the sea container and power was switched over to the new system.

At the end of the 2014 construction period, power was disconnected from the temporary office facilities near the main gate. The power connection remains to the mobile home; however all power has been switched off for winter. Additionally, the sea container was secured with locks and steel grates for security. Another sea container was moved in front of the gen set sea container and the water storage trailer on-site was also used to block another side of the gen set sea container.

11.4 Caretaker Mobile Home Work

The on-site mobile home (formerly inhabited by the site caretaker) remains on-site for use as office space and First Aid room for the 2015 construction phase. At the end of the 2014 construction phase, the mobile home was winterized by personnel from 37977 Yukon Inc. Winterization included boarding up all windows and doors with plywood, and installing wood

sheeting on all floors of the trailer to prepare it for office use in 2015. Additionally, water lines were drained and anti-freeze was poured into the lines. A power cable extends from the on-site gen sets to the mobile home however all power will remain off until the site reopens in 2015.

11.5 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. Additionally, one site visit was conducted by the Yukon Department of Natural Resources (DNR) to review the location of a beaver lodge and pond that needed to be removed as part of the TMA Decommissioning works. The following Table 11.1 provides details on the visits conducted by EMR and DNR.

Table 11.1: Yukon Regulatory Site Visits

Date	Government Department	Inspectors	Reason for the Visit	Planned / Unplanned
May 7	Yukon Department of Energy, Mines and Resources (EMR) Client Services and Inspections	Scott Allen Senior Natural Resources Officer	Environmental Inspection	Planned
	EMR, Client Services and Inspections	Justin Hooper Mining Natural Resource Officer	Environmental Inspection	Planned
May 15	EMR, Client Services and Inspections	Scott Allen Senior Natural Resources Officer	Environmental Inspection	Unplanned
May 29	EMR, Client Services and Inspections	Justin Hooper Mining Natural Resource Officer	Environmental Inspection	Planned
Jun 20	Yukon Department of Natural Resources	Mark Brodhagen Conservation Officer	Environmental Inspection	Planned
Jul 8	EMR, Client Services and Inspections	Scott Allen Senior Natural Resources Officer	Environmental Inspection	Planned
	EMR, Client Services and Inspections	Justin Hooper Mining Natural Resource Officer	Environmental Inspection	Planned
Jul 9	EMR, Client Services and Inspections	Scott Allen Senior Natural Resources Officer	Environmental Inspection	Planned
	EMR, Client Services and Inspections	Justin Hooper Mining Natural Resource Officer	Environmental Inspection	Planned
Aug 15	EMR, Client Services and Inspections	Justin Hooper Mining Natural Resource Officer	Environmental Inspection	Unplanned
Oct 7	EMR, Client Services and Inspections	Robert Holmes Director, Mineral Resources	Final Site Inspection	Planned
	EMR, Client Services and Inspections	Erin Dowd Mining Technologist	Final Site Inspection	Planned
	SteveJan Consultants Inc.	Steve Januszewski Principal Engineer	Final Site Inspection	Planned
Oct 9	EMR, Client Services and Inspections	Justin Hooper Mining Natural Resources Officer	Environmental Inspection	Planned
	EMR, Client Services and Inspections	Thomas Ulmer Natural Resources Officer	Environmental Inspection	Planned
	EMR, Client Services and Inspections	Brian Naef Natural Resources Officer	Environmental Inspection	Planned

12.0 CLOSING REMARKS

The 2014 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, MIT, 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.

Prepared by:

Chris Jeffrey, MIT
Construction Monitor
Tel: + 1 506 444 9594
Mobile: + 1 506 863 3822
Fax: + 1 506 450 0829
Email: chris.jeffrey@amecfw.com

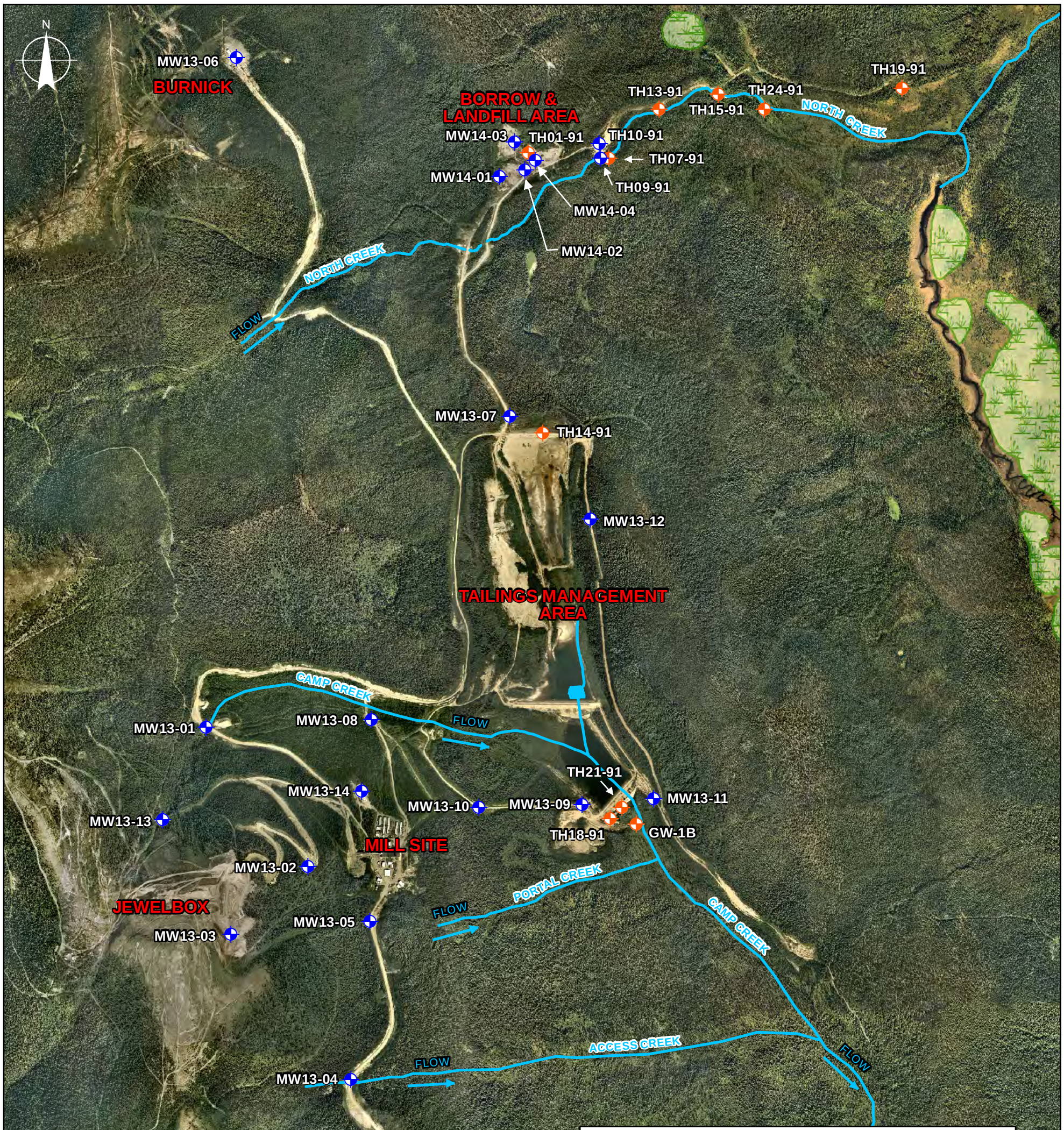
Reviewed by:

Lise Weismann For:

John Pugh, M.Eng., P.Eng.
Project Manager
Tel: + 1 506 458 1000
Mobile: + 1 506 292 2289
Fax: + 1 506 450 0829
Email: john.pugh@amecfw.com

APPENDIX A
FIGURES

Figure SDH00_FIG_01.....Monitoring Well and Test Hole Locations
Figure SDH00_FIG_11.....Helicopter Pad Locations
Figure SDH00_FIG_12.....General Site Plan Prior to 2014 Decommissioning Work
Figure SDH01_FIG_03.....Mountain Works Site Plan - Jewelbox
Figure SDH02_FIG_04.....Mountain Works Site Plan - Burnick
Figure SDH03_FIG_07.....Tailings Management Area Site Plan Prior to 2014 Decommissioning Work
Figure SDH03_FIG_08.....North Pond Test Pits
Figure SDH05_FIG_03.....Landfill Site Plan



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	1303.73	1304.7	1304.83
MW13-03	6709335.18	506737.38	1408.29	1409.35	1409.53
MW13-04	6708728.81	507239.71	1199.51	1200.48	1200.69
MW13-05	6709391.55	507318.33	1195.16	1196.23	1196.4
MW13-06	6713001.24	506761.33	1210.04	1210.61	1210.8
MW13-07	6711502.08	507903.55	1097.7	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	6709813.918	506451.963	1253.1	1254.13	1254.33
MW13-14	6709928.615	507296.439	1207.34	-	1207.81
MW14-01	6712573.053	508009.461	1028.82	1029.98	1030.07
MW14-02	6712530.812	507967.922	1033.23	1034.37	1034.44
MW14-03	6712505.947	507861.458	1039.87	1040.87	1041.01
MW14-04	6712648.455	507925.267	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
- WATERCOURSE
- WETLAND

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

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

DATUM: NAD83 CSRS

PROJECTION: UTM ZONE 9 NORTH

PROJECT NO: TE133100

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: MONITORING WELL AND TEST HOLE LOCATIONS

DWN BY: J.T.

CHK'D BY: LW/CJ

DATE: 2015/03/17

REV. NO: R2

FIGURE NO: SDH00_FIG_01

Path: G:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\MXD\20150317_SDH00_FIG_01_R2.mxd User: tanya.morehouse Date: 17/03/2015

SOURCE: TECK Topographic Data, TECK LiDAR Ortho Photo 2012

LABEL	NORTHING	EASTING	ELEVATION (M)
MH-01 HELIPAD	6710383.433	508042.847	1095.589
MH-02 HELIPAD	6711409.099	508214.726	111.663
MH-04 HELIPAD	6710327.397	507331.656	1137.472
MH-05 HELIPAD	6709563.629	507426.660	1197.711
MH-11 HELIPAD	6708859.895	509366.580	1024.203
MH-22 HELIPAD	6713008.405	506706.250	1204.065
ALL COORDINATES ARE IN NAD83 UTM ZONE 9 NORTH			

N

MH-22 HELIPAD

BURNICK

BURNICK ACCESS ROAD

NORTH CREEK

BORROW & LANDFILL AREA

NORTH CREEK

DUMP ROAD

MH-02 HELIPAD

TAILINGS MANAGEMENT AREA

MH-01 HELIPAD

MH-04 HELIPAD

CAMP CREEK

LONG ACCESS ROAD

SHORT ACCESS ROAD

ROAD TO RECLAIM

JEWELBOX ACCESS ROAD

MILL SITE

MH-05 HELIPAD

PORTAL CREEK

MAIN GATE / SITE SECURITY

CAMP CREEK

JEWELBOX

MAIN ACCESS ROAD

ACCESS CREEK

MH-11 HELIPAD

LEGEND:

- HELICOPTER PAD LOCATIONS
- WATERCOURSE

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 1:15,000

0 150 300 600 Metres

DATUM: NAD83 CSRS

PROJECTION: UTM ZONE 9 NORTH

PROJECT NO: TE133100

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: HELICOPTER PAD LOCATIONS

DWN BY: J.T.

CHK'D BY: LW/CJ

DATE: 2015/03/17

REV. NO: R1

FIGURE NO: SDH00_FIG_11

Path: G:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\MXD\20150317_SDH00_FIG_11_R1.mxd User: tanya.morehouse Date: 17/03/2015

SOURCE: TECK Topographic Data, TECK LiDAR Ortho Photo 2012

N

BURNICK

LOWER NORTH CREEK PUMP SHACKS

NORTH CREEK

LANDFILL

GRAVEL PIT

FLOW

NORTH CREEK DYKE

BONEYARD

TAILINGS MANAGEMENT AREA

CAMP CREEK

FLOW

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:
- PIPELINE (REMOVED)
- TAILINGS LINE (REMOVED)
- WATERCOURSE
- WETLAND

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 1:17,000

0 100 200 400 600 Metres

DATUM: NAD83 CSRS

PROJECTION: UTM ZONE 9 NORTH

PROJECT NO: TE133100

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: GENERAL SITE PLAN PRIOR TO 2014 DECOMMISSIONING WORK

DWN BY: J.T.

CHK'D BY: LW/CJ

DATE: 2015/03/17

REV. NO: R0

FIGURE NO: SDH00_FIG_12

Path: F:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\MXD\20150317_SDH00_FIG_12.mxd User: tanya.morehouse Date: 19/03/2015

SOURCE: TECK Topographic Data, TECK LiDAR Ortho Photo 2012

LEGEND:
- POWER TRANSMISSION LINE (REMOVED)
- WATERCOURSE
- VENTILATION RAISE
- PORTAL
- WASTE ROCK DUMP
- OPEN PIT
- SEDIMENTATION POND

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 1:3,000
0 10 20 40 60 80 100 Metres

DATUM: NAD83 CSRS

PROJECTION: UTM ZONE 9 NORTH

PROJECT NO: TE133100

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: MOUNTAIN WORKS SITE PLAN - JEWELBOX

DWN BY: J.T.

CHK'D BY: LW/CJ

DATE: 2015/03/17

REV. NO: R0

FIGURE NO: SDH01_FIG_03

Path: G:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\MXD\20150317_SDH01_FIG_03.mxd User: tanya.morehouse Date: 19/03/2015

SOURCE: TECK Topographic Data, TECK LiDAR Ortho Photo 2012

LEGEND:
- PORTAL
- BURNICK DUMP

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 1:2,000
0 20 40 80 Metres

DATUM: NAD83 CSRS

PROJECTION: UTM ZONE 9 NORTH

PROJECT NO: TE133100

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: MOUNTAIN WORKS SITE PLAN - BURNICK

DWN BY: J.T.

CHK'D BY: LW/CJ

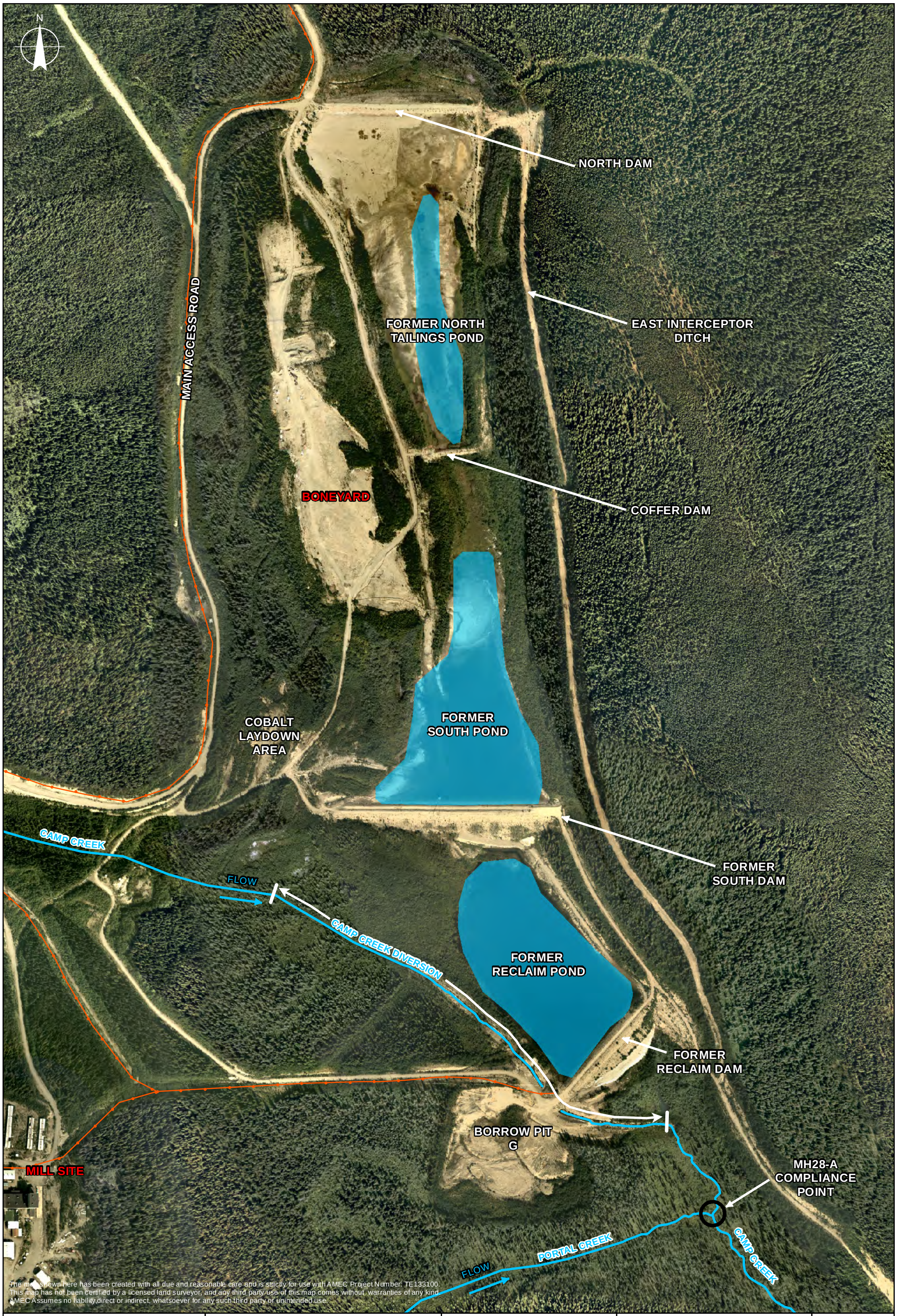
DATE: 2015/02/24

REV. NO: R0

FIGURE NO: SDH02_FIG_04

Path: G:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\MXD\20150224_SDH02_FIG_04.mxd User: tanya.morehouse Date: 24/02/2015

SOURCE: TECK Topographic Data, TECK LiDAR Ortho Photo 2012



LEGEND:

- WATERCOURSE
- POWER TRANSMISSION LINE AND POLES (REMOVED)

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 1:5,500

0 50 100 200 Metres

DATUM: NAD83 CSRS

PROJECTION: UTM ZONE 9 NORTH

PROJECT NO: TE133100

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: TAILINGS MANAGEMENT AREA SITE PLAN PRIOR TO 2014 DECOMMISSIONING WORK

DWN BY: J.T.

CHK'D BY: LW/CJ

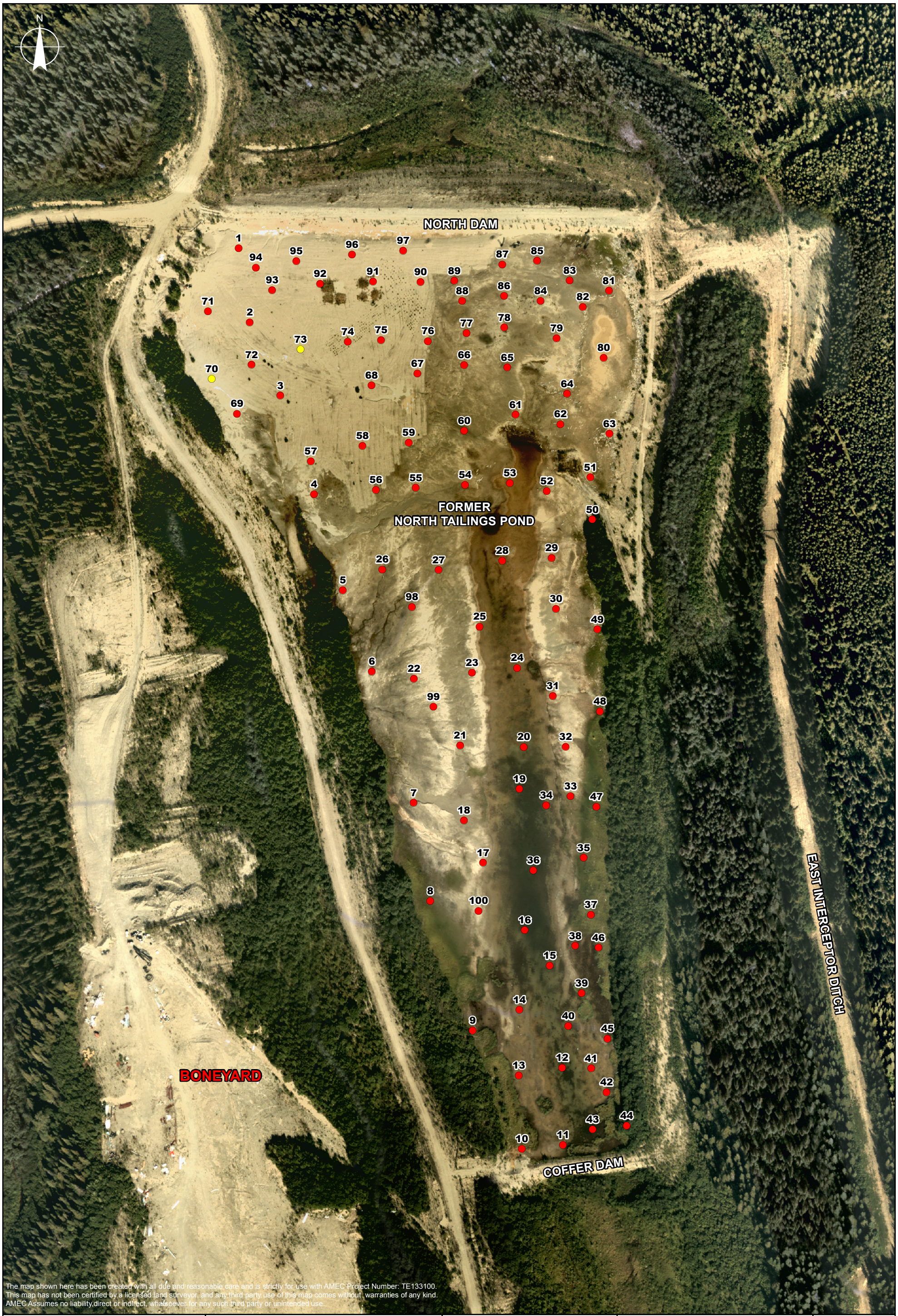
DATE: 2015/03/17

REV. NO: R0

FIGURE NO: SDH03_FIG_07

Path: G:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\MXD\20150317_SDH03_FIG_07.mxd User: tanya.morehouse Date: 18/03/2015

SOURCE: TECK Topographic Data, TECK LiDAR Ortho Photo 2012



LEGEND:

- CAPPING 0.3M ON SAND
- CAPPING 0.5M AND GREATER

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 1:2,000

0 10 20 40 60 80 Metres

DATUM: NAD83 CSRS

PROJECTION: UTM ZONE 9 NORTH

PROJECT NO: TE133100

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: NORTH POND TEST PITS

DWN BY: J.T.

CHK'D BY: LW/CJ

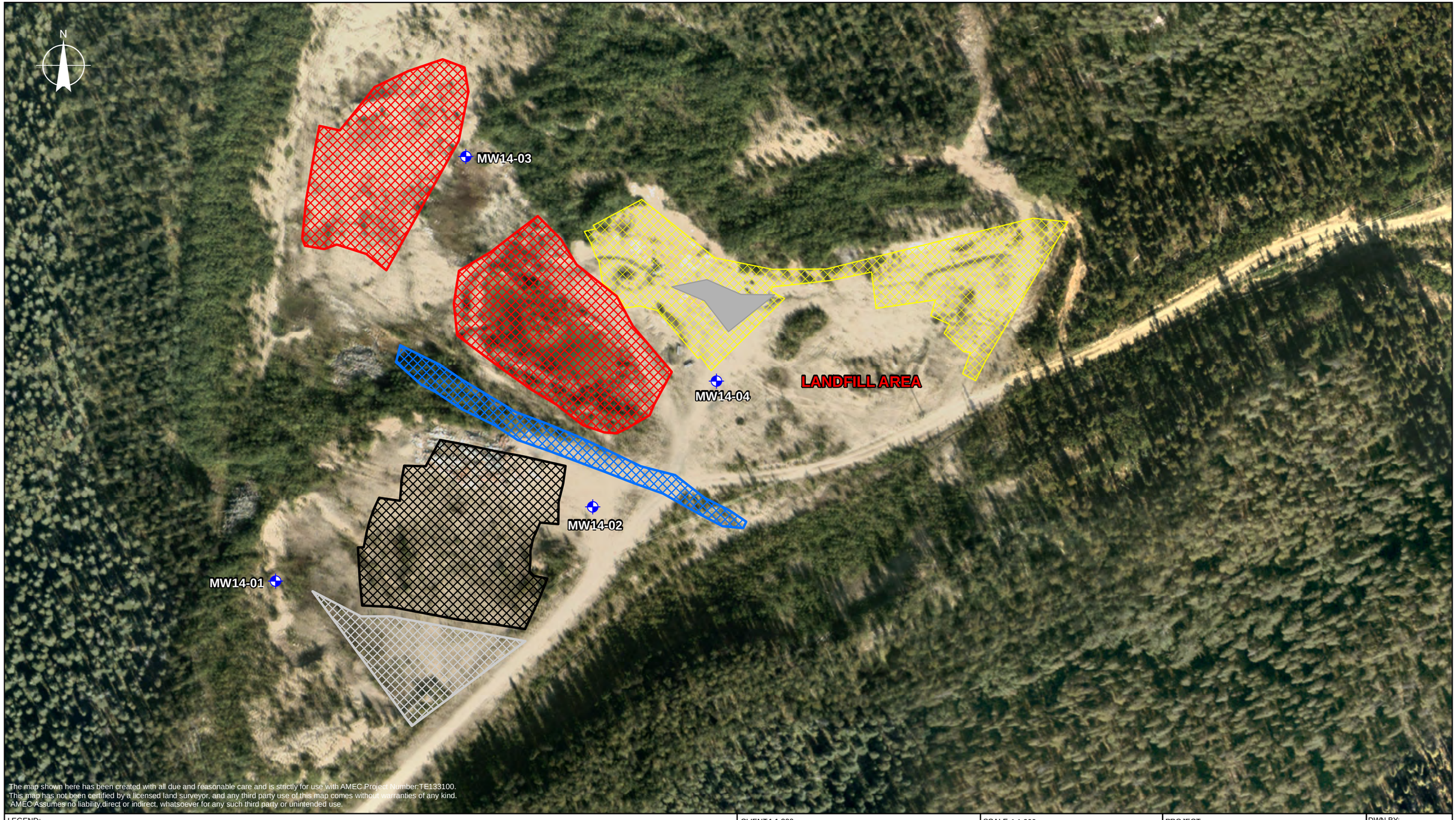
DATE: 2015/02/22

REV. NO: R0

FIGURE NO: SDH03_FIG_08

Path: G:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\MXD\20150224_SDH03_FIG_08.mxd User: jonathan.thornton Date: 24/02/2015

SOURCE: TECK Topographic Data, TECK LiDAR Ortho Photo 2012



LEGEND:

- MONITORING WELLS 2014
- 2013 CAMP AND OFFICE DISPOSAL CELL
- HISTORICAL DEBRIS DISPOSAL ZONE
- MILL DEBRIS DISPOSAL CELL
- MISCELLANEOUS SITE DEBRIS DISPOSAL CELL
- SURFACE WATER DRAINAGE CHANNEL
- PROPOSED 2015 LANDFILL ZONE

CLIENT:1:1,200
Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 1:1,200
0 5 10 20 30 40 Metres

DATUM: NAD83 CSRS

PROJECTION: UTM ZONE 9 NORTH

PROJECT NO: TE133100

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: LANDFILL SITE PLAN

DWN BY: J.T.
CHK'D BY: LW/CJ
DATE: 2015/02/20
REV. NO: R2
FIGURE NO: SDH05-FIG-03

Path: G:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\MXD\20150224_SDH05_FIG_03_R2.mxd User: tanya.morehouse Date: 24/02/2015

SOURCE: TECK Topographic Data, TECK LiDAR Ortho Photo 2012

APPENDIX B
TMA Decommissioning Issued for Construction Drawings

Drawing SDH-DR00 ..... Engineering Drawings for Sä Dena Hes Project, Tailings Management Facility Decommissioning
Drawing SDH-DR01 ..... Existing Conditions
Drawing SDH-DR02 ..... Location Map
Drawing SDH-DR03 ..... South Dam Plan and Profile
Drawing SDH-DR04 ..... South Dam Cross Sections
Drawing SDH-DR05 ..... Sediment Retaining Structure Plan
Drawing SDH-DR06 ..... Sediment Retaining Structure Sections
Drawing SDH-DR07 ..... Reclaim Dam Plan and Profile
Drawing SDH-DR08 ..... Reclaim Dam Cross Sections
Drawing SDH-DR09 ..... Drainage Channel Plan
Drawing SDH-DR10 ..... Drainage Channel Sections
Drawing SDH-DR11 ..... Areas to be Cropped General Arrangement
Drawing SDH-DR12 ..... Tailings Drainage Channel Plan, Profile and Section
Drawing SDH-DR13 ..... Materials Zoning in South Dam
Drawing SDH-DR14 ..... Materials Zoning in Reclaim Dam
Drawing SDH-DR15 ..... Stakeout Tables
Drawing SDH-QP001-00 ..... Engineering Drawings for Sä Dena Hes Project, Quarry Development, Yukon, Canada
Drawing SDH-QP001-01 ..... Plan and Sections
Drawing SDH-QP001-02 ..... Plan and Details

Engineering Drawings for Sa Dena Hes Project, Tailings Management Facility Decommissioning

ACTIVE DRAWING STATUS

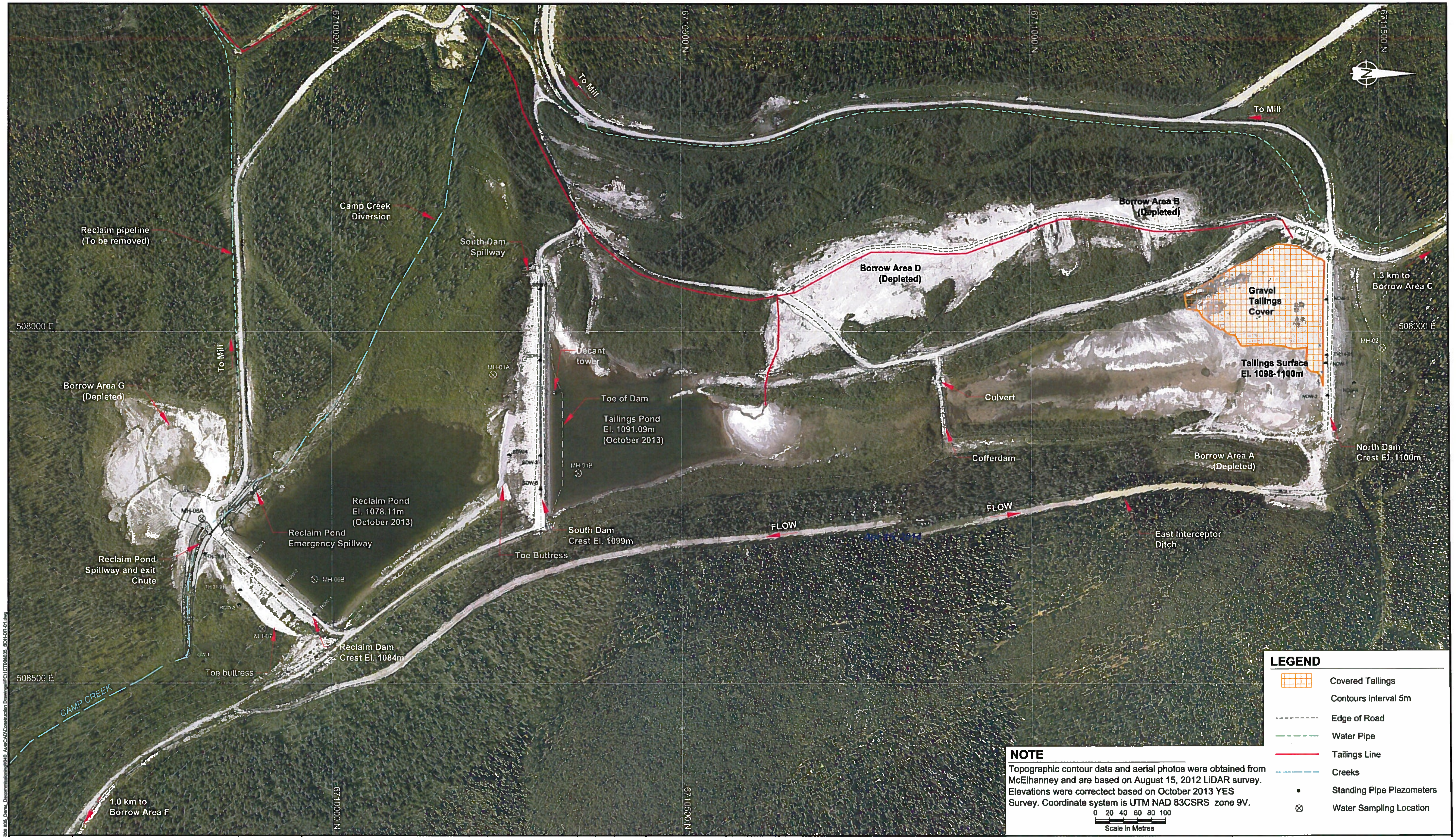
DWG NUMBER	DRAWING TITLE	REV.	DATE	STATUS	OLD/REPLACED REVISIONS			
SDH-DR-00	Engineering Drawings for Sa Dena Hes Project, Tailings Management Facility Decommissioning	4	Aug. 29, 2014	Issued for Construction	Rev.3, May 6, 2014	Rev.2, Mar. 24, 2014	Rev.1, Mar. 3, 2014	Rev.0, Feb.14, 2014
SDH-DR-01	Existing Conditions	2	May 6, 2014	Issued for Construction	Rev.1, Mar. 3, 2014	Rev.0, Feb.14, 2014		
SDH-DR-02	Location Map	2	May 6, 2014	Issued for Construction	Rev.1, Mar. 3, 2014	Rev.0, Feb.14, 2014		
SDH-DR-03	South Dam Plan and Profile	4	Aug. 22, 2014	Issued for Construction	Rev.3, May 6, 2014	Rev.2, Mar. 24, 2014	Rev.1, Mar.3, 2014	Rev.0, Feb.14, 2014
SDH-DR-04	South Dam Cross Sections	3	May 6, 2014	Issued for Construction	Rev.2, Mar. 24, 2014	Rev.1, Mar.3, 2014	Rev.0, Feb.14, 2014	
SDH-DR-05	Sediment Retaining Structure Plan	4	Aug. 22, 2014	Issued for Construction	Rev.3, May 6, 2014	Rev.2, Mar. 24, 2014	Rev.1, Mar. 3, 2014	Rev.0, Feb.14, 2014
SDH-DR-06	Sediment Retaining Structure Sections	4	Aug. 22, 2014	Issued for Construction	Rev.3, May 6, 2014	Rev.2, Mar. 24, 2014	Rev.1, Mar.3, 2014	Rev.0, Feb.14, 2014
SDH-DR-07	Reclaim Dam Plan and Profile	2	May 6, 2014	Issued for Construction	Rev.1, Mar. 3, 2014	Rev.0, Feb.14, 2014		
SDH-DR-08	Reclaim Dam Sections	2	May 6, 2014	Issued for Construction	Rev.1, Mar. 3, 2014	Rev.0, Feb.14, 2014		
SDH-DR-09	Drainage Channel Plan	4	Aug. 29, 2014	Issued for Construction	Rev.3, May 6, 2014	Rev.2, Mar. 24, 2014	Rev.1, Mar.3, 2014	Rev.0, Feb.14, 2014
SDH-DR-10	Drainage Channel Sections	3	May 6, 2014	Issued for Construction	Rev.2, Mar. 24, 2014	Rev.1, Mar.3, 2014	Rev.0, Feb.14, 2014	
SDH-DR-11	Areas to be Capped General Arrangement	2	May 6, 2014	Issued for Construction	Rev.1, Mar. 3, 2014	Rev.0, Feb.14, 2014		
SDH-DR-12	Tailings Drainage Channel Plan, Profile and Section	4	Aug. 29, 2014	Issued for Construction	Rev.3, May 6, 2014	Rev.2, Mar. 24, 2014	Rev.1, Mar.3, 2014	Rev.0, Feb.14, 2014
SDH-DR-13	Materials Zoning in South Dam	2	May 6, 2014	Issued for Construction	Rev.1, Mar. 3, 2014	Rev.0, Feb.14, 2014		
SDH-DR-14	Materials Zoning in Reclaim Dam	2	May 6, 2014	Issued for Construction	Rev.1, Mar. 3, 2014	Rev.0, Feb.14, 2014		
SDH-DR-15	Stakeout Tables	1	Aug. 29, 2014	Issued for Construction	Rev.0, May. 6, 2014			

Teck

srk consulting

PROJECT NO: 1CT008.035
Issued for Construction
Revision 4
August 29, 2014
Drawing No. SDH-DR-00

J:\01...SITES\Sa_Dena_Hes\1CT008.035_Dams_Decommissioning\040_AutoCAD\Construction Drawings\IFC\Rev4\1CT008035_SDH-DR_00.dwg



LEGEND

- Covered Tailings
- Contours interval 5m
- Edge of Road
- Water Pipe
- Tailings Line
- Creeks
- Standing Pipe Piezometers
- Water Sampling Location

NOTE

Topographic contour data and aerial photos were obtained from McElhanney and are based on August 15, 2012 LiDAR survey. Elevations were correctect based on October 2013 YES Survey. Coordinate system is UTM NAD 83CSRS zone 9V.

0 20 40 60 80 100
Scale in Metres

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE
–	–		

REFERENCE DRAWINGS

NO.	DESCRIPTION	CHK'D	APP'D	DATE
2	Issued For Construction	SM	PMH	06May14
1	Issued For Tender	SM	PMH	03Mar14
0	Issued for Tender	SM	PMH	14Feb14

REVISIONS

PROFESSIONAL YUKON TERRITORY ENGINEER — May 09, 2014

This drawing is uncontrolled when printed unless stamped and signed with original ink and recorded on a Distribution Register.

PROFESSIONAL ENGINEERS STAMP

srk consulting

DESIGN: IM	DRAWN: DJ	REVIEWED: PMH
CHECKED: SM	APPROVED: PMH	DATE: May 6, 2014

FILE NAME: 1CT008035_SDH-DR-01.dwg

Teck

Sä Dena Hes Project

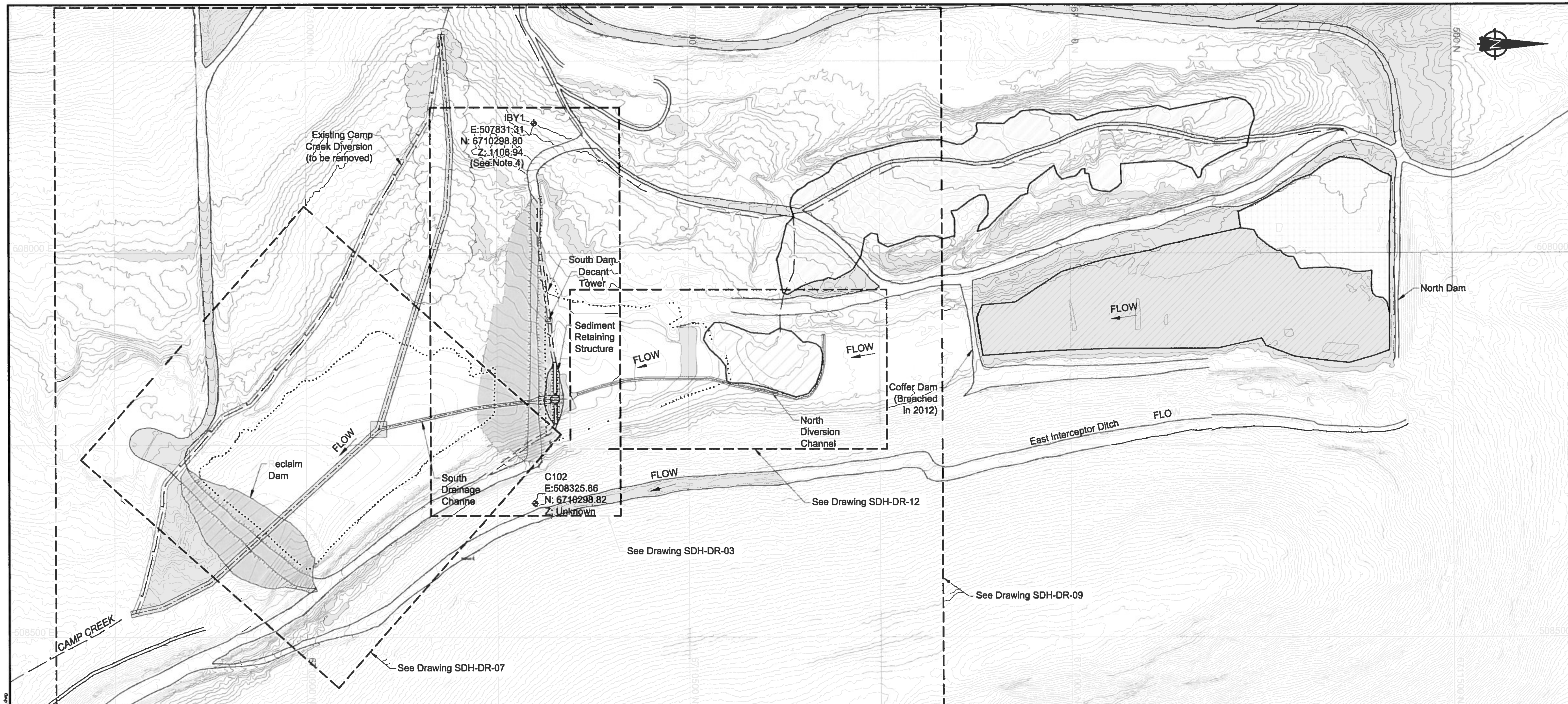
SRK JOB NO.: 1CT008.028

TMF Decommissioning

DRAWING TITLE:

Existing Conditions

DRAWING NO.	SHEET	REVISION NO.
SDH-DR-01	2 OF 16	2



LEGEND

	Sedimentation Pond		Existing Crest
	Covered Tailings (Existing)		Proposed Crest
	Proposed Tailings Cover		Existing Edge of Road
	Dams to be Decommissioned		Proposed Edge of Road
	Borrow Area to be covered and Revegetated		Creek
			Drainage Channel
	Minor Contours (1m interval)		Tailings Pipeline
	Major Contours (5m interval)		Potential Tailings Cover Area
			Survey Benchmark

NOTES

1. Topographic contour data was obtained from McElhanney and is based on August 15, 2012 LiDAR Survey.
2. Coordinate system is UTM NAD 83 CSRS Zone 9V.
3. Contours shown behind the Reclaim Dam and the South Dam were interpreted from historical survey data.
4. This Benchmark datum is currently used to monitor settlement gauges on the dam and was used as the benchmark in construction of the dam. The elevation has been adjusted from 1103.54m to the current LiDAR Survey elevation.
5. The tie-in from the existing natural channel to the riprapped channel will be determined in the field as directed by the Engineer.
6. Potential Tailings Cover Area will be determined by sampling directed by the Engineer.
7. The designs are based on the as-built contour information shown on these drawings. It is however the Contractor's responsibility to confirm that the contours are a fair reflection of the ground levels in the vicinity of the works, and to advise the Construction Manager and Engineer of any differences.
8. All dimensions are in metric units, unless specifically mentioned. Section dimensions are presented in meters.
9. All drawings are scaled appropriately for D-Size and B-Size construction drawings. Scales may not be correct if these drawings are reproduced and presented in any other size format.
10. The Engineer will provide the Construction Manager and Contractor with digital design files for setting out the works. The Engineer will instruct the Contractor to survey random spot checks to confirm whether the works have been set out correct.
11. Construction shall be in accordance with the following Technical Specifications: Sä Dena Hes Tailings Management Facility Decommissioning Design Report.
12. Notes in this drawing apply to all other active drawings.

0 50 100 150 200 250
Scale in Metres
Topographic Contour Interval 1m

NO.	DESCRIPTION	CHK'D	APP'D	DATE
2	Issued For Construction	SM	PMH	06May14
1	Issued For Tender	SM	PMH	03Mar14
0	Issued For Tender	SM	PMH	14Feb14

REVISIONS

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE
–	–		

REFERENCE DRAWINGS

PETER M. HEALEY — May 09, 2014 — This drawing is uncontrolled when printed unless stamped and signed with original ink and recorded on a Distribution Register.
PROFESSIONAL ENGINEERS STAMP

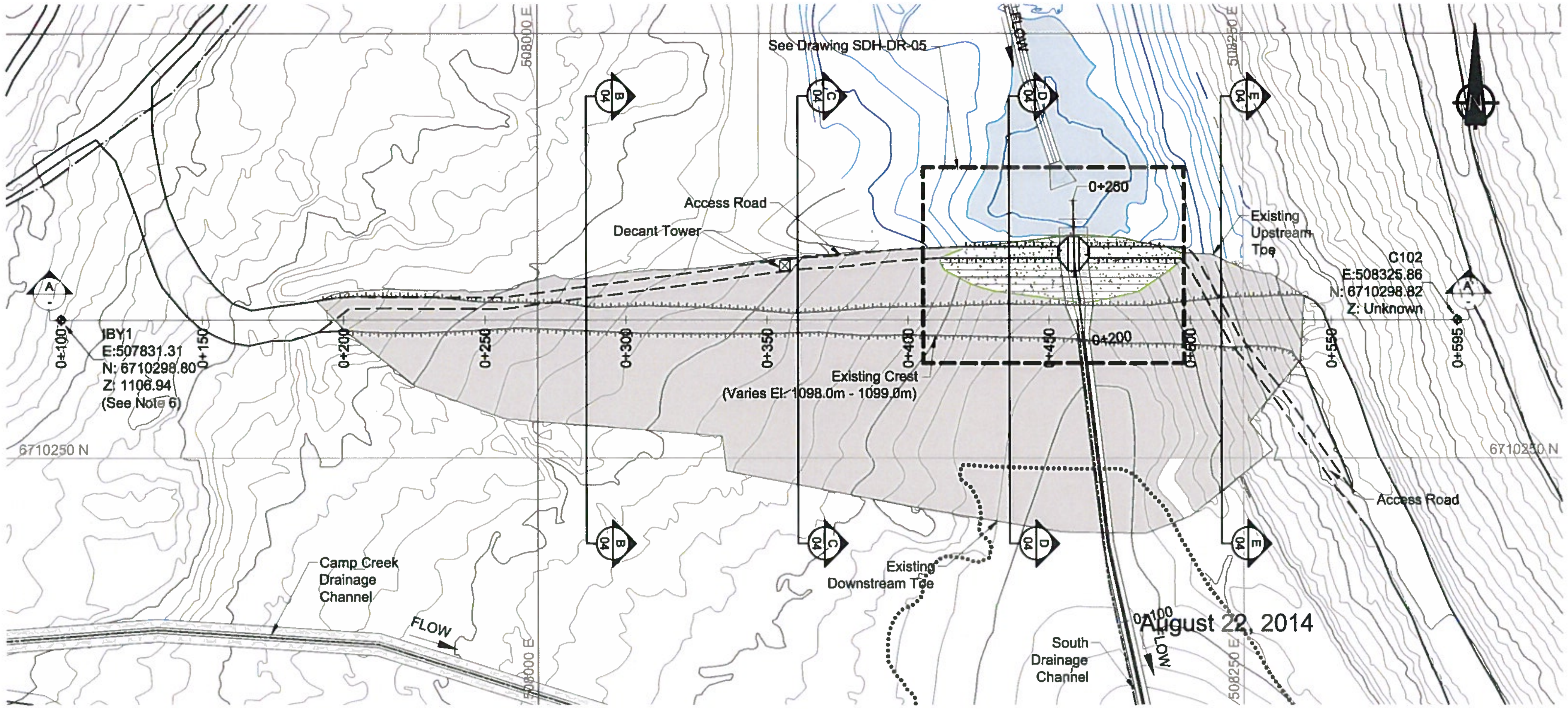
srk consulting

DESIGN: IM | DRAWN: DJ | REVIEWED: PMH
CHECKED: SM | APPROVED: PMH | DATE: May 6, 2014
FILE NAME: 1CT008035_SDH-DR.dwg

Teck
Sä Dena Hes Project
SRK JOB NO.: 1CT008.035

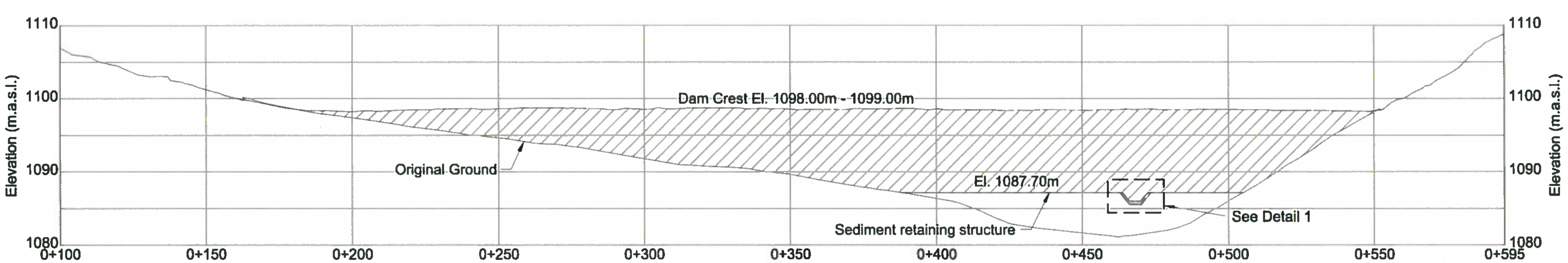
TMF Decommissioning
DRAWING TITLE: Location Map
DRAWING NO. SDH-DR-02 | SHEET 3 of 16 | REVISION NO. 2

J:\01_SITES\Sa_Dena_Hes\1CT008.035_Dams_Decommissioning\040_AutoCAD\Construction Drawings\IFC\1CT008035_SDH-DR.dwg



PLAN

Scale in Metres (0 10 20 30 40 50)



Profile A - A'
2.5x Vertical Exaggeration

Horizontal: Scale in Metres (0 10 20 30 40 50)
Vertical: Scale in Metres (0 4 8 12 16 20)

PLAN LEGEND

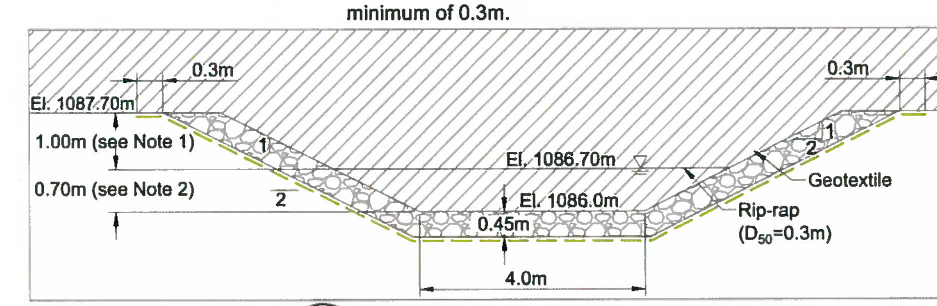
- Survey Benchmark
- Minor Contours (1m)
- Major Contours (5m)
- Minor Contour (1m) (YES August 2014)
- Major Contour (5m) (YES August 2014)
- Existing Crest
- Proposed Crest
- Existing Edge of Road
- Proposed Edge of Road
- Drainage Channel
- Tailings Pipeline
- Reclamation Area
- Sediment Pond

PROFILE AND DETAIL LEGEND

- Pre-Existing Ground
- Existing Ground
- Non-woven Geotextile
- Material to be removed (see Note 3)
- Rip-rap

NOTES

1. Assume 1m freeboard for spillway.
2. Depth of flow based on design flow of 5.4m ^{3}/s (1000 year event).
3. Dam fill material required for capping shall be excavated and any remaining material shall be reshaped to provide a smooth and positive drainage.
4. Rip-rap from downstream toe buttress shall be salvaged to be used on the Sediment Retaining Structure and drainage channels.
5. Decant Tower shall be demolished and the debris disposed of.
6. This Benchmark datum is currently used to monitor settlement gauges on the dam and was used as the benchmark in construction of the dam. The elevation has been adjusted from 1103.54m to the current LiDAR Survey elevation.
7. The Geotextile will be non-woven, 12 ounces/square yard or equivalent. The geotextile will exceed the riprap limits by a minimum of 0.3m.



Detail 1
N.T.S.

NO.	DESCRIPTION	CHK'D	APP'D	DATE
4	Issued For Construction	PMH	PMH	22Aug14
3	Issued For Construction	SM	PMH	06May14
2	Issued For Tender	SM	PMH	24Mar14
1	Issued For Tender	SM	PMH	03Mar14
0	Issued For Tender	SM	PMH	14Feb14

REVISIONS

DRAWING NO. | DRAWING TITLE | DRAWING NO. | DRAWING TITLE

REFERENCE DRAWINGS

August 22, 2014

This drawing is uncontrolled when printed unless stamped and signed with original ink and recorded on a Distribution Register.

PROFESSIONAL ENGINEERS STAMP

srk consulting

DESIGN: IM	DRAWN: DJ	REVIEWED: PMH
CHECKED: PMH	APPROVED: PMH	DATE: August 22, 2014

FILE NAME: 1CT008035_SDH-DR-SRS.dwg

Teck

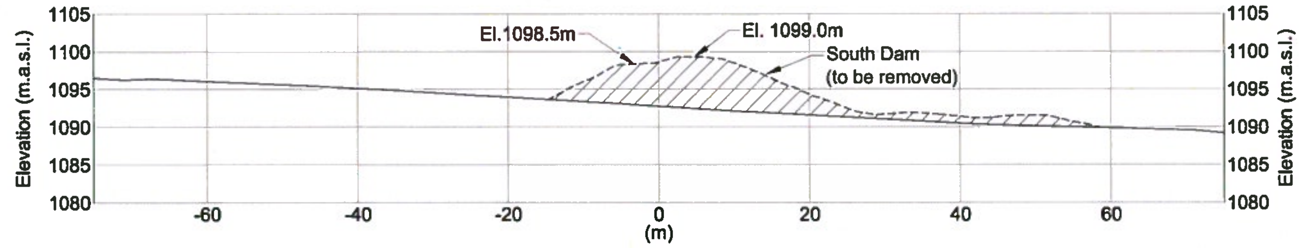
Sä Dena Hes Project

SRK JOB NO.: 1CT008.035

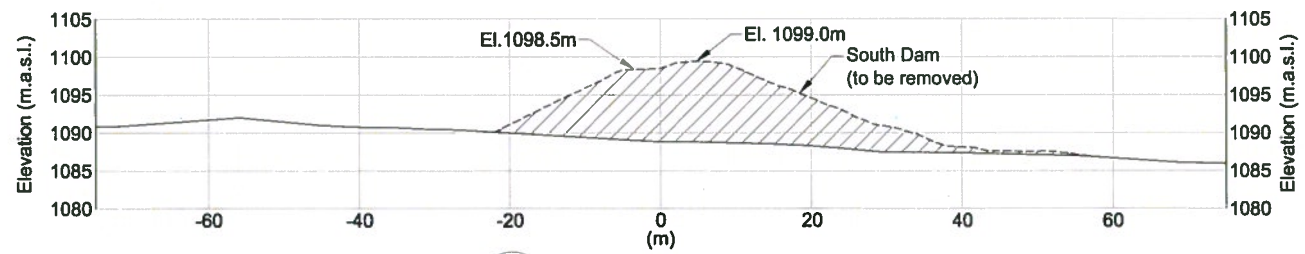
TMF Decommissioning

DRAWING TITLE: South Dam Plan and Profile

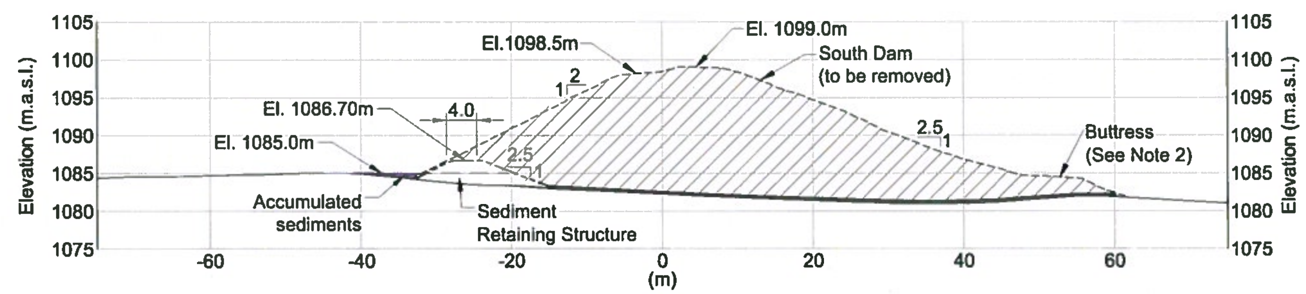
DRAWING NO.: SDH-DR-03 | SHEET: 4 of 16 | REVISION NO.: 4



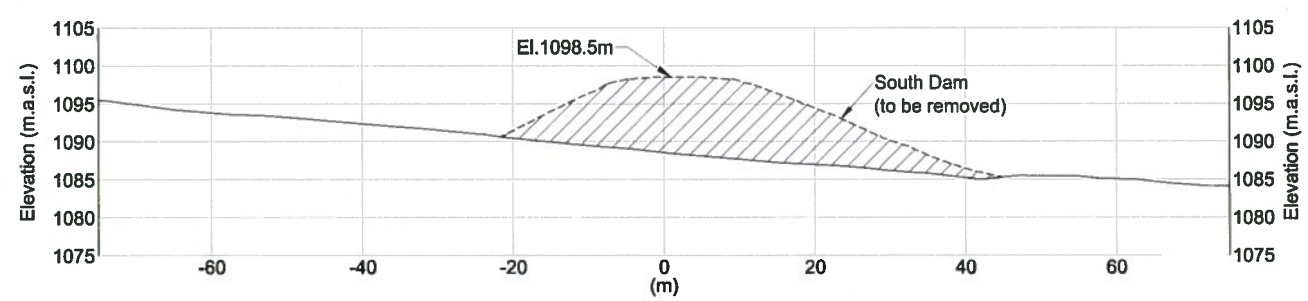
B 03 **CROSS SECTION**
Station 0+286



C 03 **CROSS SECTION**
Station 0+360



D 03 **CROSS SECTION**
Station 0+436



E 03 **CROSS SECTION**
Station 0+511

LEGEND

- Existing Ground (dashed line)
- Original Ground (solid line)
- Sediment Retaining Structure (dash-dot line)
- Material to be removed (See Note 1) (hatched)

NOTES

1. Dam fill material required for capping shall be excavated and any remaining material shall be reshaped to provide a smooth and positive drainage.
2. Riprap to be salvaged.

MATERIAL QUANTITIES AVAILABLE FOR CAPPING

Material	Units	Quantity	Notes
Till	m³	92,609	To be Excavated and used as capping material
Sand and Gravel	m³	51,227	To be Excavated and used as capping material
Till	m³	24,481	Area to be revegetated
Rip-rap	m³	600	Salvaged from Toe Buttress
Non-Woven Geotextile	m²	432	Spillway; separation between riprap and till

0 5 10 15 20 25
Scale in Metres

J:\01_SITES\Sa_Dena_Hes\1CT008.035_Dams_Decommissioning\040_AutoCAD\Construction Drawings\IFC\1CT008035_SDH-DR.dwg

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE
–	–		

REFERENCE DRAWINGS

NO.	DESCRIPTION	CHK'D	APP'D	DATE
3	Issued For Construction	SM	PMH	06May14
2	Issued For Tender	SM	PMH	24Mar14
1	Issued For Tender	SM	PMH	03Mar14
0	Issued For Tender	SM	PMH	14Feb14

REVISIONS

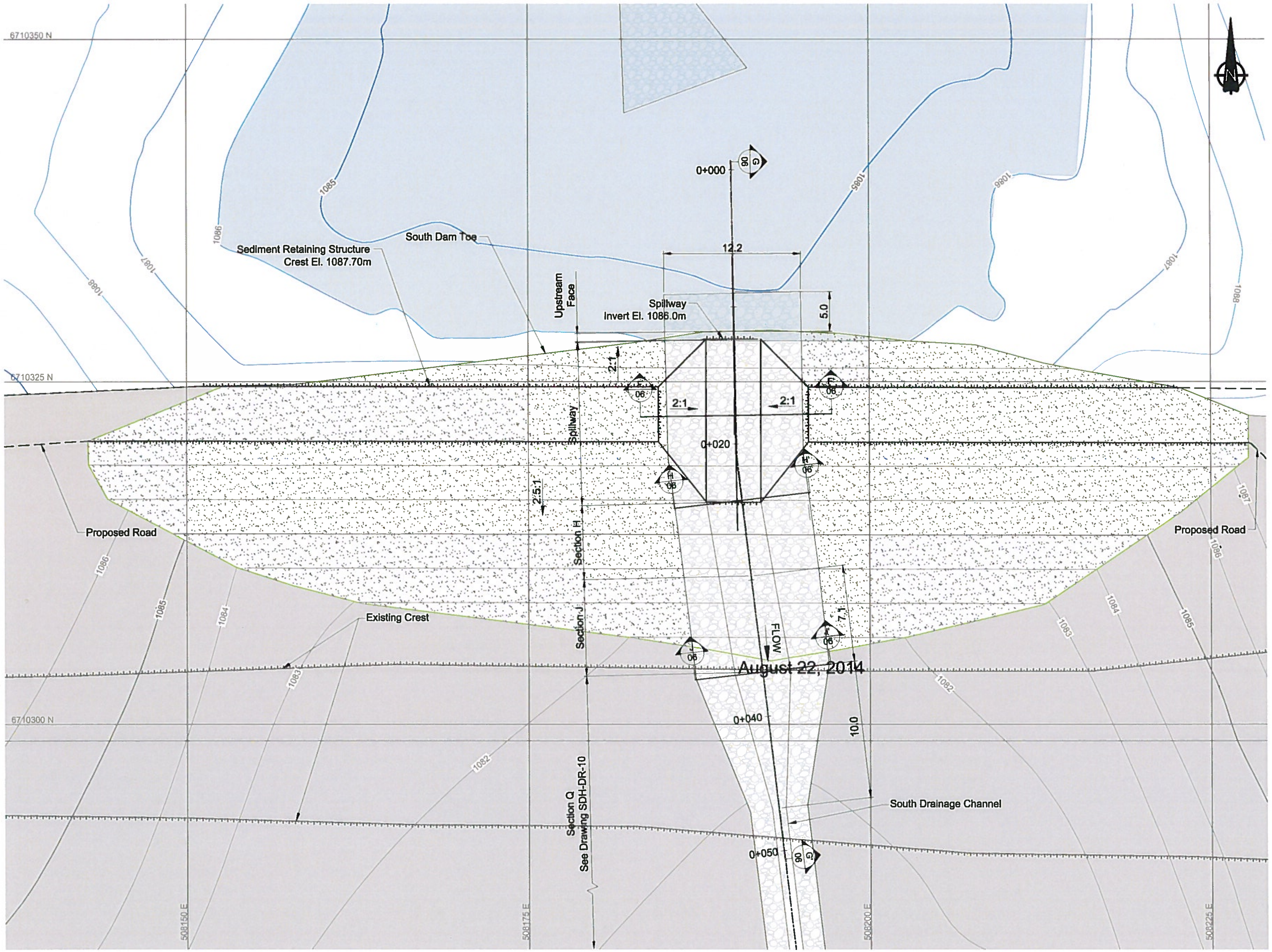
This signature has been scanned. The author has given permission for its use in this particular document. The original signature is held on file.
PROFESSIONAL ENGINEER YUKON PETER M. HEALEY
May 09, 2014
This drawing is uncontrolled when printed unless stamped and signed with original ink and recorded on a Distribution Register.
PROFESSIONAL ENGINEERS STAMP

srk consulting

DESIGN: IM | DRAWN: DJ | REVIEWED: PMH
CHECKED: SM | APPROVED: PMH | DATE: May 06, 2014
FILE NAME: 1CT008035_SDH-DR.dwg

Teck
Sä Dena Hes Project
SRK JOB NO.: 1CT008.035

TMF Decommissioning
DRAWING TITLE:
South Dam
Cross Sections
DRAWING NO.: SDH-DR-04 | SHEET: 5 of 16 | REVISION NO.: 3



LEGEND

- Minor Contours (1m)
- Major Contours (5m)
- Minor Contours (1m) (YES August 2014)
- Major Contours (5m) (YES August 2014)
- Edge of Road
- Drainage Channel
- Material to be removed (see Note 4)
- Rip-rap
- Till (left in place from Original Dam)
- Sedimentation Pond

NOTES

1. Assume 1m freeboard.
2. Depth of flow based on design flow of 5.4m ^{3}/s (1000 year event).
3. Riprap depth is 1.5 times D_{50}.
4. Dam fill material required for capping shall be excavated and any remaining material shall be reshaped to provide a smooth and positive drainage.
5. Riprap from downstream toe buttress shall be salvaged to be used on the Sediment Retaining Structure and drainage channels.

0 2 4 6 8 10
Scale in Metres

NO.	DESCRIPTION	CHK'D	APP'D	DATE
4	Issued For Construction	PMH	PMH	22Aug14
3	Issued For Construction	SM	PMH	06May14
2	Issued For Tender	SM	PMH	24Mar14
1	Issued For Tender	SM	PMH	03Mar14
0	Issued For Tender	SM	PMH	14Feb14

REVISIONS

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE
–	–		

REFERENCE DRAWINGS

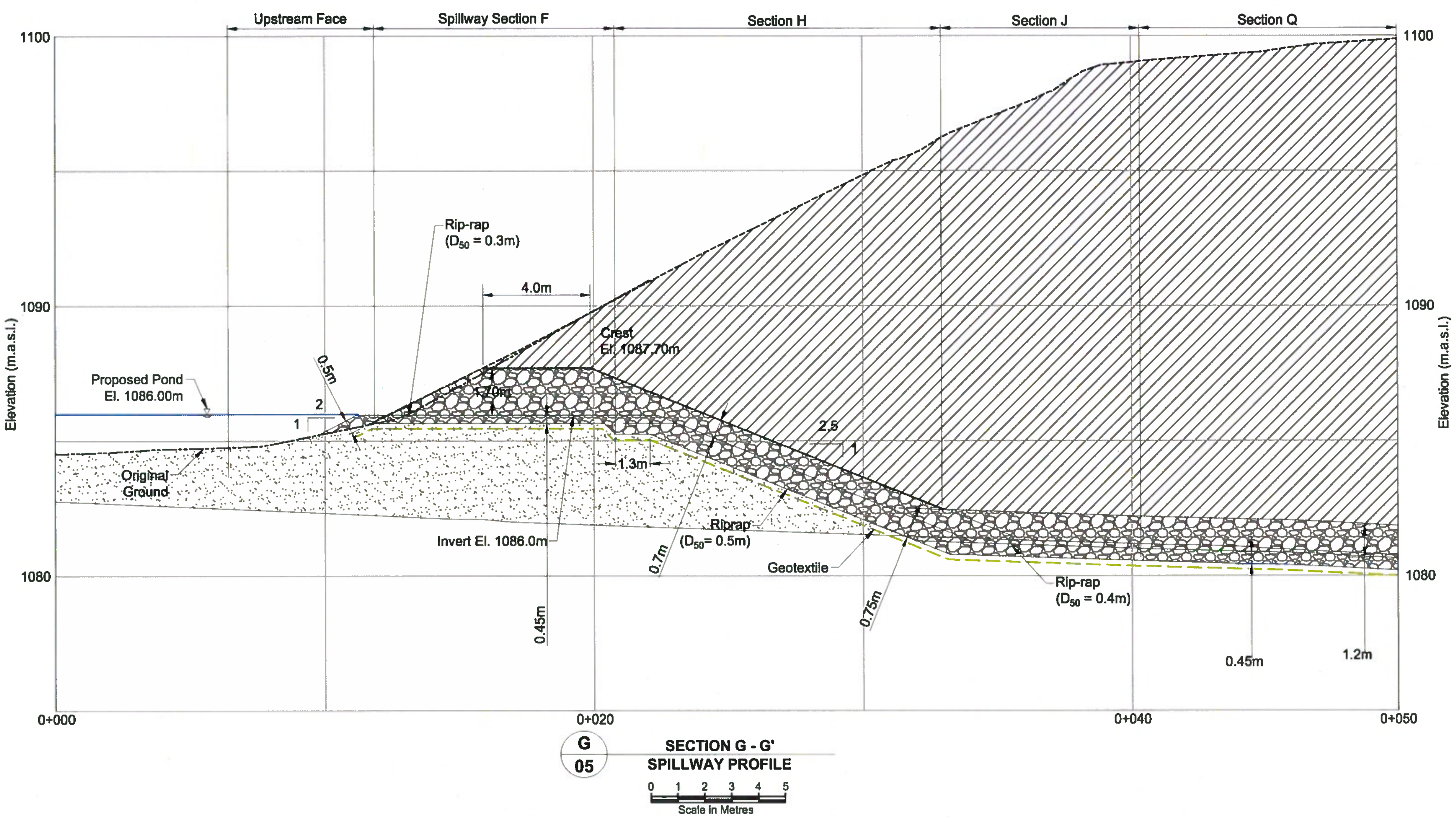
August 22, 2014
This drawing is uncontrolled when printed unless stamped and signed with original ink and recorded on a Distribution Register.
PROFESSIONAL ENGINEERS STAMP

srk consulting

DESIGN: IM | DRAWN: DJ | REVIEWED: PMH
CHECKED: PMH | APPROVED: PMH | DATE: August 22, 2014
FILE NAME: 1CT008035_SDH-DR-SRS.dwg

Teck
Sä Dena Hes Project
SRK JOB NO.: 1CT008.035

TMF Decommissioning
DRAWING TITLE: Sediment Retaining Structure Plan
DRAWING NO.: SDH-DR-05 | SHEET 6 of 16 | REVISION NO. 4



G / 05 — SECTION G - G'
SPILLWAY PROFILE

LEGEND

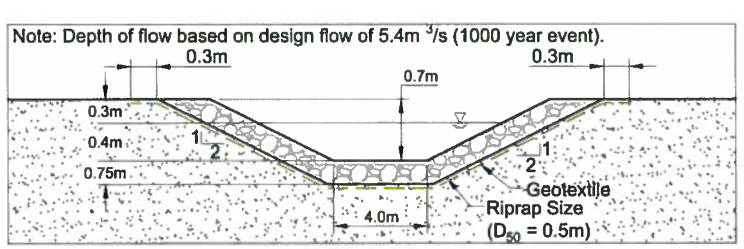
- Pre-existing Ground
- Existing Ground
- Sediment Retaining Structure
- Non-woven Geotextile
- Material to be removed (see Note 4)
- Rip-rap
- Till (left in place from Original Dam)

NOTES

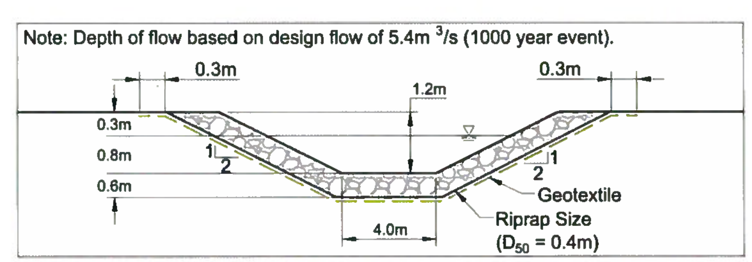
1. Assume 1m freeboard.
2. Depth of flow based on design flow of 5.4m ^{3}/s (1000 year event).
3. Riprap depth is 1.5 times D $_{50}$.
4. Dam fill material required for capping shall be excavated and any remaining material shall be reshaped to provide a smooth and positive drainage.
5. Riprap from downstream toe buttress shall be salvaged to be used on the Sediment Retaining Structure.

Sediment Retaining Structure
Riprap Volume Summary Table

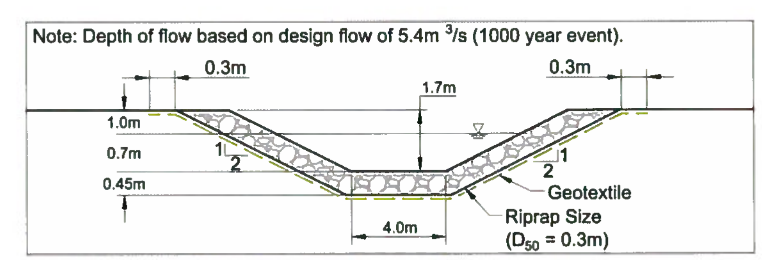
Location	D50 (m)	Armoring Depth (m)	Volume (m3)
Section Q	0.3	0.45	795
Section J	0.4	0.6	49
Section H	0.5	0.75	102
Spillway Section F	0.3	0.45	42
Upstream Face	0.3	0.5	26



H / 05 — SECTION H - H'
N.T.S.



J / 05 — SECTION J - J'
N.T.S.



F / 05 — SPILLWAY SECTION F - F'
N.T.S.

NO.	DESCRIPTION	CHK'D	APP'D	DATE
4	Issued For Construction	PMH	PMH	22Aug14
3	Issued For Construction	SM	PMH	06May14
2	Issued For Tender	SM	PMH	24Mar14
1	Issued For Tender	SM	PMH	03Mar14
0	Issued For Tender	SM	PMH	14Feb14

REVISIONS

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE
-	-		

REFERENCE DRAWINGS

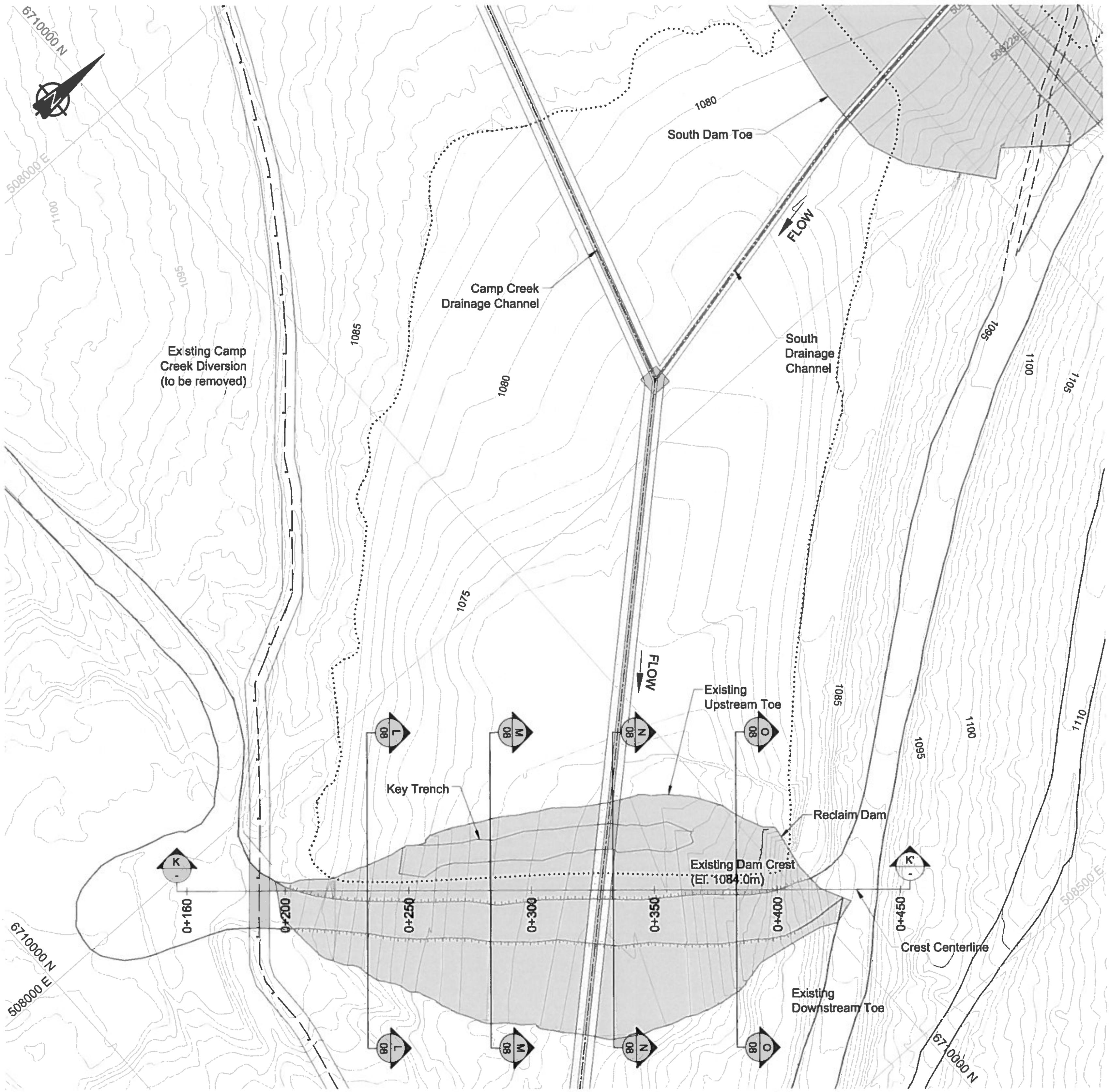
August 22, 2014
This drawing is uncontrolled when printed unless stamped and signed with original ink and recorded on a Distribution Register.
PROFESSIONAL ENGINEERS STAMP

srk consulting

DESIGN: IM | DRAWN: DJ | REVIEWED: PMH
CHECKED: PMH | APPROVED: PMH | DATE: August 22, 2014
FILE NAME: 1CT008035_SDH-DR-SRS.dwg

Teck
Sä Dena Hes Project
SRK JOB NO.: 1CT008.035

TMF Decommissioning
DRAWING TITLE: Sediment Retaining Structure Sections
DRAWING NO.: SDH-DR-06
SHEET: 7 of 16
REVISION NO.: 4



PLAN

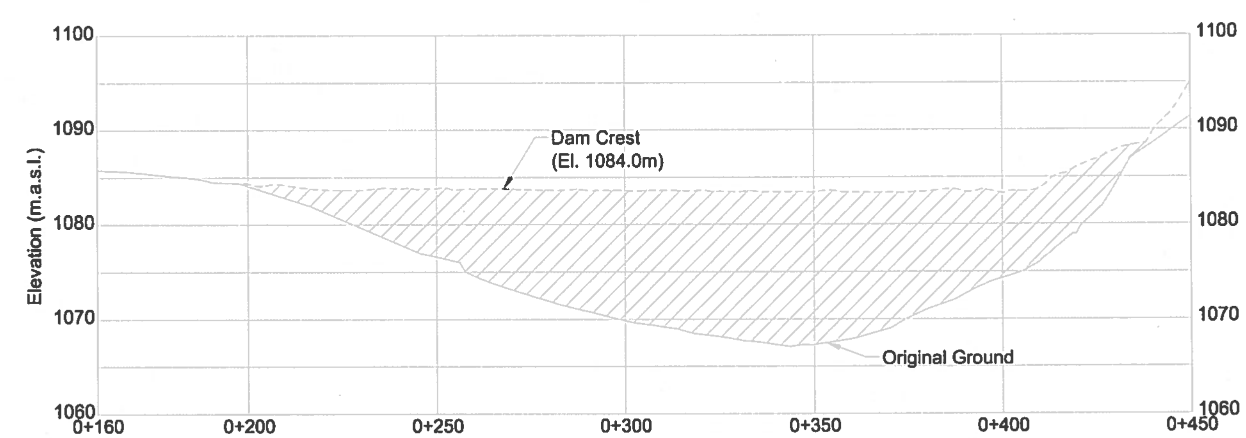
0 10 20 30 40 50
Scale in Metres

LEGEND

- Minor Contours (1m interval)
- Major Contours (5m interval)
- Edge of Road
- Pipe
- Creek
- Existing Crest
- Potential Capping Area
- Drainage Channel
- Reclamation Area
- Material to be removed (see Note 4)

NOTES

1. Dam fill shall be removed to original ground.
2. Final surface shall be smooth and blend with upstream and downstream topography.
3. Positive drainage must be ensured to prevent ponding areas.
4. Dam fill material required for capping shall be excavated and any remaining material shall be reshaped to provide a smooth and positive drainage.



K - Profile K - K'

Horizontal: 0 10 20 30 40 50 Scale in Metres

Vertical: 0 4 8 12 16 20 Scale in Metres

NO.	DESCRIPTION	CHK'D	APP'D	DATE
2	Issued For Construction	SM	PMH	06May14
1	Issued For Tender	SM	PMH	03Mar14
0	Issued For Tender	SM	PMH	14Feb14

REVISIONS

DRAWING NO	DRAWING TITLE	DRAWING NO	DRAWING TITLE
-	-		

REFERENCE DRAWINGS

PROFESSIONAL ENGINEERS STAMP — May 09, 2014. This drawing is not valid when printed unless stamped and signed with original ink and recorded on a Distribution Register.

srk consulting

DESIGN: IM	DRAWN: DJ	REVIEWED: PMH
CHECKED: SM	APPROVED: PMH	DATE: May 6, 2014

FILE NAME: 1CT008035_SDH-DR.dwg

Teck

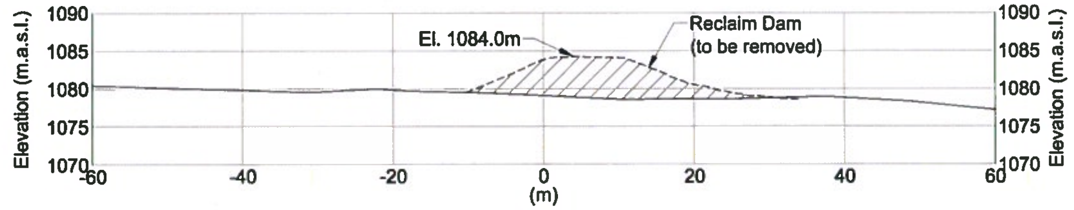
Sä Dena Hes Project

SRK JOB NO: 1CT008.035

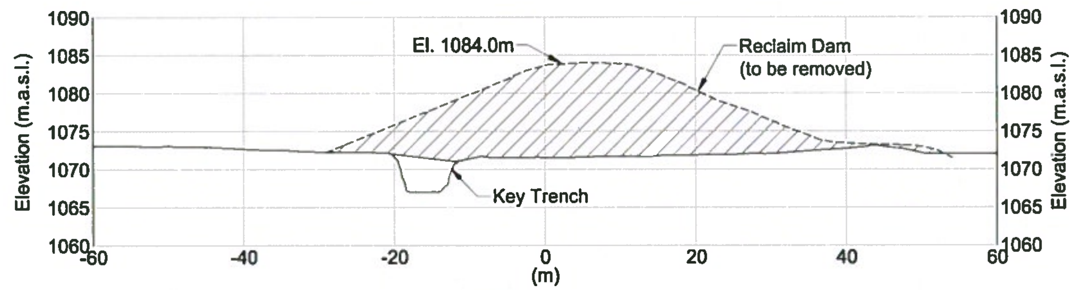
TMF Decommissioning

DRAWING TITLE: Reclaim Dam Plan and Profile

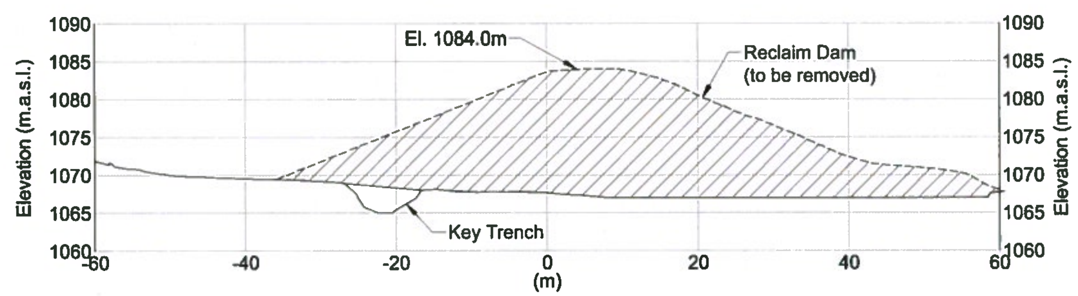
DRAWING NO. SDH-DR-07 | SHEET 8 of 16 | REVISION NO. 2



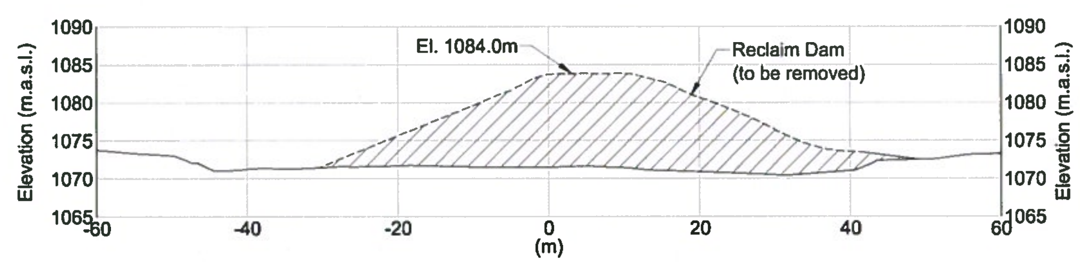
L 07 **CROSS SECTION**
Station 0+233



M 07 **CROSS SECTION**
Station 0+283



N 07 **CROSS SECTION**
Station 0+333



O 07 **CROSS SECTION**
Station 0+383

LEGEND

- Original Ground (solid line)
- Existing Ground (dashed line)
- Material to be removed (see Note 2) (hatched)

NOTES

1. Key Trench fill shall be left in place.
2. Dam fill material required for capping shall be excavated and any remaining material shall be reshaped to provide a smooth and positive drainage.

MATERIAL QUANTITIES

Material	Units	Quantity	Notes
Till	m³	71,556	To be Excavated and used as capping material
Sand and Gravel	m³	33,560	To be Excavated and used as capping material
Till	m³	14,970	Area to be revegetated
Rip-rap	m³	3,000	To be salvaged from Toe Buttress
Non-Woven Geotextile	m²	12,020	Drainage Channels; separation between till and riprap

0 5 10 15 20 25
Scale in Metres

NO.	DESCRIPTION	CHK'D	APP'D	DATE
2	Issued For Construction	SM	PMH	06May14
1	Issued For Tender	SM	PMH	03Mar14
0	Issued For Tender	SM	PMH	14Feb14

REVISIONS

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE
–	–		

REFERENCE DRAWINGS

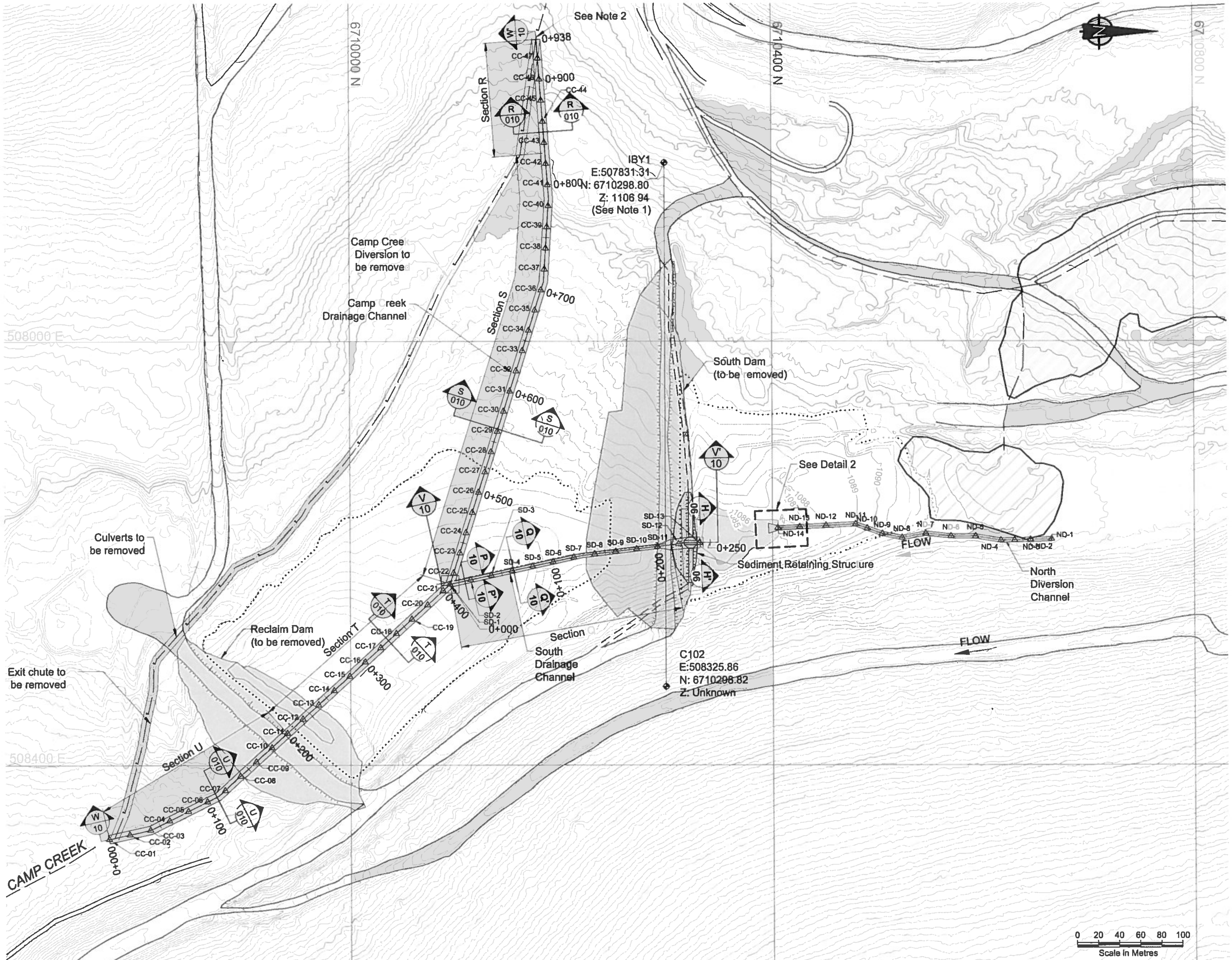
This drawing is not valid unless stamped and signed with original ink when printed and recorded on a distribution Register.
PROFESSIONAL ENGINEERS STAMP (May 09, 2014)

srk consulting

DESIGN: IM | DRAWN: DJ | REVIEWED: PMH
CHECKED: SM | APPROVED: PMH | DATE: May 6, 2014
FILE NAME: 1CT008035_SDH-DR.dwg

Teck
Sä Dena Hes Project
SRK JOB NO.: 1CT008.035

TMF Decommissioning
DRAWING TITLE: Reclaim Dam Cross Sections
DRAWING NO.: SDH-DR-08 | SHEET 9 of 16 | REVISION NO. 2

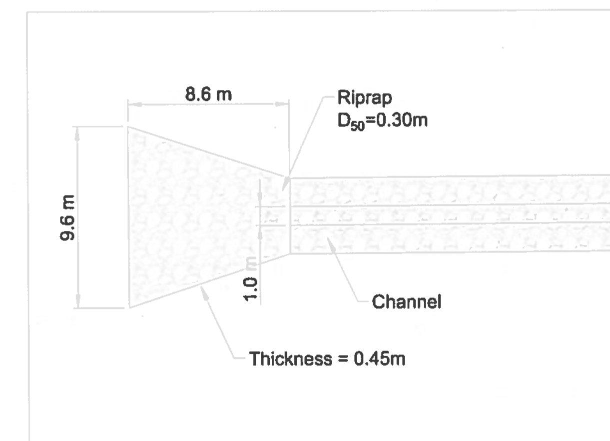


LEGEND

- Covered Tailings
- Reclamation Area
- Rip-rap
- Sedimentation Pond
- Minor Contours (1m interval)
- Major Contours (5m interval)
- Existing Crest
- Proposed Crest
- Existing Edge of Road
- Proposed Edge of Road
- Creek
- Tailings Pipeline
- Drainage Channel
- Potential Tailings Cover Area
- ND-12 Stakeout Point

NOTES

1. This Benchmark datum is currently used to monitor settlement gauges on the dam and was used as the benchmark in construction of the dam. The elevation has been adjusted from 1103.54m to the current LiDAR Survey elevation.
2. The tie-in from the existing natural channel to the riprapped channel will be determined in the field as directed by the Engineer.
3. For Stakeout tables see SDH-DR-15



2 Discharge Area

0 2 4 6 8 10 Scale in Metres

NO.	DESCRIPTION	CHK'D	APP'D	DATE
4	Issued For Construction	IM	PMH	29Aug14
3	Issued For Construction	SM	PMH	05May14
2	Issued For Tender	SM	PMH	24Mar14
1	Issued For Tender	SM	PMH	03Mar14
0	Issued For Tender	SM	PMH	14Feb14

REVISIONS

DRAWING NO	DRAWING TITLE	DRAWING NO.	DRAWING TITLE
–	–		

REFERENCE DRAWINGS

August 29, 2014

PROFESSIONAL ENGINEER — YUKON TERRITORY — PETER M. HEALEY

This drawing is uncontrolled when printed unless stamped and signed with original ink and recorded on distribution Register.

PROFESSIONAL ENGINEERS STAMP

srk consulting

DESIGN: IM	DRAWN: DJ	REVIEWED: PMH
CHECKED: IM	APPROVED: PMH	DATE: August 29, 2014

FILE NAME: 1CT008035_SDH-DR.dwg

Teck

Sä Dena Hes Project

SRK JOB NO: 1CT008.035

TMF Decommissioning

DRAWING TITLE: Drainage Channel Plan

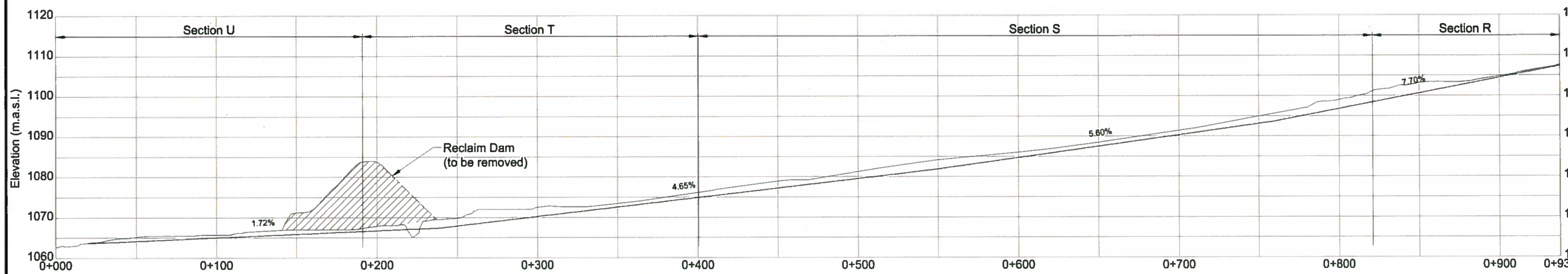
DRAWING NO.: SDH-DR-09 | SHEET: 10 of 16 | REVISION NO.: 4

LEGEND

- Top of Drainage Channel Profile
- Pre-existing Ground
- Existing Ground
- Sediment Retaining Structure
- Non-woven Geotextile
- Material to be removed (see Note 1)
- Rip-rap
- Till (left in place from Original Dam)

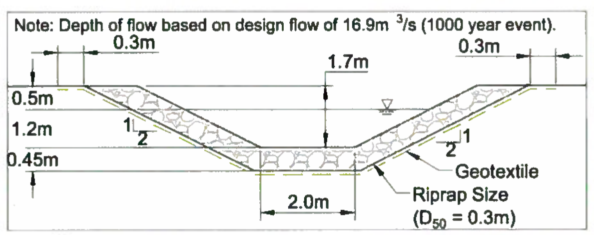
NOTE

1. Dam fill material required for capping shall be excavated and any remaining material shall be reshaped to provide a smooth and positive drainage.

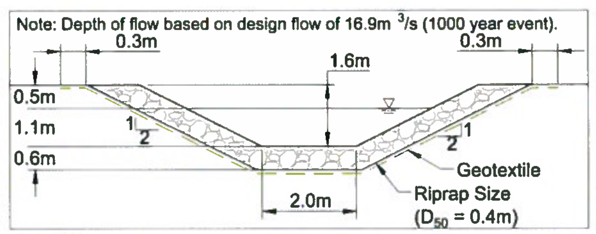


W 09 **Profile W - W'**
Camp Creek Channel

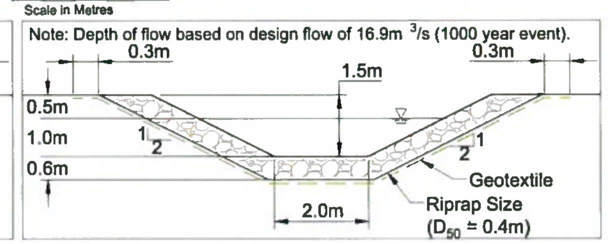
Horizontal: 0 10 20 30 40 50 Scale in Metres
Vertical: 0 5 10 15 20 25 Scale in Metres



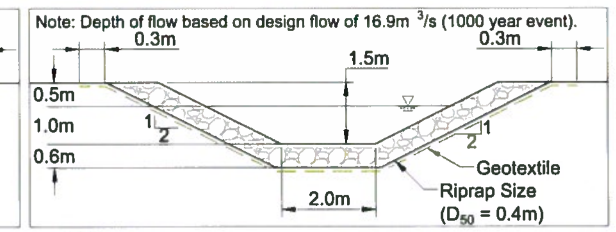
U 09 **SECTION U- U'**
Camp Creek Channel
N.T.S.



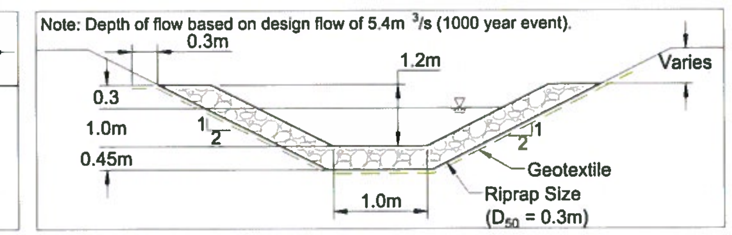
T 09 **SECTION T- T'**
Camp Creek Channel
N.T.S.



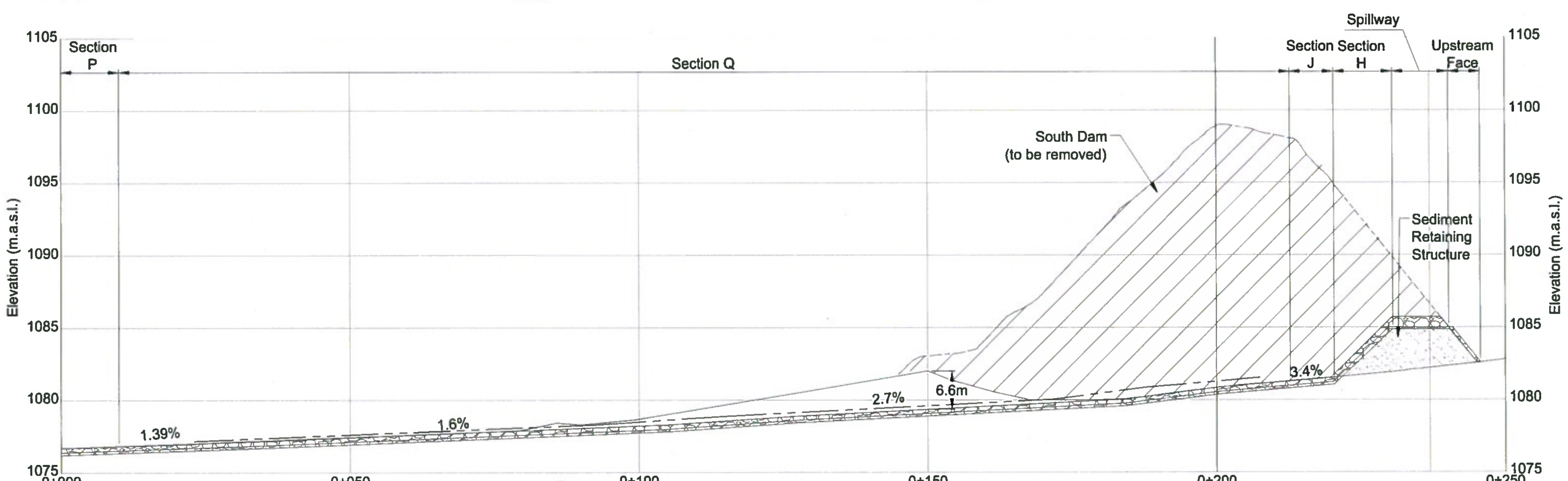
S 09 **SECTION S - S'**
Camp Creek Channel
N.T.S.



R 09 **SECTION R - R'**
Camp Creek Channel
N.T.S.

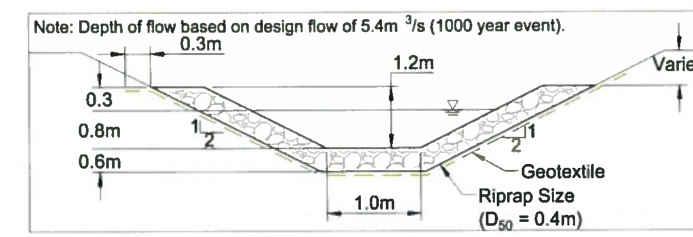


Q 09 **SECTION Q - Q'**
South Dam Drainage Channel
N.T.S.



V 09 **Profile V - V'**
South Dam Drainage Channel

Horizontal: 0 5 10 15 20 25 Scale in Metres
Vertical: 0 2 4 6 8 10 Scale in Metres



P 09 **SECTION P - P'**
South Dam Drainage Channel
N.T.S.

Drainage Channel Riprap Volume Summary Table

Location	D_{50} (m)	Armoring Depth (m)	Volume (m³)
Section U	0.3	0.45	993
Section T	0.4	0.6	1409
Section S	0.4	0.6	2875
Section R	0.4	0.6	802
Section P	0.4	0.6	52

NO.	DESCRIPTION	CHK'D	APP'D	DATE
3	Issued For Construction	SM	PMH	06May14
2	Issued For Tender	SM	PMH	24Mar14
1	Issued For Tender	SM	PMH	03Mar14
0	Issued For Tender	SM	PMH	14Feb14

REVISIONS

DRAWING NO. | DRAWING TITLE | DRAWING NO. | DRAWING TITLE
REFERENCE DRAWINGS

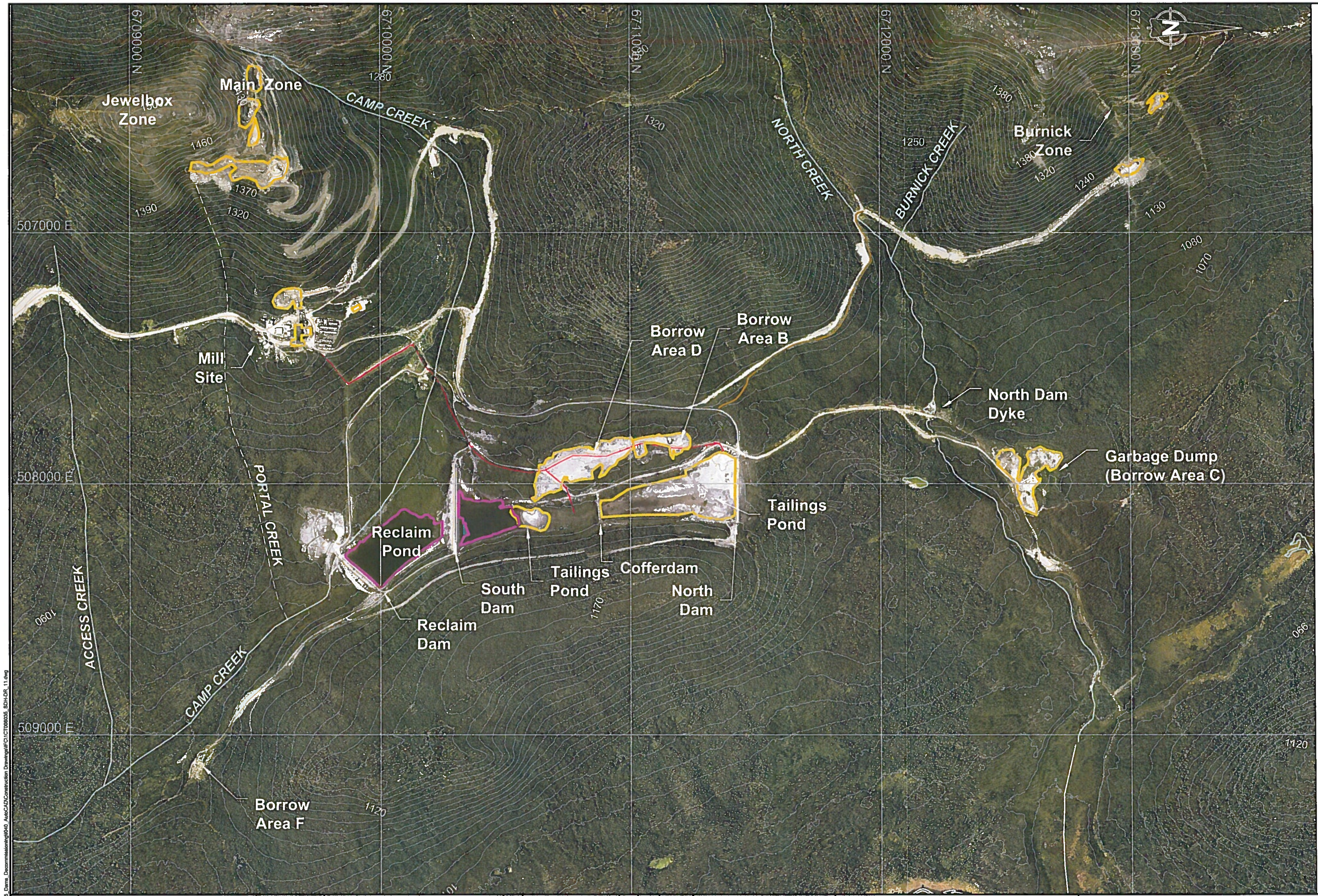
PROFESSIONAL ENGINEERS STAMP — May 09, 2014

srk consulting

DESIGN: IM | DRAWN: DJ | REVIEWED: PMH
CHECKED: SM | APPROVED: PMH | DATE: May 6, 2014
FILE NAME: 1CT008035_SDH-DR.dwg

Teck
Sä Dena Hes Project
SRK JOB NO.: 1CT008.035

TMF Decommissioning
DRAWING TITLE: Drainage Channel Sections
DRAWING NO.: SDH-DR-10 | SHEET 11 of 16 | REVISION NO. 3



LEGEND

- Areas to be capped
- Potential Capping Area
- Sedimentation Pond

NOTES

1. Topographic contour data and aerial photos were obtained from McElhanney and are based on August 15, 2012 LiDAR survey. Coordinate system is UTM NAD 83CSRS zone 9V.
2. Extent of soil capping to be determined in the field as directed by the Engineer.

0 100 200 300 400 500

Scale in Metres

CONTOUR INTERVAL=10m

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE	NO.	DESCRIPTION	CHK'D	APP'D	DATE
				2	Issued For Construction	SM	PMH	06May14
				1	Issued For Tender	SM	PMH	03Mar14
				0	Issued for Review	SM	PMH	14Feb14

REFERENCE DRAWINGS — REVISIONS

This drawing is uncontrolled when printed unless stamped and signed with original ink and recorded on the Distribution Register.

PROFESSIONAL ENGINEERS STAMP

srk consulting

DESIGN: IM	DRAWN: DJ	REVIEWED: PMH
CHECKED: SM	APPROVED: PMH	DATE: May 6, 2014

FILE NAME: 1CT008035_SDH-DR_11.dwg

Teck

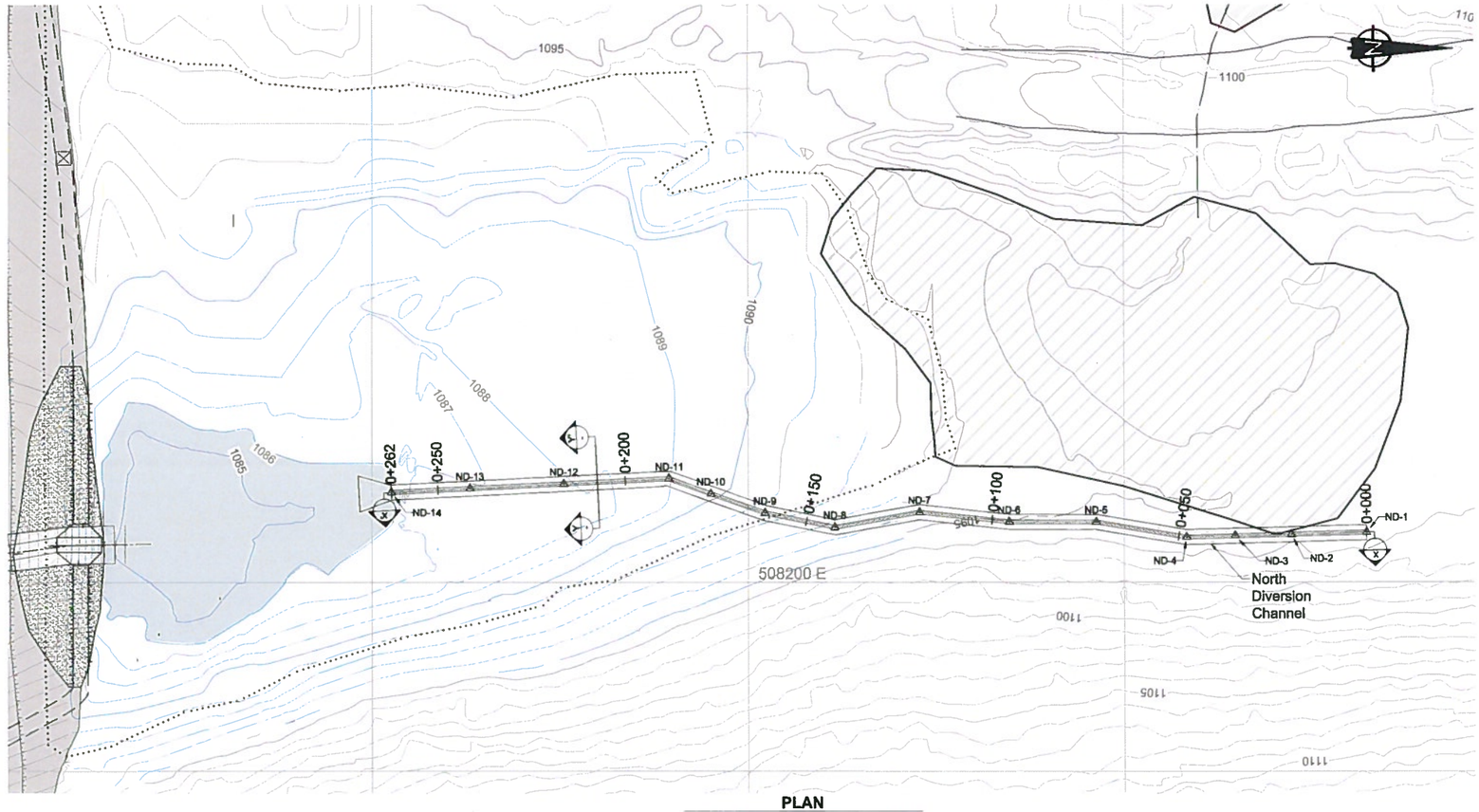
Sa Dena Hes

SRK JOB NO.: 1CT.08.028

TMF Decommissioning

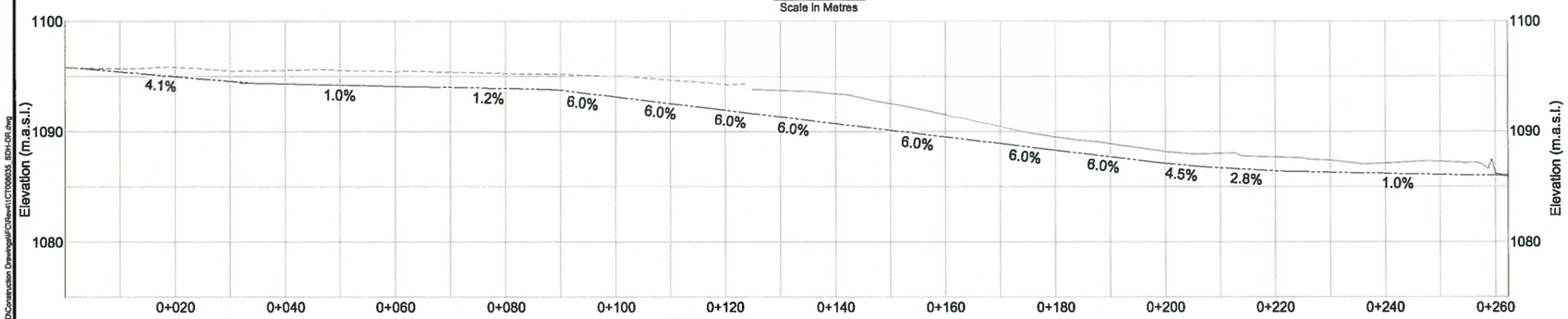
DRAWING TITLE: Areas to be Capped General Arrangement

DRAWING NO.: SDH-DR-11 | SHEET 12 OF 16 | REVISION NO. 2



PLAN

0 5 10 15 20 25
Scale in Metres



X
-

Profile X - X'
2x Vertical Exaggeration

Horizontal: 0 5 10 15 20 25
Scale in Metres

Vertical: 0 2 4 6 8 10
Scale in Metres

NOTES

1. Assume 1m freeboard for spillway.
2. Depth of flow based on design flow of 3.0m ^{3}/s (1000 year event).
3. Dam fill material required for capping shall be excavated and any remaining material shall be reshaped to provide a smooth and positive drainage.
4. Rip-rap from downstream toe buttress shall be salvaged to be used on the Sediment Retaining Structure and drainage channels.
5. The Geotextile will be non-woven, 12 ounces/square yard or equivalent. The geotextile will exceed the riprap limits by a minimum of 0.3m.
6. For Stakeout tables see SDH-DR-15

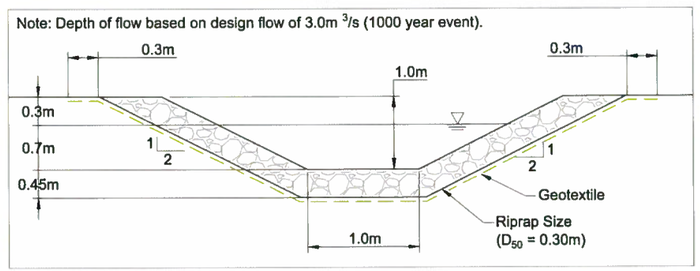
LEGEND

- Minor Contours (1m)
- Major Contours (5m)
- Existing Edge of Road
- Drainage Channel
- Tailings Pipeline
- Potential Capping Area
- Existing Ground
- Design Ground
- Non-woven Geotextile
- Covered Tailings
- Rip-rap
- Sedimentation Pond
- ND-12 Stakeout Point

Tailings Drainage Channel
Riprap Volume Summary Table:

Location	D_{50} (m)	Armoring Depth (m)	Volume (m^3)
Y	0.3	0.45	638
Discharge Area	0.3	0.45	25

Note: Depth of flow based on design flow of 3.0m ^{3}/s (1000 year event).



Section Y - Y'
Tailings Drainage Channel
N.T.S.

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE
–	–		

REFERENCE DRAWINGS

NO.	DESCRIPTION	CHK'D	APP'D	DATE
4	Issued For Construction	IM	PMH	29Aug14
3	Issued For Construction	SM	PMH	06May14
2	Issued For Tender	SM	PMH	24Mar14
1	Issued For Tender	SM	PMH	03Mar14
0	Issued For Tender	SM	PMH	14Feb14

REVISIONS

PROFESSIONAL ENGINEERS STAMP

PROFESSIONAL ENGINEER YUKON TERRITORY

August 29, 2014

This drawing is uncontrolled when printed unless stamped and signed with original ink and recorded on a Distribution Register.

srk consulting

DESIGN:	DRAWN:	REVIEWED:
IM	DJ	PMH
CHECKED:	APPROVED:	DATE:
IM	PMH	August 29, 2014

FILE NAME: 1CT008035_SDH-DR.dwg

Teck

Sä Dena Hes Project

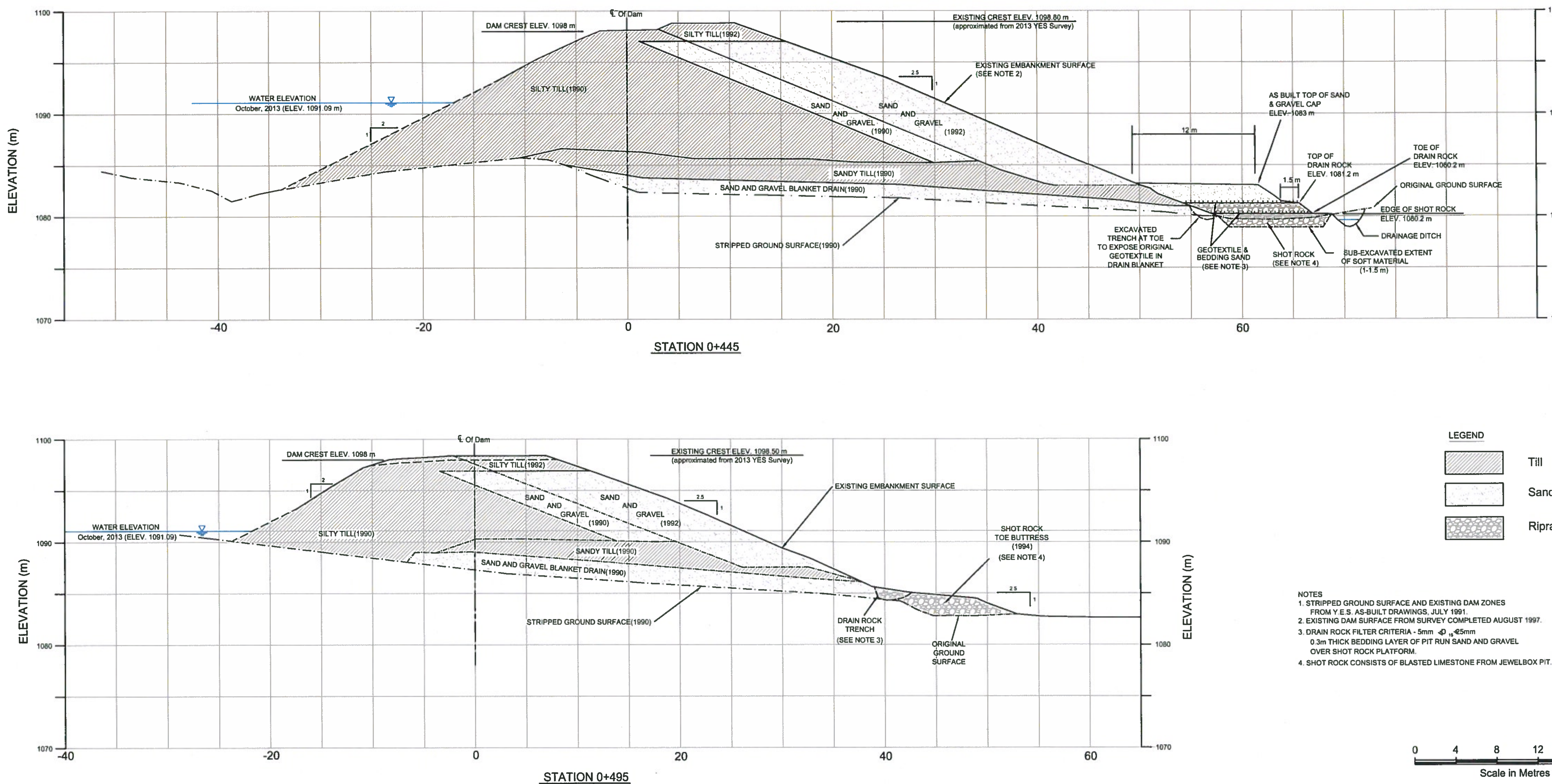
SRK JOB NO.: 1CT008.035

TMF Decommissioning

DRAWING TITLE:
Tailings Drainage Channel
Plan, Profile and Section

DRAWING NO.	SHEET	REVISION NO.
SDH-DR-12	13 of 16	4

J:\01_SITES\Sa_Dena_Hes\1CT008.035_Dena_Decommissioning\040_AutoCAD\Construction Drawings\FOS\Rev4\1CT008035_SDH-DR.dwg



LEGEND

- Till
- Sand and Gravel
- Riprap

NOTES
1. STRIPPED GROUND SURFACE AND EXISTING DAM ZONES FROM Y.E.S. AS-BUILT DRAWINGS, JULY 1991.
2. EXISTING DAM SURFACE FROM SURVEY COMPLETED AUGUST 1997.
3. DRAIN ROCK FILTER CRITERIA - 5mm <D$_{15}$<25mm
0.3m THICK BEDDING LAYER OF PIT RUN SAND AND GRAVEL OVER SHOT ROCK PLATFORM.
4. SHOT ROCK CONSISTS OF BLASTED LIMESTONE FROM JEWELBOX PIT.

0 4 8 12 16 20
Scale in Metres

DRAWING NO.	DRAWING TITLE
Figure 14	2013 Geotechnical Inspection Section 0+445 and 0+495 South Dam

REFERENCE DRAWINGS

NO.	DESCRIPTION	CHK'D	APP'D	DATE
2	Issued For Construction	IM	PMH	06May14
1	Issued For Tender	IM	PMH	03Mar14
0	Issued for Tender	IM	PMH	14Feb14

REVISIONS

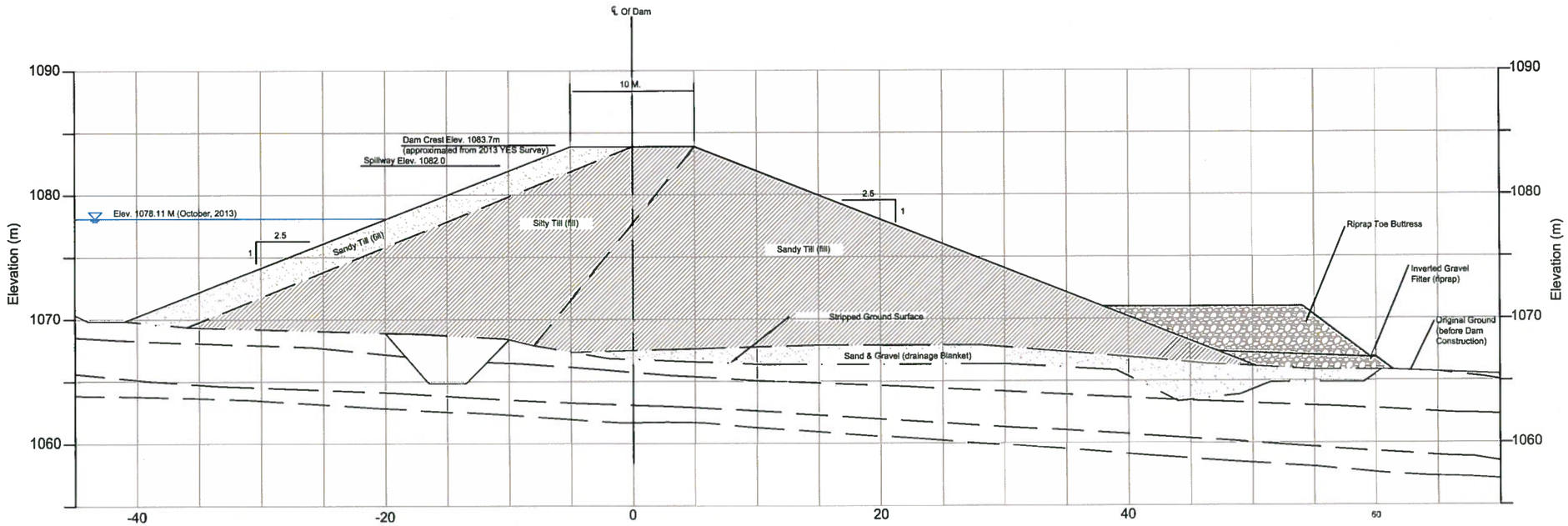
PROFESSIONAL ENGINEERS STAMP — May 09, 2014
This drawing is uncontrolled when printed unless stamped and signed with original ink and recorded on a Distribution Register.

srk consulting

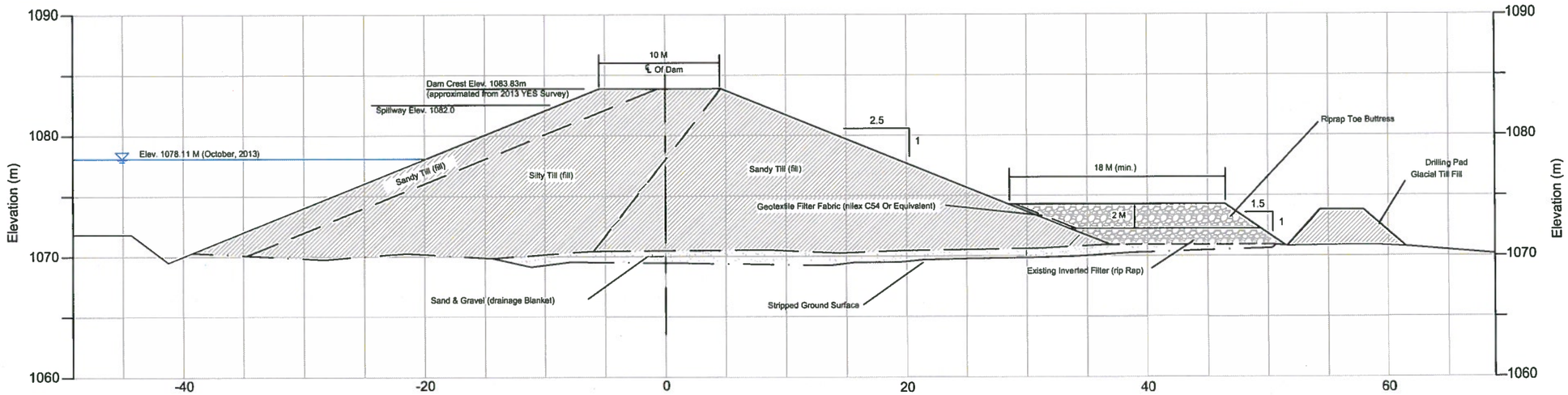
DESIGN: IM | DRAWN: DJ | REVIEWED: PMH
CHECKED: SM | APPROVED: PMH | DATE: May 6, 2014
FILE NAME: 1CT008035_SDH-DR-13.dwg

Teck
Sa Dena Hes
SRK JOB NO.: 1CT008.028

TMF Decommissioning
DRAWING TITLE: Materials Zoning in South Dam
DRAWING NO. SDH-DR-13 | SHEET 14 OF 16 | REVISION NO. 2



Section 0+320 - Reclaim Dam



Section 0+270 - Reclaim Dam

LEGEND

- Till
- Sand And Gravel
- Riprap

0 4 8 12 16 20

Scale in Metres

–	–					
		2	Issued For Construction	IM	PMH	06May14
		1	Issued For Tender	IM	PMH	03Mar14
Figure 14	2013 Geotechnical Inspection Section 0+320 and 0+270 Reclaim Dam	0	Issued for Tender	IM	PMH	14Feb14
DRAWING NO.	DRAWING TITLE	NO.	DESCRIPTION	CHK'D	APP'D	DATE
REFERENCE DRAWINGS		REVISIONS				

PROFESSIONAL ENGINEERS STAMP

Signed: May 06, 2014

This drawing is uncontrolled when printed unless stamped and signed with original Ink and recorded on a Distribution Register.

srk consulting

DESIGN: IM	DRAWN: DJ	REVIEWED: PMH	
CHECKED: SM	APPROVED: PMH	DATE: May 6, 2014	
FILE NAME: 1CT008035_SDH-DR-14.dwg			

Teck

Sa Dena Hes

SRK JOB NO.: 1CT008.028

TMF Decommissioning

DRAWING TITLE:

Materials Zoning in Reclaim Dam

DRAWING NO.	SHEET	REVISION NO.
SDH-DR-14	15 OF 16	2

J:\01_SITES\Sa_Dena_Hes\1CT008.035_Dams_Decommissioning\9040_AutoCAD\Construction Drawings\dwg\PC\1CT008035_SDH-DR-14.dwg

CAMP CREEK DIVERSION STAKEOUT POINTS			
ID	Northing	Easting	Elevation (m)
CC-01	6709771.34	508469.81	1062.68
CC-02	6709790.87	508465.50	1063.73
CC-03	6709810.40	508461.19	1064.84
CC-04	6709828.32	508452.33	1065.50
CC-05	6709846.21	508443.39	1065.50
CC-06	6709864.10	508434.44	1065.74
CC-07	6709880.74	508423.67	1066.40
CC-08	6709895.53	508410.22	1067.24
CC-09	6709910.33	508396.77	1068.41
CC-10	6709925.13	508383.31	1068.82
CC-11	6709939.93	508369.86	1069.28
CC-12	6709954.72	508356.40	1069.56
CC-13	6709969.52	508342.95	1069.53
CC-14	6709984.32	508329.49	1071.53
CC-15	6709999.12	508316.04	1072.00
CC-16	6710013.92	508302.58	1072.55
CC-17	6710028.71	508289.13	1072.64
CC-18	6710043.51	508275.68	1073.02
CC-19	6710058.31	508262.22	1073.92
CC-20	6710073.11	508248.77	1075.02
CC-21	6710087.91	508235.31	1076.17
CC-22	6710097.87	508218.77	1077.39
CC-23	6710103.85	508199.69	1078.43
CC-24	6710109.83	508180.60	1079.28
CC-25	6710115.81	508161.51	1079.98

CAMP CREEK DIVERSION STAKEOUT POINTS			
ID	Northing	Easting	Elevation (m)
CC-26	6710121.79	508142.43	1081.29
CC-27	6710127.77	508123.34	1082.53
CC-28	6710133.75	508104.26	1082.18
CC-29	6710139.73	508085.17	1083.97
CC-30	6710145.71	508066.09	1084.46
CC-31	6710151.69	508047.00	1085.42
CC-32	6710157.67	508027.92	1087.07
CC-33	6710163.65	508008.83	1087.73
CC-34	6710169.63	507989.75	1089.03
CC-35	6710175.61	507970.66	1089.99
CC-36	6710181.59	507951.58	1091.24
CC-37	6710184.88	507931.99	1092.24
CC-38	6710186.17	507912.03	1093.33
CC-39	6710187.47	507892.08	1094.79
CC-40	6710188.77	507872.12	1097.02
CC-41	6710188.25	507852.17	1098.93
CC-42	6710186.76	507832.23	1100.96
CC-43	6710185.26	507812.28	1102.55
CC-44	6710183.77	507792.34	1103.38
CC-45	6710182.28	507772.39	1103.53
CC-46	6710180.78	507752.45	1104.83
CC-47	6710179.29	507732.50	1106.34

SOUTH DRAINAGE CHANNEL STAKEOUT POINTS			
ID	Northing	Easting	Elevation (m)
SD-1	6710094.59	508229.23	1076.69
SD-2	6710114.13	508224.98	1076.95
SD-3	6710133.68	508220.74	1076.98
SD-4	6710153.22	508216.49	1076.98
SD-5	6710172.76	508212.24	1077.45
SD-6	6710192.31	508207.99	1078.68
SD-7	6710211.85	508203.74	1079.00
SD-8	6710231.59	508200.63	1079.01
SD-9	6710251.45	508198.29	1079.39
SD-10	6710271.31	508195.98	1079.90
SD-11	6710291.17	508193.62	1080.78
SD-12	6710311.04	508191.28	1081.62
SD-13	6710330.98	508190.08	1085.00

NORTH DIVERSION CHANNEL STAKEOUT POINTS			
ID	Northing	Easting	Invert Elevation (m)
ND-1	6710664.48	508186.86	1095.81
ND-2	6710644.49	508187.38	1094.98
ND-3	6710629.49	508187.73	1094.37
ND-4	6710616.59	508188.12	1094.24
ND-5	6710592.53	508184.11	1093.98
ND-6	6710569.36	508184.05	1093.40
ND-7	6710545.52	508181.47	1091.96
ND-8	6710523.03	508185.48	1090.59
ND-9	6710504.43	508181.70	1089.45
ND-10	6710490.14	508176.58	1088.54
ND-11	6710478.89	508172.57	1087.82
ND-12	6710450.87	508173.94	1086.56
ND-13	6710425.90	508175.17	1086.21
ND-14	6710405.07	508176.19	1086.00

NOTE

1. See Stakeout points on Drawing SDH-DR-09

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE
–	–		

REFERENCE DRAWINGS

NO.	DESCRIPTION	CHK'D	APP'D	DATE
1	Issued For Construction	IM	PMH	29Aug14
0	Issued For Construction	SM	PMH	06May14

REVISIONS

August 29, 2014
PETER M. HEALEY
TERRITORY
PROFESSIONAL ENGINEER

This drawing is uncontrolled when printed unless stamped and signed with original ink and recorded on a Distribution Register.

PROFESSIONAL ENGINEERS STAMP

srk consulting

DESIGN:	DRAWN:	REVIEWED:
IM	DJ	PMH
CHECKED:	APPROVED:	DATE:
IM	PMH	August 29, 2014

FILE NAME: 1CT008035_SDH-DR.dwg

Teck

Sä Dena Hes Project

SRK JOB NO.: 1CT008.035

TMF Decommissioning

DRAWING TITLE:

Stakeout Tables

DRAWING NO.	SHEET	REVISION NO.
SDH-DR-15	16 of 16	1

J:\01_SITES\Sa_Dena_Hes\1CT008.035_Dams_Decommissioning\0040_AutoCAD\Construction Drawings\IFC\Rev#1\1CT008035_SDH-DR.dwg

Engineering Drawings for
Sa Dena Hes Project
Quarry Development, Yukon, Canada

ACTIVE DRAWING STATUS

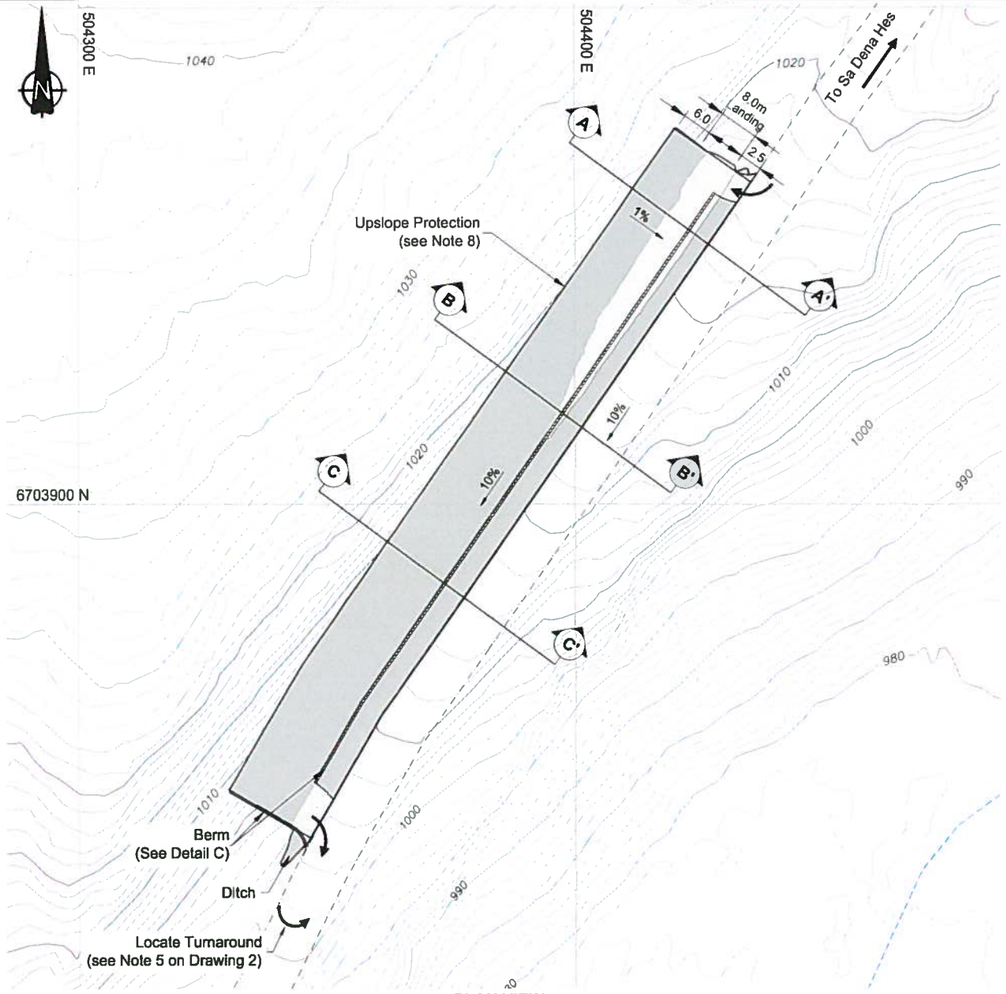
DWG NUMBER	DRAWING TITLE	REV.	DATE	STATUS	OLD/REPLACED REVISIONS	
SDH-QP001-00	Engineering Drawings for Sa Dena Hes Project Quarry Development, Yukon, Canada	0	May 20, 2014	Issued for Construction		
SDH-QP001-01	Plan and Sections	0	May 20, 2014	Issued for Construction	Figure 3, IFR	
SDH-QP001-02	Plan and Details	0	May 20, 2014	Issued for Construction	Figure 4, IFR	

Teck

srk consulting

PROJECT NO: 1CT008.042
Issued for Construction
Revision 0
May 20, 2014
Drawing No. SDH-QP001-00

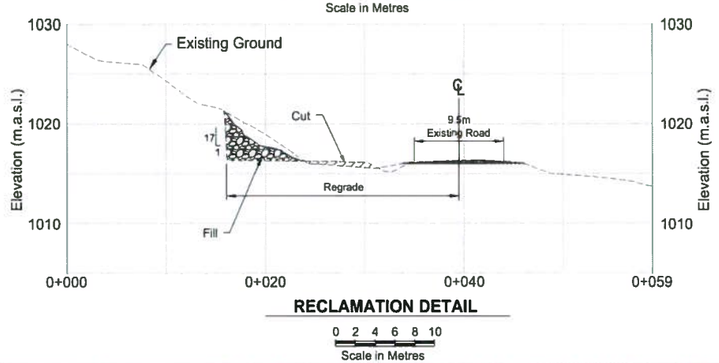
J:\01_SITES\Sa_Dena_Hes_ACAD\Quarry_Figures (september 2013)\SDH-QP001-00.dwg



PLAN VIEW

0 10 20 30 40 50

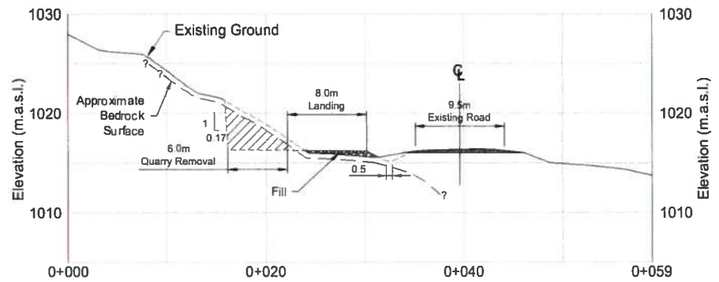
Scale in Metres



RECLAMATION DETAIL

0 2 4 6 8 10

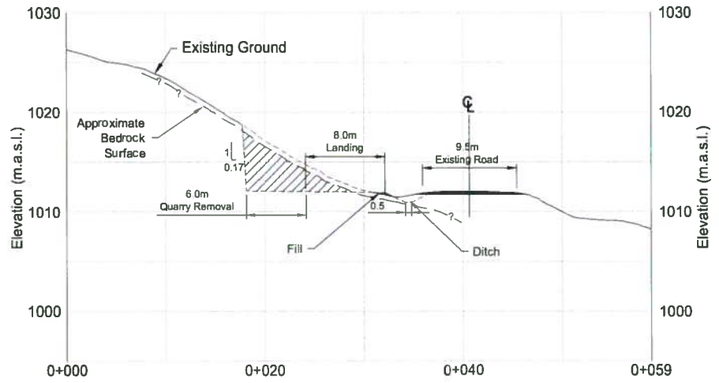
Scale in Metres



A PROFILE A - A '

0 2 4 6 8 10

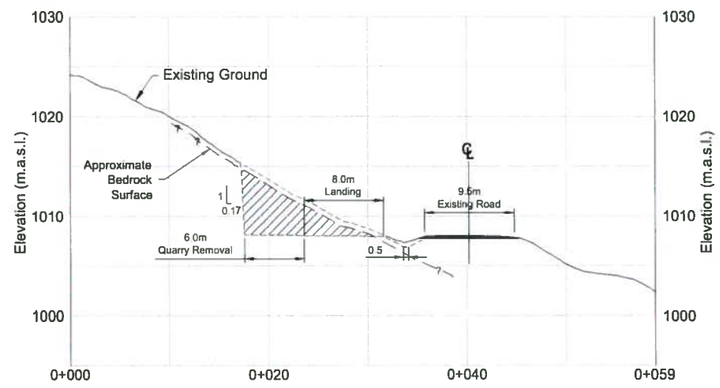
Scale in Metres



B PROFILE B - B '

0 2 4 6 8 10

Scale in Metres



C PROFILE C - C '

0 2 4 6 8 10

NOTES:

1. The designs are based on the contour information shown on these drawings. It is however the Contractor's responsibility to confirm that the contours are a fair reflection of the ground levels in the vicinity of the works, and to advise the Construction Manager and Engineer of an differences.
2. Topographic contour data was obtained from McElhanney and is based on the August 15, 2012 LiDAR Survey.
3. The co-ordinate system is UTM NAD 83 CSRS Zone 9V.
4. All dimensions are in metric units, unless specifically mentioned.
5. All drawings are scaled appropriately for D-Size construction drawings. Scales may not be correct if these drawings are reproduced and presented in any other size format.
6. Construction shall be in accordance with the Sä Dena Hes Quarry Development Plan.
7. Prior to drilling and blasting, the overburden on the upslope of the quarry will be removed with an excavator.
8. Protection may be required to prevent rocks from rolling down into the quarry.
9. A 2.5m by 1m (width to depth) ditch will excavated between the road and the landing.
10. An 8m wide single direction approach roads will be constructed into the landing.
11. Two (2) 600mm diameter culverts will be installed into the approach roads as per Detail A.
12. Drilling and blasting will be conducted to fracture the bed rock into rip-rap for removal.
13. Length of the quarry will be determined by volume of quarry rock required for closure.
14. Quarry headwall is to sloped at 0.17:1 (H:V).
15. Neat quarry extraction volume is 4,500m3.
16. Reclamation of quarry consists of excavating the berm and landing to loosely backfill material against quarry floor and headwall.
17. Notes in this drawing apply to all other active drawings.

LEGEND

- Minor Contours
- Tom Creek Tributary
- Existing Road
- Berm
- Proposed Quarry Traffic Pattern
- Cut Area
- Fill Area

Quarry Rock Extraction Summary:

D_{50} Diameter Size (m)	Volume Required (m^3)
0.3	2851
0.4	5135
0.5	102
Total Volume Needed	8100
Salvage from reclaim and south dam	3600
Quarry Extraction Volume	4500

FIGURE NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE
3	Quarry Development Plan – Plan and Sections		

REFERENCE DRAWINGS

NO.	DESCRIPTION	CHK'D	APP'D	DATE
0	Issued for Construction	SM	PH	20May14

REVISIONS

PROFESSIONAL ENGINEERS STAMP

PROFESSIONAL ENGINEER YUKON TERRITORY PETER W. HEALEY May 20, 2014

This drawing is an instrument of service and is the property of SRK Consulting. Reproduction printed unless stamped and signed with original ink and recorded at SRK Distribution Register.

srk consulting

DESIGN:	DRAWN:	REVIEWED:
SM	DJ	SM
CHECKED:	APPROVED:	DATE:
SM	PH	May 20, 2014

FILE NAME: SDH-QP001-02.dwg

Teck

Sa Dena Hes Project

SRK JOB NO.: 1CT008.042

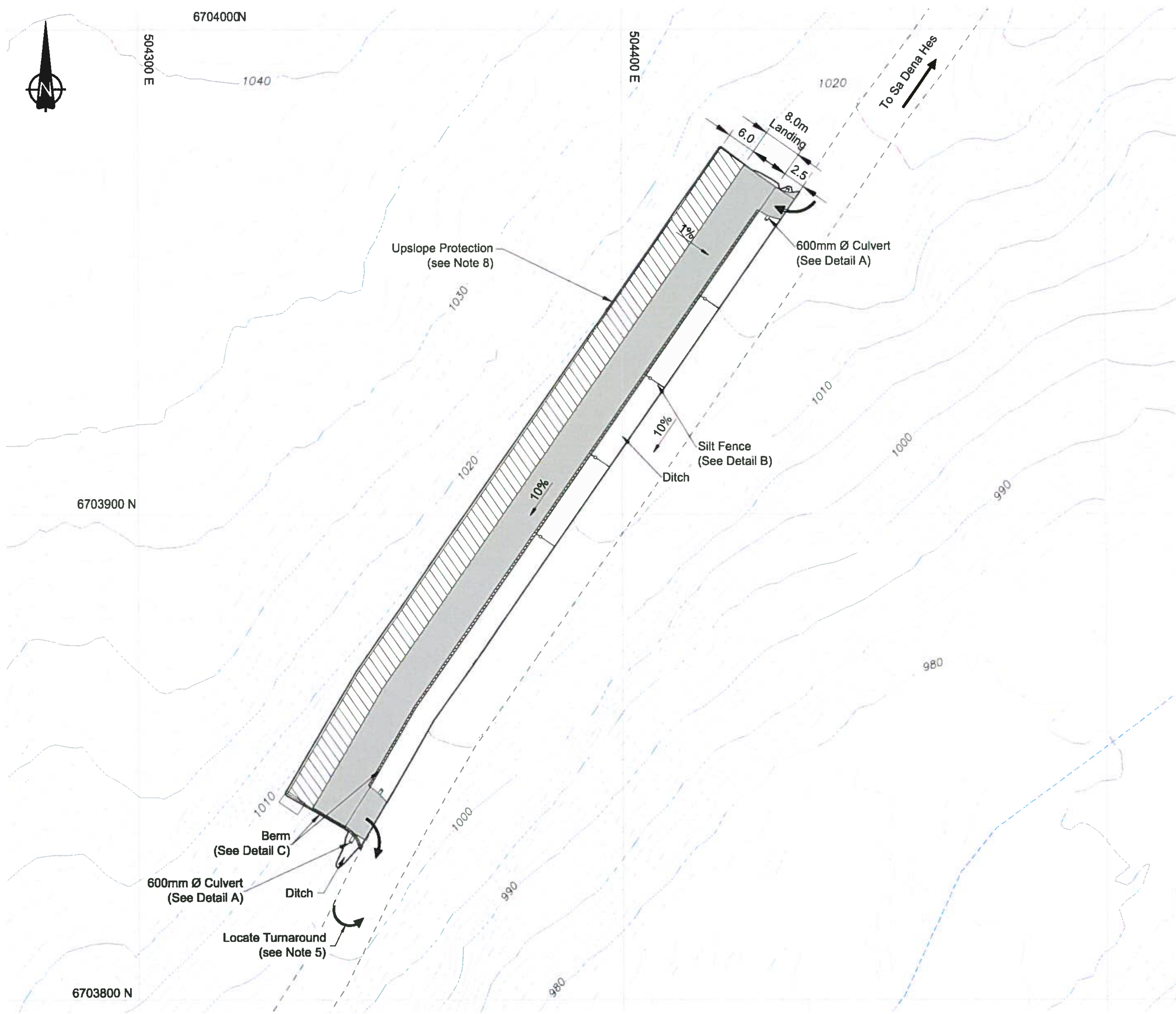
Quarry Development Plan

DRAWING TITLE:

Plan and Sections

DRAWING NO.	SHEET	REVISION NO.
1	1 OF 2	0

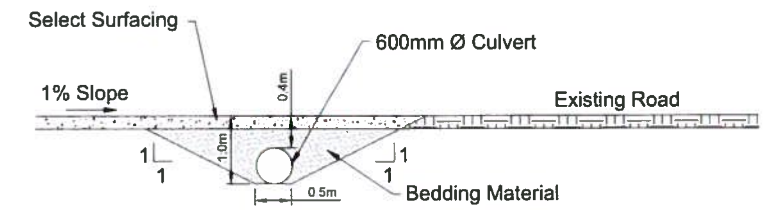
J:\01_SITES\Sa_Dena_Hes_ACAD\Quarry_Figures (september 2013)\SDH-QP001-02.dwg



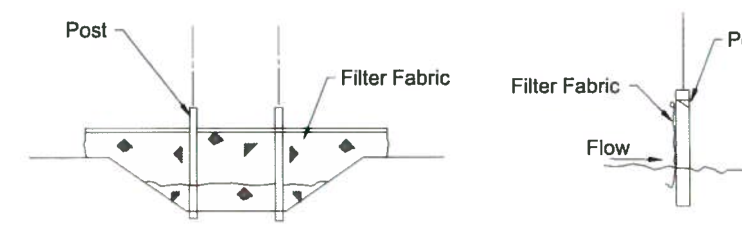
PLAN VIEW

0 5 10 15 20 25

Scale in Metres



A DETAIL - 600mm Ø CULVERT
NTS



B DETAIL - SILT FENCE
NTS

C DETAIL - TYPICAL EARTH AND BOULDER BERM
NTS

LEGEND

- Minor Contours
- Existing Road
- Berm
- Proposed Quarry Traffic Pattern
- Loading Area
- Quarry Excavation

NOTES:

1. Topographic contour data was obtained from McElhanney and is based on the August 15, 2012 LiDAR Survey.
2. The co-ordinate system is UTM NAD 83 CSRS Zone 9V.
3. All dimensions are in metric units, unless specifically mentioned.
4. Silt fences will be installed every 20m along the ditch as per Detail B.
5. Haul trucks are required to exit the landing on the south approach and use a safe turnaround located at the bottom of the hill.
6. Signage on the haul road will be provided by the contractor in accordance with the safety plan.
7. Prior to hauling rip-rap a 1m high safety berm will be constructed at the south end of the landing and paralleling the landing along the edge of the safety berm as per Detail C.
8. Notes in this drawing apply to all other active drawings.

FIGURE NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE
4	Quarry Development Plan – Plan and Details		

REFERENCE DRAWINGS

NO.	DESCRIPTION	CHK'D	APP'D	DATE
0	Issued for Construction	SM	PH	20May14

REVISIONS

PROFESSIONAL ENGINEERS STAMP: PROFESSIONAL ENGINEER — YUKON — PETER M. HEALEY — May 20, 2014

This drawing is uncontrolled when printed unless stamped and signed with original ink and recorded on a Distribution Register.

srk consulting

DESIGN: SM | DRAWN: DJ | REVIEWED: SM
CHECKED: SM | APPROVED: PH | DATE: May 23, 2014

FILE NAME: SDH-QP001-02.dwg

Teck

Sa Dena Hes Project

SRK JOB NO.: 1CT008.042

Quarry Development Plan

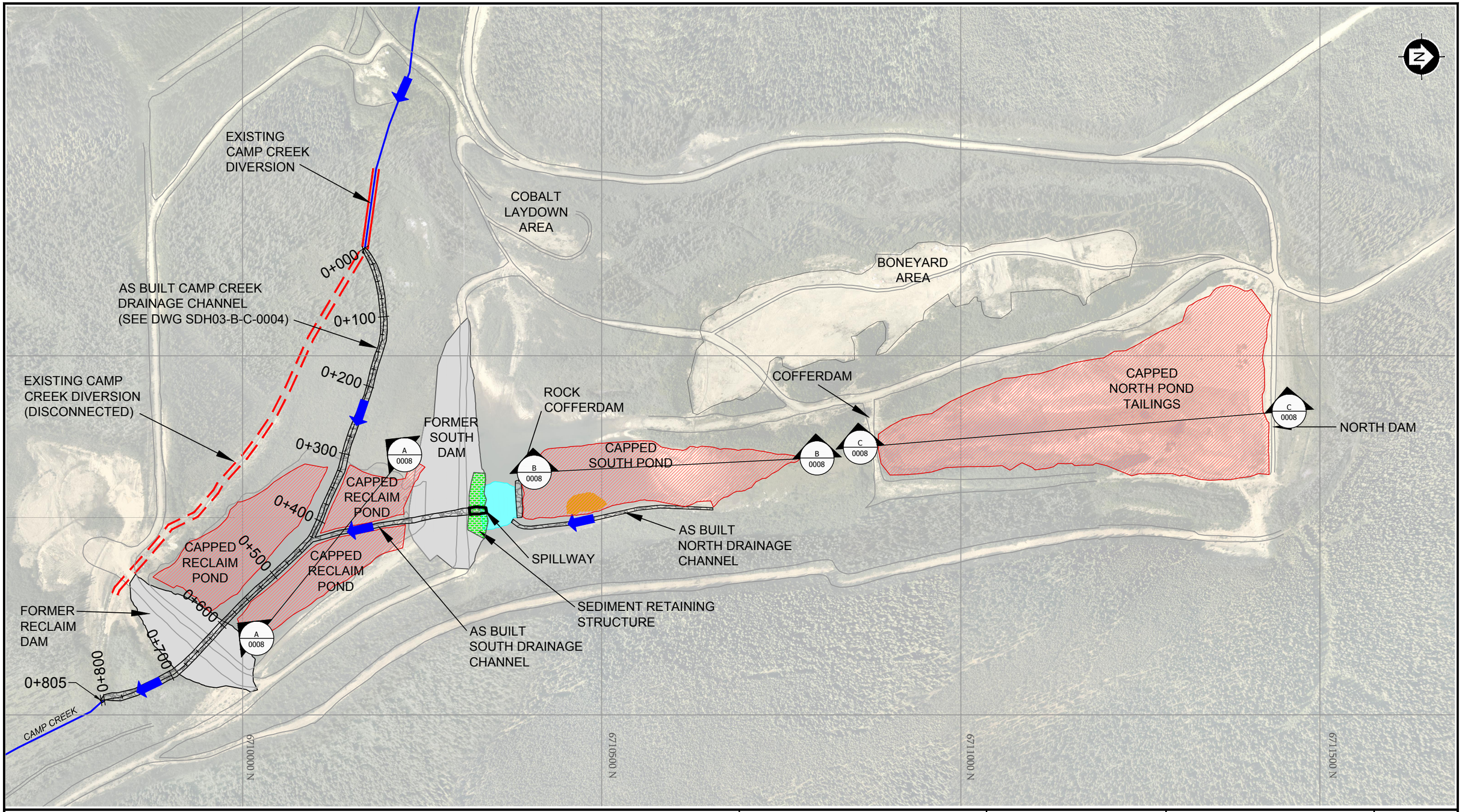
DRAWING TITLE: Plan and Details

DRAWING NO.: 2 | SHEET: 2 OF 2 | REVISION NO.: 0

J:\01_SITES\Sa_Dena_Hes\!_ACAD\Quarry Figures (september 2013)\SDH-QP001-02.dwg

APPENDIX C
TMA Decommissioning As-built Drawings

Drawing SDH03-B-C-0001 ..... 2014 As-built Tailings Management Area Capped Areas
Drawing SDH03-B-C-0002 ..... 2014 As-built Plan View Sediment Retaining Structure, Spillway and South Drainage Channel
Drawing SDH03-B-C-0003 ..... 2014 As-built Spillway and South Drainage Channel Profile and Sections
Drawing SDH03-B-C-0004 ..... 2014 As-built Camp Creek and South Drainage Channel Profiles and Sections
Drawing SDH03-B-C-0005 ..... 2014 As-built North Drainage Channel Plan View, Profile and Sections
Drawing SDH03-B-C-0006 ..... 2014 As-built Reclaim Dam Plan View and Section
Drawing SDH03-B-C-0007 ..... 2014 As-built South Dam Plan View and Section
Drawing SDH03-B-C-0008 ..... 2014 As-built Tailings management Area Capped Area Sections
Drawing SDH00-B-C-0002 ..... 2014 As-built Quarry Plan View and Sections



LEGEND:

- CAPPED AREA
- SEDIMENT RETAINING POND
- DECOMMISSIONED DAM
- DEEP TAILINGS CELL
- SEDIMENT RETAINING STRUCTURE
- RIP RAP
- WATER FLOW DIRECTION
- SECTION LOCATION (SEE DWG SDH03-B-C-0008)

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 1:5000 (0m 50 100 150 200)

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH03-B-C-0001-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT TAILINGS MANAGEMENT AREA CAPPED AREAS

DWN BY:	J.T./D.M.
CHK'D BY:	LW/CJ
DATE:	2014/12/19
REV. NO:	R0
FIGURE NO:	SDH03-B-C-0001

P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH03_B_C_MASTER_R0.dwg - 3/26/2015 6:31 PM - McCoy, Dale

SEDIMENT RETAINING STRUCTURE

2014 AS BUILT NORTH DRAINAGE CHANNEL

2014 AS BUILT SPILLWAY (SEE DWG SDH03-B-C-0003)

2014 AS BUILT SOUTH DRAINAGE CHANNEL (SEE DWG SDH03-B-C-0004)

CAPPED RECLAIM POND

4.8

0+000

7.0

50.9

SEDIMENT RETAINING POND

28.9

8.5

9.8

0+050

6.8

0+100

0+150

5.9

0+200

0+252

0+250

FORMER SOUTH DAM

CAPPED RECLAIM POND

2014 AS BUILT CAMP CREEK DRAINAGE CHANNEL

2014 AS BUILT ROCK COFFERDAM

LEGEND:

- CAPPED AREA
- SEDIMENT RETAINING POND
- DECOMMISSIONED DAM
- RIP RAP
- SEDIMENT RETAINING STRUCTURE

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 1:800 (0m 10 20 30)

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH03-B-C-0002-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT PLAN VIEW SEDIMENT RETAINING STRUCTURE, SPILLWAY AND SOUTH DRAINAGE CHANNEL

DWN BY: J.T./D.M.

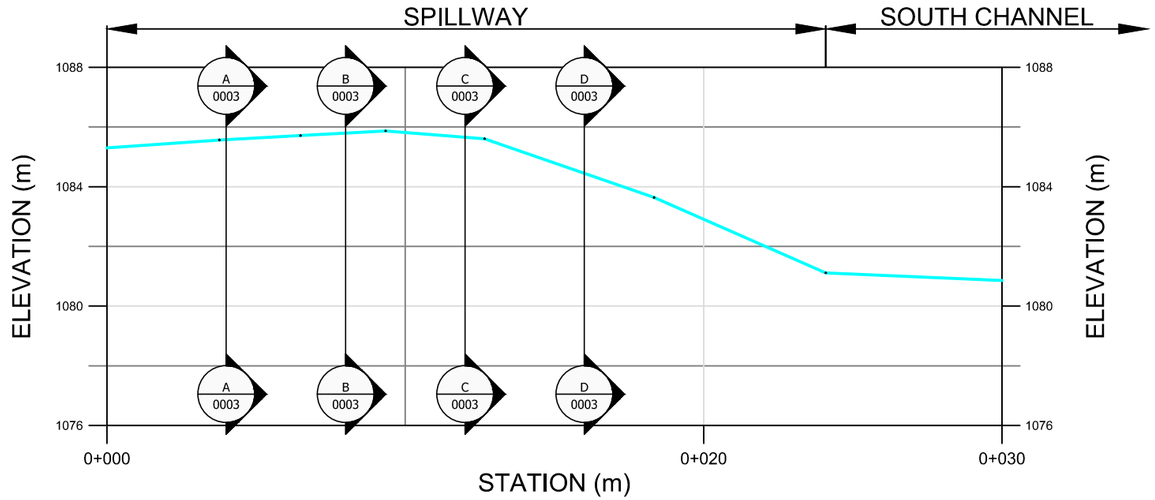
CHK'D BY: LW/CJ

DATE: 2014/12/19

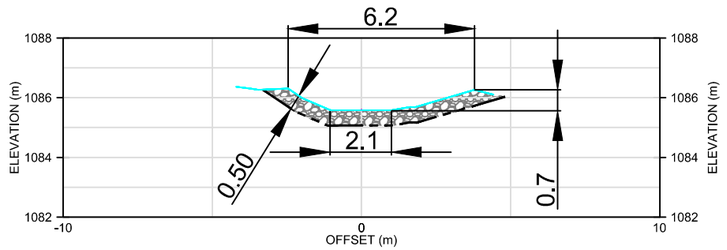
REV. NO: R0

FIGURE NO: SDH03-B-C-0002

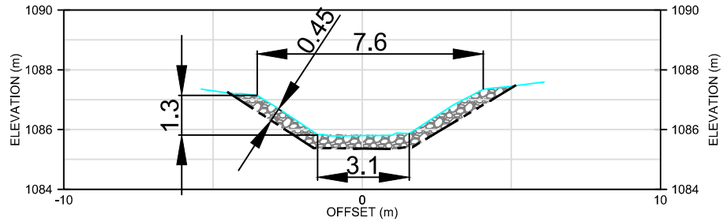
P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH03_B_C_MASTER_R0.dwg - 3/19/2015 10:53 AM - McCoy, Dale



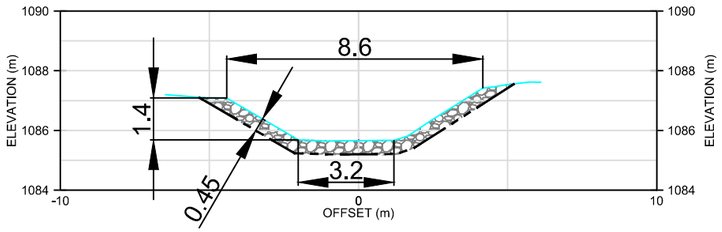
SPILLWAY PROFILE (SEE DWG SDH03-B-C-0002)



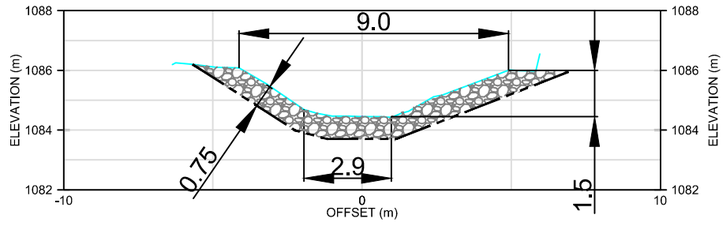
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

LEGEND:

RIP RAP

2014 AS BUILT SPILLWAY INVERT

NON-WOVEN GEOTEXTILE

A 0002 A 0002 SECTION LOCATION

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: AS SHOWN

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH03-B-C-0003-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT SPILLWAY AND SOUTH DRAINAGE CHANNEL PROFILE AND SECTIONS

DWN BY: J.T./D.M.

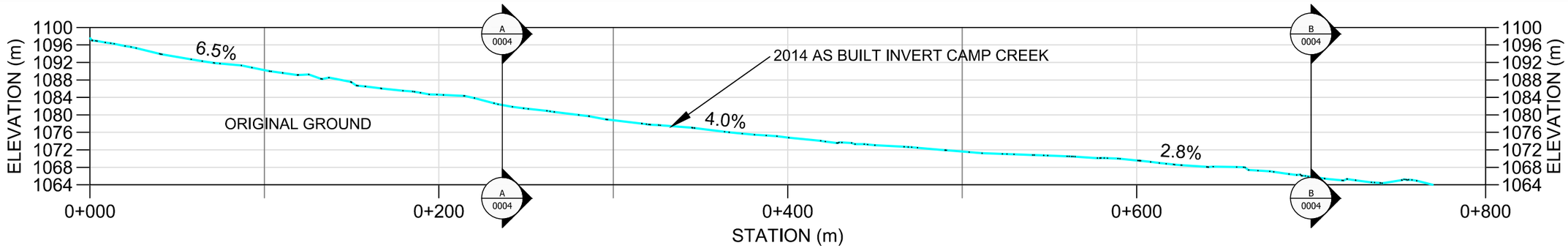
CHK'D BY: LW/CJ

DATE: 2014/12/19

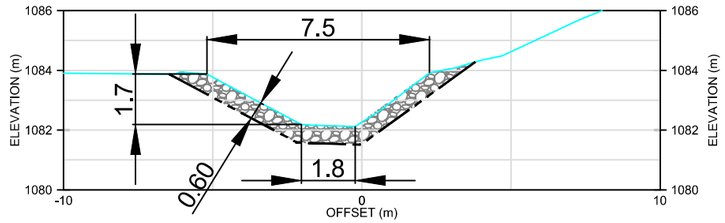
REV. NO: R0

FIGURE NO: SDH03-B-C-0003

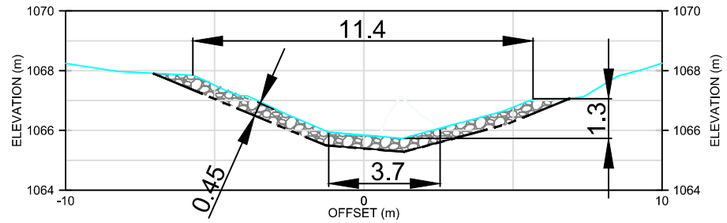
P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH03_B_C_MASTER_R0.dwg - 2/25/2015 1:55 PM - McCoy, Dale



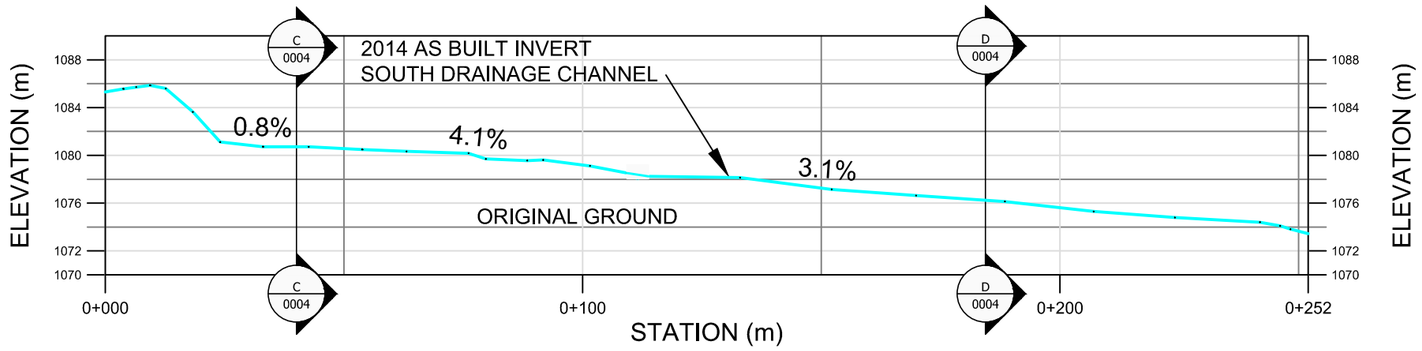
CAMP CREEK DRAINAGE CHANNEL PROFILE (SEE DWG SDH03-B-C-0001)



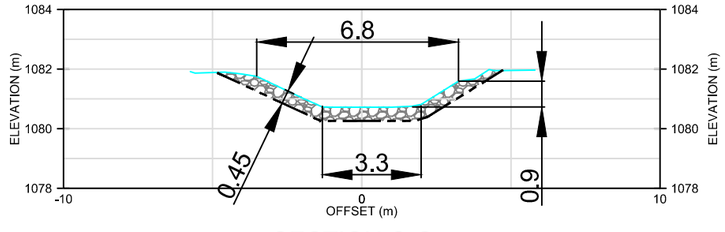
SECTION A-A



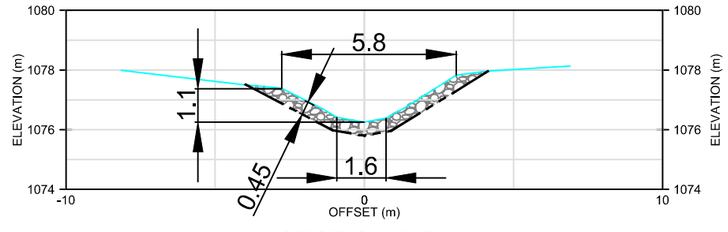
SECTION B-B



SOUTH DRAINAGE CHANNEL PROFILE (SEE DWG SDH03-B-C-0002)



SECTION C-C



SECTION D-D

LEGEND:

RIP RAP

2014 AS BUILT SPILLWAY INVERT

NON-WOVEN GEOTEXTILE

A 0002 — A 0002 SECTION LOCATION

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: AS SHOWN

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH03-B-C-0004-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT CAMP CREEK AND SOUTH DRAINAGE CHANNEL PROFILES AND SECTIONS

DWN BY: J.T./D.M.

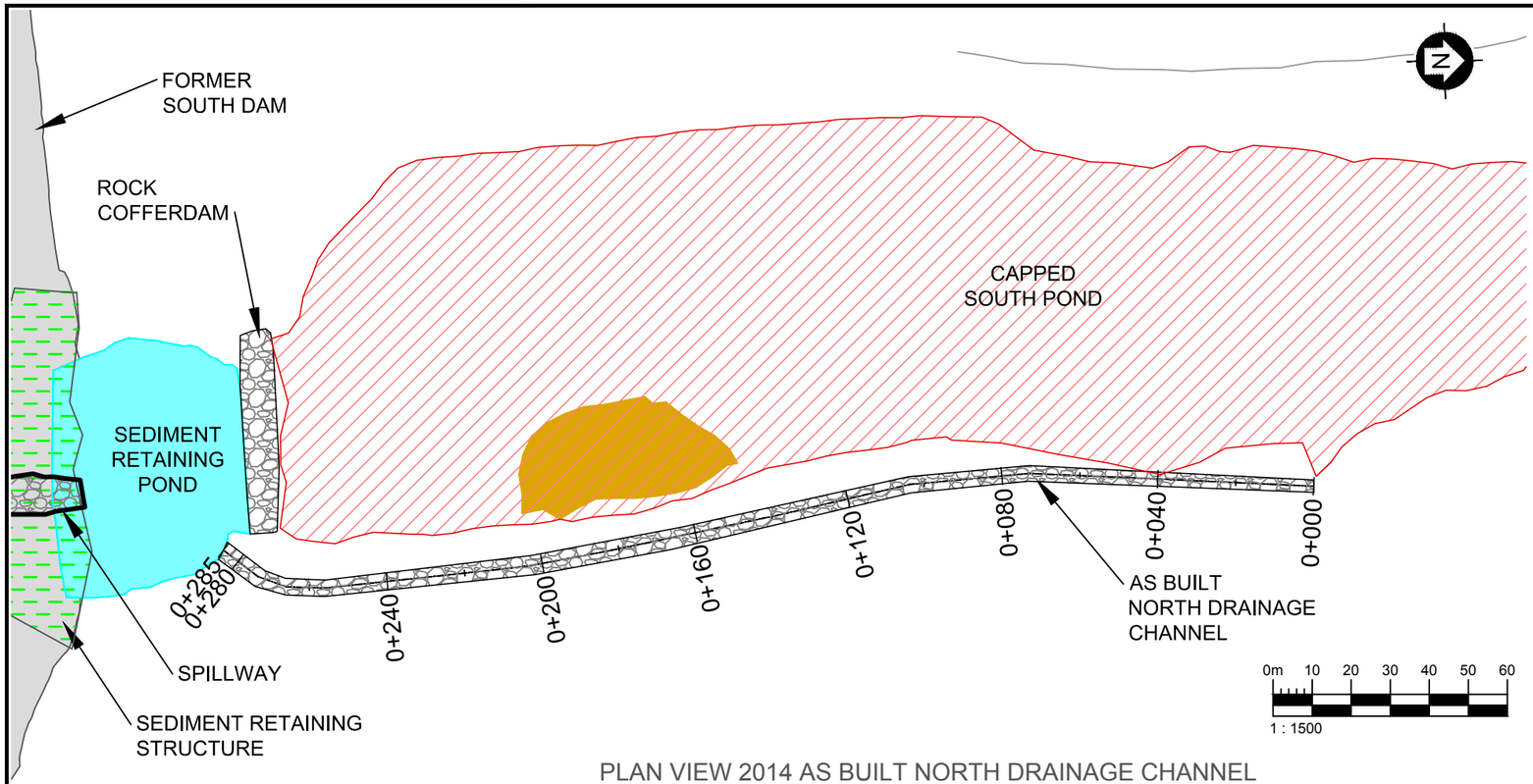
CHK'D BY: LW/CJ

DATE: 2014/12/19

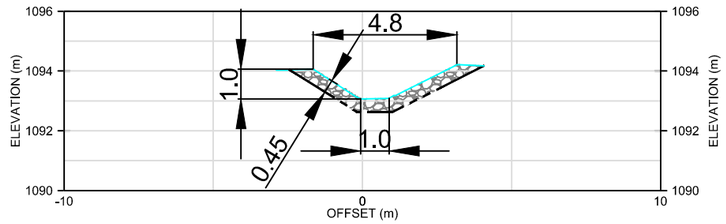
REV. NO: R0

FIGURE NO: SDH03-B-C-0004

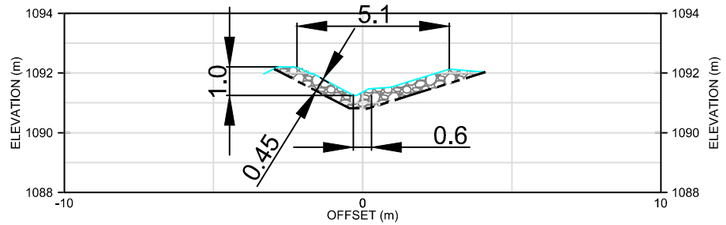
P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH03_B_C_MASTER_R0.dwg - 2/25/2015 12:10 PM - McCoy, Dale



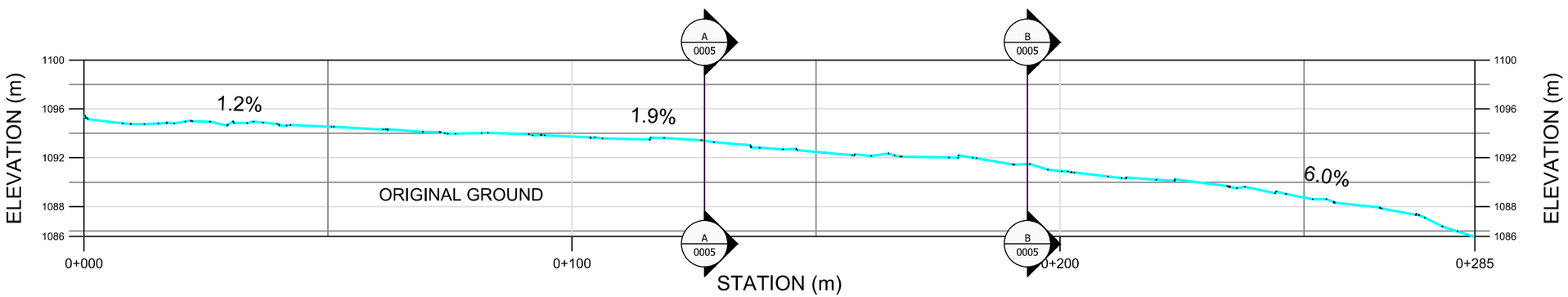
PLAN VIEW 2014 AS BUILT NORTH DRAINAGE CHANNEL



SECTION A-A



SECTION B-B



PROFILE 2014 AS BUILT NORTH DRAINAGE CHANNEL

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

LEGEND:

- CAPPED AREA
- SEDIMENT RETAINING POND
- DECOMMISSIONED DAM
- SEDIMENT RETAINING STRUCTURE
- DEEP TAILINGS CELL
- RIP RAP
- 2014 AS BUILT SPILLWAY INVERT
- NON-WOVEN GEOTEXTILE
- SECTION LOCATION (A 0002 – A 0002)

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: AS SHOWN

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH03-B-C-0005-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT NORTH DRAINAGE CHANNEL PLAN VIEW, PROFILE AND SECTIONS

DWN BY: J.T./D.M.

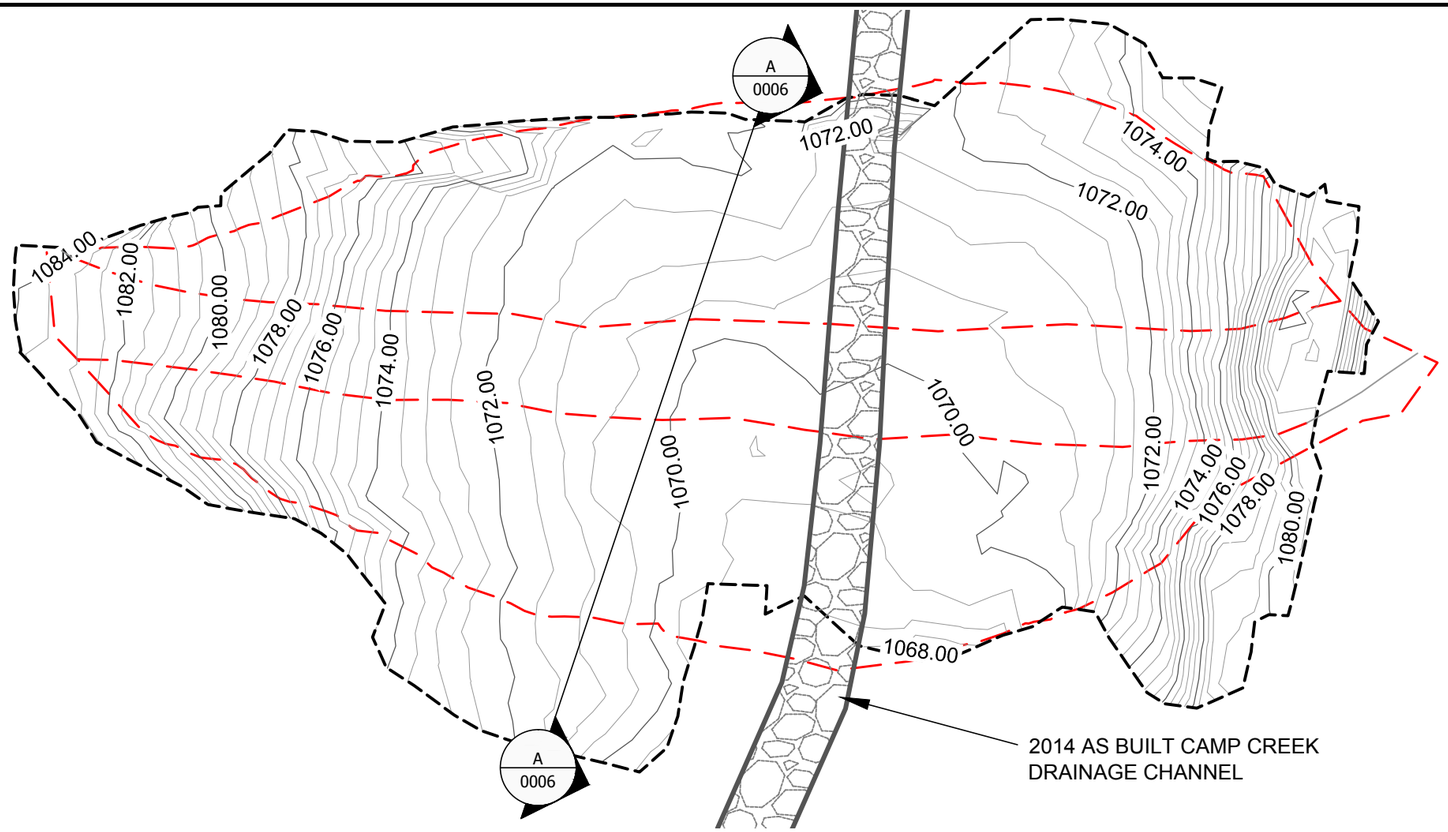
CHK'D BY: LW/CJ

DATE: 2014/12/19

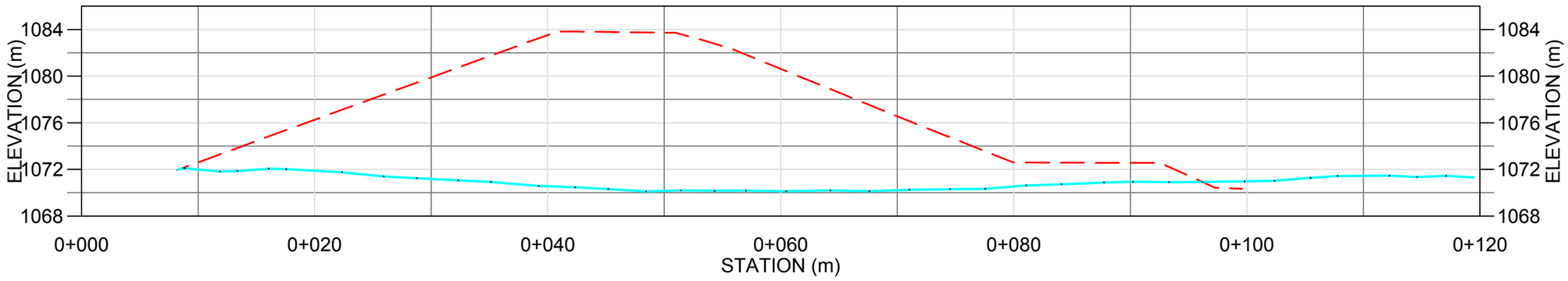
REV. NO: R0

FIGURE NO: SDH03-B-C-0005

P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH03_B_C_MASTER_R0.dwg - 3/19/2015 10:53 AM - McCoy, Dale



PLAN VIEW 2014 AS BUILT RECLAIM DAM



SECTION A-A 2014 AS BUILT RECLAIM DAM

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

0m 10 20 30 40
1 : 1000

LEGEND:
- 2014 AS BUILT SURVEY BOUNDARY
- RECLAIM DAM 2014 AS BUILT
- ORIGINAL GROUND (FORMER DAM STRUCTURE)
- RIP RAP
- SECTION LOCATION (A 0002 — A 0002)

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: AS SHOWN

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH03-B-C-0006-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT RECLAIM DAM PLAN VIEW AND SECTION

DWN BY: J.T./D.M.

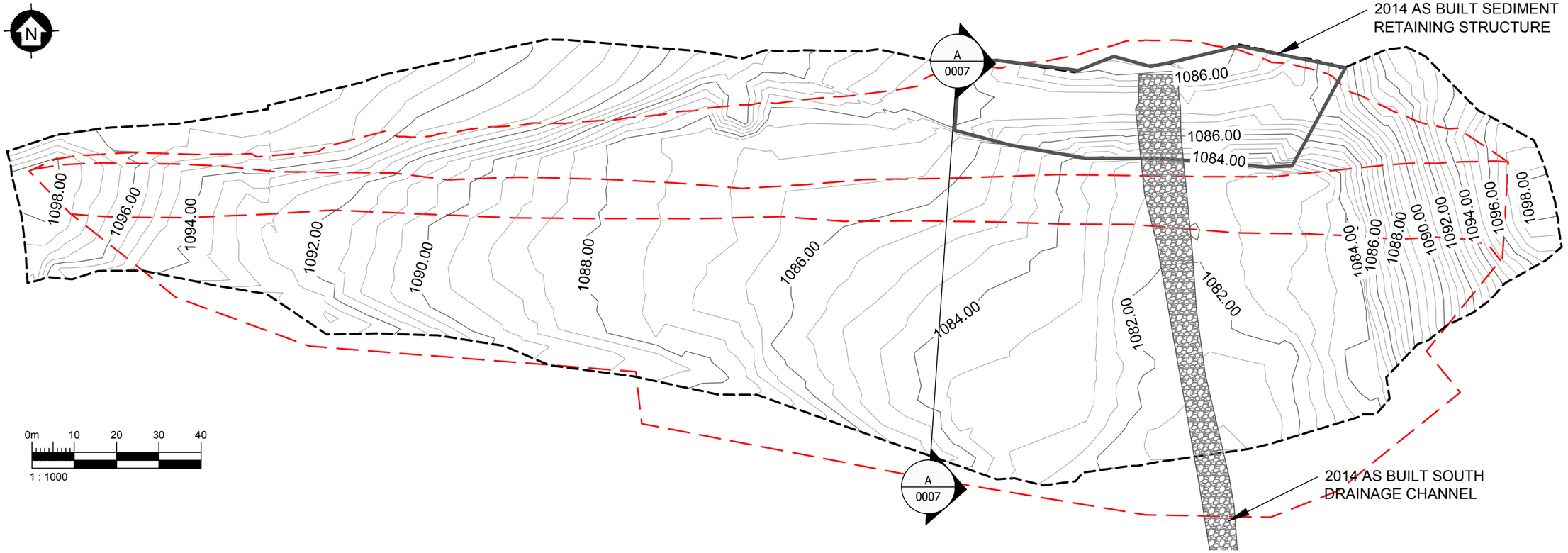
CHK'D BY: LW/CJ

DATE: 2014/12/19

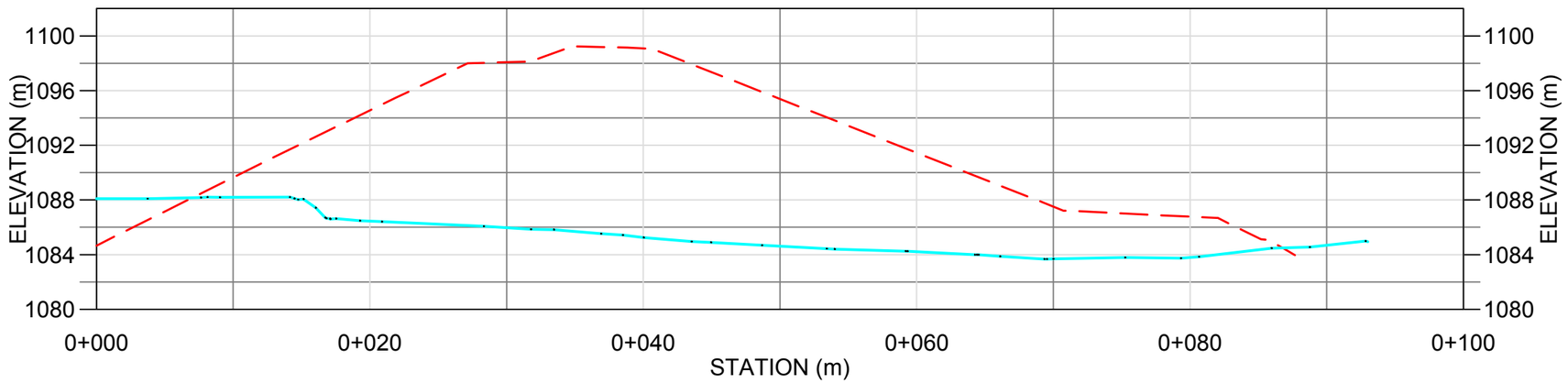
REV. NO: R0

FIGURE NO: SDH03-B-C-0006

G:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH03_B_C_0006_R0.dwg - 2/24/2015 4:54 PM - McCoy, Dale



PLAN VIEW 2014 AS BUILT SOUTH DAM



SECTION A-A 2014 AS BUILT SOUTH DAM

LEGEND:

- 2014 AS BUILT SURVEY BOUNDARY
- SOUTH DAM 2014 AS BUILT
- ORIGINAL GROUND (FORMER DAM STRUCTURE)

RIP RAP

SECTION LOCATION (A 0002 – A 0002)

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: AS SHOWN

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH03-B-C-0007-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT SOUTH DAM PLAN VIEW AND SECTION

DWN BY: J.T./D.M.

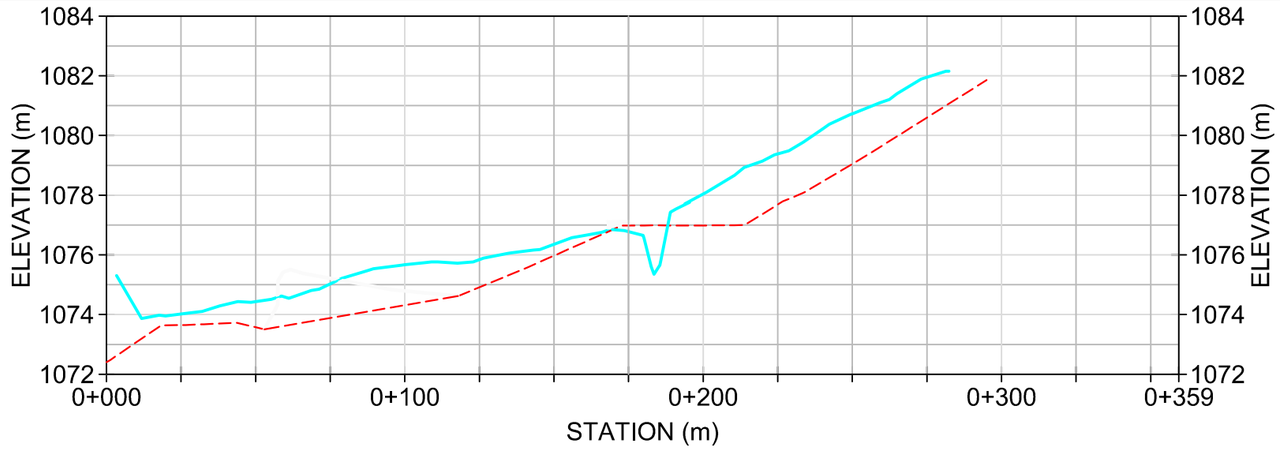
CHK'D BY: LW/CJ

DATE: 2014/12/19

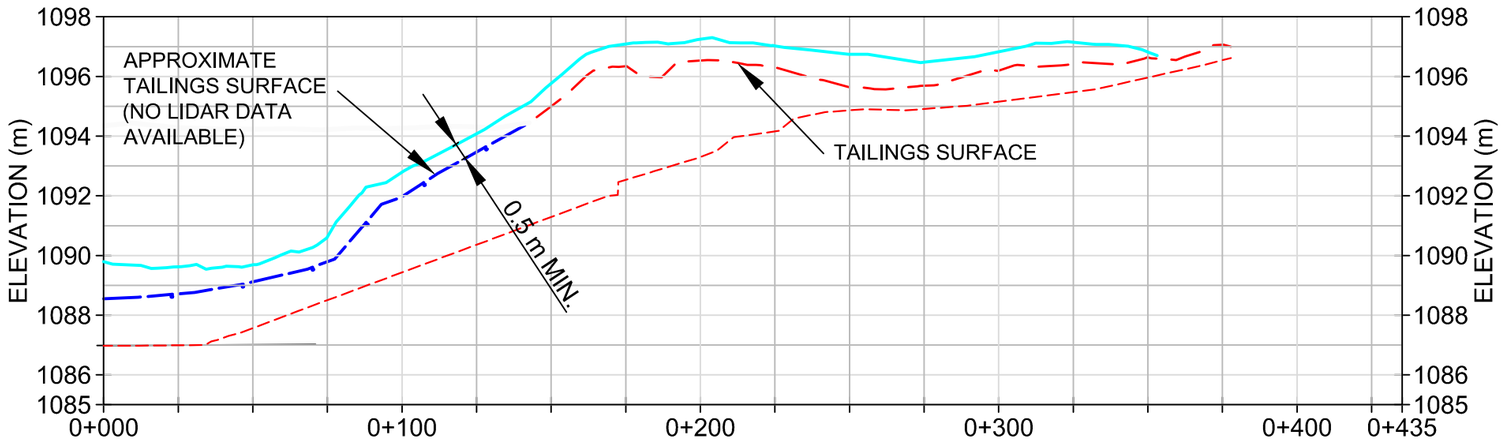
REV. NO: R0

FIGURE NO: SDH03-B-C-0007

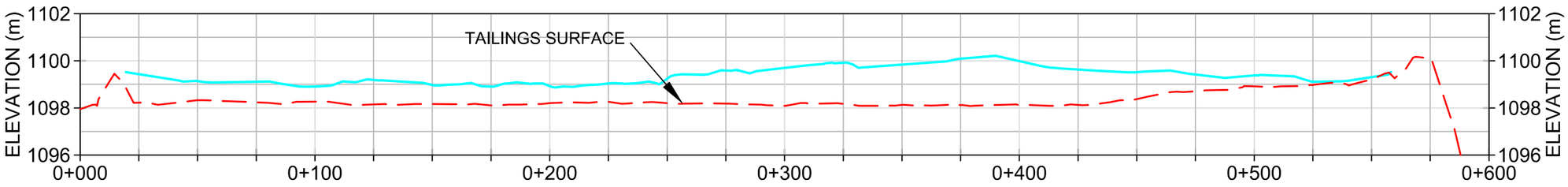
G:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH03_B_C_0007_R0.dwg - 2/24/2015 5:09 PM - McCoy, Dale



SECTION A-A RECLAIM POND



SECTION B-B SOUTH POND



SECTION C-C NORTH POND

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

LEGEND:

- 2014 AS BUILT SURFACE
- 2012 LIDAR SURFACE
- ORIGINAL GROUND (APPROXIMATE SURFACE BASED ON HISTORICAL CONTOUR INTERPRETATION)
- APPROXIMATE TAILINGS SURFACE

NOTES:

1. SEE DWG SDH03-B-C-0001 FOR SECTION LOCATIONS.

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: AS SHOWN

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH03-B-C-0008-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT TAILINGS MANAGEMENT AREA CAPPED AREA SECTIONS

DWN BY: D.M.

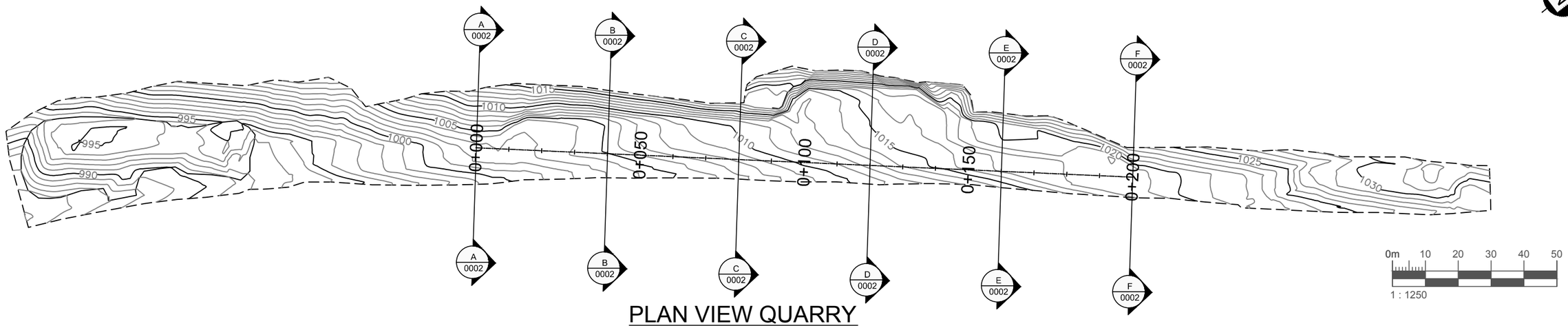
CHK'D BY: LW/CJ

DATE: 2015/03/21

REV. NO: R0

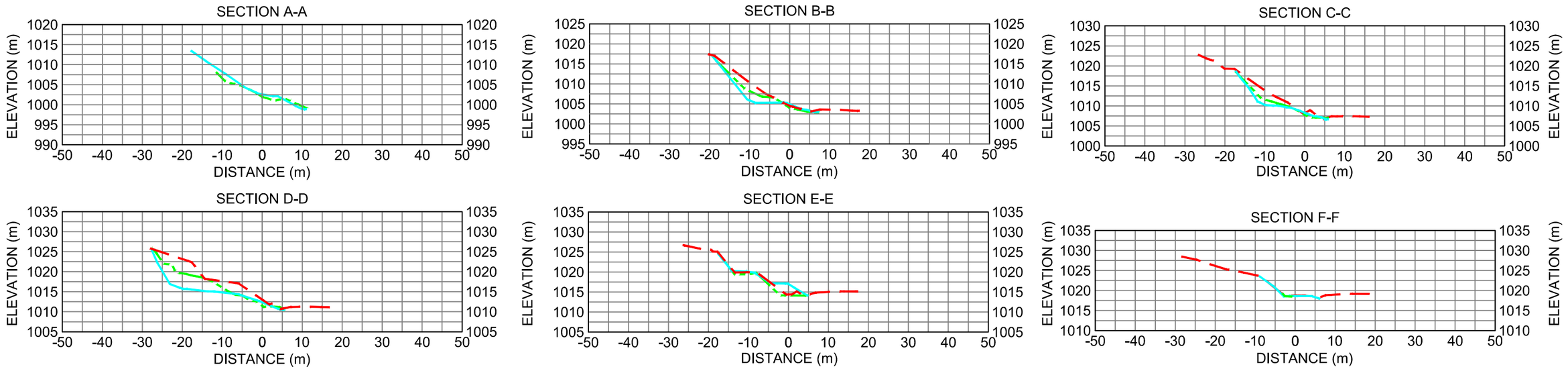
FIGURE NO: SDH03-B-C-0008

P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH03_B_C_MASTER_R0.dwg - 3/27/2015 2:27 PM - McCoy, Dale



PLAN VIEW QUARRY

SCALE=1:1250



SECTIONS

SCALE=AS SHOWN

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

LEGEND:

- PRE-BLAST ROCK SURFACE
- RECLAMATION 2014 AS BUILT
- ORIGINAL GROUND
- SECTION LOCATION (A 0002 – A 0002)
- 2014 AS BUILT SURVEY BOUNDARY

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: AS SHOWN

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH00-B-C-0002-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT QUARRY PLAN VIEW AND SECTIONS

DWN BY: J.T./D.M.

CHK'D BY: LW/CJ

DATE: 2014/12/19

REV. NO: R0

FIGURE NO: SDH00-B-C-0002

P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH00_B_C_0002_R0.dwg - 3/18/2015 7:43 PM - McCoy, Dale

APPENDIX D
TMA Decommissioning Photographs

Tailings Management Area Decommissioning (TMA) Photographs

TMA Photograph 1: Dewatering discharge volume monitoring station.

TMA Photograph 2: Reclaim Pond during dewatering operations.

TMA Photograph 3: Excavation of Reclaim Dam.

TMA Photograph 4: Excavation of Camp Creek Drainage Channel.

TMA Photograph 5: Reclaim Dam excavation and salvage of toe buttress riprap.

TMA Photograph 6: Drilling operations at km 17 quarry.

TMA Photograph 7: Blasting contractor measuring hole depths and setting charges at km 17 quarry.

TMA Photograph 8: Reclaim Dam excavation nearing completion and capping of Reclaim Pond in progress.

TMA Photograph 9: South Pond dewatering complete and South Dam excavation in progress.

TMA Photograph 10: Capping of North Tailings Pond with excavated dam material.

TMA Photograph 11: Installing geotextile in Camp Creek Drainage Channel.

TMA Photograph 12: Capping of North Tailings Pond with excavated dam material.

TMA Photograph 13: Camp Creek Drainage Channel.

TMA Photograph 14: Excavator completing shaping of downstream slope of sediment retaining structure.

TMA Photograph 15: Looking north from sediment retaining structure toward sediment retaining pond and rock cofferdam, with North Drainage Channel along east bank of former South Pond.

TMA Photograph 16: Reclamation of km 17 quarry site following extraction of riprap material.

TMA Photograph 17: Looking south from east bank of former South Pond toward sediment retaining pond and sediment retaining structure with spillway construction completed.

TMA Photograph 18: Construction of berm around "deep tailings cell" in the former South Pond area.

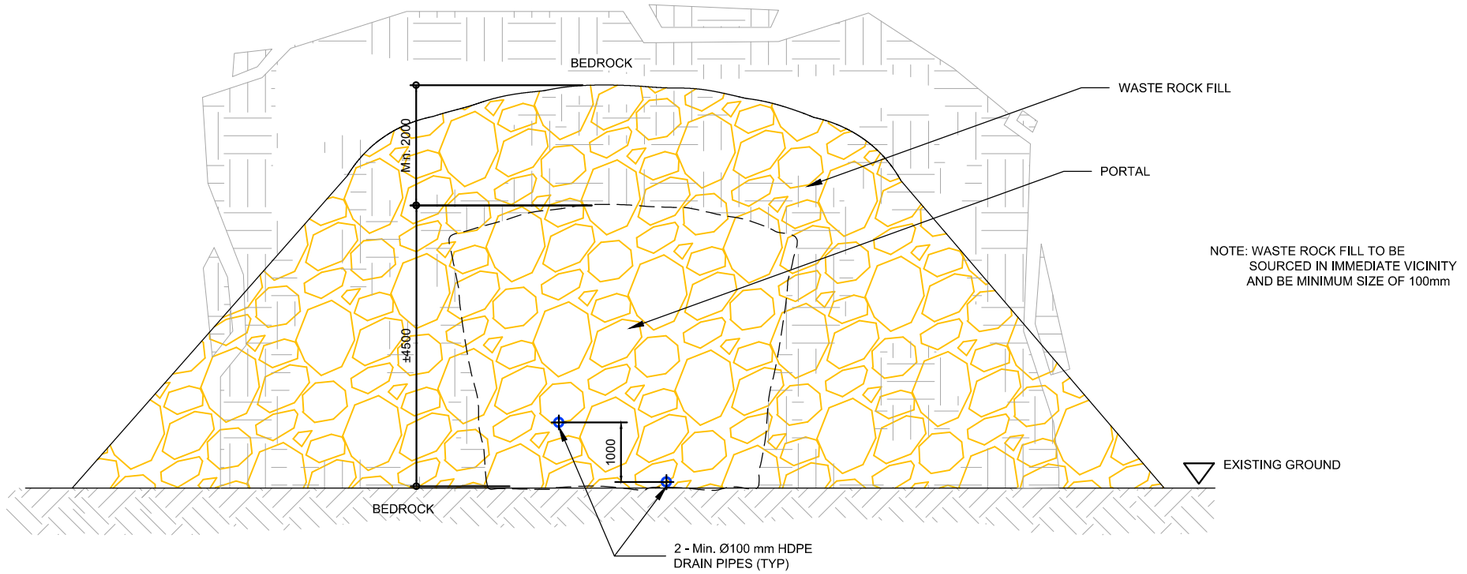
TMA Photograph 19: Capping of "deep tailings cell" in the former South Pond area using an excavator to place capping material.

TMA Photograph 20: View from west abutment of former Reclaim Dam looking north toward capped Reclaim Pond, with sediment retaining structure in background.

TMA Photograph 21: View from east bank of former South Pond looking south toward capped South Pond area with sediment retaining structure and spillway in background.

APPENDIX E
Mountain Works Issued for Construction Drawings

Drawing SDH00_B_C_0001..... Portal Closure Typical Elevation and Section Details
Drawing SDH01_B_C_0001..... Jewelbox 1380 Portal Closure
Drawing SDH00_B_S_0001..... Monolithic Concrete Cap Typical Plan and Section
Drawing SDH00_B_S_0002..... Typical Precast Concrete Strip Cap
Drawing SDH00_B_S_0005..... Typical Monolithic Concrete Cap Reinforcement Schedule

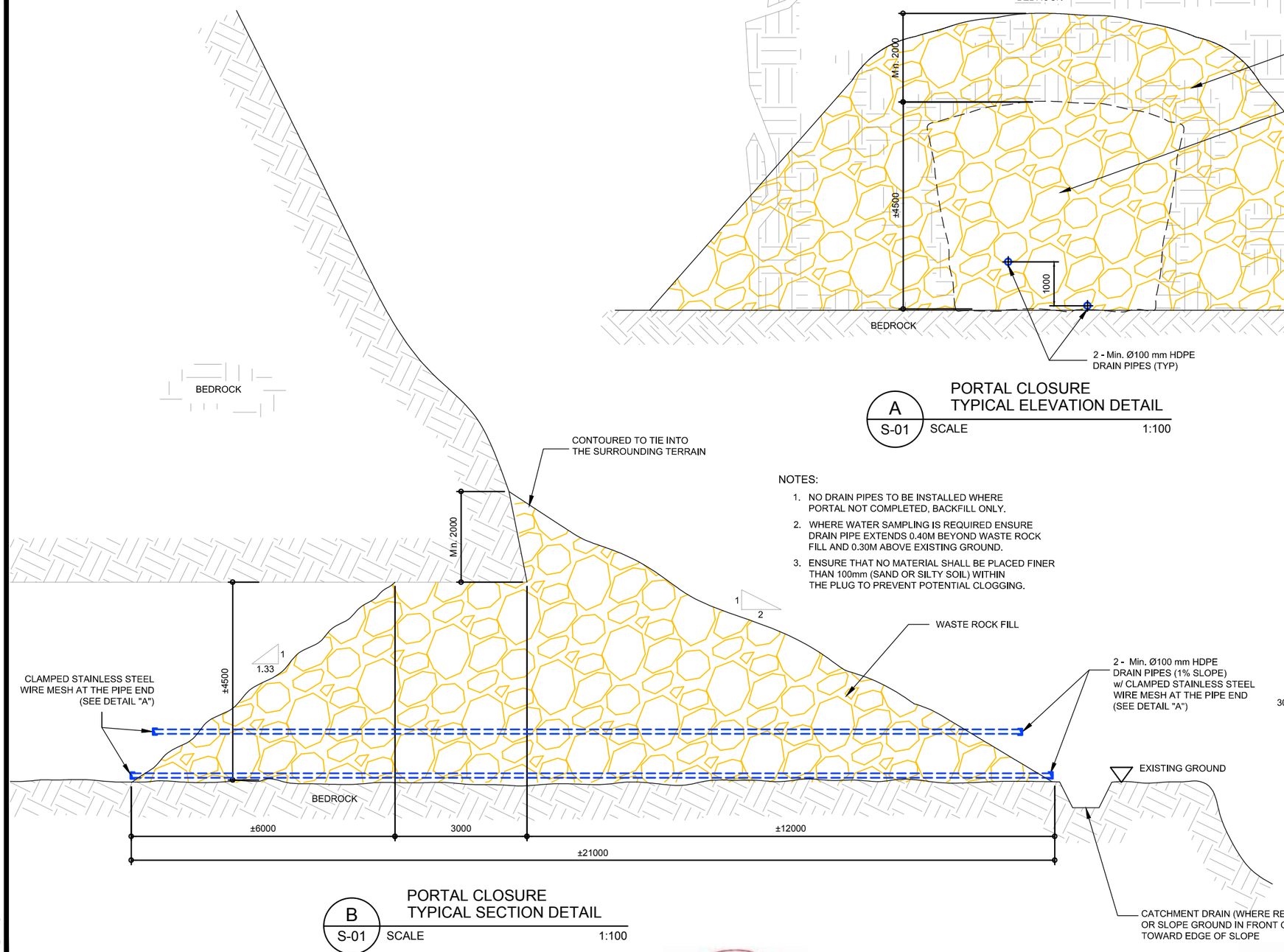


NOTE: WASTE ROCK FILL TO BE SOURCED IN IMMEDIATE VICINITY AND BE MINIMUM SIZE OF 100mm

A
S-01

PORTAL CLOSURE TYPICAL ELEVATION DETAIL

SCALE 1:100



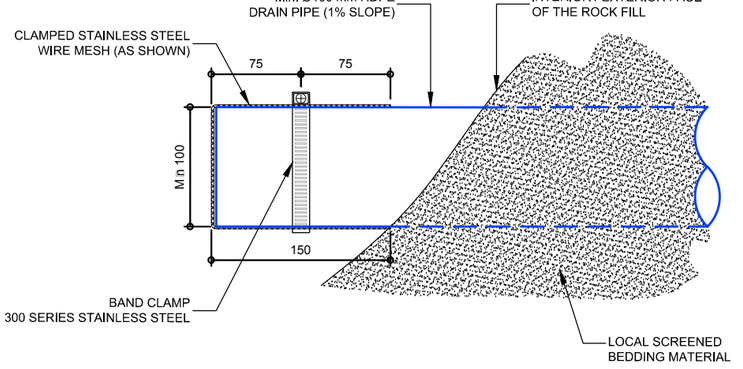
NOTES:

1. NO DRAIN PIPES TO BE INSTALLED WHERE PORTAL NOT COMPLETED, BACKFILL ONLY.
2. WHERE WATER SAMPLING IS REQUIRED ENSURE DRAIN PIPE EXTENDS 0.40M BEYOND WASTE ROCK FILL AND 0.30M ABOVE EXISTING GROUND.
3. ENSURE THAT NO MATERIAL SHALL BE PLACED FINER THAN 100mm (SAND OR SILTY SOIL) WITHIN THE PLUG TO PREVENT POTENTIAL CLOGGING.

B
S-01

PORTAL CLOSURE TYPICAL SECTION DETAIL

SCALE 1:100



DETAIL "A"

ISSUED FOR CONSTRUCTION

LEGEND

NO	DESCRIPTION	BY	DATE
R0	ISSUED FOR CONSTRUCTION		05/09/2014
RA	ISSUED FOR TENDER		25/02/2014
TYP	ISSUED FOR REVIEW		11/02/2014

REVISIONS

PROFESSIONAL ENGINEERS SEAL

YUKON ENGINEERING SERVICES

SCALE	PROJECT NUMBER E13007
DESIGNED	DRAWN
CHECKED	APPROVED

AMEC PROJECT NUMBER TE133100

Teck

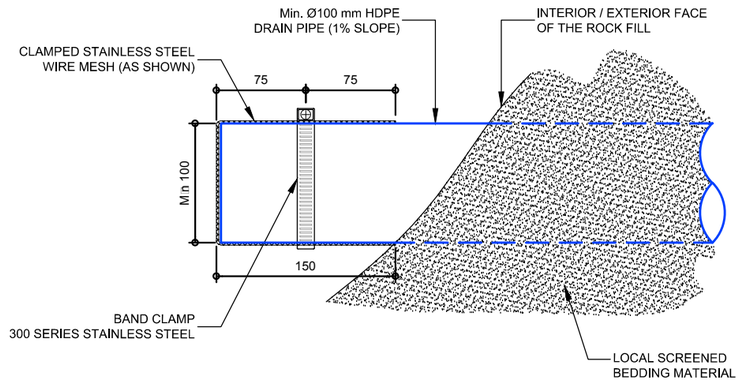
Sä Dena Hes Mine

DETAILED DECOMMISSIONING AND RECLAMATION PROJECT

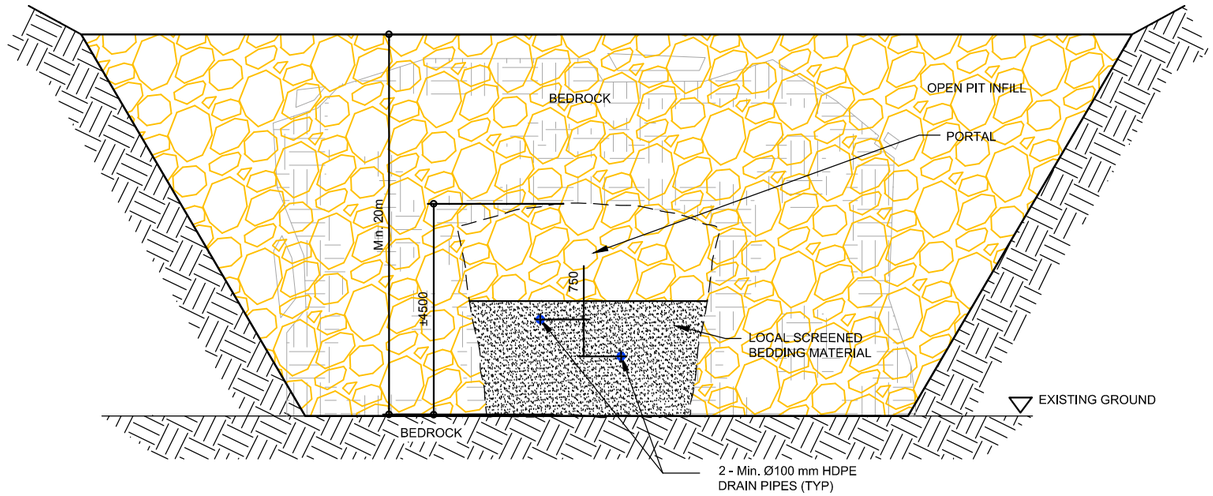
PORTAL CLOSURE
TYPICAL ELEVATION AND SECTION DETAILS

DRAWING NUMBER	SHEET
SDH00_B_C_0001_R0	01 of 02

FILENAME: TYPICALS.JPG.dwg
PLOT DATE: 8/20/2014



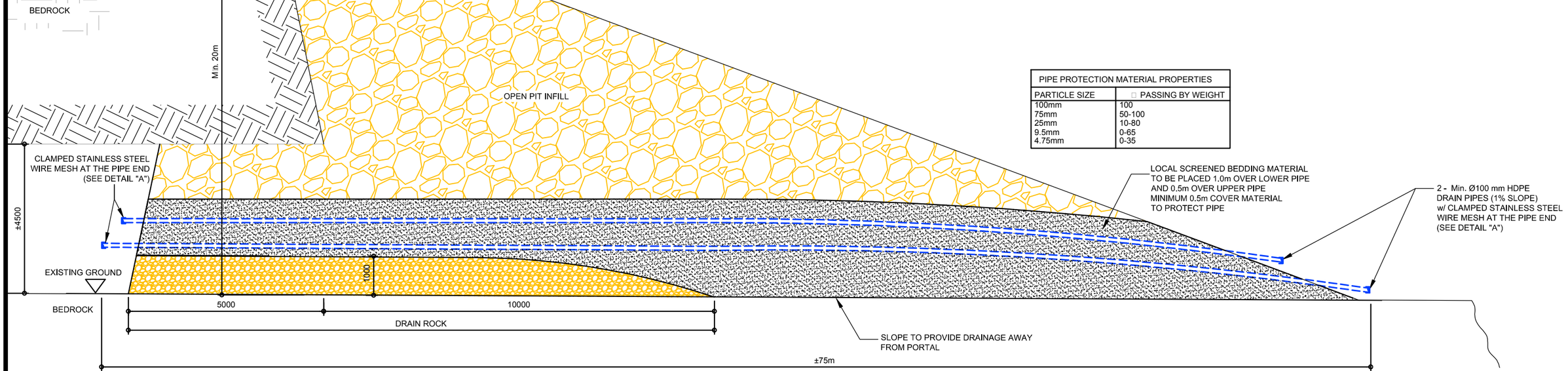
DETAIL "A"



A S-02 1380 PORTAL CLOSURE ELEVATION DETAIL

SCALE NTS

NOTE: WASTE ROCK INFILL TO BE SOURCED IN IMMEDIATE VICINITY



PIPE PROTECTION MATERIAL PROPERTIES	
PARTICLE SIZE	□ PASSING BY WEIGHT
100mm	100
75mm	50-100
25mm	10-80
9.5mm	0-65
4.75mm	0-35

B S-02 1380 PORTAL CLOSURE SECTION DETAIL

SCALE NTS

ISSUED FOR CONSTRUCTION

LEGEND

NO	DESCRIPTION	BY	DATE
R0	ISSUED FOR CONSTRUCTION		05/09/2014
RB	ISSUED FOR REVIEW		09/07/2014
RA	ISSUED FOR TENDER		25/02/2014
TYP	ISSUED FOR REVIEW		11/02/2014

REVISIONS

PROFESSIONAL ENGINEERS SEAL

YUKON ENGINEERING SERVICES

SCALE	PROJECT NUMBER E13007
DESIGNED	DRAWN
CHECKED	APPROVED

AMEC PROJECT NUMBER TE133100

Teck

Sä Dena Hes Mine

DETAILED DECOMMISSIONING AND RECLAMATION PROJECT

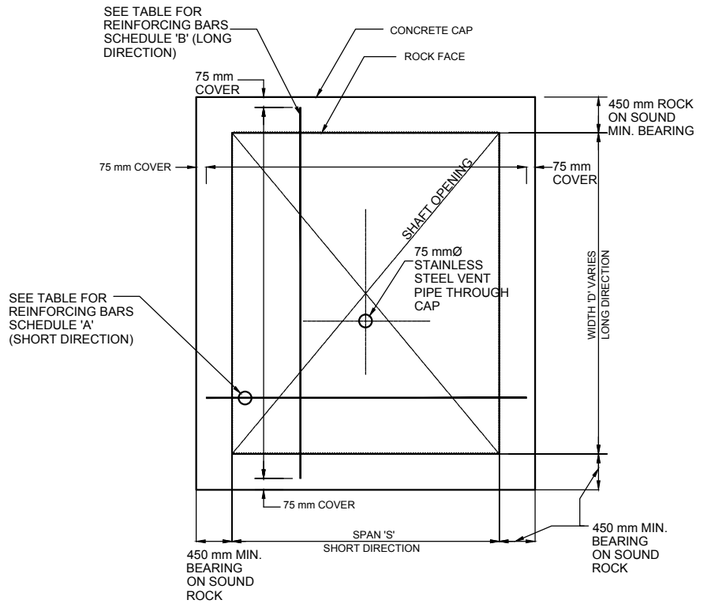
JEWELBOX
1380 PORTAL CLOSURE

DRAWING NUMBER	SHEET
SDH01_B_C_0001_R0	02 of 02

FILENAME: TYPICALS_JPC.dwg

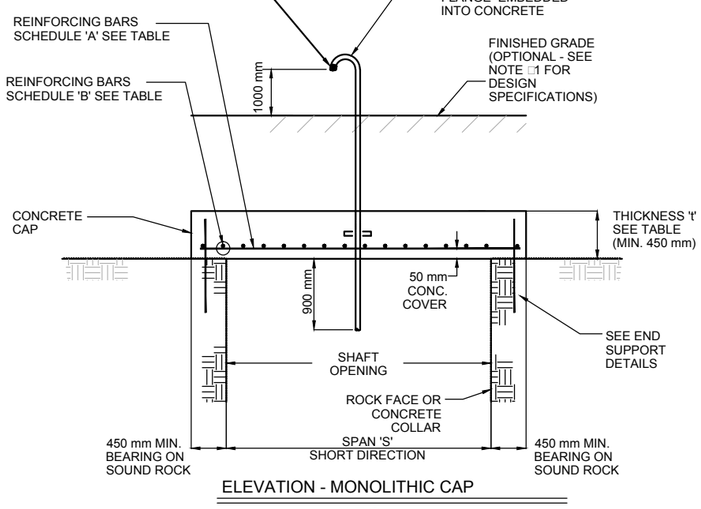
PLOT DATE: 9/20/2014

NOTE: ALL DIMENSIONS IN MILLIMETERS (SI UNITS) UNLESS OTHERWISE SPECIFIED



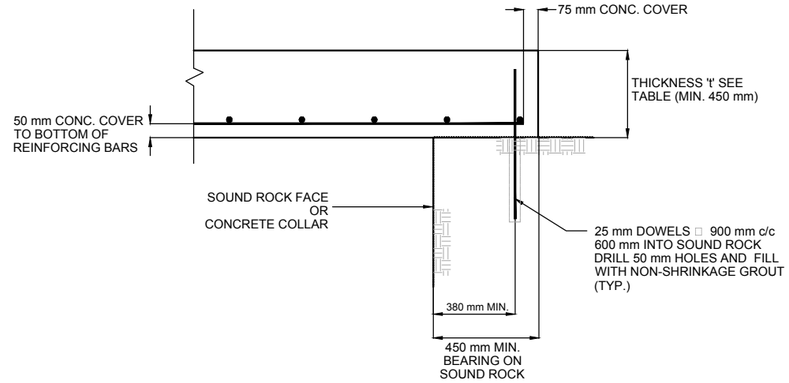
PLAN - MONOLITHIC CAP

N.T.S



ELEVATION - MONOLITHIC CAP

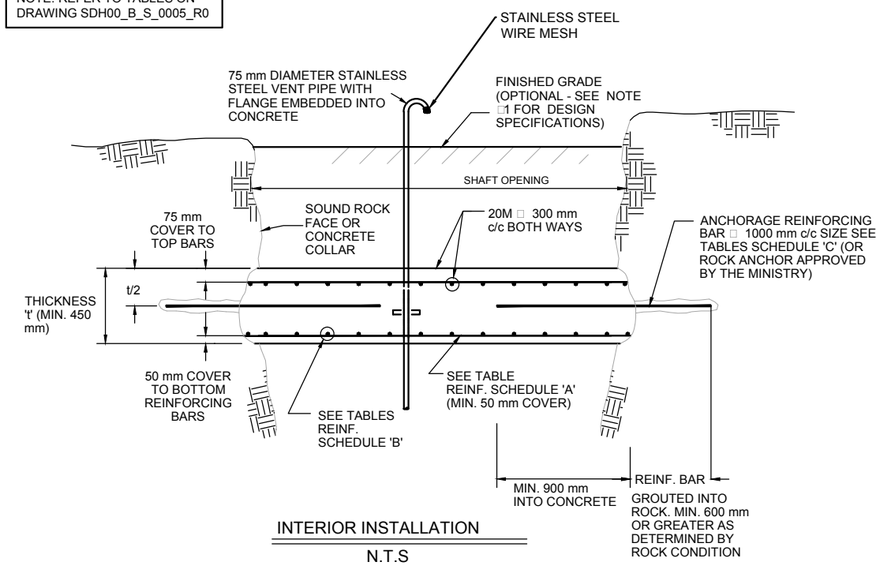
N.T.S



TYPICAL END SUPPORT

N.T.S

NOTE: REFER TO TABLES ON DRAWING SDH00_B_S_0005_R0



INTERIOR INSTALLATION

N.T.S

NOTES

GENERAL

1. THIS DESIGN DRAWING IS INTENDED FOR USE UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL ENGINEER. THE AS-BUILT DRAWING MUST BE SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE YUKON TERRITORY.
2. COMPETENCY OF THE ROCK AT THE SUPPORTS SHALL BE EXAMINED AND APPROVED BY A QUALIFIED PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION.
3. ALL LOOSE ROCK SHALL BE REMOVED FROM THE ROCK ANCHORAGES TO COMPETENT ROCK.
4. PERFORM ALL CONCRETE WORK SO AS TO MEET OR EXCEED THE MINIMUM STANDARDS SET OUT IN THE CAN/CSA-A23.1.
5. FORM WORK FOR CONCRETE, SHORING AND TEMPORARY SUPPORT SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE YUKON TERRITORY.
6. THOROUGHLY COMPACT ALL CONCRETE USING VIBRATORS OR OTHER SUITABLE TOOLS DURING THE PLACING OPERATION. THOROUGHLY WORK THE CONCRETE INTO THE CORNERS OF THE FORMS AND ROCK SURFACES AND AROUND THE REINFORCEMENT.
7. ALL FORMS SHALL REMAIN IN PLACE FOR A MINIMUM OF 7 DAYS. DURING THIS PERIOD MAINTAIN A TEMPERATURE RANGE OF 10 TO 30C DEGREES CELSIUS. PROTECT CONCRETE AS PER CAN/CSA-A23.1.
8. SHAFT CAP SHALL NOT BE LOADED UNTIL THE 28-DAY CONCRETE STRENGTH HAS BEEN VERIFIED BY CYLINDER TESTS IN ACCORDANCE WITH CAN/CSA-A23.2.
9. EPOXY-COATED REINFORCING BARS AND SULPHATE RESISTANT CEMENT SHOULD BE CONSIDERED IN AREAS WHERE CORROSIVE CONDITIONS MAY EXIST.

DESIGN SPECIFICATIONS

1. DESIGN LOADS: LIVE LOAD = 1.4 METERS OF SATURATED SOIL COVER AT 19 kN/cu.m. + THE GREATER EFFECT OF AN 18 kPa UNIFORMLY DISTRIBUTED LOAD, OR 81 kN CONCENTRATED LOAD OVER AN AREA 0.3 m y 0.3 m, ANYWHERE ON THE SLAB.

   DEAD LOAD = WEIGHT OF CAP
2. 28-DAY CONCRETE STRENGTH ('c) = 30 MPa (MINIMUM)
3. REINFORCING BARS YIELD STRENGTH (y) = 400 MPa (MINIMUM)
4. ALL SUPPORTS TO BE FOUNDED ON SOUND ROCK. THE DESIGN IS BASED ON A MINIMUM BEARING VALUE OF GOOD QUALITY SEDIMENTARY ROCK (e.g., SHALE) = 600 kPa.
5. CONCRETE CAP DESIGN AS PER CAN/CSA-A23.3.

CONCRETE AND REINF. STEEL

1. THE CONCRETE MUST MEET THE FOLLOWING SPECIFICATIONS:

MIN. 28-DAY STRENGTH	30 MPa
MAX. SLUMP	75 mm +/- 25 mm
MAX. AGGREGATE SIZE	20 mm
AIR ENTRAINMENT	6 +/- 1
MAX. WATER/CEMENT RATIO	0.50

2. AGGREGATES USED IN THE CONCRETE MIX SHOULD BE NON-ALKALI-SILICA REACTIVE TYPE.
3. CONCRETE COVER TO BE FOLLOWS:

TOP REINFORCING BARS	75 mm
BOTTOM BARS	50 mm

4. ALLOW A MINIMUM OF 150 mm GAP BETWEEN BOTTOM OF CONCRETE CAP AND SOIL.
5. REINFORCING STEEL TO BE DEFORMED BILLET STEEL BARS OF GRADE 400 STEEL CONFORMING TO CSA G30.18-M.
6. REINFORCEMENT SHALL BE SECURELY PLACED BY MEANS OF CONCRETE OR STEEL CHAIRS. TIE REINFORCING BARS TOGETHER USING 18 GAUGE WIRE.
7. CARRY OUT ALL CONCRETE CURING AS PER CAN/CSA-A23.1. CURING COMPOUND SHALL BE CLEAR LIQUID TO CONFORM TO CANADIAN GENERAL STANDARDS BOARD (CGSB) STANDARD 90-GP-1a TYPE 1 OR ASTM C309, AND APPLIED AS DIRECTED BY THE MANUFACTURER.

INSPECTION AND TESTING

1. RECEIVE APPROVAL OF REINFORCING STEEL ARRANGEMENT FROM A QUALIFIED ENGINEER PRIOR TO PLACEMENT OF CONCRETE.
2. TEST CONCRETE FOR AIR AND SLUMP IN THE FIELD. CAST A MINIMUM OF ONE SET OF FOUR CYLINDERS TO BE TESTED FOR COMPRESSIVE STRENGTH. THE FOURTH CYLINDER SHOULD BE CURED UNDER THE SAME FIELD CONDITIONS AS THE SHAFT CAP AND SEAT SUPPORT. DO TESTING WORK IN ACCORDANCE WITH CAN/CSA-A23.2.
3. ALL TEST RESULTS ARE TO BE SUBMITTED TO THE MINISTRY PRIOR TO BACKFILLING AND NO LATER THAN 30 DAYS AFTER TESTING.

CONVERSIONS

1 in. = 25.4 mm
1 ft. = 0.3048 m
1 lb. = 4.448 N
1 psi = 6.895 kPa

ISSUED FOR CONSTRUCTION

LEGEND

R0	ISSUED FOR CONSTRUCTION		05/09/2014
RA	ISSUED FOR TENDER		25/02/2014
TYP	ISSUED FOR REVIEW		04/02/2014
NO	DESCRIPTION	BY	DATE

REVISIONS

PROFESSIONAL ENGINEERS SEAL
PROFESSIONAL ENGINEER YUKON NOEL C. CARPINA TERRITORY SEPT. 5, 2014

YUKON ENGINEERING SERVICES

SCALE	PROJECT NUMBER E13007
DESIGNED	DRAWN
CHECKED	APPROVED

AMEC PROJECT NUMBER TE133100

Teck

Sä Dena Hes Mine

DETAILED DECOMMISSIONING AND RECLAMATION PROJECT

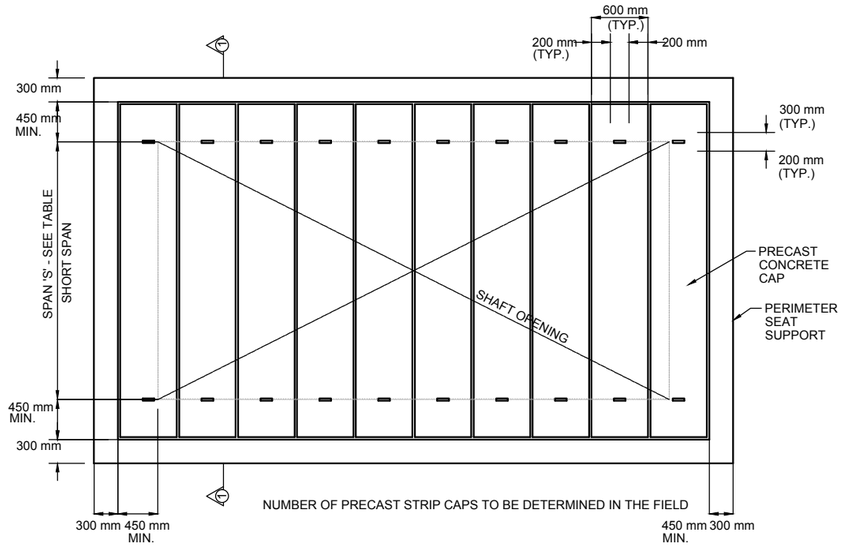
MONOLITHIC CONCRETE CAP
TYPICAL PLAN AND SECTION

DRAWING NUMBER SDH00_B_S_0001_R0

SHEET 01 of 03

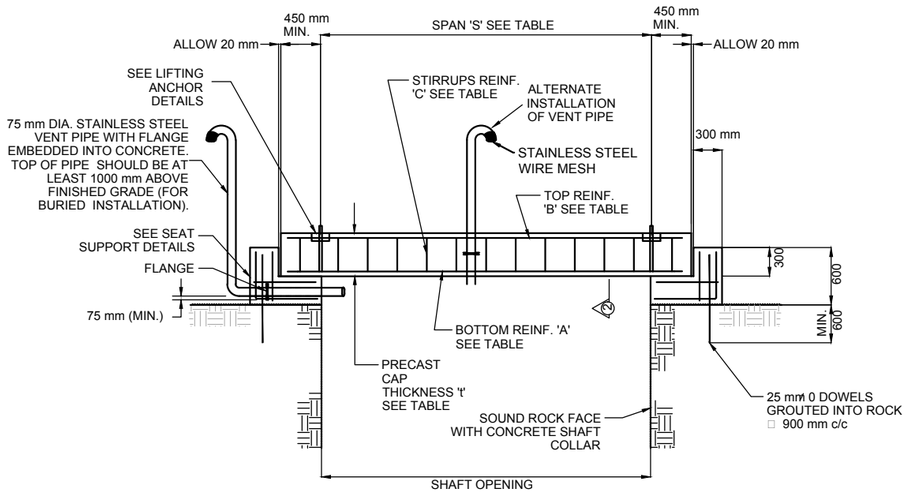
FILENAME: TYPICAL S_IFC.dwg
PLOT DATE: 8/20/2014

NOTE: ALL DIMENSIONS IN MILLIMETERS (SI UNITS) UNLESS OTHERWISE SPECIFIED



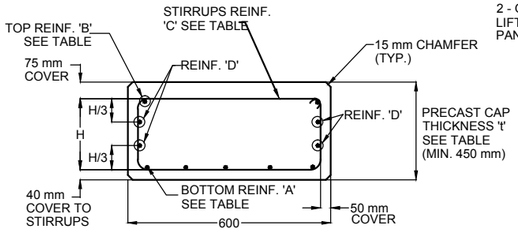
PLAN - PRECAST STRIP CAP

N.T.S.



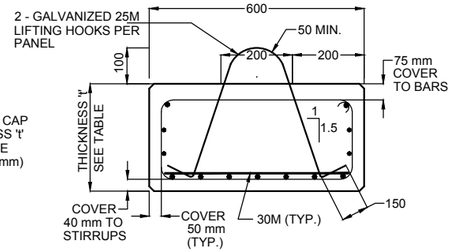
SECTION 1

N.T.S.



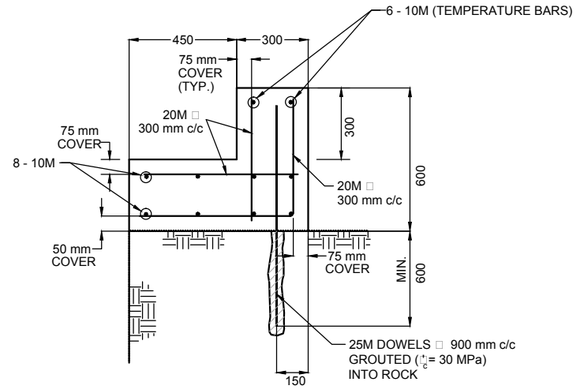
SECTION 2

N.T.S.



LIFTING ANCHOR DETAILS

N.T.S.



SEAT SUPPORT DETAILS

N.T.S.

REINFORCEMENT SCHEDULE

SPAN 'S' (mm)	THICKNESS 't' (mm)	REINF. 'A' BOTTOM BARS	REINF. 'B' TOP BARS	STIRRUP REINF. 'C'	SHEAR REINF. 'D'
1800	450	4 - 20M	2 - 10M	10M 75 mm c/c	4 - 10M
2400	450	4 - 20M	2 - 10M	10M 75 mm c/c	4 - 10M
3000	450	4 - 20M	2 - 10M	10M 75 mm c/c	4 - 10M
3600	450	4 - 25M	2 - 10M	10M 75 mm c/c	4 - 10M
4200	450	4 - 25M	2 - 10M	10M 75 mm c/c	4 - 10M
4800	450	4 - 30M	2 - 10M	10M 75 mm c/c	4 - 10M
5400	450	5 - 30M	2 - 10M	10M 75 mm c/c	4 - 10M
6000	450	5 - 30M	2 - 10M	10M 75 mm c/c	4 - 10M
6600	500	5 - 30M	2 - 10M	10M 75 mm c/c	4 - 10M
7200	510	5 - 30M	2 - 20M	10M 75 mm c/c	4 - 10M
7800	520	4 - 35M	2 - 25M	10M 75 mm c/c	4 - 10M
8400	530	5 - 35M	2 - 25M	10M 75 mm c/c	4 - 10M
9000	560	5 - 35M	2 - 25M	10M 75 mm c/c	4 - 10M

NOTE: THE DEPARTMENT MAY ACCEPT CAP THICKNESS LESS THAN 450 mm DESIGNED AND CERTIFIED BY A PROFESSIONAL ENGINEER REGISTERED IN THE YUKON TERRITORY.

NOTES

GENERAL

1. THIS DESIGN DRAWING IS INTENDED FOR USE UNDER THE SUPERVISION OF A □UALIFIED PROFESSIONAL ENGINEER. THE AS-BUILT DRAWING MUST BE SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE YUKON TERRITORY.
2. COMPETENCY OF THE ROCK AT THE SUPPORTS SHALL BE EXAMINED AND APPROVED BY A □UALIFIED PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION.
3. ALL LOOSE ROCK SHALL BE REMOVED FROM THE ROCK ANCHORAGES TO COMPETENT ROCK.
4. PERFORM ALL CONCRETE WORK SO AS TO MEET OR EXCEED THE MINIMUM STANDARDS SET OUT IN THE CAN/CSA-A23.1.
5. FORM WORK FOR CONCRETE, SHORING AND TEMPORARY SUPPORT SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE YUKON TERRITORY.
6. THOROUGHLY COMPACT ALL CONCRETE USING VIBRATORS OR OTHER SUITABLE TOOLS DURING THE PLACING OPERATION. THOROUGHLY WORK THE CONCRETE INTO THE CORNERS OF THE FORMS AND ROCK SURFACES AND AROUND THE REINFORCEMENT.
7. ALL FORMS SHALL REMAIN IN PLACE FOR A MINIMUM OF 7 DAYS. DURING THIS PERIOD MAINTAIN A TEMPERATURE RANGE OF 10 TO 30C DEGREES CELSIUS. PROTECT CONCRETE AS PER CAN/CSA-A23.1.
8. SHAFT CAP SHALL NOT BE LOADED UNTIL THE 28-DAY CONCRETE STRENGTH HAS BEEN VERIFIED BY CYLINDER TESTS IN ACCORDANCE WITH CAN/CSA-A23.2.
9. EPOXY-COATED REINFORCING BARS AND SULPHATE RESISTANT CEMENT SHOULD BE CONSIDERED IN AREAS WHERE CORROSIVE CONDITIONS MAY EXIST.

DESIGN SPECIFICATIONS

1. DESIGN LOADS: LIVE LOAD = 1.4 METERS OF SATURATED SOIL COVER AT 19 kN/cu.m. + THE GREATER EFFECT OF AN 18 kPa UNIFORMLY DISTRIBUTED LOAD, OR 81 kN CONCENTRATED LOAD OVER AN AREA 0.3 m □y 0.3 m, ANYWHERE ON THE SLAB.

   DEAD LOAD = WEIGHT OF CAP
2. 28-DAY CONCRETE STRENGTH ('c) = 30 MPa (MINIMUM)
3. REINFORCING BARS YIELD STRENGTH ('y) = 400 MPa (MINIMUM)
4. ALL SUPPORTS TO BE FOUNDED ON SOUND ROCK. THE DESIGN IS BASED ON A MINIMUM BEARING VALUE OF GOOD □UALITY SEDIMENTARY ROCK (e.g., SHALE) = 600 kPa.
5. CONCRETE CAP DESIGN AS PER CAN/CSA-A23.3.

CONCRETE AND REINF. STEEL

1. THE CONCRETE MUST MEET THE FOLLOWING SPECIFICATIONS:

MIN. 28-DAY STRENGTH	30 MPa
MAX. SLUMP	75 mm +/- 25 mm
MAX. AGGREGATE SIZE	20 mm
AIR ENTRAINMENT	6□ +/- 1□
MAX. WATER/CEMENT RATIO	0.50

2. AGGREGATES USED IN THE CONCRETE MIX SHOULD BE NON-ALKALI-SILICA REACTIVE TYPE.
3. CONCRETE COVER TO BE FOLLOWS:

TOP REINFORCING BARS	75 mm
BOTTOM BARS	50 mm

4. ALLOW A MINIMUM OF 150 mm GAP BETWEEN BOTTOM OF CONCRETE CAP AND SOIL.
5. REINFORCING STEEL TO BE DEFORMED BILLET STEEL BARS OF GRADE 400 STEEL CONFORMING TO CSA G30.18-M.
6. REINFORCEMENT SHALL BE SECURELY PLACED BY MEANS OF CONCRETE OR STEEL CHAIRS. TIE REINFORCING BARS TOGETHER USING 18 GAUGE WIRE.
7. CARRY OUT ALL CONCRETE CURING AS PER CAN/CSA-A23.1. CURING COMPOUND SHALL BE CLEAR LI□UID TO CONFORM TO CANADIAN GENERAL STANDARDS BOARD (CGSB) STANDARD 90-GP-1a TYPE 1 OR ASTM C309, AND APPLIED AS DIRECTED BY THE MANUFACTURER.

INSPECTION AND TESTING

1. RECEIVE APPROVAL OF REINFORCING STEEL ARRANGEMENT FROM A □UALIFIED ENGINEER PRIOR TO PLACEMENT OF CONCRETE.
2. TEST CONCRETE FOR AIR AND SLUMP IN THE FIELD. CAST A MINIMUM OF ONE SET OF FOUR CYLINDERS TO BE TESTED FOR COMPRESSIVE STRENGTH. THE FOURTH CYLINDER SHOULD BE CURED UNDER THE SAME FIELD CONDITIONS AS THE SHAFT CAP AND SEAT SUPPORT. DO TESTING WORK IN ACCORDANCE WITH CAN/CSA-A23.2.
3. ALL TEST RESULTS ARE TO BE SUBMITTED TO THE MINISTRY PRIOR TO BACKFILLING AND NO LATER THAN 30 DAYS AFTER TESTING.

CONVERSIONS

1 □n. = 25.4 mm
1 □t. = 0.3048 m
1 l□. = 4.448 N
1 □s□= 6.895 kPa

ISSUED FOR CONSTRUCTION

LEGEND

NO	DESCRIPTION	BY	DATE
R0	ISSUED FOR CONSTRUCTION		05/09/2014
RA	ISSUED FOR TENDER		25/02/2014
TYP	ISSUED FOR REVIEW		04/02/2014

REVISIONS

PROFESSIONAL ENGINEERS SEAL

YUKON ENGINEERING SERVICES

SCALE	PROJECT NUMBER E13007
DESIGNED	DRAWN
CHECKED	APPROVED

AMEC PROJECT NUMBER TE133100

Teck

Sä Dena Hes Mine

DETAILED DECOMMISSIONING AND RECLAMATION PROJECT

TYPICAL PRECAST CONCRETE STRIP CAP

DRAWING NUMBER	SHEET
SDH00_B_S_0002_R0	02 of 03

FILENAME: TYPICALS_IFC.dwg

PLOT DATE: 8/26/2014

TABLE – 1: REINFORCEMENT SCHEDULE FOR SPAN 1800

SHORT SPAN (mm)	LONG SPAN (mm)	SLAB THICKNESS 't' (mm)	REINF. 'A' SHORT DIRECTION c/c	REINF. 'B' LONG DIRECTION c/c	ANCHORAGE 'C' SHORT DIRECTION	ANCHORAGE 'C' LONG DIRECTION
1800	1800	450	20M @ 250 mm	20M @ 300 mm	25M	25M
1800	2400	450	20M @ 250 mm	20M @ 300 mm	25M	25M
1800	3000	450	20M @ 250 mm	20M @ 300 mm	25M	25M
1800	3600	450	20M @ 250 mm	20M @ 300 mm	25M	25M
1800	4200	450	20M @ 250 mm	20M @ 300 mm	30M	25M
1800	4800	450	20M @ 250 mm	20M @ 300 mm	30M	25M
1800	5400	450	20M @ 250 mm	20M @ 300 mm	30M	25M
1800	6000	450	20M @ 250 mm	20M @ 300 mm	30M	25M
1800	6600	450	20M @ 250 mm	20M @ 300 mm	30M	25M
1800	7200	450	20M @ 250 mm	20M @ 300 mm	30M	25M
1800	7800	450	20M @ 250 mm	20M @ 300 mm	35M	25M
1800	8400	450	20M @ 250 mm	20M @ 300 mm	35M	25M
1800	9000	450	20M @ 250 mm	20M @ 300 mm	35M	25M

TABLE – 2: REINFORCEMENT SCHEDULE FOR SPAN 2400

SHORT SPAN (mm)	LONG SPAN (mm)	SLAB THICKNESS 't' (mm)	REINF. 'A' SHORT DIRECTION c/c	REINF. 'B' LONG DIRECTION c/c	ANCHORAGE 'C' SHORT DIRECTION	ANCHORAGE 'C' LONG DIRECTION
2400	2400	450	20M @ 250 mm	20M @ 300 mm	25M	25M
2400	3000	450	20M @ 250 mm	20M @ 300 mm	25M	25M
2400	3600	450	20M @ 250 mm	20M @ 300 mm	30M	25M
2400	4200	450	20M @ 250 mm	20M @ 300 mm	30M	25M
2400	4800	450	20M @ 250 mm	20M @ 300 mm	30M	25M
2400	5400	450	20M @ 250 mm	20M @ 300 mm	30M	25M
2400	6000	450	20M @ 250 mm	20M @ 300 mm	30M	25M
2400	6600	450	20M @ 250 mm	20M @ 300 mm	30M	25M
2400	7200	450	20M @ 250 mm	20M @ 300 mm	30M	25M
2400	7800	450	20M @ 250 mm	20M @ 300 mm	30M	25M
2400	8400	450	20M @ 250 mm	20M @ 300 mm	30M	25M
2400	9000	450	20M @ 250 mm	20M @ 300 mm	30M	25M

TABLE – 3: REINFORCEMENT SCHEDULE FOR SPAN 3000

SHORT SPAN (mm)	LONG SPAN (mm)	SLAB THICKNESS 't' (mm)	REINF. 'A' SHORT DIRECTION c/c	REINF. 'B' LONG DIRECTION c/c	ANCHORAGE 'C' SHORT DIRECTION	ANCHORAGE 'C' LONG DIRECTION
3000	3000	450	20M @ 250 mm	20M @ 300 mm	25M	25M
3000	3600	450	20M @ 250 mm	20M @ 300 mm	30M	25M
3000	4200	450	20M @ 250 mm	20M @ 300 mm	30M	25M
3000	4800	450	20M @ 250 mm	20M @ 300 mm	30M	25M
3000	5400	450	20M @ 200 mm	20M @ 300 mm	30M	25M
3000	6000	450	20M @ 200 mm	20M @ 300 mm	30M	25M
3000	6600	450	20M @ 200 mm	20M @ 300 mm	30M	25M
3000	7200	450	20M @ 200 mm	20M @ 300 mm	30M	25M
3000	7800	450	20M @ 200 mm	20M @ 300 mm	30M	25M
3000	8400	450	20M @ 200 mm	20M @ 300 mm	30M	25M
3000	9000	450	20M @ 200 mm	20M @ 300 mm	30M	25M

TABLE – 4: REINFORCEMENT SCHEDULE FOR SPAN 3600

SHORT SPAN (mm)	LONG SPAN (mm)	SLAB THICKNESS 't' (mm)	REINF. 'A' SHORT DIRECTION c/c	REINF. 'B' LONG DIRECTION c/c	ANCHORAGE 'C' SHORT DIRECTION	ANCHORAGE 'C' LONG DIRECTION
3600	3600	450	20M @ 250 mm	20M @ 250 mm	30M	30M
3600	4200	450	20M @ 200 mm	20M @ 250 mm	30M	25M
3600	4800	450	20M @ 200 mm	20M @ 250 mm	30M	25M
3600	5400	450	20M @ 200 mm	20M @ 250 mm	30M	25M
3600	6000	450	20M @ 200 mm	20M @ 250 mm	30M	25M
3600	6600	450	20M @ 200 mm	20M @ 250 mm	30M	25M
3600	7200	450	20M @ 200 mm	20M @ 250 mm	30M	25M
3600	7800	450	20M @ 150 mm	20M @ 250 mm	30M	25M
3600	8400	450	20M @ 150 mm	20M @ 250 mm	30M	25M
3600	9000	450	20M @ 150 mm	20M @ 250 mm	30M	25M

TABLE – 5: REINFORCEMENT SCHEDULE FOR SPAN 4200

SHORT SPAN (mm)	LONG SPAN (mm)	SLAB THICKNESS 't' (mm)	REINF. 'A' SHORT DIRECTION c/c	REINF. 'B' LONG DIRECTION c/c	ANCHORAGE 'C' SHORT DIRECTION	ANCHORAGE 'C' LONG DIRECTION
4200	4200	450	20M @ 200 mm	20M @ 200 mm	30M	30M
4200	4800	450	20M @ 200 mm	20M @ 200 mm	30M	25M
4200	5400	450	20M @ 200 mm	20M @ 200 mm	30M	25M
4200	6000	450	20M @ 200 mm	20M @ 200 mm	30M	25M
4200	6600	450	20M @ 200 mm	20M @ 200 mm	30M	25M
4200	7200	450	20M @ 150 mm	20M @ 200 mm	30M	25M
4200	7800	450	20M @ 150 mm	20M @ 200 mm	30M	25M
4200	8400	500	20M @ 150 mm	20M @ 200 mm	30M	25M
4200	9000	500	20M @ 150 mm	20M @ 200 mm	35M	25M

TABLE – 6: REINFORCEMENT SCHEDULE FOR SPAN 4800

SHORT SPAN (mm)	LONG SPAN (mm)	SLAB THICKNESS 't' (mm)	REINF. 'A' SHORT DIRECTION c/c	REINF. 'B' LONG DIRECTION c/c	ANCHORAGE 'C' SHORT DIRECTION	ANCHORAGE 'C' LONG DIRECTION
4800	4800	450	20M @ 200 mm	20M @ 200 mm	30M	30M
4800	5400	450	20M @ 200 mm	20M @ 200 mm	30M	30M
4800	6000	450	20M @ 200 mm	20M @ 200 mm	30M	25M
4800	6600	450	20M @ 200 mm	20M @ 200 mm	30M	25M
4800	7200	450	20M @ 150 mm	20M @ 200 mm	30M	25M
4800	7800	450	20M @ 150 mm	20M @ 250 mm	35M	25M
4800	8400	500	20M @ 150 mm	20M @ 250 mm	35M	25M
4800	9000	500	20M @ 150 mm	20M @ 250 mm	35M	25M

TABLE – 7: REINFORCEMENT SCHEDULE FOR SPAN 5400

SHORT SPAN (mm)	LONG SPAN (mm)	SLAB THICKNESS 't' (mm)	REINF. 'A' SHORT DIRECTION c/c	REINF. 'B' LONG DIRECTION c/c	ANCHORAGE 'C' SHORT DIRECTION	ANCHORAGE 'C' LONG DIRECTION
5400	5400	450	20M @ 200 mm	20M @ 200 mm	30M	30M
5400	6000	450	20M @ 200 mm	20M @ 200 mm	30M	30M
5400	6600	500	20M @ 200 mm	20M @ 200 mm	30M	25M
5400	7200	500	20M @ 150 mm	20M @ 200 mm	35M	25M
5400	7800	500	20M @ 150 mm	20M @ 200 mm	35M	25M
5400	8400	500	20M @ 150 mm	20M @ 200 mm	35M	25M
5400	9000	500	20M @ 150 mm	20M @ 200 mm	35M	25M

TABLE – 8: REINFORCEMENT SCHEDULE FOR SPAN 6000

SHORT SPAN (mm)	LONG SPAN (mm)	SLAB THICKNESS 't' (mm)	REINF. 'A' SHORT DIRECTION c/c	REINF. 'B' LONG DIRECTION c/c	ANCHORAGE 'C' SHORT DIRECTION	ANCHORAGE 'C' LONG DIRECTION
6000	6000	500	20M @ 200 mm	20M @ 200 mm	30M	30M
6000	6600	500	20M @ 200 mm	20M @ 200 mm	30M	30M
6000	7200	500	20M @ 150 mm	20M @ 200 mm	35M	30M
6000	7800	500	20M @ 150 mm	20M @ 200 mm	35M	25M
6000	8400	500	20M @ 150 mm	20M @ 200 mm	35M	25M
6000	9000	550	20M @ 150 mm	20M @ 200 mm	35M	25M

TABLE – 9: REINFORCEMENT SCHEDULE FOR SPAN 6600

SHORT SPAN (mm)	LONG SPAN (mm)	SLAB THICKNESS 't' (mm)	REINF. 'A' SHORT DIRECTION c/c	REINF. 'B' LONG DIRECTION c/c	ANCHORAGE 'C' SHORT DIRECTION	ANCHORAGE 'C' LONG DIRECTION
6600	6600	500	20M @ 200 mm	20M @ 200 mm	30M	30M
6600	7200	500	20M @ 150 mm	20M @ 200 mm	30M	30M
6600	7800	500	20M @ 150 mm	20M @ 200 mm	35M	30M
6600	8400	550	20M @ 150 mm	20M @ 200 mm	35M	30M
6600	9000	550	20M @ 150 mm	20M @ 200 mm	35M	25M

TABLE – 10: REINFORCEMENT SCHEDULE FOR SPAN 7200

SHORT SPAN (mm)	LONG SPAN (mm)	SLAB THICKNESS 't' (mm)	REINF. 'A' SHORT DIRECTION c/c	REINF. 'B' LONG DIRECTION c/c	ANCHORAGE 'C' SHORT DIRECTION	ANCHORAGE 'C' LONG DIRECTION
7200	7200	500	20M @ 150 mm	20M @ 150 mm	30M	30M
7200	7800	550	20M @ 150 mm	20M @ 150 mm	35M	30M
7200	8400	550	20M @ 150 mm	20M @ 150 mm	35M	30M
7200	9000	600	20M @ 150 mm	20M @ 150 mm	35M	30M

NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWING SDH_B_C_0002_R0.
2. SPAN LENGTHS ARE IN mm.
3. THE DEPARTMENT MAY ACCEPT CAP THICKNESS LESS THAN 450 mm DESIGNED AND CERTIFIED BY A PROFESSIONAL ENGINEER REGISTERED IN THE YUKON TERRITORY.

CONVERSIONS

1 in. = 25.4 mm
1 ft. = 0.3048 m
1 lb. = 4.448 N
1 psi. = 6.895 kPa

ISSUED FOR CONSTRUCTION

LEGEND

R0	ISSUED FOR CONSTRUCTION		05/09/2014
RA	ISSUED FOR TENDER		25/02/2014
TYP	ISSUED FOR REVIEW		04/02/2014
NO	DESCRIPTION	BY	DATE

REVISIONS

PROFESSIONAL ENGINEERS SEAL

PROFESSIONAL ENGINEER YUKON NOEL C. CARPINA TERRITORY SEPT. 5, 2014

YUKON ENGINEERING SERVICES

SCALE	PROJECT NUMBER E13007
DESIGNED	DRAWN
CHECKED	APPROVED

AMEC PROJECT NUMBER TE133100

Teck

Sä Dena Hes Mine

DETAILED DECOMMISSIONING AND RECLAMATION PROJECT

TYPICAL MONOLITHIC CONCRETE CAP REINFORCEMENT SCHEDULE

DRAWING NUMBER SDH00_B_S_0005_R0

SHEET 03 of 03

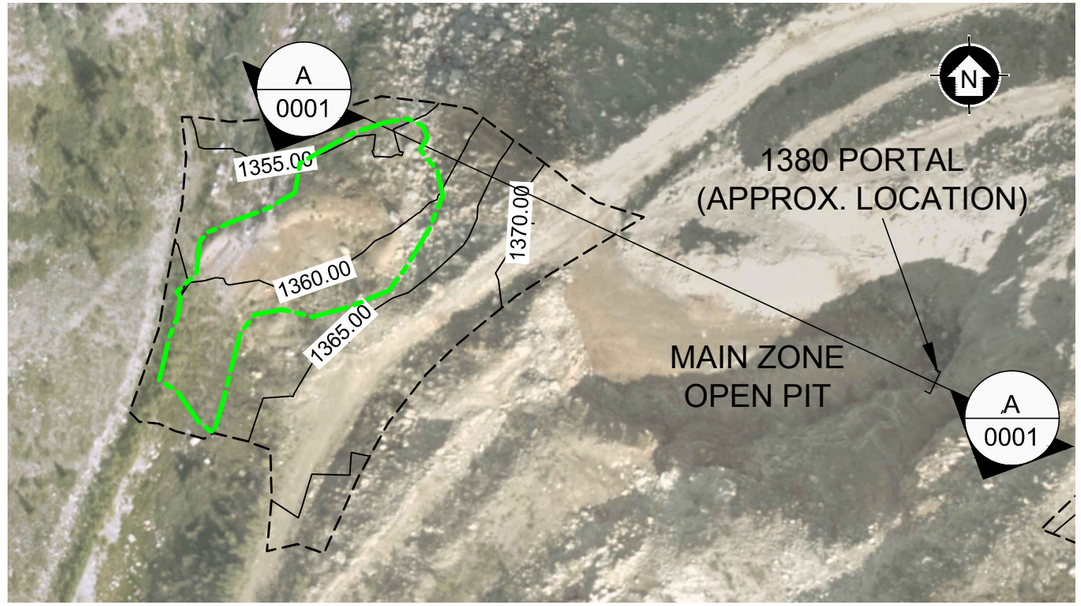
FILENAME: TYPICAL S_IFC.dwg

PLOT DATE: 8/20/2014

APPENDIX F
Mountain Works As-built Drawings

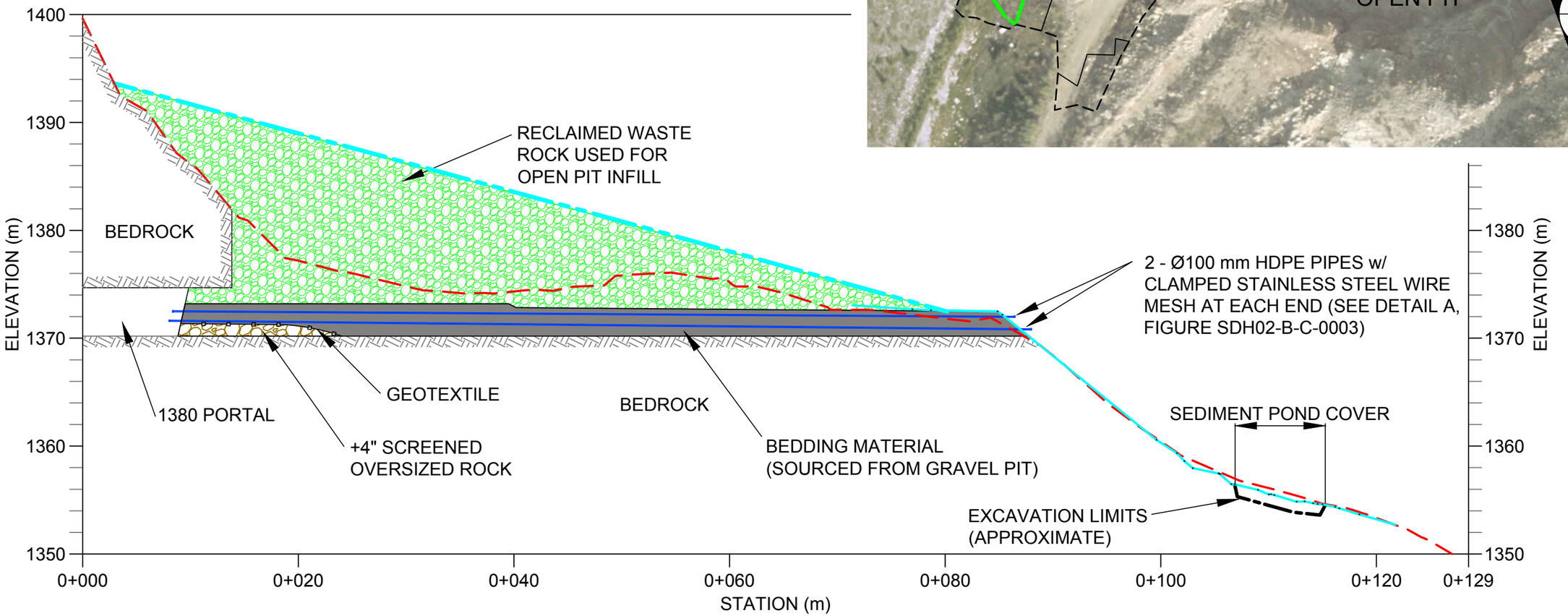
Drawing SDH01-B-C-0001.....2014 As-built Jewelbox 1380 Portal Plan View and Section
Drawing SDH01-B-C-0002.....2014 As-built Jewelbox Plan View and Section Locations
Drawing SDH01-B-C-0003.....2014 As-built Jewelbox Sections
Drawing SDH01-B-C-0004.....2014 As-built Jewelbox Section F-F
Drawing SDH01-B-C-0005.....2014 As-built Jewelbox 1250 Portal and Waste Rock Dump Plan View and Section
Drawing SDH01-B-C-0006.....2014 As-built Jewelbox Summit and 1408 Ventilation Raise Plan Views and Sections
Drawing SDH01-B-C-0007.....2014 As-built Jewelbox 1380 Gully Sediment Pond Cap Plan View and Section
Drawing SDH01-B-C-0008.....2014 As-built Jewelbox 1408 Portal Sediment Pond Cap Plan View and Section
Drawing SDH02-B-C-0001.....2014 As-built Burnick 1200 and 1300 Plan View and Section Locations
Drawing SDH02-B-C-0002.....2014 As-built Burnick 1200 Portal and Ventilation Portal Sections
Drawing SDH02-B-C-0003.....2014 As-built Burnick 1300 Portal Section and Pipe Detail
Drawing SDH02-B-C-0004.....2014 As-built Burnick 1200 Capped Hydrocarbon Contaminated Area Section

PLAN VIEW
JEWELBOX 1380 PORTAL
SCALE=1:1000



NOTES:

1. LOCATION AND ELEVATIONS OF PORTAL AND PLUG MATERIAL ARE APPROXIMATE AS SURVEY WAS NOT CONDUCTED PRIOR TO INFILL DUE TO UNSAFE CONDITIONS FOR PERSONNEL.
2. 2014 AS BUILT OPEN PIT INFILL CONDITIONS ARE ESTIMATED. FINAL SURVEY TO BE CONDUCTED IN 2015.



SECTION AA JEWELBOX 1380 PORTAL
SCALE=AS SHOWN

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

LEGEND:

- 1485.00 — TOPOGRAPHIC CONTOUR (5m INTERVALS)
- 2014 AS BUILT SURVEY BOUNDARY
- A 0002 — A 0002 — SECTION LOCATION
- 2014 AS BUILT SURFACE
- ESTIMATED 2014 AS BUILT SURFACE
- 2012 LIDAR SURFACE
- SEDIMENT POND COVER

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 1:1000 (0m 10 20 30 40)

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH01-B-C-0001-R1

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT JEWELBOX 1380 PORTAL PLAN VIEW AND SECTION

DWN BY: D.M.

CHK'D BY: LW/CJ

DATE: 2014/12/19

REV. NO: R1

FIGURE NO: SDH01-B-C-0001

P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH01_B_C_0001_R1.dwg - 3/29/2015 12:43 PM - McCoy, Dale

LEGEND:

- 1485.00 — TOPOGRAPHIC CONTOUR (5m INTERVALS)
- 2014 AS BUILT SURVEY BOUNDARY
- A 0002 — A 0002 — SECTION LOCATION (SEE DWG SDH01-B-C-0003, 0004)
- CAPPED HYDROCARBON CONTAMINATED AREA (APPROX. EXTENTS)

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 1:2000 (0m 20 40 60 80)

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

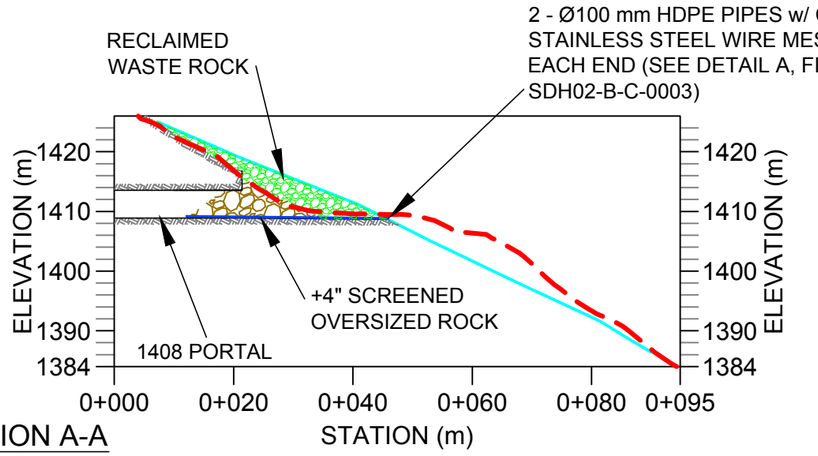
FILE NO: SDH01-B-C-0002-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

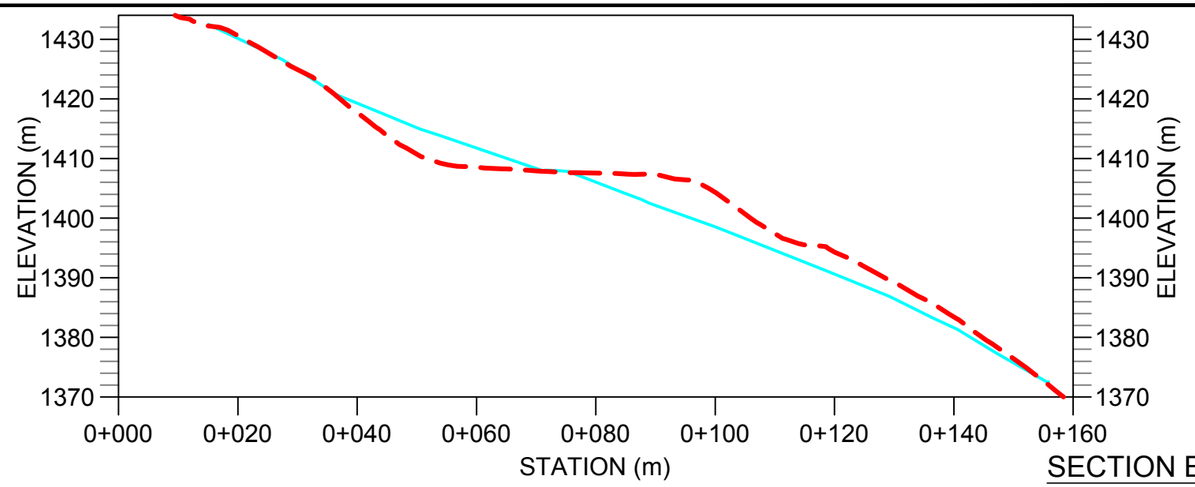
TITLE: 2014 AS BUILT JEWELBOX PLAN VIEW AND SECTION LOCATIONS

DWN BY:	D.M.
CHK'D BY:	LW/CJ
DATE:	2014/12/19
REV. NO:	R0
FIGURE NO:	SDH01-B-C-0002

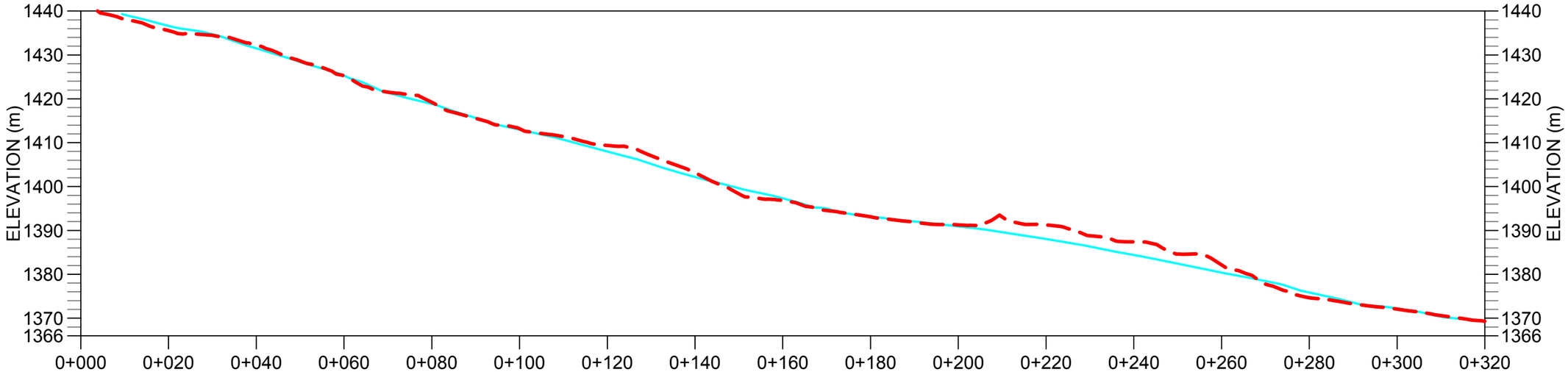
P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH01_B_MASTER_R0.dwg - 3/25/2015 12:29 PM - McCoy, Dale



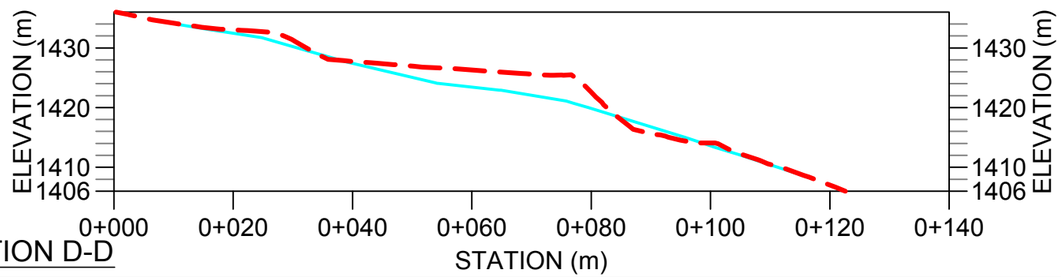
SECTION A-A



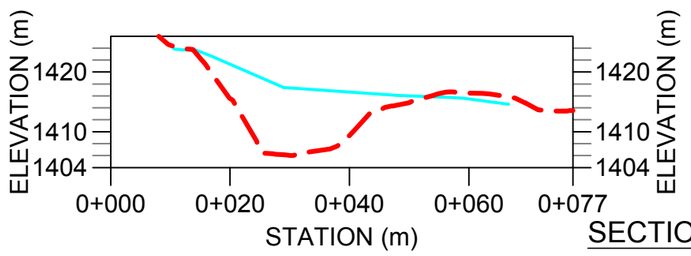
SECTION B-B



SECTION CC



SECTION D-D



SECTION E-E

LEGEND:

2014 AS BUILT SURFACE

2012 LIDAR SURFACE

NOTES:

1. SEE DWG SDH01-B-C-0002 FOR SECTION LOCATIONS.
2. LOCATION AND ELEVATIONS OF PORTAL AND PLUG MATERIAL ARE APPROXIMATE AS SURVEY WAS NOT CONDUCTED UNTIL FINAL 2014 AS BUILT SURFACE.

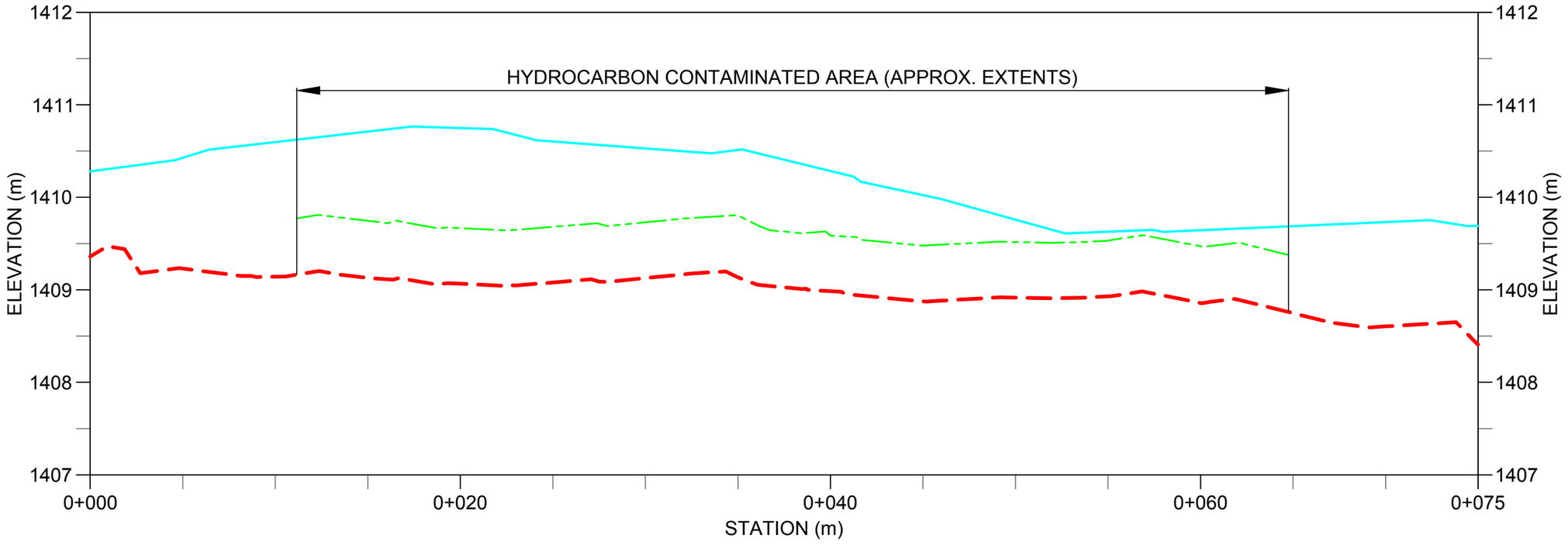
SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: AS SHOWN	
DATUM & PROJECTION:	NAD83 CSRS, UTM ZONE 9N
PROJECT NO:	TE133100
FILE NO:	SDH01-B-C-0003-R0
PROJECT:	DETAILED DECOMMISSIONING AND RECLAMATION PLAN
TITLE:	2014 AS BUILT JEWELBOX SECTIONS
DWN BY:	D.M.
CHK'D BY:	LW/CJ
DATE:	2014/12/19
REV. NO:	R0
FIGURE NO:	SDH01-B-C-0003

P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH01_B_MASTER_R0.dwg - 3/27/2015 4:41 PM - McCoy, Dale



SECTION F-F CAPPED HYDROCARBON CONTAMINATED AREA

SCALE=AS SHOWN

LEGEND:

- 2014 AS BUILT SURFACE
- 2012 LIDAR SURFACE
- CAP MATERIAL

NOTES:

1. SEE DWG SDH01-B-C-0002 FOR SECTION LOCATIONS.
2. LOCATION AND ELEVATIONS OF PORTAL AND PLUG MATERIAL ARE APPROXIMATE AS SURVEY WAS NOT CONDUCTED UNTIL FINAL 2014 AS BUILT SURFACE.

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: AS SHOWN

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH01-B-C-0004-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT JEWELBOX SECTION F-F

DWN BY: D.M.

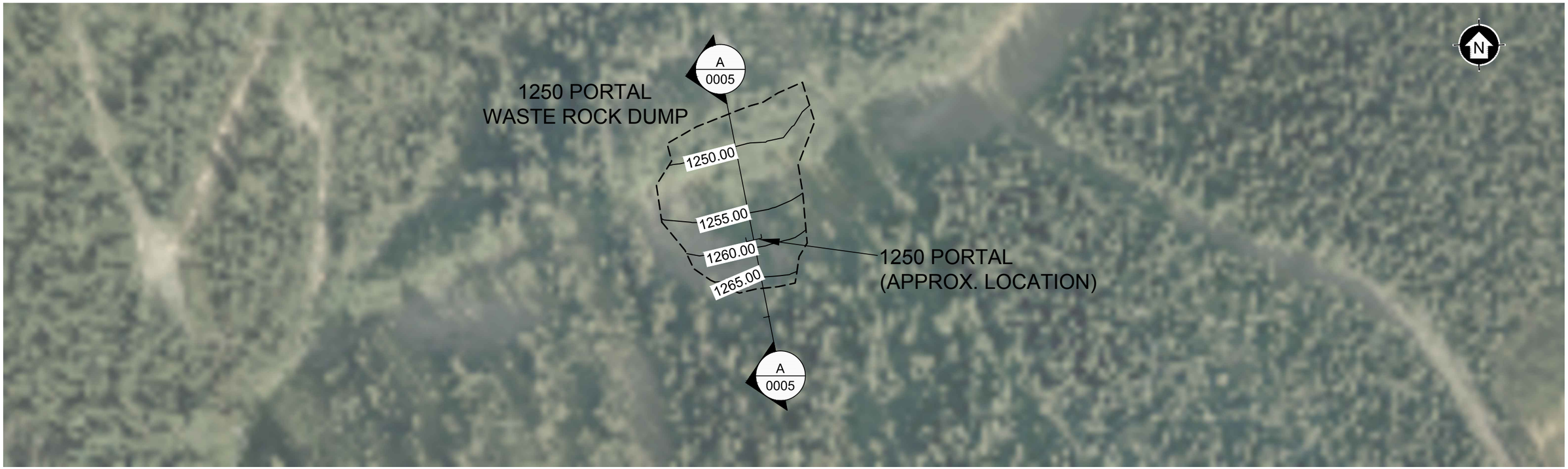
CHK'D BY: LW/CJ

DATE: 2014/12/19

REV. NO: R0

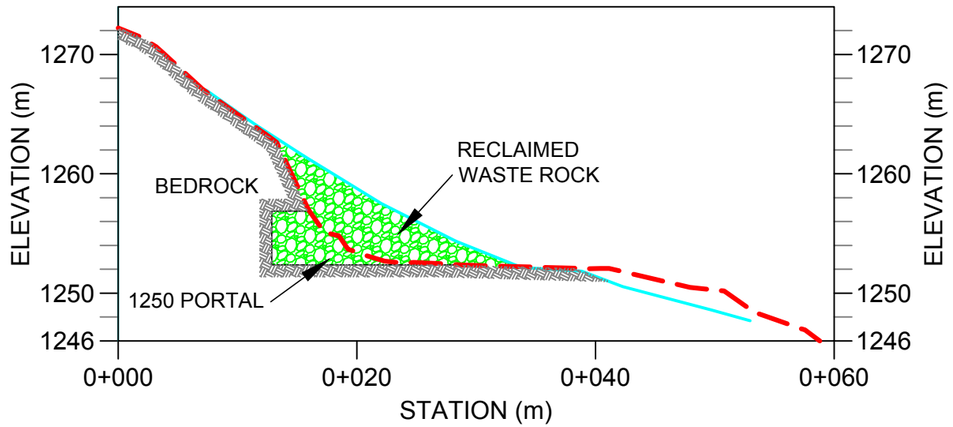
FIGURE NO: SDH01-B-C-0004

P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH01_B_MASTER_R0.dwg - 3/30/2015 11:58 AM - McCoy, Dale



PLAN VIEW JEWELBOX 1250 PORTAL AND WASTE ROCK DUMP

SCALE=1:1000



SECTION A-A JEWELBOX 1250 PORTAL

SCALE=AS SHOWN

NOTES:

1. LOCATION AND ELEVATIONS OF PORTAL AND PLUG MATERIAL ARE APPROXIMATE AS ONLY FINAL 2014 AS BUILT SURFACE WAS SURVEYED.

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

LEGEND:

- 1485.00 — TOPOGRAPHIC CONTOUR (5m INTERVALS)
- 2014 AS BUILT SURFACE
- 2012 LIDAR SURFACE
- 2014 AS BUILT SURVEY BOUNDARY
- A 0002 — A 0002 — SECTION LOCATION

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 1:1000 (0m 10 20 30 40)

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

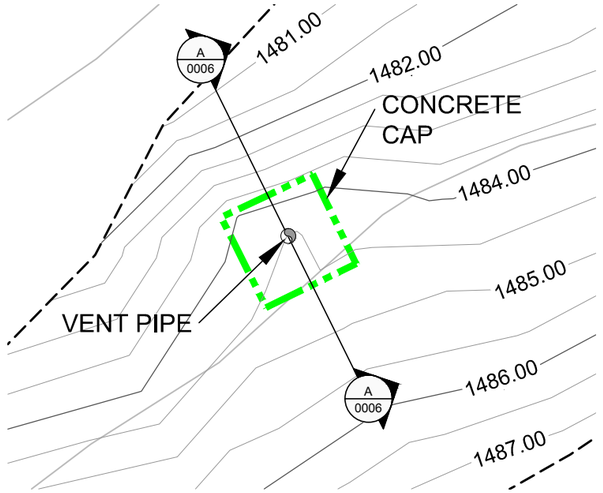
FILE NO: SDH01-B-C-0005-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT JEWELBOX 1250 PORTAL AND WASTE ROCK DUMP PLAN VIEW AND SECTION

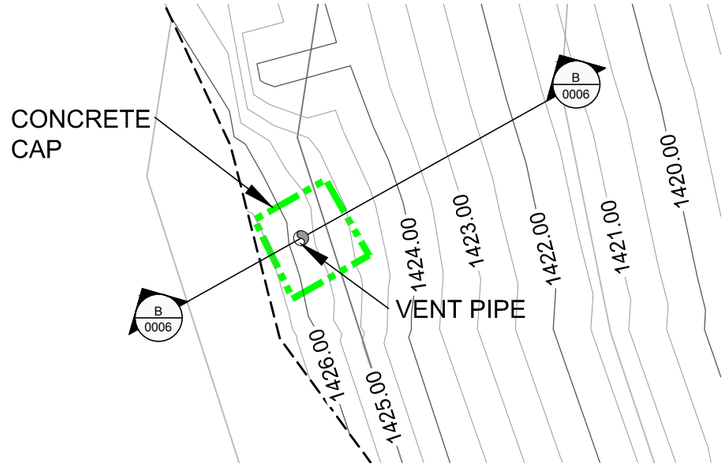
DWN BY:	D.M.
CHK'D BY:	LW/CJ
DATE:	2014/12/19
REV. NO:	R0
FIGURE NO:	SDH01-B-C-0005

P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH01_B_C_0005_R0.dwg - 3/29/2015 6:16 PM - McCoy, Dale



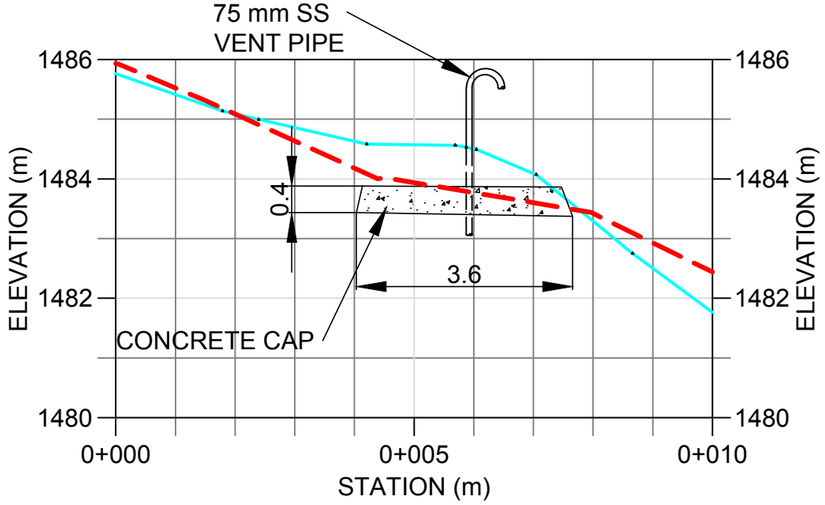
PLAN VIEW SUMMIT VENTILATION RAISE

SCALE=1:200



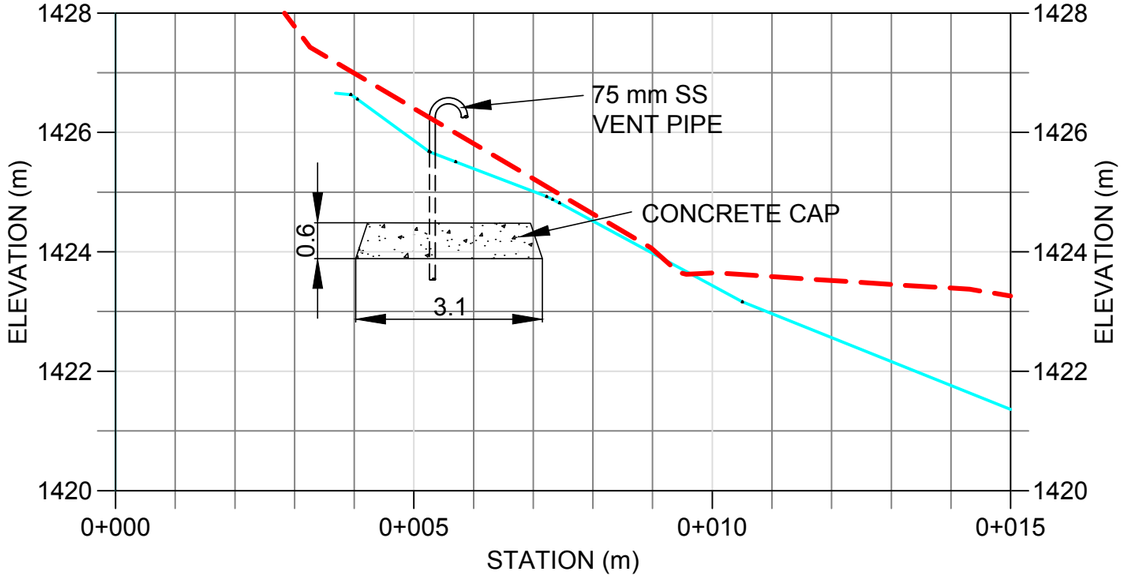
PLAN VIEW 1408 VENTILATION RAISE

SCALE=1:200



SECTION A-A SUMMIT VENTILATION RAISE

SCALE=AS SHOWN



SECTION B-B 1408 VENTILATION RAISE

SCALE=AS SHOWN

LEGEND:

- 1485.00 — TOPOGRAPHIC CONTOUR (0.5m INTERVALS)
- 2014 AS BUILT SURFACE
- 2012 LIDAR SURFACE
- 2014 AS BUILT SURVEY BOUNDARY
- A 0002 — A 0002 — SECTION LOCATION

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 1:200 (0m 2 4 6 8)

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH01-B-C-0006-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT JEWELBOX SUMMIT AND 1408 VENTILATION RAISE PLAN VIEWS AND SECTIONS

DWN BY: D.M.

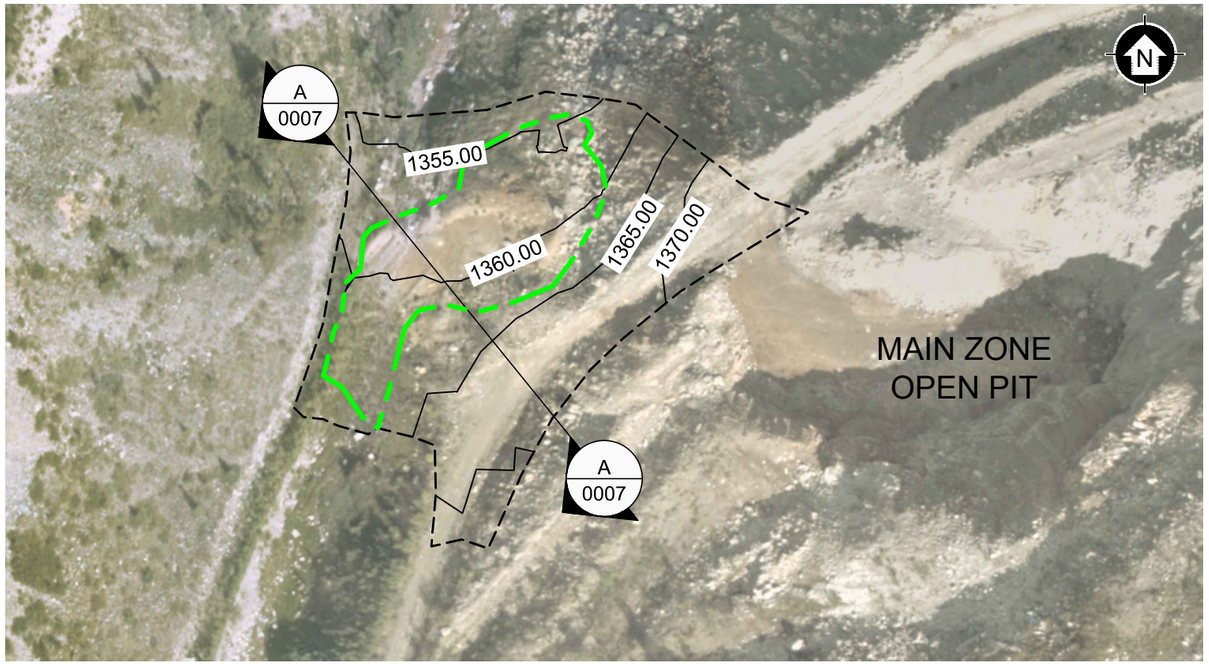
CHK'D BY: LW/CJ

DATE: 2014/12/19

REV. NO: R0

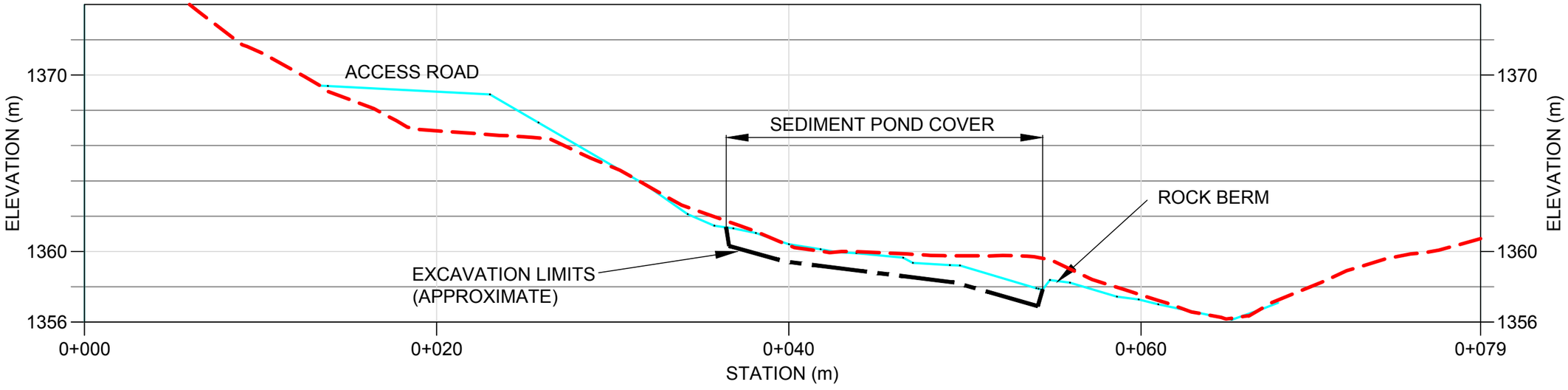
FIGURE NO: SDH01-B-C-0006

P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH01_B_C_0006_R0.dwg - 3/29/2015 6:19 PM - McCoy, Dale



PLAN VIEW JEWELBOX 1380
GULLY AND SEDIMENT POND

SCALE=1:1000



SECTION A-A JEWELBOX 1380 GULLY

SCALE=AS SHOWN

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

LEGEND:

- 1485.00 — TOPOGRAPHIC CONTOUR (5m INTERVALS)
- 2014 AS BUILT SURVEY BOUNDARY
- A 0002 — A 0002 — SECTION LOCATION
- 2014 AS BUILT SURFACE
- SEDIMENT POND COVER
- 2012 LIDAR SURFACE

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 1:1000 (0m 10 20 30 40)

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH01-B-C-0007-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT JEWELBOX 1380 GULLY SEDIMENT POND CAP PLAN VIEW AND SECTION

DWN BY: D.M.

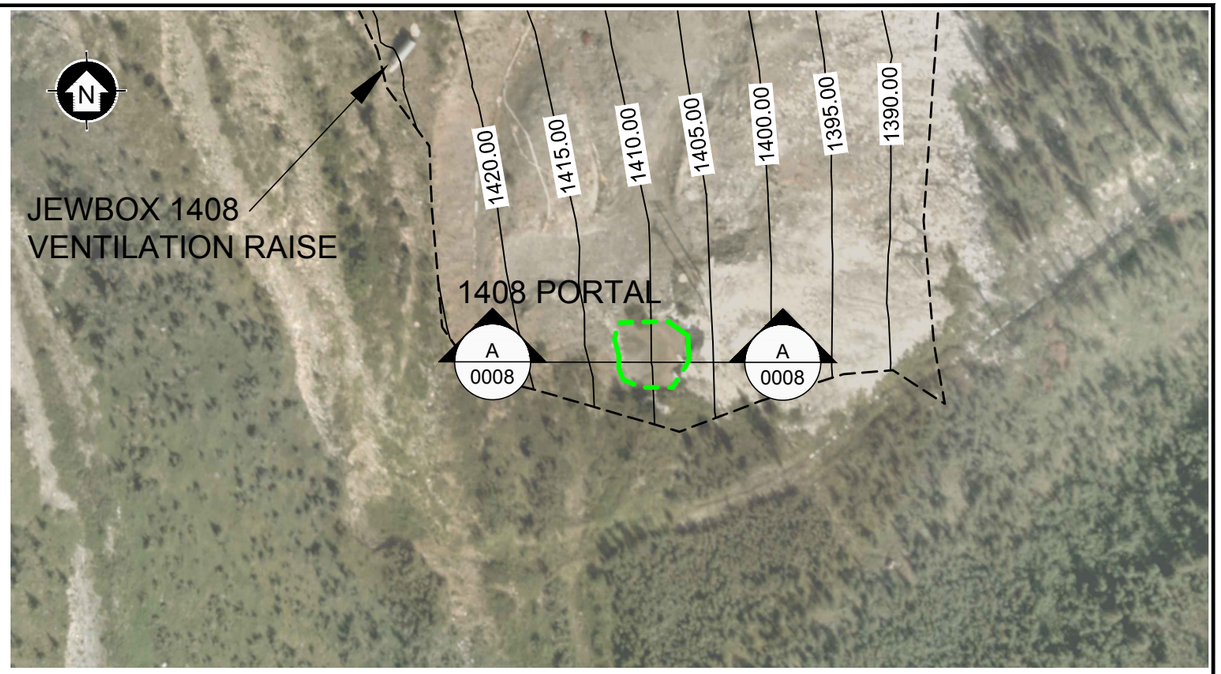
CHK'D BY: LW/CJ

DATE: 2014/12/19

REV. NO: R0

FIGURE NO: SDH01-B-C-0007

P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH01_B_C_0007_R0.dwg - 3/27/2015 5:07 PM - McCoy, Dale

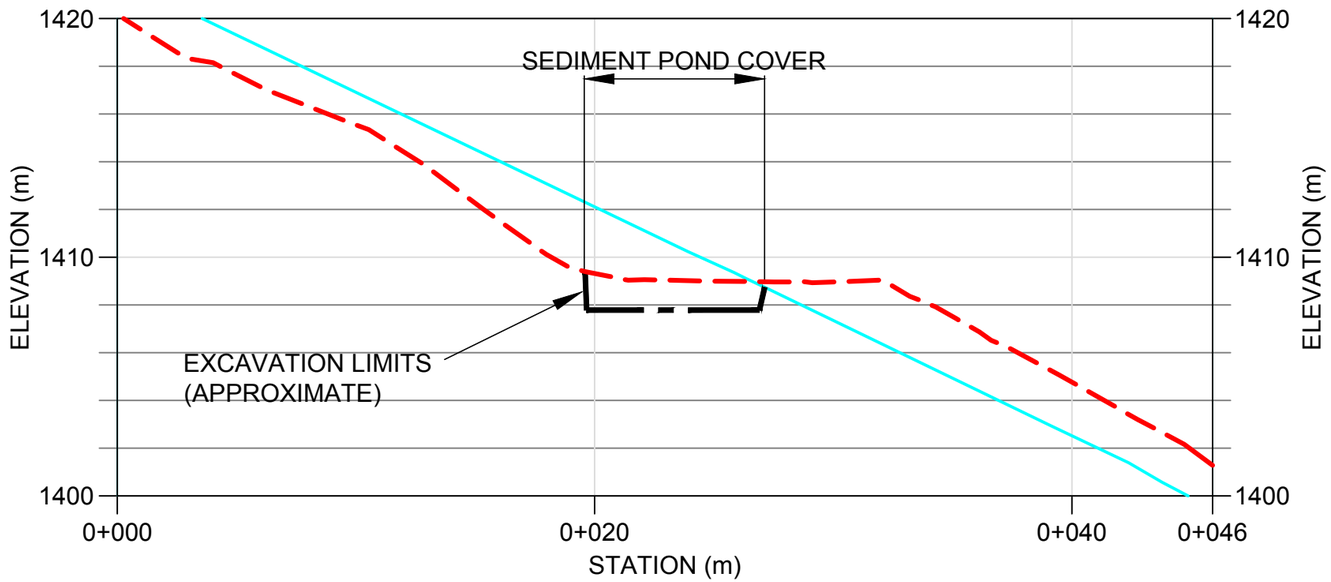


PLAN VIEW JEWELBOX 1408
PORTAL AND SEDIMENT POND

SCALE=1:1000

SECTION A-A JEWELBOX 1408 PORTAL SEDIMENT POND

SCALE=AS SHOWN



SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

LEGEND:

- 1485.00 — TOPOGRAPHIC CONTOUR (5m INTERVALS)
- 2014 AS BUILT SURVEY BOUNDARY
- A 0002 — A 0002 — SECTION LOCATION
- 2014 AS BUILT SURFACE
- SEDIMENT POND COVER (APPROXIMATE EXTENTS)
- 2012 LIDAR SURFACE

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: 1:1000 (0m 10 20 30 40)

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH01-B-C-0008-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT JEWELBOX 1408 PORTAL SEDIMENT POND CAP PLAN VIEW AND SECTION

DWN BY: D.M.

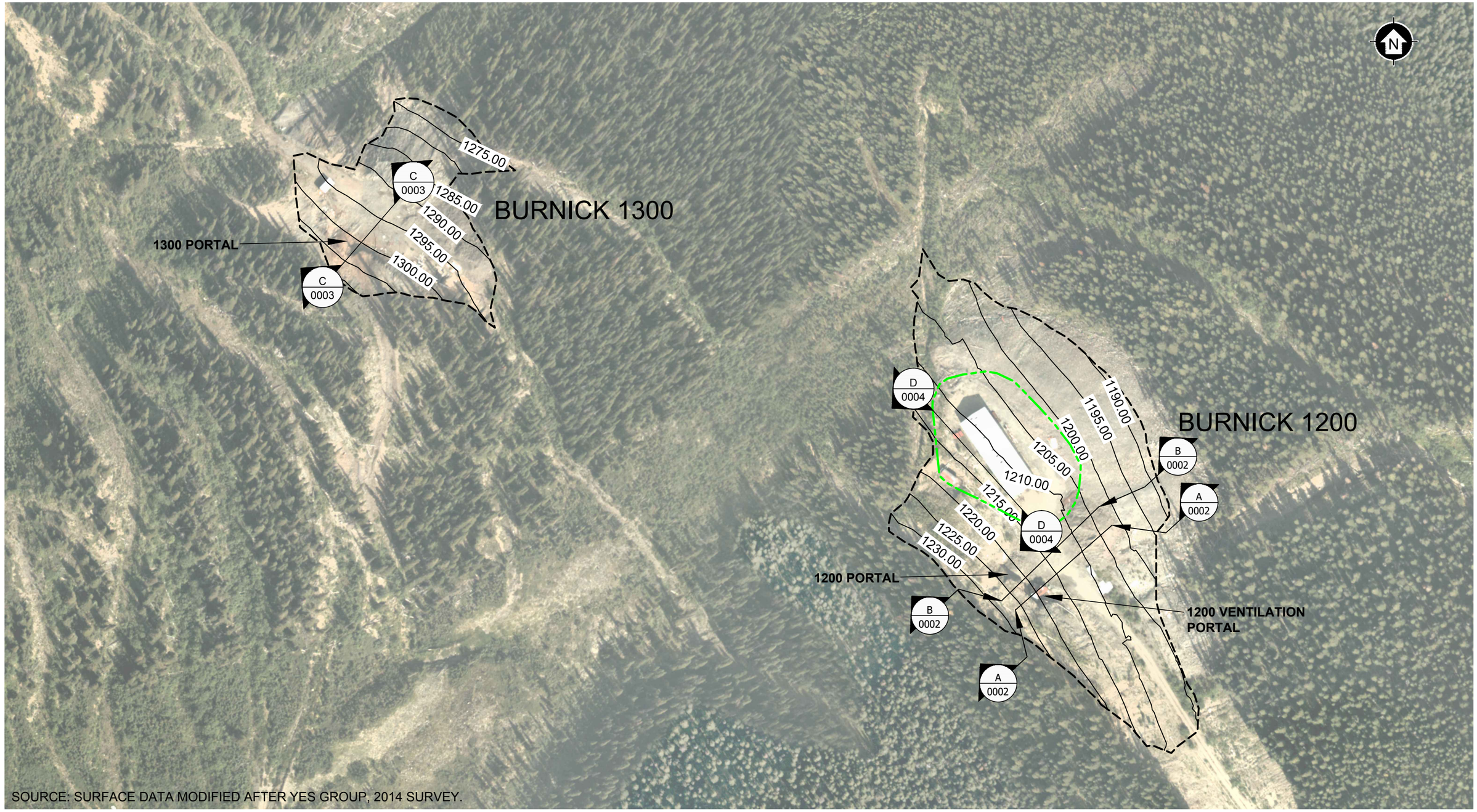
CHK'D BY: LW/CJ

DATE: 2015/03/17

REV. NO: R0

FIGURE NO: SDH01-B-C-0008

P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH01_B_C_0008_R0.dwg - 3/27/2015 4:48 PM - McCoy, Dale



LEGEND:

- 1485.00 — TOPOGRAPHIC CONTOUR (5m INTERVALS)
- CAPPED HYDROCARBON CONTAMINATED AREA (APPROX. EXTENTS)
- 2014 AS BUILT SURVEY BOUNDARY
- A 0002 — A 0002 — SECTION LOCATION (SEE DWG SDH02-B-C-0002, 0003 AND 0004)

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: TE133100

FILE NO: SDH02-B-C-0001-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT BURNICK 1200 AND 1300 PLAN VIEW AND SECTION LOCATIONS

DWN BY: D.M.

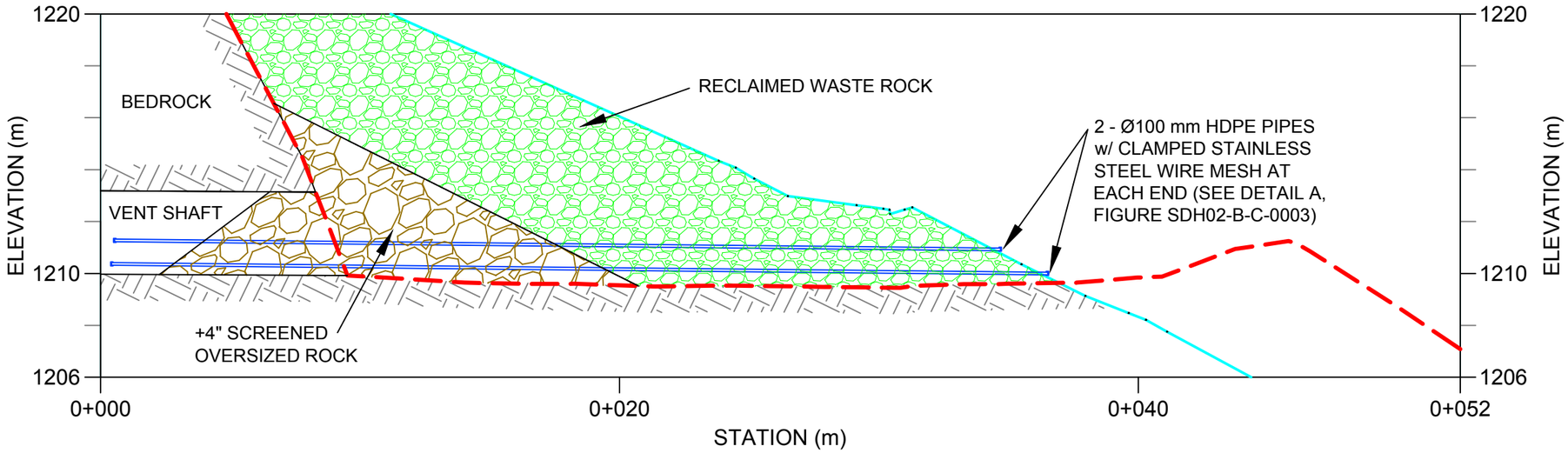
CHK'D BY: LW/CJ

DATE: 2014/12/19

REV. NO: R0

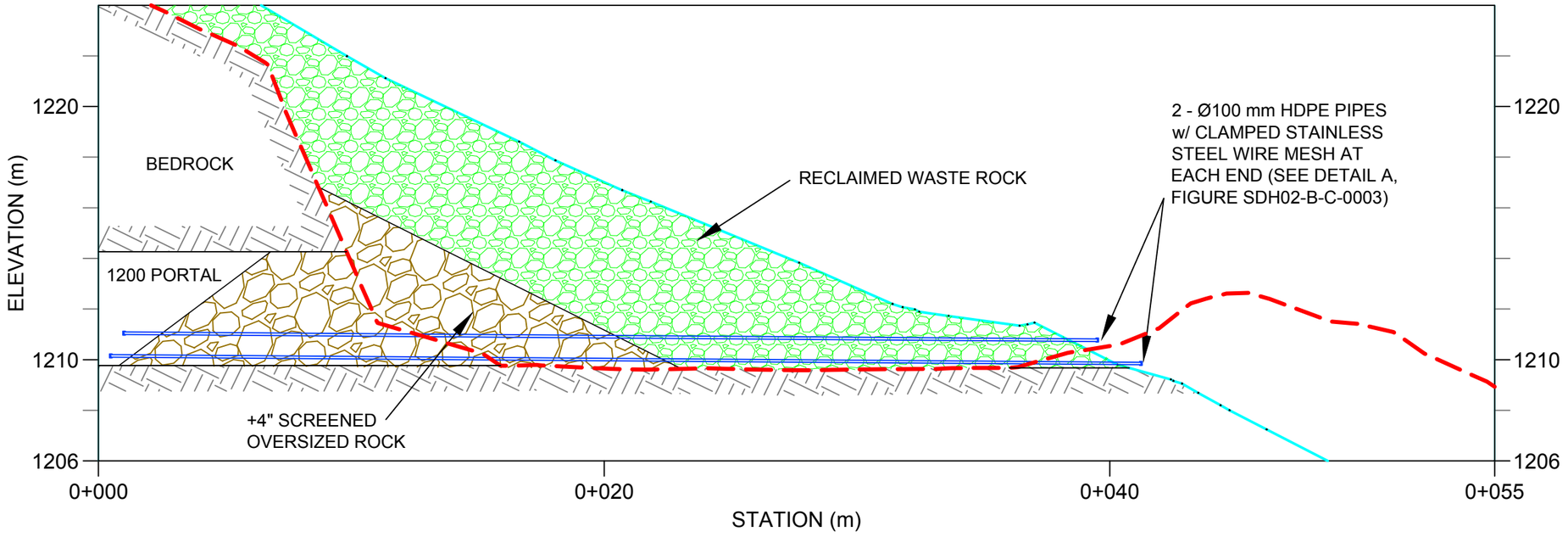
FIGURE NO: SDH02-B-C-0001

P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH02_B_MASTER_R0.dwg - 3/26/2015 3:55 PM - McCoy, Dale



SECTION A-A
BURNICK 1200
VENTILATION PORTAL

SCALE=AS SHOWN



SECTION B-B
BURNICK 1200 PORTAL

SCALE=AS SHOWN

LEGEND:

- 2014 AS BUILT SURFACE
- 2012 LIDAR SURFACE

NOTES:

1. SEE DWG SDH02-B-C-0001 FOR SECTION LOCATIONS.
2. LOCATION AND ELEVATIONS OF PORTAL AND PLUG MATERIAL ARE APPROXIMATE AS ONLY FINAL 2014 AS BUILT SURFACE WAS SURVEYED.

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: AS SHOWN

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH02-B-C-0002-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT BURNICK 1200 PORTAL AND VENTILATION PORTAL SECTIONS

DWN BY: D.M.

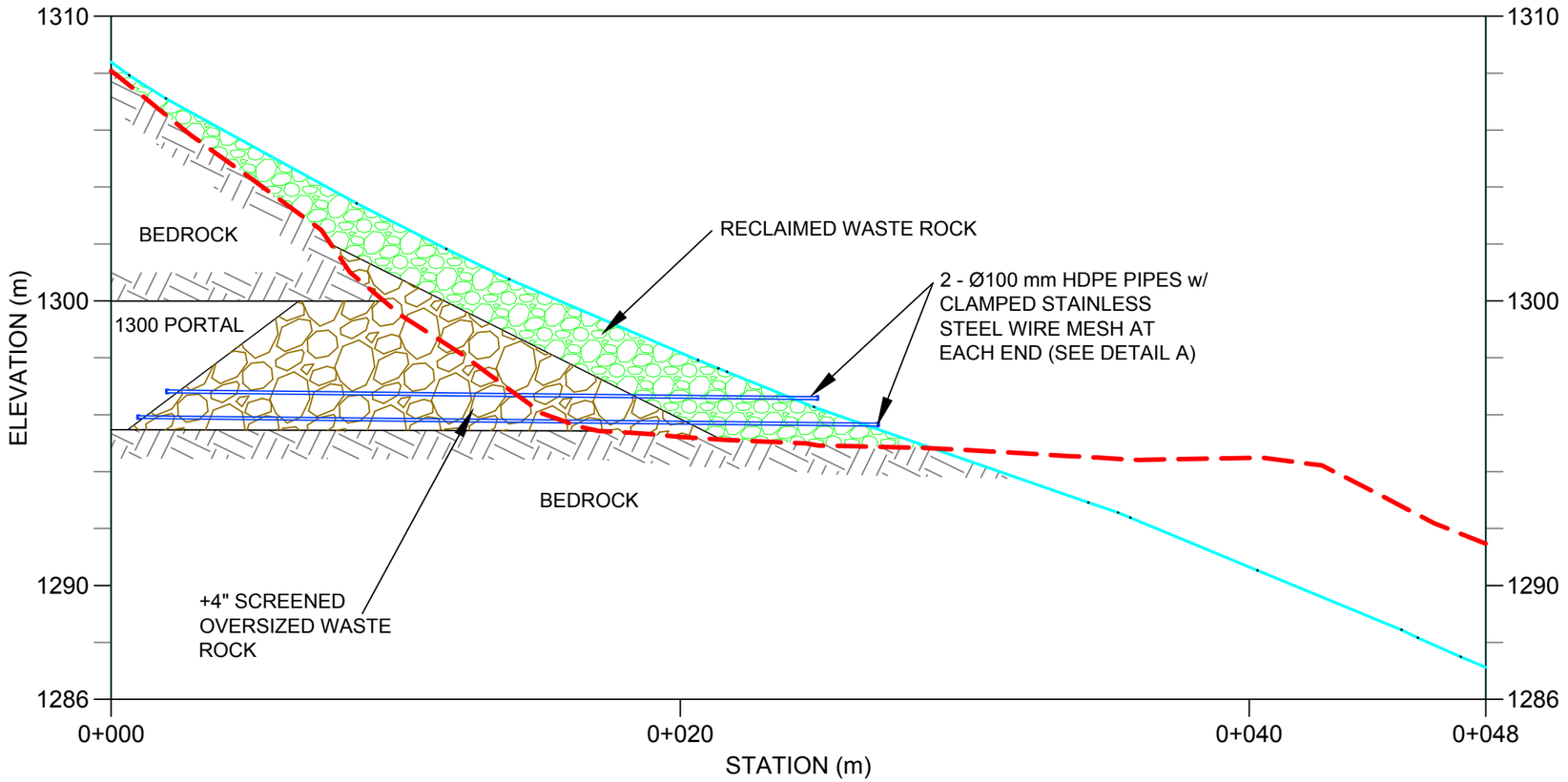
CHK'D BY: LW/CJ

DATE: 2014/12/19

REV. NO: R0

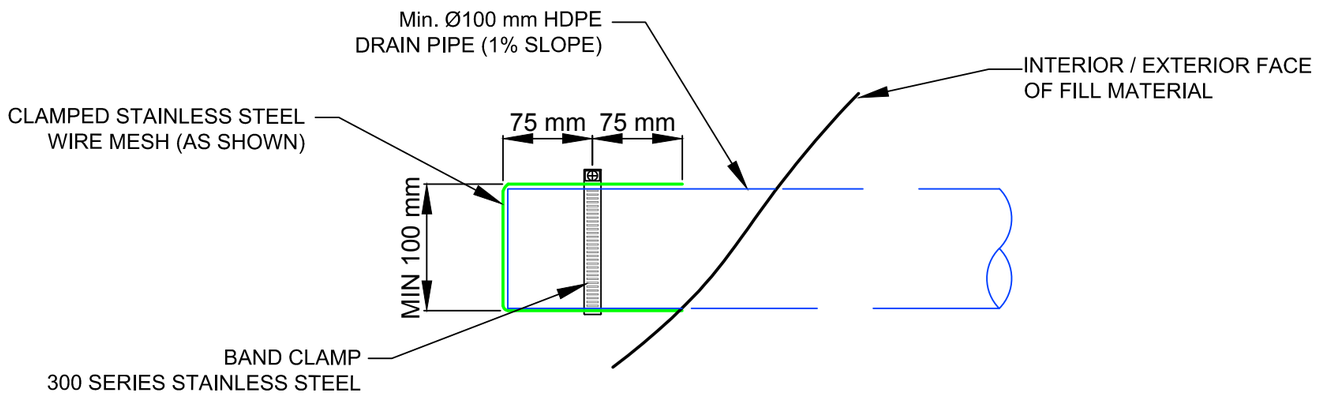
FIGURE NO: SDH02-B-C-0002

P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH02_B_MASTER_R0.dwg - 3/27/2015 12:27 PM - McCoy, Dale



SECTION C-C BURNICK 1300 PORTAL

SCALE=AS SHOWN



DETAIL A - PIPE MESH

SCALE=NOT TO SCALE

LEGEND:

- 2014 AS BUILT SURFACE
- 2012 LIDAR SURFACE

NOTES:

1. SEE DWG SDH02-B-C-0001 FOR SECTION LOCATIONS.
2. LOCATION AND ELEVATIONS OF PORTAL AND PLUG MATERIAL ARE APPROXIMATE AS ONLY FINAL 2014 AS BUILT SURFACE WAS SURVEYED.

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: AS SHOWN

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH02-B-C-0003-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT BURNICK 1300 PORTAL SECTION AND PIPE DETAIL

DWN BY: D.M.

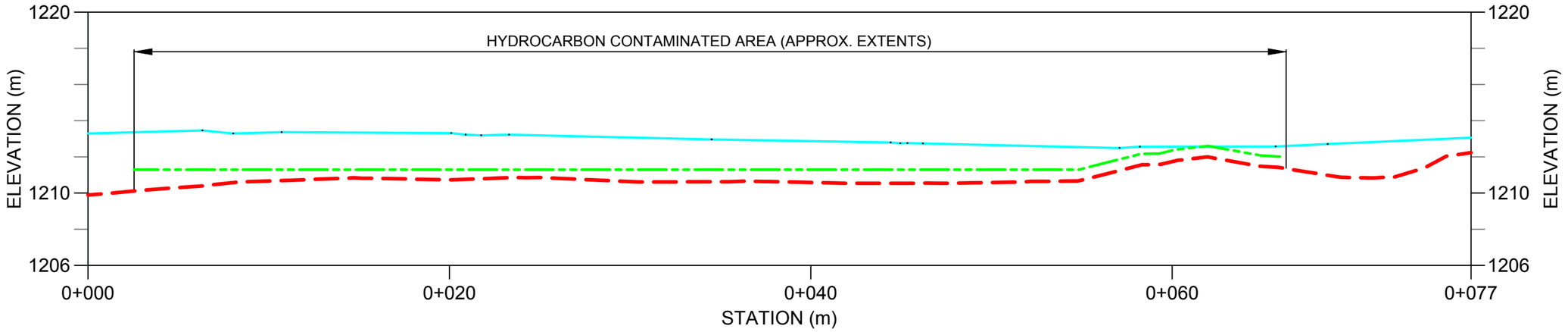
CHK'D BY: LW/CJ

DATE: 2014/12/19

REV. NO: R0

FIGURE NO: SDH02-B-C-0003

P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH02_B_MASTER_R0.dwg - 3/27/2015 12:27 PM - McCoy, Dale



SECTION D-D CAPPED HYDROCARBON CONTAMINATED AREA

SCALE=AS SHOWN

LEGEND:

- 2014 AS BUILT SURFACE
- 2012 LIDAR SURFACE (APPROXIMATE BASED ON SITE OBSERVATIONS)
- CAP MATERIAL

NOTES:

1. SEE DWG SDH02-B-C-0001 FOR SECTION LOCATION.

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: AS SHOWN

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH02-B-C-0004-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT BURNICK 1200 CAPPED HYDROCARBON CONTAMINATED AREA SECTION

DWN BY: D.M.

CHK'D BY: LW/CJ

DATE: 2015/03/23

REV. NO: R0

FIGURE NO: SDH02-B-C-0004

P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH02_B_MASTER_R0.dwg - 3/27/2015 12:27 PM - McCoy, Dale

APPENDIX G
Mountain Works Photographs

Mountain Works (MTN) Photographs

MTN Photograph 1: Jewelbox waste rock dump reshaping in progress – angle 1.

MTN Photograph 2: Jewelbox waste rock dump reshaping completed – angle 1.

MTN Photograph 3: Jewelbox waste rock dump reshaping in progress – angle 2.

MTN Photograph 4: Jewelbox waste rock dump reshaping nearing completion – angle 2.

MTN Photograph 5: Jewelbox Open Pit infilling operations.

MTN Photograph 6: Extension of monitoring well MW13-03 which lies in footprint of reshaped Jewelbox Waste Rock Dump.

MTN Photograph 7: Main Zone Open Pit (with Jewelbox 1380 Portal shown) prior to infilling of open pit.

MTN Photograph 8: Jewelbox 1380 Portal plug (pipes contained within berm).

MTN Photograph 9: Main Zone Open Pit infilling operations nearing completion. Jewelbox 1380 Portal plug now buried beneath open pit infill material.

MTN Photograph 10: Final state of infilled Main Zone Open Pit.

MTN Photograph 11: Jewelbox 1408 Portal plug construction in progress.

MTN Photograph 12: Sample Portal plug drainage pipes (top right and bottom left) at completion of reshaped waste rock dump material overtop of Portal plug.

MTN Photograph 13: Jewelbox Summit Ventilation Raise (just left of excavator) before construction of permanent cap.

MTN Photograph 14: Formwork and reinforcing steel installed for construction of permanent cover over Jewelbox Summit Ventilation Raise.

MTN Photograph 15: Concrete poured at Jewelbox Summit Ventilation Raise.

MTN Photograph 16: Jewelbox Summit Ventilation Raise cap completed and covered with stainless steel vent pipe protruding from slope.

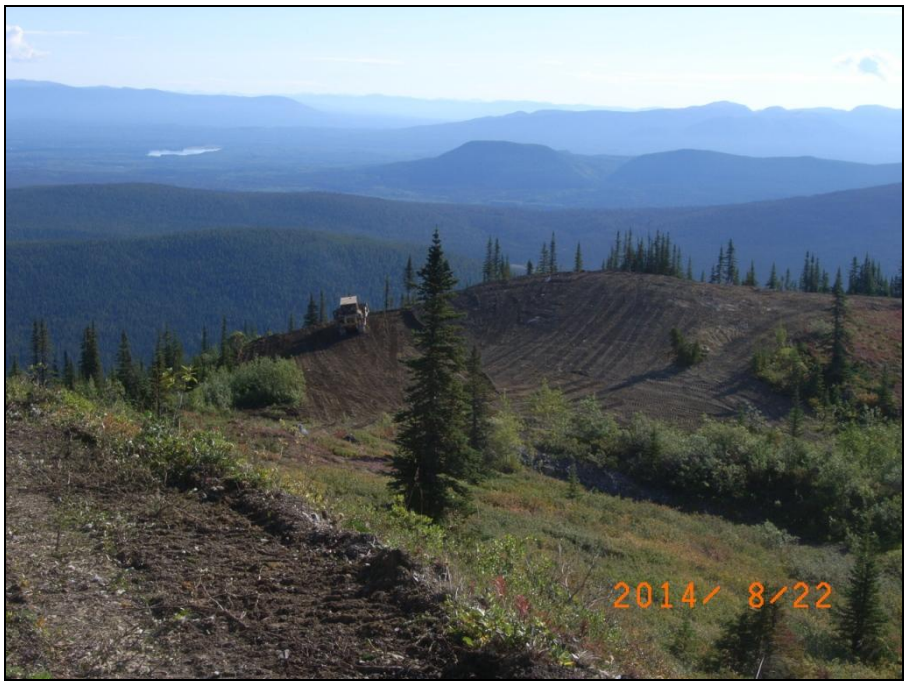
MTN Photograph 17: Jewelbox 1408 ventilation raise (before).

MTN Photograph 18: Jewelbox 1408 ventilation raise completed with stainless steel vent pipe protruding from slope.

MTN Photograph 19: Excavation of Jewelbox 1380 gully sediment pond.

MTN Photograph 20: Capping of Jewelbox 1380 gully sediment pond with rock berm constructed.

MTN Photograph 21: Remote core racks prior to demolition.



MTN Photograph 22: Remote core racks following demolition and re-grade of area.

MTN Photograph 23: Burnick 1200 waste rock dump before reshaping (looking south).

MTN Photograph 24: Burnick 1200 waste rock dump reshaping completed (looking north).

MTN Photograph 25: Burnick 1200 Portal drainage CSP-PVC connector.

MTN Photograph 26: Burnick 1200 Portal drainage discharging from PVC pipe beneath reshaped waste rock.

MTN Photograph 27: Helipad constructed at northern tip of Burnick 1200 waste rock dump.

MTN Photograph 28: Reshaped waste rock dump slope at Burnick 1300 level.

APPENDIX H
Ventilation Raise Laboratory Concrete Strength Testing Documentation

CONCRETE STRENGTH TEST RESULTS

CCIL

CSA Standard A283
Concrete Testing
Category " 0 "

CSA A23.2

Project No.: W14103445-01
Project: Concrete Mix Design

Client: Custom Concrete

Att'n:

Element Cast & Location Tested:
Portal Plug - 1408

Test No.: T2 Placing Method: Pump

Information From Delivery Ticket

Supplier: Custom Concrete
Truck No: Batch Time:
Ticket No: Mix No:
Load Amount: m³ Cumulative: m³
Strength: 30 MPa Max Agg. Size: 28 mm
Cement Type: GU Slump/Flow: mm
Admixture: Air ☑ SP ☑ Acc. ☐ Air Content: %
Other: Fly Ash Winter Heat: ☐

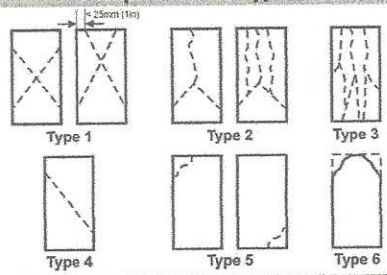
Contract Specifications as Provided

Same as Delivery Ticket: ☐ Not Available: ☐
Strength: MPa Test Age: days
Slump/Flow: mm Air Content: %
Class of Concrete: Cement Type:

Field Test Data

Test Time: Unit Weight: kg/m³ Mould Type: Plastic
Temperature: Air: °C Concrete: °C Diameter: 100 mm
Cast Slump/Flow: mm Cast Air Content: %
Initial Slump: mm Initial Air content: %
Concrete Setting Temp. Within CSA Limits (15-25 °C): y/n (see remarks if No)
Date Cast: September 13, 2014 By: contractor
Date Received: September 18, 2014 By: MCP

Sample Fracture Type



Laboratory Test Data

Cylinder Number	Age Days	Test Date (Y/M/D)	Test By	Load lbs	Strength MPa	Type of Fracture	Comments
4	7	14/09/20	AT	48100	26.4	1	
5	28	14/10/11	TP	59030	32.4	1	
6	56	14/11/08					

Remarks:

Contractor cast cylinders; data unknown

E-mail/Fax Copies To:

Reviewed By: _____ C.E.T.

Whitehorse, YT

TETRA TECH

CONCRETE STRENGTH TEST RESULTS

CCIL CSA Standard A283 Concrete Testing Category " 0 "

CSA A23.2

Project No.: W14103445-01
Project: Concrete Mix Design

Client: Custom Concrete

Att'n:

Element Cast & Location Tested:
Portal Plug - Summit portal

Test No.: T1 Placing Method: Pump

Information From Delivery Ticket

Supplier: Custom Concrete
Truck No: Batch Time:
Ticket No: Mix No:
Load Amount: m³ Cumulative: m³
Strength: 30 MPa Max Agg. Size: 28 mm
Cement Type: GU Slump/Flow: mm
Admixture: Air ☑ SP ☑ Acc. ☐ Air Content: %
Other: Fly Ash Winter Heat: ☐

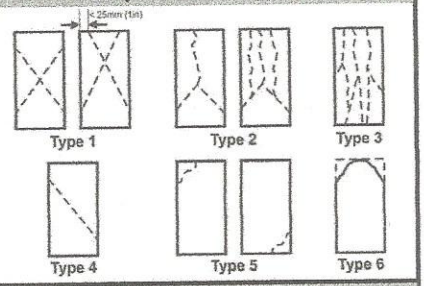
Contract Specifications as Provided

Same as Delivery Ticket: ☐ Not Available: ☐
Strength: MPa Test Age: days
Slump/Flow: mm Air Content: %
Class of Concrete: Cement Type:

Field Test Data

Test Time: Unit Weight: kg/m³ Mould Type: Plastic
Temperature: Air: °C Concrete: °C Diameter: 100 mm
Cast Slump/Flow: mm Cast Air Content: %
Initial Slump: mm Initial Air content: %
Concrete Setting Temp. Within CSA Limits (15-25 °C): y/n (see remarks if No)
Date Cast: September 13, 2014 By: contractor
Date Received: September 18, 2014 By: MCP

Sample Fracture Type



Laboratory Test Data

Cylinder Number	Age Days	Test Date (Y/M/D)	Test By	Load lbs	Strength MPa	Type of Fracture	Comments
1	7	14/09/20	AT	44035	24.2	1	
2	28	14/10/11	TP	57390	31.5	1	
3	56	14/11/08					

Remarks:

Contractor cast cylinders; data unknown

E-mail/Fax Copies To:

Reviewed By: _____ C.E.T.

Whitehorse, YT

TETRA TECH

APPENDIX I
Ventilation Raise Modified Design Drawings

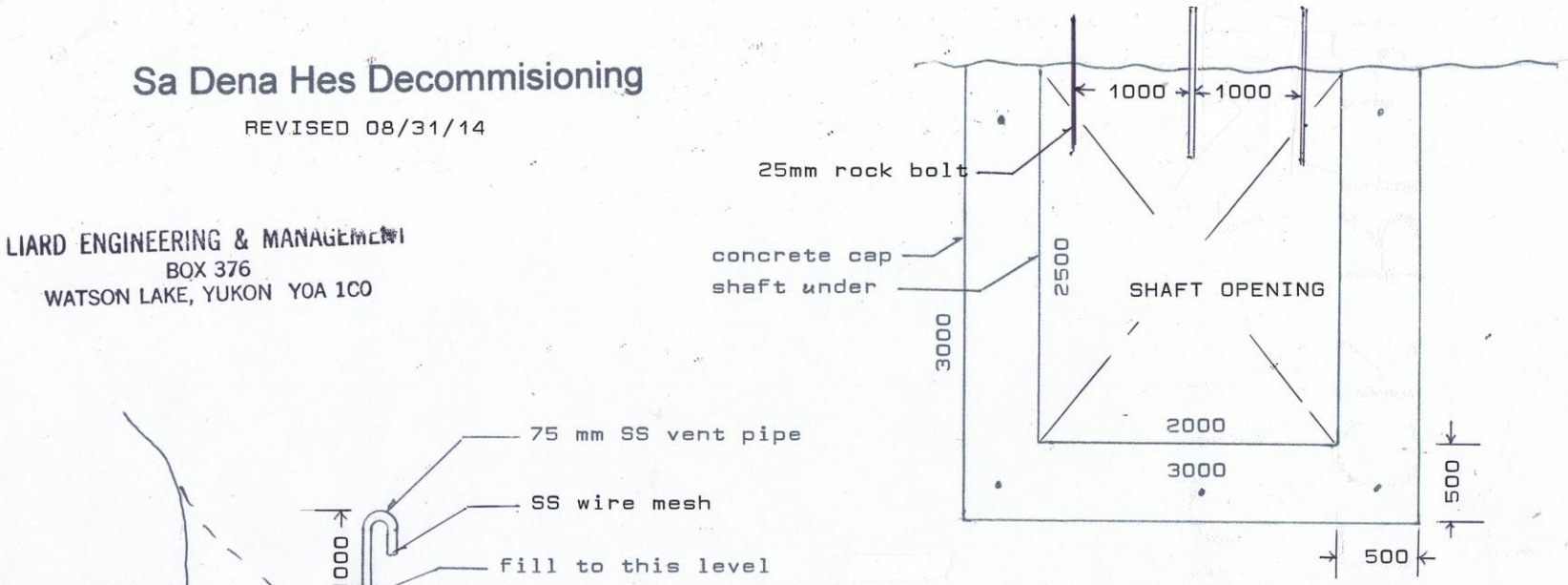
List of Drawings:

SDH_1408 Vent Shaft_SHOP_LEM_20140831 ..... 1408 Vent Shaft
SDH_Summit Vent Shaft_SHOP_LEM_20140831 ..... Summit Vent Shaft

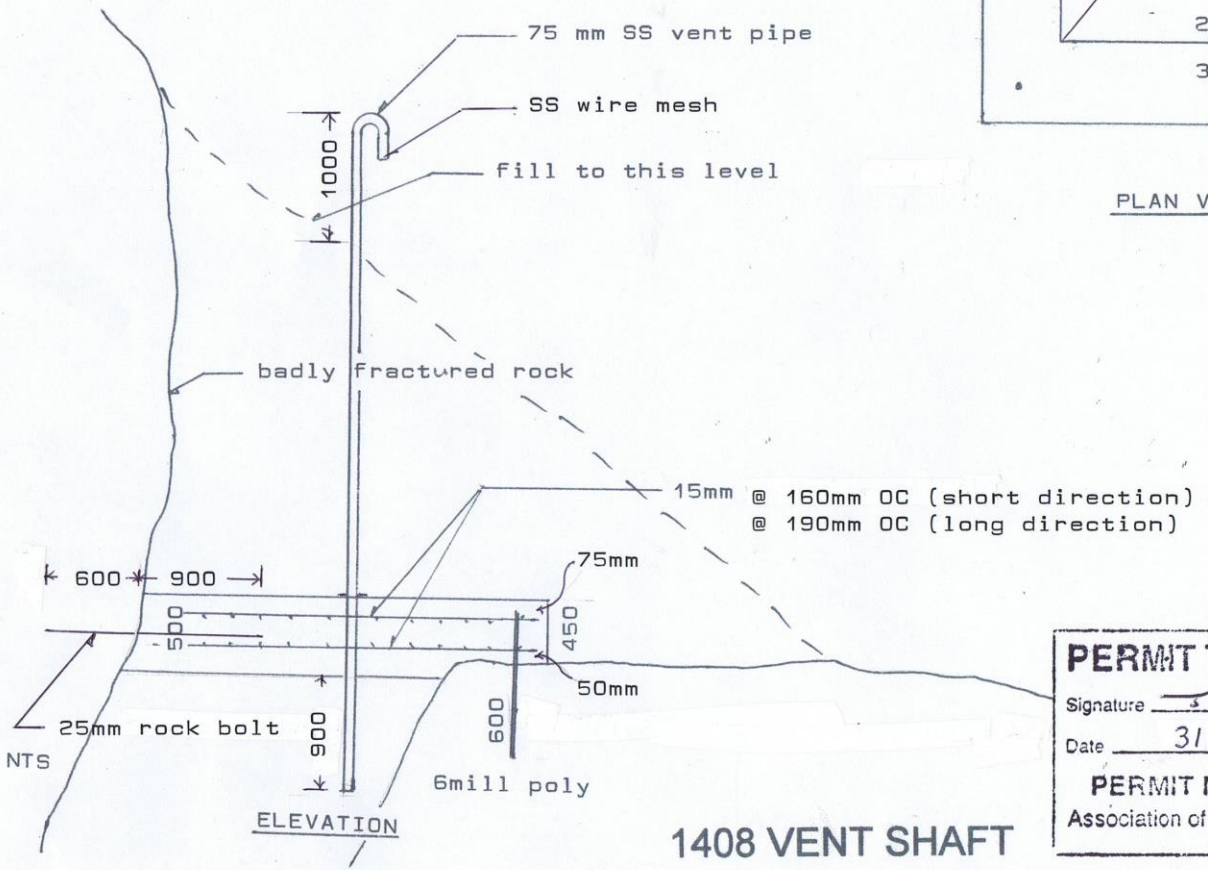
Sa Dena Hes Decommisioning

REVISED 08/31/14

LIARD ENGINEERING & MANAGEMENT
BOX 376
WATSON LAKE, YUKON Y0A 1C0



concrete 30 MP
concrete 30 MPa
6% air entraining



PROFESSIONAL ENGINEER
YUKON TERRITORY
J.M. THOMAS

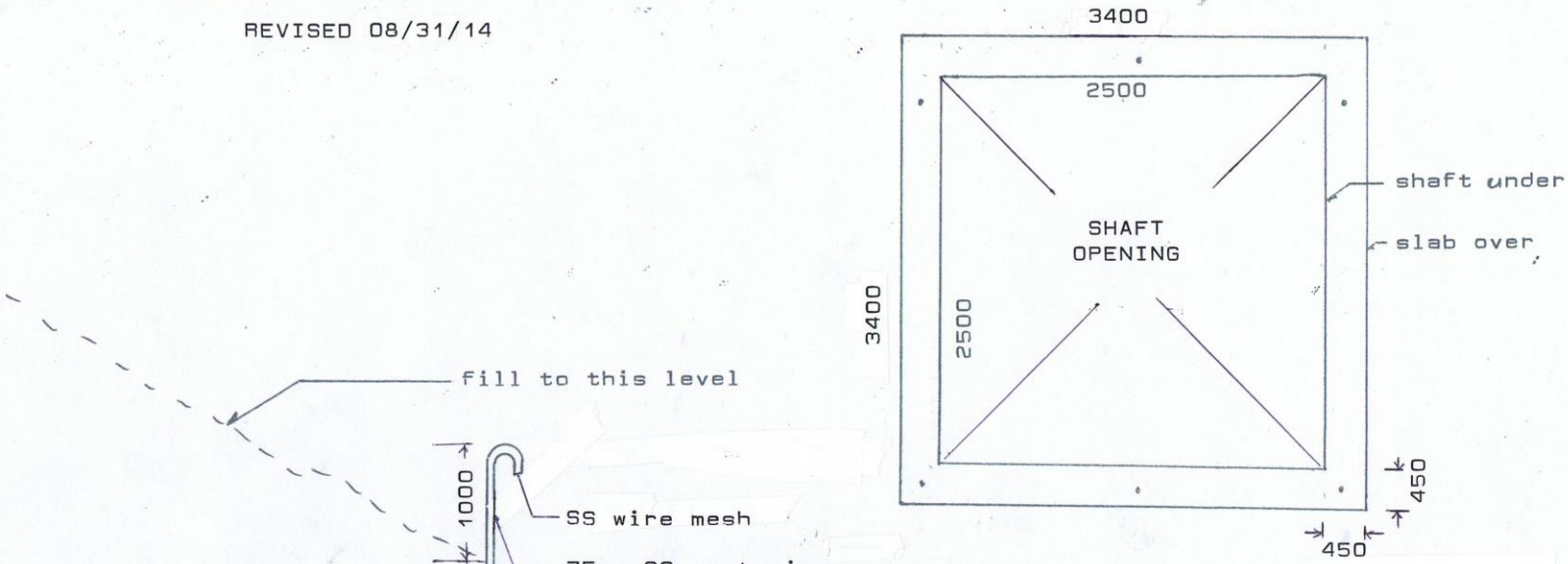
PERMT TO PRACTICE
Signature J. M. Thomas
Date 31 Aug. 2014
PERMIT NUMBER: PP061
Association of Professional Engineers of Yukon

1408 VENT SHAFT

LIARD ENGINEERING & MANAGEMENT
BOX 376
WATSON LAKE, YUKON YOA 1C0

Sa Dena Hes Decommisioning

REVISED 08/31/14



PLAN VIEW

ELEVATION

note:-
concrete 30MPa
6% air entraining

SUMMIT VENT SHAFT

PERMIT TO PRACTICE
Signature
Date 31 Aug 2014
PERMIT NUMBER: PP061
Association of Professional Engineers of Yukon

PROFESSIONAL ENGINEER
YUKON
J.M. THOMAS
TERRITORY

APPENDIX J
Tracking Documentation for Hazardous Waste and Contaminated Material

Northern Environmental Services
Watson Lake, YT

November 26 2014

Northern Environmental Services
Sa Dena Hes Manifest of Items Received – Updated November 26, 2014

This document is to confirm receipt of the items listed below. Items have been removed from the Sa Dena Hes mine site and transported to the Northern Environmental Services / 16142 YT Inc. licensed facility in Watson Lake.

Item Description	Quantity	Origin	Processed At
Fuel Tank	1	Burnick 1200 Area	Watson Lake Facility
Fuel Tank	1	Mill Site Area	Watson Lake Facility
Fuel Containment Liner	2	Mill Site Area	Watson Lake Facility
Gasoline, litres	24,200	Mill site fuel tanks	Watson Lake Facility
Diesel, litres	11,890	Mill site fuel tanks	Watson Lake Facility
Contaminated Water, litres	195,500	Fuel containment berms	Watson Lake Facility
Steel Pylons with concrete bases	13	Mill Site Area	Watson Lake Facility
Wood Shacks, Insulated	2	Burnick Mountain	Watson Lake Facility
Fuel Pumps and Fittings	2	Mill Site, Main Gate	Watson Lake Facility
Sediment Pond Liner	1	Jewelbox 1408	Watson Lake Facility
Used Pipe, truck loads	1	Various Locations	Watson Lake Facility
Oil Drum	1	Burnick Mountain	Watson Lake Facility
Used Oil, Litres	80	Burnick Mountain	Watson Lake Facility
Contaminated Soil, Cubic Meters	6	Mill Site, Coolant Spill, Aug 25	Watson Lake Facility
Contaminated Soil, Cubic Meters	3	Outside Main Gate, June 5	Watson Lake Facility
Contaminated Soil, Cubic Meters	1	Burnick 1200, July 11	Watson Lake Facility
Contaminated Soil, Cubic Meters	14	Burnick/Dump Road, July 26	Watson Lake Facility
Contaminated Soil, Cubic Meters	4	Outside Main Gate, Sep 2	Watson Lake Facility
5 Gallon Plastic Pail	1	Mill Site Area	Watson Lake Facility
45 Gallon Plastic Drum	5	Mill Site Area	Watson Lake Facility
Loader Tire	6	Dump Area	Watson Lake Facility
Truck Tire	6	Dump Area	Watson Lake Facility
Heavy Truck Tire	4	Dump Area	Watson Lake Facility
Fire Extinguisher	5	Mill Site Area	Watson Lake Facility
Battery	5	Mill Site Area	Watson Lake Facility
Large Gas Cylinder	7	Mill Site Area	Watson Lake Facility
20 Lb Gas Cylinder	3	Mill Site Area	Watson Lake Facility
20 L Pail toluene	1	Dump Area	Watson Lake Facility
Pail Soil/Sorbent Materials	1	Generator Shack	Watson Lake Facility
Heater Units / Support Structures	2	Burnick 1200 Area	Watson Lake Facility
Miscellaneous Construction Waste, 30 yard Bin	1	Mill Site area	Watson Lake Facility
1600L Oil Cube	1	Behind KPI Laydown Area	Watson Lake Facility
Oil Sludge, Litres	20	Mill Site Area, in Drum	Watson Lake Facility
Diesel Sludge, Litres	85	Mill Site Area, in Drum	Watson Lake Facility
Contaminated Oil, Litres	400	Mill Site Area, in Drum	Watson Lake Facility

Northern Environmental Services
Watson Lake, YT

November 26 2014

The Watson Lake facility is licensed under the following permits:

Waste Management Permit #: 81-049
Land Treatment Facility Permit #: 24-037

)VEMENT DOCUMENT / MANIFEST
)CUMENT DE MOUVEMENT / MANIFESTE

)vement document/manifest conforms to all federal
)vincial transport and environmental legislation.
)ument de mouvement/manifeste est conforme aux législations
)le et provinciale sur l'environnement et le transport.

YT05262-6

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

Generator / consignor / Producteur / expéditeur — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 1

Amec

)ny name / Nom de l'entreprise

)address / Adresse postale — City / Ville — Province — Postal code / Code postal

chris.jeffery@amec.com

/ Courrier électronique — Tel. No. / N° de tél. ( )

)ng site address / Adresse du lieu de l'expédition

Sa Dena Hes Mine Site

)ille — Province — Postal code / Code postal

)ded Receiver / consignee /)ptionnaire / destinataire prévu 2 — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial

)g address / Adresse postale — City / Ville — Province — Postal code / Code postal

)il / Courrier électronique — Tel. No. / N° de tél. ( )

)iving site address / Adresse du lieu de l'expédition

)Ville — Province — Postal code / Code postal

B Carrier / Transporteur — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 23

YT151

Company name / Nom de l'entreprise

KPI/16142 Yukon Inc

Mailing address / Adresse postale — City / Ville — Province — Postal code / Code postal

Box 867 Watson Lake Y.T

E-mail / Courrier électronique — Tel. No. / N° de tél.

Kerrypetrs@live.ca 867-536-7311

Vehicle / Véhicule	Registration No. / N° d'immatriculation	Prov. 24
Trailer - Rail car No. 1 / 1re remorque - wagon	CD 746	
Trailer - Rail car No. 2 / 2e remorque - wagon		

Port of entry / Point d'entrée (international use only) — Port of exit / Point de sortie (international use only) 25

Carrier Certification : *I certify that I have received waste or recyclable material from the generator / consignor for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct.* ***Attestation du transporteur :*** *J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.* 26

Name of authorized person (print): Nom de l'agent autorisé (caractères d'imprimerie) : — Tel. No. / N° de tél. ( )

Year / Année 14 — Month / Mois 08 — Day / Jour 29 — Signature :

C Receiver / consignee / Réceptionnaire / destinataire — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 28

81-049

Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés 27

Receiver / consignee information same as in Part A
Les renseignements du réceptionnaire / destinataire est la même qu'à la Partie A
☐ Yes / Oui ☐ No, complete the box below / Non, remplir la case ci-dessous

Company name / Nom de l'entreprise

Northern Enviro Services

Mailing address / Adresse postale

Box 867 - Watson Lake YT Y0A-1C0

City / Ville — Province — Postal code / Code postal

E-mail / Courrier électronique — Tel. No. / N° de tél. ( )

Kerrypetrs@live.ca

Receiving site address / Adresse du lieu de destination

Mile 636 Alaska Highway

Date received / Date de réception — Year / Année 14 — Month / Mois 08 — Day / Jour 29 — Time / Heure — ☐ A.M. ☑ P.M 29

If waste or recyclable material to be transferred, specify intended company name/ Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire 30 — Registration No./Provincial ID No. / N° d'immatriculation/d'id provincial

Prov. code / Code prov. 3	Shipping name / Appellation réglementaire 4	Class / Classe 5 — Sub. class(es) / Classe(s) sub.	UN No. / N°NU 6	Packing / risk gr. / Gr. d'emballage / de risque 7	Quantity shipped / Quantité expédiée	Units / L or / ou Kg / Unités 8	Packaging / Contenant — No. / N°	Codes Int – ext	Phys. state / État phys. 10
	Oil sludge				20L				
	Diesel sludge				85				
	Contaminated oil				400L				

Quantity received / Quantité reçue	Units / L or / ou Kg / Unités 31	Comments / Commentaires 32	Handling Code / Code de manutention 33	Shipment / Envoi — Accepted / Accepté 34	Refused / Refusé	Decont. 35 — Pack.	Cont.	Veh. / Véh.
		20L						

Notice No. / N° de notification 11	Notice Line No / N° de ligne de la notification	Shipment / Envoi 12	Of / De	D or R code / Code D ou R 13	C code / Code C 14	Basel Annex VIII or OECD Code / Annexe VIII de Bâle ou Code OCDE 15	H code / Code H 16	Y code / Code Y 17	National code in country of / Code du pays — Export / Exportation 18	Import / Importation	Customs code(s) / Code(s) de douanes 19

International use only

If handling code "Other" (specify) / Si code de manutention « autre » (spécifier) 36

Receiver / consignee certification : *I certify that the information contained in Part C is correct and complete. /* ***Attestation du réceptionnaire / destinataire :*** *J'atteste que tous les renseignements à la partie C sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie) 37

Signature — Tel. No. / N° de tél. ( )

Special handling / Manutention spéciale 22 — ☐ Attached / Ci-joint: ☐ As follows / Ci-contre :

)ator / consignor certification: *I certify that the information contained in Part A is correct and)te.*
)ation du producteur / expéditeur: *J'atteste que tous les renseignements à la partie A sont et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie) — Signature — Tel. No. / N° de tél. ( ) 20

21 Date shipped / Date d'expédition — Year / Année 14 — Month / Mois 08 — Day / Jour 29 — Time / Heure ☐ A.M. ☐ P.M — Scheduled arrival date / Date d'arrivée prévue — Year / Année 14 — Month / Mois 06 — Day / Jour 24

04-1917 (07/07)

Instructions for completion and distribution on reverse / Instructions pour compléter et distribuer au verso

Copy / Copie 1 (white / blanche)

EMENT DOCUMENT / MANIFEST
JMENT DE MOUVEMENT / MANIFESTE

ent document/manifest conforms to all federal
al transport and environmental legislation.
nt de mouvement/manifeste est conforme aux législations
provinciale sur l'environnement et le transport.

YT05256-8

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

enerator / consignor
oducteur / expéditeur — Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial 1

me / Nom de l'entreprise
AMEC

ress / Adresse postale — City / Ville — Province — Postal code / Code postal
kris.jeffrey@amec.com

mier électronique — Tel. No. / N° de tél.
( )

e address / Adresse du lieu de l'expédition
Dene Nas Mile Site

Province — Postal code / Code postal

Receiver / consignee 2 — Registration No. / Provincial ID No.
nnaire / destinataire prévu N° d'immatriculation - d'id. provincial

ddress / Adresse postale — City / Ville — Province — Postal code / Code postal

Courrier électronique — Tel. No. / N° de tél.
( )

g site address / Adresse du lieu de l'expédition

e — Province — Postal code / Code postal

B Carrier / Transporteur — Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial 23
YT 151

Company name / Nom de l'entreprise
KPI 16/12 Yukon Inc

Mailing address / Adresse postale — City / Ville — Province — Postal code / Code postal
Box 867 Watson Lake YT. Y0A 1C0

E-mail / Courrier électronique — Tel. No. / N° de tél.
kerrypeters@live.ca 8675367361

Vehicle / Véhicule	Registration No. / N° d'immatriculation	Prov. 24
Trailer - Rail car No. 1 / 1e remorque - wagon	CN 7480	
Trailer - Rail car No. 2 / 2e remorque - wagon		

Port of entry / Point d'entrée (international use only) — Port of exit / Point de sortie (international use only) 25

Carrier Certification : *I certify that I have received waste or recyclable material from the generator / consignor for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct.*
Attestation du transporteur : *J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.* 26

Name of authorized person (print) / Nom de l'agent autorisé (caractères d'imprimerie) — Tel. No. / N° de tél.
8675367361

Signature

Year / Année — Month / Mois — Day / Jour
14 09 17

C Receiver / consignee / Réceptionnaire / destinataire — Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial 28
81-049 24-037

Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés 27

Receiver / consignee information same as in Part A / Les renseignements du réceptionnaire / destinataire est la même qu'à la Partie A
☐ Yes / Oui ☒ No, complete the box below / Non, remplir la case ci-dessous

Company name / Nom de l'entreprise
Northern Enviro Service 16/12

Mailing address / Adresse postale
Box 867

City / Ville — Province — Postal code / Code postal
Watson Lake YT. Y0A 1C0

E-mail / Courrier électronique — Tel. No. / N° de tél.
kerrypeters@live.ca 8675367361

Receiving site address / Adresse du lieu de destination
Mile 636 Alaska Highway

Date received / Date de réception — Time / Heure 29
Year / Année — Month / Mois — Day / Jour
14 09 17
☐ A.M. ☐ P.M.

If waste or recyclable material to be transferred, specify intended company name/ Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire 30 — Registration No./Provincial ID No. N° d'immatriculation/d'id provincial

Prov. code / Code prov. 3	Shipping name / Appellation réglementaire 4	Class / Classe Sub. class(es) / Classe(s) sub. 5	UN No. / N° NU 6	Packing / risk gr. / Gr. d'emballage / de risque 7	Quantity shipped / Quantité expédiée 8	Units / L or / ou Kg Unités 8	Packaging / Contenant No. / N° 9	Packaging / Contenant Codes Int – ext. 9	Phys. state / État phys. 10
	heavy truck tires				4				
	20l pail of toluene				1				
	pail soil / sorbent materials				1				
	1600 Steel Oil Cube.				1				

Quantity received / Quantité reçue	Units / L or / ou kg Unités 31	Comments / Commentaires 32	Handling Code / Code de manutention 33	Shipment / Envoi Accepted / Accepté 34	Shipment / Envoi Refused / Refusé 34	Decont. Pack. / Cont. 35	Decont. Veh. / Véh. 35
4				✓			
1				✓			
1				✓			
1				✓			

If handling code "Other" (specify) / Si code de manutention « autre » (spécifier) 36

Notice No. / N° de notification 11	Notice Line No. / N° de ligne de la notification 11	Shipment / Envoi 12	Of / De 12	D or R code / Code D ou R 13	C code / Code C 14	Basel Annex VIII or OECD Code / Annexe VIII de Bâle ou Code OCDE 15	H code / Code H 16	Y code / Code Y 17	National code in country of / Code du pays: Export / Exportation 18	National code in country of / Code du pays: Import / Importation 18	Customs code(s) / Code(s) de douanes 19

International use only

Receiver / consignee certification : *I certify that the information contained in Part C is correct and complete. /*
Attestation du réceptionnaire / destinataire : *J'atteste que tous les renseignements à la partie C sont exacts et complets.* 37

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie)
JANE PETERS

Signature

Tel. No. / N° de tél.
8675367361

Special handling / Manutention spéciale 22
☐ Attached / Ci-joint: ☐ As follows / Ci-contre :

tor / consignor certification: *I certify that the information contained in Part A is correct and te.*
tion du producteur / expéditeur: *J'atteste que tous les renseignements à la partie A sont et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie) — Signature — Tel. No. / N° de tél. ( ) 20

Date shipped / Date d'expédition 21 — Time / Heure ☐ A.M. ☐ P.M — Scheduled arrival date / Date d'arrivée prévue
Year / Année — Month / Mois — Day / Jour
14 09 17 — 14 09 17

04-1917 (07/07)

Instructions pour compléter et distribuer au verso

Copy / Copie 1 (white / blanche)

VEMENT DOCUMENT / MANIFEST
CUMENT DE MOUVEMENT / MANIFESTE

vement document/manifest conforms to all federal
vincial transport and environmental legislation.
ument de mouvement/manifeste est conforme aux législations
et provinciale sur l'environnement et le transport.

YT05250-1

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

Generator / consignor / Producteur / expéditeur — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 1

mec

y name / Nom de l'entreprise

address / Adresse postale | City / Ville | Province | Postal code / Code postal

ris.jeffrey@amec.com

Courrier électronique | Tel. No. / N° de tél. ( )

g site address / Adresse du lieu de l'expédition

e Dena Hes Mine Site

Province | Postal code / Code postal

ded Receiver / consignee / otionnaire / destinataire prévu 2 — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial

g address / Adresse postale | City / Ville | Province | Postal code / Code postal

/ Courrier électronique | Tel. No. / N° de tél. ( )

ving site address / Adresse du lieu de l'expédition

Ville | Province | Postal code / Code postal

B Carrier / Transporteur — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 23

YT 151

Company name / Nom de l'entreprise

KPI 116142 Yukon Inc

Mailing address / Adresse postale | City / Ville | Province | Postal code / Code postal

Box 867 Watson Lake Y.T. Y0A1C0

E-mail / Courrier électronique | Tel. No. / N° de tél.

kerrypeters@live.ca 867 536 7361

Vehicle / Véhicule	Registration No. / N° d'immatriculation	Prov. 24
Trailer - Rail car No. 1 / 1re remorque - wagon		
Trailer - Rail car No. 2 / 2e remorque - wagon		

Port of entry / Point d'entrée (international use only) | Port of exit / Point de sortie (international use only) 25

Carrier Certification : *I certify that I have received waste or recyclable material from the generator / consignor for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct.* 26
Attestation du transporteur : *J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractères d'imprimerie): Kerry Peters | Tel. No. / N° de tél. 8675367361 | Signature:

Year / Année 2014 | Month / Mois 08 | Day / Jour 29

Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés 27

C Receiver / consignee / Réceptionnaire / destinataire — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 28

81-049 2403

Receiver / consignee information same as in Part A / Les renseignements du réceptionnaire / destinataire est la même qu'à la Partie A
☐ Yes / Oui ☒ No, complete the box below / Non, remplir la case ci-dessous

Company name / Nom de l'entreprise: Northern Enviro Services 116142 Yukon Inc
Mailing address / Adresse postale: Box 867
City / Ville: Watson Lake | Province: Y.T. | Postal code / Code postal: Y0A1C0
E-mail / Courrier électronique: kerrypeters@live.ca | Tel. No. / N° de tél.: 8675367361
Receiving site address / Adresse du lieu de destination: mile 636 Alaska Highway

Date received / Date de réception: Year / Année 2014 | Month / Mois 08 | Day / Jour 29 — Time / Heure 29 ☐ A.M. ☐ P.M.

If waste or recyclable material to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire 30 — Registration No./Provincial ID No. / N° d'immatriculation/d'id provincial

Prov. code / Code prov. 3	Shipping name / Appellation réglementaire 4	Class / Classe 5 Sub. class(es) / Classe(s) sub.	UN No. / N° NU 6	Packing / risk gr. / Gr. d'emballage / de risque 7	Quantity shipped / Quantité expédiée	Units / Unités 8	Packaging / Contenant No. / N°	Codes Int. – ext. 9	Phys. state / État phys. 10
	tank containment line				1				
	fuel tanks				2				
	gasoline				24,200	l			
	diesel				11890	l			

Quantity received / Quantité reçue	Units / Unités 31	Comments / Commentaires 32	Handling Code / Code de manutention 33	Shipment / Envoi Accepted / Accepté 34	Shipment / Envoi Refused / Refusé 34	Decont. Pack. Cont. 35	Decont. Veh. Véh. 35
1							
2							
24,200	l						
11890	l						

Notice No. / N° de notification 11	Notice Line No / N° de ligne de la notification	Shipment / Envoi 12	Of / De	D or R code / Code D ou R 13	C code / Code C 14	Basel Annex VIII or OECD Code / Annexe VIII de Bâle ou Code OCDE 15	H code / Code H 16	Y code / Code Y 17	National code in country of / Code du pays: Export / Exportation 18	Import / Importation	Customs code(s) / Code(s) de douanes 19
International use only											

If handling code "Other" (specify) / Si code de manutention « autre » (spécifier) 36

Receiver / consignee certification : *I certify that the information contained in Part C is correct and complete.* / **Attestation du réceptionnaire / destinataire :** *J'atteste que tous les renseignements à la partie C sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie) 37: JANE PETERS

Signature | Tel. No. / N° de tél.: 8675367361

Special handling / Manutention spéciale 22
☐ Attached / Ci-joint ☐ As follows / Ci-contre :

tor / consignor certification: *I certify that the information contained in Part A is correct and te.*
tion du producteur / expéditeur: *J'atteste que tous les renseignements à la partie A sont et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie) | Signature | Tel. No. / N° de tél. 20 ( )

21 Date shipped / Date d'expédition: Year / Année 2014 | Month / Mois 08 | Day / Jour 29 — Time / Heure ☐ A.M. ☐ P.M.

Scheduled arrival date / Date d'arrivée prévue: Year / Année 2014 | Month / Mois 08 | Day / Jour 29

04-1917 (07/07)

Instructions for completion and distribution on reverse / Instructions pour compléter et distribuer au verso

Copy / Copie 1 (white / blanche)

MOVEMENT DOCUMENT / MANIFEST
DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial transport and environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

YT05251-9

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consignor / Producteur / expéditeur — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 1

Amec

Company name / Nom de l'entreprise

Mailing address / Adresse postale | City / Ville | Province | Postal code / Code postal

chris.jeffrey@amec.com

E-mail / Courier électronique | Tel. No. / N° de tél. ( )

Shipping site address / Adresse du lieu de l'expédition

Sa Dena Hes Mine Site

City / Ville | Province | Postal code / Code postal

Intended Receiver / consignee / Réceptionnaire / destinataire prévu 2 — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial

Mailing address / Adresse postale | City / Ville | Province | Postal code / Code postal

E-mail / Courier électronique | Tel. No. / N° de tél. ( )

Receiving site address / Adresse du lieu de l'expédition

City / Ville | Province | Postal code / Code postal

B Carrier / Transporteur — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 23

YT 151

Company name / Nom de l'entreprise

KPI 116142 Yukon Inc

Mailing address / Adresse postale | City / Ville | Province | Postal code / Code postal

Box 867 Watson Lake YT. Y0A1C0

E-mail / Courier électronique | Tel. No. / N° de tél.

kerry peters@live.ca 867 536 7361

Vehicle / Véhicule | **Registration No. / N° d'immatriculation** | Prov. 24

Trailer - Rail car No. 1 / 1re remorque - wagon: CD 740

Trailer - Rail car No. 2 / 2e remorque - wagon:

Port of entry / Point d'entrée (International use only) | Port of exit / Point de sortie (International use only) 25

Carrier Certification : *I certify that I have received waste or recyclable material from the generator / consignor for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct.*
Attestation du transporteur : *J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.* 26

Name of authorized person (print) / Nom de l'agent autorisé (caractères d'imprimerie) | Tel. No. / N° de tél. ( )

Year / Année | Month / Mois | Day / Jour | Signature

2014 08 29

Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés 27

C Receiver / consignee / Réceptionnaire / destinataire — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 28

81-049

Receiver / consignee information same as in Part A
Les renseignements du réceptionnaire / destinataire est la même qu'à la Partie A

☐ Yes / Oui ☒ No, complete the box below / Non, remplir la case ci-dessous

Company name / Nom de l'entreprise

Northern Enviro Services / 116142 Yukon Inc

Mailing address / Adresse postale

Box 867

City / Ville | Province | Postal code / Code postal

Watson Lake | YT. | Y0A1C0

E-mail / Courier électronique | Tel. No. / N° de tél.

kerry peters@live.ca 867 536 7361

Receiving site address / Adresse du lieu de destination

Mile 636 Alaska Highway

Date received / Date de réception: Year / Année | Month / Mois | Day / Jour — Time / Heure 29

2014 08 29 ☐ A.M. ☐ P.M.

If waste or recyclable material to be transferred, specify intended company name/ Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire 30 — Registration No./Provincial ID No. / N° d'immatriculation/d'id provincial

	Prov. code / Code prov. 3	Shipping name / Appellation réglementaire 4	Class / Classe Sub. class(es) / Classe(s) sub. 5	UN No. / N° NU 6	Packing / risk gr. / Gr. d'emballage / de risque 7	Quantity shipped / Quantité expédiée	Units / L or / ou Kg / Unités 8	Packaging/Contenant No. / N° 9	Packaging/Contenant Codes Int.– ext. 9	Phys. state / État phys. 10
(i)		water				195,500	l			
(ii)		steel pylons				4				
(iii)		fuel pumps + fittings				2				
(iv)										

	Quantity received / Quantité reçue	Units / L or / ou Kg / Unités 31	Comments / Commentaires 32	Handling Code / Code de manutention 33	Shipment / Envoi Accepted / Accepté 34	Shipment / Envoi Refused / Refusé 34	Decont. Pack. / Cont. 35	Decont. Veh. / Véh. 35
(i)	195500	l						
(ii)	4							
(iii)	2							
(iv)								

If handling code "Other" (specify) / Si code de manutention « autre » (spécifier) 36

	Notice No. / N° de notification 11	Notice Line No. / N° de ligne de la notification	Shipment / Envoi 12	Of / De	D or R code / Code D ou R 13	C code / Code C 14	Basel Annex VIII or OECD Code Annexe VIII de Bâle ou Code OCDE 15	H code / Code H 16	Y code / Code Y 17	National code in country of / Code du pays: Export / Exportation 18	Import / Importation 18	Customs code(s) / Code(s) de douanes 19
(i)												
(ii)												
(iii)												
(iv)												

International use only

Receiver / consignee certification : *I certify that the information contained in Part C is correct and complete. /*
Attestation du réceptionnaire / destinataire : *J'atteste que tous les renseignements à la partie C sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie) 37

JANE PETERS

Signature | Tel. No. / N° de tél.

867 536 7361

Special handling / Manutention spéciale 22

☐ Attached / Ci-joint: ☐ As follows / Ci-contre :

Generator / consignor certification: *I certify that the information contained in Part A is correct and complete.*
Attestation du producteur / expéditeur: *J'atteste que tous les renseignements à la partie A sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie) | Signature | Tel. No. / N° de tél. ( ) 20

21 Date shipped / Date d'expédition: Year / Année | Month / Mois | Day / Jour — Time / Heure ☐ A.M. ☐ P.M. — Scheduled arrival date / Date d'arrivée prévue: Year / Année | Month / Mois | Day / Jour

2014 08 29 — 2014 08 29

MOE 04-1917 (07/07)

Instructions for completion and distribution on reverse / Instructions pour compléter et distribuer au verso

Copy / Copie 1 (white / blanche)

)VEMENT DOCUMENT / MANIFEST
)CUMENT DE MOUVEMENT / MANIFESTE

fovement document/manifest conforms to all federal
ovincial transport and environmental legislation.
cument de mouvement/manifeste est conforme aux législations
le et provinciale sur l'environnement et le transport.

YT05261-8

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

Generator / consignor
Producteur / expéditeur — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 1

Amec

iny name / Nom de l'entreprise

address / Adresse postale — City / Ville — Province — Postal code / Code postal

chris.jeffery@amec.com

/ Courrier électronique — Tel. No. / N° de tél. ( )

ng site address / Adresse du lieu de l'expédition

a Dena Hes Mine Site

ille — Province — Postal code / Code postal

ded Receiver / consignee
ptionnaire / destinataire prévu 2 — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial

g address / Adresse postale — City / Ville — Province — Postal code / Code postal

il / Courrier électronique — Tel. No. / N° de tél. ( )

ving site address / Adresse du lieu de l'expédition

Ville — Province — Postal code / Code postal

B Carrier / Transporteur — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 23

YT 151

Company name / Nom de l'entreprise

KPI / 16142 Yukon Inc

Mailing address / Adresse postale — City / Ville — Province — Postal code / Code postal

Box 867 Watson Lake YT Y0A-1C0

E-mail / Courrier électronique — Tel. No. / N° de tél. ( )

kerrypeters@live.ca

Vehicle / Véhicule	Registration No. / N° d'immatriculation	Prov. 24
Trailer - Rail car No. 1 / 1re remorque - wagon		
Trailer - Rail car No. 2 / 2e remorque - wagon		

Port of entry / Point d'entrée — International use only — Port of exit / Point de sortie — International use only 25

Carrier Certification : *I certify that I have received waste or recyclable material from the generator / consignor for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct.* 26
Attestation du transporteur : *J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractères d'imprimerie) : — Tel. No. / N° de tél. ( )

Year / Année 14 — Month / Mois 08 — Day / Jour 04 — Signature

C Receiver / consignee
Réceptionnaire / destinataire — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 28

81-049-24-037

Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés 27

Receiver / consignee information same as in Part A
Les renseignements du réceptionnaire / destinataire est la même qu'à la Partie A
☐ Yes / Oui ☒ No, complete the box below / Non, remplir la case ci-dessous

Company name / Nom de l'entreprise

Northern Enviro Services

Mailing address / Adresse postale

Box 867

City / Ville — Province — Postal code / Code postal

Watson Lake YT Y0A-1C0

E-mail / Courrier électronique — Tel. No. / N° de tél.

kerrypeters@live.ca 867-536-736

Receiving site address / Adresse du lieu de destination

Mile 634 Alaska Highway

Date received / Date de réception — Year / Année — Month / Mois — Day / Jour — Time / Heure 29 — ☐ A.M. ☐ P.M.

If waste or recyclable material to be transferred, specify intended company name/ Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire 30 — Registration No./Provincial ID No. / N° d'immatriculation/d'id provincial

Prov. code / Code prov. 3	Shipping name / Appellation réglementaire 4	Class / Classe 5 Sub. class(es) / Classe(s) sub.	UN No. / N° NU 6	Packing / risk gr. / Gr. d'emballage / de risque 7	Quantity shipped / Quantité expédiée	Units 8 L or / ou Kg Unités	Packaging/Contenant 9 No. / N°	Codes Int – ext.	Phys. state / État phys. 10
	Truck Load of Used Pipe				1				

Quantity received / Quantité reçue	Units 31 L or / ou Kg Unités	Comments / Commentaires 32	Handling 33 Code / Code de manutention	Shipment / Envoi 34 Accepted / Accepté	Refused / Refusé	Decont. 35 Pack. Cont.	Veh. Véh.
1							

If handling code "Other" (specify) / Si code de manutention « autre » (spécifier) 36

Notice No. / N° de notification 11	Notice Line No. / N° de ligne de la notification 12	Shipment / Envoi	Of / De	D or R code / Code D ou R 13	C code / Code C 14	Basel Annex VIII or OECD Code / Annexe VIII de Bâle ou Code OCDE 15	H code / Code H 16	Y code / Code Y 17	National code in country of / Code du pays 18 Export / Exportation	Import / Importation	Customs code(s) / Code(s) de douanes 19

International use only

Receiver / consignee certification : *I certify that the information contained in Part C is correct and complete.* / ***Attestation du réceptionnaire / destinataire :*** *J'atteste que tous les renseignements à la partie C sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie) 37

Signature — Tel. No. / N° de tél. 867-536-7361

or / consignor certification: *I certify that the information contained in Part A is correct and*
on du producteur / expéditeur: *J'atteste que tous les renseignements à la partie A sont complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie) — Signature — Tel. No. / N° de tél. ( ) 20

Special handling / Manutention spéciale 22
☐ Attached / Ci-joint: ☐ As follows / Ci-contre :

21 Date shipped / Date d'expédition — Year / Année 14 — Month / Mois 09 — Day / Jour 04 — Time / Heure ☐ A.M. ☐ P.M. — Scheduled arrival date / Date d'arrivée prévue — Year / Année 14 — Month / Mois 09 — Day / Jour 04

4-1917 (07/07)

Instructions for completion and distribution on reverse / Instructions pour compléter et distribuer au verso

Copy / Copie 1 (white / blanche)

MOVEMENT DOCUMENT / MANIFEST
DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial transport and environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

YT05255-0

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consignor — Producteur / expéditeur

Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial 1

Company name / Nom de l'entreprise: Amec

Mailing address / Adresse postale | City / Ville | Province | Postal code / Code postal: chris.jeffrey@amec.com

E-mail / Courrier électronique | Tel. No. / N° de tél.: ( )

Shipping site address / Adresse du lieu de l'expédition: Pine Nes Mine Site

City / Ville | Province | Postal code / Code postal

B Carrier — Transporteur

Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial 23: YT 151

Company name / Nom de l'entreprise: KPI 116142 Yukon Inc

Mailing address / Adresse postale: Box 867 | City / Ville: Watson Lake | Province: YT | Postal code / Code postal: Y0A 1C0

E-mail / Courrier électronique: kerrypeters@live.ca | Tel. No. / N° de tél.: 8675367361

Vehicle / Véhicule	Registration No. / N° d'immatriculation	Prov. 24
Trailer - Rail car No. 1 — 1re remorque - wagon		
Trailer - Rail car No. 2 — 2e remorque - wagon		

Port of entry — Point d'entrée (international use only) | Port of exit — Point de sortie (international use only) 25

Carrier Certification : *I certify that I have received waste or recyclable material from the generator / consignor for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct.* 26
Attestation du transporteur : *J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.*

Name of authorized person (print): Nom de l'agent autorisé (caractères d'imprimerie) | Tel. No. / N° de tél.: ( )

Signature

Year / Année: 14 | Month / Mois: 09 | Day / Jour: 17

C Receiver / consignee — Réceptionnaire / destinataire

Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial 28: 81-049 21-037

Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés 27

Receiver / consignee information same as in Part A — Les renseignements du réceptionnaire / destinataire est la même qu'à la Partie A
☐ Yes / Oui ☒ No, complete the box below / Non, remplir la case ci-dessous

Company name / Nom de l'entreprise: Northern Enviro Services 116142 Yukon Inc

Mailing address / Adresse postale: Box 867 | City / Ville: Watson Lake | Province: YT | Postal code / Code postal: Y0A 1C0

E-mail / Courrier électronique: kerrypeters@live.ca | Tel. No. / N° de tél.: 8675367361

Receiving site address / Adresse du lieu de destination: MILE 636 Alaska Hwy

Date received / Date de réception: Year / Année: 14 | Month / Mois: 09 | Day / Jour: 17 | Time / Heure 29: ☐ A.M. ☐ P.M.

Intended Receiver / consignee — Réceptionnaire / destinataire prévu 2

Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial

Mailing address / Adresse postale | City / Ville | Province | Postal code / Code postal

E-mail / Courrier électronique | Tel. No. / N° de tél.: ( )

Receiving site address / Adresse du lieu de l'expédition

City / Ville | Province | Postal code / Code postal

If waste or recyclable material to be transferred, specify intended company name/ Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire 30 | Registration No./Provincial ID No. — N° d'immatriculation/d'id provincial

Prov. code — Code prov. 3	Shipping name — Appellation réglementaire 4	Class / Classe 5 — Sub. class(es) / Classe(s) sub.	UN No. — N°NU 6	Packing / risk gr. 7 — Gr. d'emballage/ de risque	Quantity shipped — Quantité expédiée	Units 8 — L or / ou Kg — Unités	Packaging/Contenant 9 — No. / N°	Codes — Int.– ext.	Phys. state 10 — État phys.	Quantity received — Quantité reçue	Units 31 — L or / ou kg — Unités	Comments 32 — Commentaires	Handling Code / Code de manutention 33	Shipment / Envoi 34 — Accepted — Accepté	Refused — Refusé	Decont. 35 — Pack. — Cont.	Veh. — Véh.
1	5 gal pail 45 plastic drum				1					1				✓			
)	loader tires				6					5				✓			
)	truck tires				6					6				✓			
)					6					6				✓			

If handling code "Other" (specify) 36
Si code de manutention « autre » (spécifier)

Notice No. — N° de notification	Notice Line No — N° de ligne de la notification 11	Shipment — Envoi 12	Of / De	D or R code — Code É ou R 13	C code — Code C 14	Basel Annex VIII or OECD Code — Annexe VIII de Bâle ou Code OCDE 15	H code — Code H 16	Y code — Code Y 17	National code in country of / Code du pays 18 — Export — Exportation	Import — Importation	Customs code(s) — Code(s) de douanes 19

International use only

Receiver / consignee certification : *I certify that the information contained in Part C is correct and complete.* / ***Attestation du réceptionnaire / destinataire :*** *J'atteste que tous les renseignements à la partie C sont exacts et complets.*

Name of authorized person (print) — Nom de l'agent autorisé (caractère d'imprimerie) 37: JANE PETERS

Signature | Tel. No. / N° de tél.: 8675367361

Generator / consignor certification: *I certify that the information contained in Part A is correct and complete.*
Attestation du producteur / expéditeur: *J'atteste que tous les renseignements à la partie A sont exacts et complets.*

Name of authorized person (print) — Nom de l'agent autorisé (caractère d'imprimerie) | Signature | Tel. No. / N° de tél. 20: ( )

Special handling / Manutention spéciale 22
☐ Attached /Ci-joint ☐ As follows/ Ci-contre :

Date shipped / Date d'expédition 21: Year / Année: 14 | Month / Mois: 09 | Day / Jour: 17 | Time / Heure: ☐ A.M. ☐ P.M.

Scheduled arrival date / Date d'arrivée prévue: Year / Année: 14 | Month / Mois: 09 | Day / Jour: 17

MOVEMENT DOCUMENT / MANIFEST
DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial transport and environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

YT05254-3

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consignor / Producteur / expéditeur

Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 1

Company name / Nom de l'entreprise: Amec

Mailing address / Adresse postale | City / Ville | Province | Postal code / Code postal: chris, jeffrey@amec, com

E-mail / Courrier électronique | Tel. No. / N° de tél. ( )

Shipping site address / Adresse du lieu de l'expédition: Sa Dena Nes Mine Site

City / Ville | Province | Postal code / Code postal

Intended Receiver / consignee / Réceptionnaire / destinataire prévu 2

Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial

Mailing address / Adresse postale | City / Ville | Province | Postal code / Code postal

E-mail / Courrier électronique | Tel. No. / N° de tél. ( )

Receiving site address / Adresse du lieu de l'expédition

City / Ville | Province | Postal code / Code postal

B Carrier / Transporteur

Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 23: YT 151

Company name / Nom de l'entreprise: KPI 16142 Yukon Inc

Mailing address / Adresse postale | City / Ville | Province | Postal code / Code postal: Box 867 Watson Lake YT. Y0A1C0

E-mail / Courrier électronique | Tel. No. / N° de tél.: kerrypeters@live.ca 8675367361

Vehicle / Véhicule	Registration No. / N° d'immatriculation	Prov. 24
Trailer - Rail car No. 1 / 1re remorque - wagon	CP 740	
Trailer - Rail car No. 2 / 2e remorque - wagon		

Port of entry / Point d'entrée (international use only) | Port of exit / Point de sortie (international use only) 25

Carrier Certification : *I certify that I have received waste or recyclable material from the generator / consignor for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct.* 26
Attestation du transporteur : *J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractères d'imprimerie) | Tel. No. / N° de tél. ( ) | Signature

Year / Année | Month / Mois | Day / Jour: 14 09 17

Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés 27

C Receiver / consignee / Réceptionnaire / destinataire

Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 28: 81-049 24-037

Receiver / consignee information same as in Part A / Les renseignements du réceptionnaire/ destinataire est la même qu'à la Partie A
☐ Yes / Oui ☒ No, complete the box below / Non, remplir la case ci-dessous

Company name / Nom de l'entreprise: Northern Enviro Services 16142 Yukon Inc
Mailing address / Adresse postale: Box 867 Watson Lake YT. Y0A1C0
City / Ville | Province | Postal code / Code postal: Kerrypeters@live.ca
E-mail / Courrier électronique | Tel. No. / N° de tél.: Mile 636 Alaska Hwy 8675367361
Receiving site address / Adresse du lieu de destination

Date received / Date de réception: Year / Année | Month / Mois | Day / Jour: 14 09 17 | Time / Heure 29 ☐ A.M. ☐ P.M.

If waste or recyclable material to be transferred, specify intended company name/ Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire 30 | Registration No./Provincial ID No. / N° d'immatriculation/d'id provincial

	Prov. code / Code prov. 3	Shipping name / Appellation réglementaire 4	Class / Classe 5: Sub. class(es) / Classe(s) sub.	UN No. / N° NU 6	Packing / risk gr. 7: Gr. d'emballage/ de risque	Quantity shipped / Quantité expédiée	Units 8: L or / ou Kg / Unités	Packaging/Contenant 9: No. / N°	Codes Int.– ext.	Phys. state / État phys. 10	Quantity received / Quantité reçue	Units 31: L or / ou kg / Unités	Comments / Commentaires 32	Handling Code / Code de manutention 33	Shipment / Envoi 34: Accepted / Accepté	Refused / Refusé	Decont. 35: Pack. Cont.	Veh. Véh.
(i)		Fire Extinguishers				5					5							
(ii)		Batteries				5					5							
(iii)		Large gas cylinder				7					7							
(iv)		20lbs gas cylinder				3					3							

	Notice No. / N° de notification 11	Notice Line No. / N° de ligne de la notification	Shipment / Envoi 12	Of / De	D or R code / Code D ou R 13	C code / Code C 14	Basel Annex VIII or OECD Code / Annexe VIII de Bâle ou Code OCDE 15	H code / Code H 16	Y code / Code Y 17	National code in country of / Code du pays 18: Export / Exportation	Import / Importation	Customs code(s) / Code(s) de douanes 19
(i)												
(ii)												
(iii)												
(iv)												

International use only

If handling code "Other" (specify) / Si code de manutention « autre » (spécifier) 36

Receiver / consignee certification : *I certify that the information contained in Part C is correct and complete. /* ***Attestation du réceptionnaire / destinataire :*** *J'atteste que tous les renseignements à la partie C sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie) 37: JANE PETERS

Signature | Tel. No. / N° de tél.: 8675367361

Generator / consignor certification: *I certify that the information contained in Part A is correct and complete.*
Attestation du producteur / expéditeur: *J'atteste que tous les renseignements à la partie A sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie) | Signature | Tel. No. / N° de tél. 20 ( )

Special handling / Manutention spéciale 22
☐ Attached /Ci-joint: ☐ As follows/ Ci-contre :

21 Date shipped / Date d'expédition: Year / Année | Month / Mois | Day / Jour: 14 09 17 | Time / Heure ☐ A.M. ☐ P.M

Scheduled arrival date / Date d'arrivée prévue: Year / Année | Month / Mois | Day / Jour: 14 09 17

VIOE 04-1917 (07/07)

Instructions for completion and distribution on reverse / Instructions pour compléter et distribuer au verso

Copy / Copie 1 (white / blanche)

MOVEMENT DOCUMENT / MANIFEST
DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial transport and environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

YT05253-5

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consignor / Producteur / expéditeur

Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 1

Amec

Company name / Nom de l'entreprise

Mailing address / Adresse postale | City / Ville | Province | Postal code / Code postal

chris.jeffrey@amec.com

E-mail / Courrier électronique | Tel. No. / N° de tél. ( )

Shipping site address / Adresse du lieu de l'expédition

Sa Dena Hes mine site

City / Ville | Province | Postal code / Code postal

Intended Receiver / consignee / Réceptionnaire / destinataire prévu 2

Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial

Mailing address / Adresse postale | City / Ville | Province | Postal code / Code postal

E-mail / Courrier électronique | Tel. No. / N° de tél. ( )

Receiving site address / Adresse du lieu de l'expédition

City / Ville | Province | Postal code / Code postal

B Carrier / Transporteur

Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 23

YT 151

Company name / Nom de l'entreprise

KPL / 16142 Yukon Inc

Mailing address / Adresse postale | City / Ville | Province | Postal code / Code postal

Box 867 Watson Lake YT. Y0A 1C0

E-mail / Courrier électronique | Tel. No. / N° de tél.

Kerry.peters@live.ca 8675367361

Vehicle / Véhicule	Registration No. / N° d'immatriculation	Prov. 24
Trailer - Rail car No. 1 / 1re remorque - wagon	CD740	
Trailer - Rail car No. 2 / 2e remorque - wagon		

Port of entry / Point d'entrée (International use only) | Port of exit / Point de sortie (International use only) 25

Carrier Certification : *I certify that I have received waste or recyclable material from the generator / consignor for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct.* 26
Attestation du transporteur : *J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractères d'imprimerie) : KERRY PETERS

Tel. No. / N° de tél. 8675367361

Signature

Year / Année 14 | Month / Mois 09 | Day / Jour 26

C Receiver / consignee / Réceptionnaire / destinataire

Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial

81-049 24-037

Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés

Receiver / consignee information same as in Part A / Les renseignements du réceptionnaire / destinataire est la même qu'à la Partie A

☐ Yes / Oui ☑ No, complete the box below / Non, remplir la case ci-dessous

Company name / Nom de l'entreprise

Northern Enviro Services

Mailing address / Adresse postale

Box 867

City / Ville | Province | Postal code / Code postal

Watson Lake YT Y0A 1C0

E-mail / Courrier électronique | Tel. No. / N° de tél.

kerry.peters@live.ca 8675367361

Receiving site address / Adresse du lieu de destination

Mile 636 Alaska Highway

Date received / Date de réception: Year / Année 14 | Month / Mois 09 | Day / Jour 26 | Time / Heure ☐ A.M. ☐ P.M. 29

If waste or recyclable material to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire 30

Registration No./Provincial ID No. / N° d'immatriculation/d'id provincial

	Prov. code / Code prov. 3	Shipping name / Appellation réglementaire 4	Class / Classe Sub. class(es) / Classe(s) sub. 5	UN No. / N°NU 6	Packing / risk gr. / Gr. d'emballage/ de risque 7	Quantity shipped / Quantité expédiée	Units / Unités 8	Packaging/Contenant No. / N°	Codes Int.– ext.	Phys. state / État phys. 10
(i)		Oil Drum				1				
(ii)		Used Oil				80	L			
(iii)										
(iv)										

	Quantity received / Quantité reçue	Units / Unités 31	Comments / Commentaires 32	Handling Code / Code de manutention 33	Shipment / Envoi Accepted / Accepté 34	Refused / Refusé	Decont. Pack. / Cont.	Ve
(i)	1				✓			
(ii)	80	L			✓			
(iii)								
(iv)								

	Notice No. / N° de notification 11	Notice Line No. / N° de ligne de la notification	Shipment / Envoi 12	Of / De	D or R code / Code É ou R 13	C code / Code C 14	Basel Annex VIII or OECD Code / Annexe VIII de Bâle ou Code OCDE 15	H code / Code H 16	Y code / Code Y 17	National code in country of / Code du pays 18 Export / Exportation	Import / Importation	Customs code(s) / Code(s) de douanes 19
(i)												
(ii)												
(iii)												
(iv)												

International use only

If handling code "Other" (specify) / Si code de manutention « autre » (spécifier)

Receiver / consignee certification : *I certify that the information contained in Part C is correct and complete. /* ***Attestation du réceptionnaire / destinataire :*** *J'atteste que tous les renseignements à la partie C sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie)

JANE PETERS

Signature

Tel. No. / N° de tél. 8675367361

Special handling / Manutention spéciale 27

☐ Attached / Ci-joint: ☐ As follows / Ci-contre :

Generator / consignor certification: *I certify that the information contained in Part A is correct and complete.*
Attestation du producteur / expéditeur: *J'atteste que tous les renseignements à la partie A sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie) | Signature | Tel. No. / N° de tél. ( ) 20

21 Date shipped / Date d'expédition: Year / Année 14 | Month / Mois 09 | Day / Jour 26 | Time / Heure ☐ A.M. ☐ P.M.

Scheduled arrival date / Date d'arrivée prévue: Year / Année 14 | Month / Mois 09 | Day / Jour 26

MOE 04-1917 (07/07)

Instructions for completion and distribution on reverse / Instructions pour compléter et distribuer au verso

Copy / Copie 1 (white / blanch

MOVEMENT DOCUMENT / MANIFEST
DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial transport and environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

YT05252-7

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consignor / Producteur / expéditeur — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 1

Amec

Company name / Nom de l'entreprise

Mailing address / Adresse postale | City / Ville | Province | Postal code / Code postal

chris.jeffrey@amec.com

E-mail / Courrier électronique | Tel. No. / N° de tél. ( )

Shipping site address / Adresse du lieu de l'expédition

Sa Dena Hes Mine Site

City / Ville | Province | Postal code / Code postal

Intended Receiver / consignee / Réceptionnaire / destinataire prévu 2 — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial

Mailing address / Adresse postale | City / Ville | Province | Postal code / Code postal

E-mail / Courrier électronique | Tel. No. / N° de tél. ( )

Receiving site address / Adresse du lieu de l'expédition

City / Ville | Province | Postal code / Code postal

B Carrier / Transporteur — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 23

YT 151

Company name / Nom de l'entreprise

KPI/16192 Yukon Inc

Mailing address / Adresse postale | City / Ville | Province | Postal code / Code postal

Box 867 WATSON LAKE YT Y0A1C0

E-mail / Courrier électronique | Tel. No. / N° de tél.

kerrypeters@live.ca 8675367361

Vehicle / Véhicule	Registration No. / N° d'immatriculation	Prov. 24
Trailer - Rail car No. 1 / 1re remorque - wagon	CN 740	
Trailer - Rail car No. 2 / 2e remorque - wagon		

Port of entry / Point d'entrée — International use only | Port of exit / Point de sortie — International use only 25

Carrier Certification : *I certify that I have received waste or recyclable material from the generator / consignor for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct.* 26
Attestation du transporteur : *J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractères d'imprimerie) : Kerry Peters — Tel. No. / N° de tél. 8675367361

Signature :

Year / Année 19 | Month / Mois 09 | Day / Jour 26

Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés 27

C Receiver / consignee / Réceptionnaire / destinataire — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 28

81-049 24-037

Receiver / consignee information same as in Part A / Les renseignements du réceptionnaire / destinataire est la même qu'à la Partie A
☐ Yes / Oui ☒ No, complete the box below / Non, remplir la case ci-dessous

Company name / Nom de l'entreprise: Northern Enviro Services

Mailing address / Adresse postale: Box 867

City / Ville: Watson Lake | Province: YT. | Postal code / Code postal: Y0A1C0

E-mail / Courrier électronique: kerrypeters@live.ca | Tel. No. / N° de tél.: 8675367361

Receiving site address / Adresse du lieu de destination: Mile 636 Alaska Highway

Date received / Date de réception: Year / Année | Month / Mois | Day / Jour — Time / Heure 29 ☐ A.M. ☐ P.M.

If waste or recyclable material to be transferred, specify intended company name/ Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire 30 — Registration No./Provincial ID No. / N° d'immatriculation/d'id provincial

	Prov. code / Code prov. 3	Shipping name / Appellation réglementaire 4	Class / Classe 5 Sub. class(es) / Classe(s) sub.	UN No. / N° NU 6	Packing / risk gr. / Gr. d'emballage / de risque 7	Quantity shipped / Quantité expédiée	Units / Unités 8	Packaging / Contenant No. / N° 9	Codes	Phys. state / État phys. 10	Quantity received / Quantité reçue	Units / Unités 31	Comments / Commentaires 32	Handling Code / Code de manutention 33	Shipment / Envoi Accepted / Accepté 34	Refused / Refusé	Decont. 35 Pack. Cont.	Veh. Véh.
(i)		Shacks				2					2							
(ii)		Sediment pond liner				1					1							
(iii)		Heater Units, support				2					2							
(iv)		Steel Pylons				9					9							

	Notice No. / N° de notification 11	Notice Line No. / N° de ligne de la notification	Shipment / Envoi 12	Of / De	D or R code / Code D ou R 13	C code / Code C 14	Basel Annex VIII or OECD Code / Annexe VIII de Bâle ou Code OCDE 15	H code / Code H 16	Y code / Code Y 17	National code in country of / Code du pays 18 Export / Exportation	Import / Importation	Customs code(s) / Code(s) de douanes 19
(i)												
(ii)												
(iii)	International use only											
(iv)												

If handling code "Other" (specify) / Si code de manutention « autre » (spécifier) 36

Receiver / consignee certification : *I certify that the information contained in Part C is correct and complete. /* ***Attestation du réceptionnaire / destinataire :*** *J'atteste que tous les renseignements à la partie C sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie) 37: JANE PETERS

Signature: Jane Peters. — Tel. No. / N° de tél.: 8675367361

Special handling / Manutention spéciale 22
☐ Attached / Ci-joint: ☐ As follows / Ci-contre :

Generator / consignor certification: *I certify that the information contained in Part A is correct and complete.*
Attestation du producteur / expéditeur: *J'atteste que tous les renseignements à la partie A sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie) — Signature — Tel. No. / N° de tél. ( ) 20

21 Date shipped / Date d'expédition: Year / Année 19 | Month / Mois 09 | Day / Jour 26 — Time / Heure ☐ A.M. ☐ P.M. — Scheduled arrival date / Date d'arrivée prévue: Year / Année 19 | Month / Mois 09 | Day / Jour 26

MOE 04-1917 (07/07)

Instructions for completion and distribution on reverse / Instructions pour compléter et distribuer au verso

Copy / Copie 1 (white / blanche)

MOVEMENT DOCUMENT / MANIFEST
DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial transport and environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

YT05258-4

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consignor — Producteur / expéditeur — Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial 1

Company name / Nom de l'entreprise: Amec
Mailing address / Adresse postale | City / Ville | Province | Postal code / Code postal:
E-mail / Courrier électronique: Chris.Jeffrey@amec.com | Tel. No. / N° de tél.:
Shipping site address / Adresse du lieu de l'expédition: Sa Dena Hes Mine Site
City / Ville | Province | Postal code / Code postal:

Intended Receiver / consignee — Réceptionnaire / destinataire prévu 2 — Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial
Mailing address / Adresse postale | City / Ville | Province | Postal code / Code postal:
E-mail / Courrier électronique | Tel. No. / N° de tél.:
Receiving site address / Adresse du lieu de l'expédition
City / Ville | Province | Postal code / Code postal:

B Carrier — Transporteur — Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial 23: YT 151

Company name / Nom de l'entreprise: KPI/16142 Yukon Inc.
Mailing address / Adresse postale: Box 867 | City / Ville: Watson Lake | Province: Y.T | Postal code / Code postal: Y0A-1C0
E-mail / Courrier électronique: kerrypeters@live.ca | Tel. No. / N° de tél.: 867-536-7361

Vehicle / Véhicule	Registration No. / N° d'immatriculation	Prov. 24
Trailer - Rail car No. 1 / 1re remorque - wagon	CD 740	
Trailer - Rail car No. 2 / 2e remorque - wagon		

Port of entry / Point d'entrée (international use only) | Port of exit / Point de sortie (international use only) 25

Carrier Certification : *I certify that I have received waste or recyclable material from the generator / consignor for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct.* 26
Attestation du transporteur : *J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractères d'imprimerie) : | Tel. No. / N° de tél.:
Year / Année | Month / Mois | Day / Jour | Signature 4: 2014 | 09 | 29

C Receiver / consignee — Réceptionnaire / destinataire — Registration No. / Provincial ID No. — N° d'immatriculation - d'id. provincial 28: 81-049

Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés 27

Receiver / consignee information same as in Part A
Les renseignements du réceptionnaire / destinataire est la même qu'à la Partie A
☐ Yes / Oui ☒ No, complete the box below / Non, remplir la case ci-dessous

Company name / Nom de l'entreprise: NORTHERN ENVIRO Services / 16142 Yukon Inc.
Mailing address / Adresse postale: Box 867
City / Ville: Watson Lake | Province: YT | Postal code / Code postal: Y0A-1C0
E-mail / Courrier électronique: kerrypeters@live.ca | Tel. No. / N° de tél.: 867 536-7361
Receiving site address / Adresse du lieu de destination

Date received / Date de réception: Year / Année: 2014 | Month / Mois: 09 | Day / Jour: 29 — Time / Heure 29: ☐ A.M. ☐ P.M.

If waste or recyclable material to be transferred, specify intended company name/ Si les dechets ou matières recyclables doivent être transférés, préciser le nom du destinataire 30 | Registration No./Provincial ID No. / N° d'immatriculation/d'id provincial

	Prov. code / Code prov. 3	Shipping name / Appellation réglementaire 4	Class / Classe 5 — Sub. class(es) / Classe(s) sub.	UN No. / N° NU 6	Packing / risk gr. 7 — Gr. d'emballage / de risque	Quantity shipped / Quantité expédiée	Units 8 — L or / ou Kg — Unités	Packaging / Contenant 9 — No. / N°	Codes — Int. – ext.	Phys. state / État phys. 10	Quantity received / Quantité reçue	Units 31 — L or / ou kg — Unités	Comments / Commentaires 32	Handling Code / Code de manutention 33	Shipment / Envoi 34 — Accepted / Accepté	Refused / Refusé	Decont. 35 — Pack. Cont.	Veh. Véh.
(i)		1 large container liner in a ben				1		ben			1	ben						
(ii)																		
(iii)																		
(iv)		construction, misc waste				1		ben			1	ben						

	Notice No. / N° de notification 11	Notice Line No. / N° de ligne de la notification	Shipment / Envoi 12	Of / De	D or R code / Code D ou R 13	C code / Code C 14	Basel Annex VIII or OECD Code / Annexe VIII de Bâle ou Code OCDE 15	H code / Code H 16	Y code / Code Y 17	National code in country of / Code du pays — Export / Exportation	Import / Importation 18	Customs code(s) / Code(s) de douanes 19
(i)												
(ii)												
(iii)												
(iv)												

International use only

If handling code "Other" (specify) 36
Si code de manutention « autre » (spécifier)

Receiver / consignee certification : *I certify that the information contained in Part C is correct and complete. /* ***Attestation du réceptionnaire / destinataire :*** *J'atteste que tous les renseignements à la partie C sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie) 37
Signature | Tel. No. / N° de tél.: 867 536 7361

Special handling / Manutention spéciale 22
☐ Attached /Ci-joint: ☐ As follows/ Ci-contre :

Generator / consignor certification: *I certify that the information contained in Part A is correct and complete.*
Attestation du producteur / expéditeur: *J'atteste que tous les renseignements à la partie A sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie) | Signature | Tel. No. / N° de tél. 20: ( )

Date shipped / Date d'expédition 21: Year / Année: 2014 | Month / Mois: 09 | Day / Jour: 29 — Time / Heure: ☐ A.M. ☐ P.M.
Scheduled arrival date / Date d'arrivée prévue: Year / Année: 14 | Month / Mois: 09 | Day / Jour: 29

MOE 04-1917 (07/07)

Instructions for completion and distribution on reverse / Instructions pour compléter et distribuer au verso

Copy / Copie 1 (white / blanche)

VEMENT DOCUMENT / MANIFEST
CUMENT DE MOUVEMENT / MANIFESTE

ovement document/manifest conforms to all federal
vincial transport and environmental legislation.
ument de mouvement/manifeste est conforme aux législations
e et provinciale sur l'environnement et le transport.

YT05260-0

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

Generator / consignor
Producteur / expéditeur — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 1

Amec

y name / Nom de l'entreprise

address / Adresse postale — City / Ville — Province — Postal code / Code postal

chris.jeffery@amec.com

Courrier électronique — Tel. No. / N° de tél. ( )

g site address / Adresse du lieu de l'expédition

a Dena Hes Mine Site

lle — Province — Postal code / Code postal

ded Receiver / consignee 2
ptionnaire / destinataire prévu — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial

g address / Adresse postale — City / Ville — Province — Postal code / Code postal

l / Courrier électronique — Tel. No. / N° de tél. ( )

ving site address / Adresse du lieu de l'expédition

Ville — Province — Postal code / Code postal

B Carrier / Transporteur — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 23

YT 151

Company name / Nom de l'entreprise

KDI / 16142 Yukon Inc

Mailing address / Adresse postale — City / Ville — Province — Postal code / Code postal

Box 867 Watson Lake YT Y0A-1C0

E-mail / Courrier électronique — Tel. No. / N° de tél. ( )

Kerry.Peters@live.ca

Vehicle / Véhicule	Registration No. / N° d'immatriculation	Prov. 24
Trailer - Rail car No. 1 / 1re remorque - wagon	CD 740	
Trailer - Rail car No. 2 / 2e remorque - wagon		

Port of entry / Point d'entrée — International use only — Port of exit / Point de sortie — International use only 25

Carrier Certification : *I certify that I have received waste or recyclable material from the generator / consignor for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct.* 26
Attestation du transporteur : *J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractères d'imprimerie) : — Tel. No. / N° de tél.

Lorenda Funnell — 867-536-7361

Year / Année — Month / Mois — Day / Jour — Signature :

2014 — 06 — 25

Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés 27

C Receiver / consignee / Réceptionnaire / destinataire — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial 28

81-049

Receiver / consignee information same as in Part A
Les renseignements du réceptionnaire / destinataire est la même qu'à la Partie A

☐ Yes / Oui ☑ No, complete the box below / Non, remplir la case ci-dessous

Company name / Nom de l'entreprise

Northern Enviro Services

Mailing address / Adresse postale

Box 876

City / Ville — Province — Postal code / Code postal

Watson Lake YT Y0A-1C0

E-mail / Courrier électronique — Tel. No. / N° de tél.

kerrypeters@live.ca — 867-536-7361

Receiving site address / Adresse du lieu de destination

Date received / Date de réception — Year / Année — Month / Mois — Day / Jour — Time / Heure 29 — ☐ A.M. ☐ P.M.

If waste or recyclable material to be transferred, specify intended company name/ Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire 30 — Registration No./Provincial ID No. / N° d'immatriculation/d'id provincial

Prov. code / Code prov. 3	Shipping name / Appellation réglementaire 4	Class / Classe 5 Sub. class(es) / Classe(s) sub.	UN No. / N° NU 6	Packing / risk gr. / Gr. d'emballage / de risque 7	Quantity shipped / Quantité expédiée	Units / L or / ou Kg / Unités 8	Packaging / Contenant No. / N°	Codes Int. – ext. 9	Phys. state / État phys. 10
Kg	Cubic Meters Contaminated Soil				6				

Quantity received / Quantité reçue	Units / L or / ou kg / Unités 31	Comments / Commentaires 32	Handling Code / Code de manutention 33	Shipment / Envoi Accepted / Accepté 34	Shipment / Envoi Refused / Refusé 34	Decont. Pack. Cont. 35	Decont. Veh. Véh. 35
6							

Notice No. / N° de notification 11	Notice Line No. / N° de ligne de la notification	Shipment / Envoi 12	Of / De	D or R code / Code É ou R 13	C code / Code C 14	Basel Annex VIII or OECD Code Annexe VIII de Bâle ou Code OCDE 15	H code / Code H 16	Y code / Code Y 17	National code in country of / Code du pays: Export / Exportation 18	Import / Importation	Customs code(s) / Code(s) de douanes 19

International use only

If handling code "Other" (specify) / Si code de manutention « autre » (spécifier) 36

Receiver / consignee certification : *I certify that the information contained in Part C is correct and complete.* / ***Attestation du réceptionnaire / destinataire :*** *J'atteste que tous les renseignements à la partie C sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie) 37

Signature — Tel. No. / N° de tél.

867-536-7361

Special handling / Manutention spéciale 22

☐ Attached / Ci-joint: ☐ As follows / Ci-contre :

tor / consignor certification: *I certify that the information contained in Part A is correct and te.*
tion du producteur / expéditeur: *J'atteste que tous les renseignements à la partie A sont et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie) — Signature — Tel. No. / N° de tél. 20 ( )

21 Date shipped / Date d'expédition — Year / Année — Month / Mois — Day / Jour — Time / Heure ☐ A.M. ☐ P.M — Scheduled arrival date / Date d'arrivée prévue — Year / Année — Month / Mois — Day / Jour

04-1917 (07/07)

Instructions for completion and distribution on reverse / Instructions pour compléter et distribuer au verso

Copy / Copie 1 (white / blanche)

VEMENT DOCUMENT / MANIFEST
CUMENT DE MOUVEMENT / MANIFESTE

vement document/manifest conforms to all federal
rincial transport and environmental legislation.
ment de mouvement/manifeste est conforme aux législations
et provinciale sur l'environnement et le transport.

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste **YT05259-2**

Generator / consignor / Producteur / expéditeur — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial (1)

Amec
y name / Nom de l'entreprise

ddress / Adresse postale | City / Ville | Province | Postal code / Code postal

Courrier électronique: hris.jeffery@amec.com — Tel. No. / N° de tél. ( )

Shipping site address / Adresse du lieu de l'expédition: Sa Dena Hes Mine Site — Province — Postal code / Code postal

ded Receiver / consignee / tionnaire / destinataire prévu (2) — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial

g address / Adresse postale | City / Ville | Province | Postal code / Code postal

/ Courrier électronique — Tel. No. / N° de tél. ( )

ving site address / Adresse du lieu de l'expédition

Ville | Province | Postal code / Code postal

B Carrier / Transporteur — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial (23): YT 151

Company name / Nom de l'entreprise: 16142 Yukon Inc

Mailing address / Adresse postale: Box 867 — City / Ville: Watson Lake, YT — Province — Postal code / Code postal: Y0A-1C0

E-mail / Courrier électronique: KerryPeters@live.ca — Tel. No. / N° de tél.: 867-536-7361

Vehicle / Véhicule	Registration No. / N° d'immatriculation	Prov. (24)
Trailer - Rail car No. 1 / 1er remorque - wagon	CD 790	
Trailer - Rail car No. 2 / 2e remorque - wagon		

Port of entry / Point d'entrée: International use only — Port of exit / Point de sortie: International use only (25)

Carrier Certification: I certify that I have received waste or recyclable material from the generator / consignor for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. (26)
Attestation du transporteur: J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.

Name of authorized person (print): / Nom de l'agent autorisé (caractères d'imprimerie): Lorena Funnell — Tel. No. / N° de tél.: 867-536-7361

Year / Année | Month / Mois | Day / Jour | Signature:

Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés (27)

C Receiver / consignee / Réceptionnaire / destinataire: 24-037 — Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial (28): 81-049

Receiver / consignee information same as in Part A / Les renseignements du réceptionnaire / destinataire est la même qu'à la Partie A
☐ Yes / Oui ☐ No, complete the box below / Non, remplir la case ci-dessous

Company name / Nom de l'entreprise: Norther Enviro Services
Mailing address / Adresse postale: Box 867
City / Ville: Watson Lake, YT — Province — Postal code / Code postal: Y0A-1C0
E-mail / Courrier électronique: kerrypeters@live.ca — Tel. No. / N° de tél.: 867-536-7361
Receiving site address / Adresse du lieu de destination: Mile 636 Alaska Highway

Date received / Date de réception: Year / Année 14 — Month / Mois 09 — Day / Jour 02 — Time / Heure: ☐ A.M. ☑ P.M. (29)

If waste or recyclable material to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire (30) — Registration No./Provincial ID No. / N° d'immatriculation/d'id provincial

Prov. code / Code prov. (3)	Shipping name / Appellation réglementaire (4)	Class / Classe Sub. class(es) / Classe(s) sub. (5)	UN No. / N°NU (6)	Packing / risk gr. / Gr. d'emballage/ de risque (7)	Quantity shipped / Quantité expédiée	Units L or / ou Kg / Unités (8)	Packaging/Contenant No. / N° (9)	Codes Int.–ext.	Phys. state / État phys. (10)	Quantity received / Quantité reçue	Units L or / ou Kg / Unités (31)	Comments / Commentaires (32)	Handling Code / Code de manutention (33)	Shipment / Envoi Accepted / Accepté (34)	Refused / Refusé	Decont. Pack. / Cont. (35)	Veh. / Véh.
	Contaminated Soil				3					3							
	Cubic Meters				1					1							
					14					14							
					4					4							

Notice No. / N° de notification	Notice Line No / N° de ligne de la notification (11)	Shipment / Envoi	Of / De (12)	D or R code / Code É ou R (13)	C code / Code C (14)	Basel Annex VIII or OECD Code / Annexe VIII de Bâle ou Code OCDE (15)	H code / Code H (16)	Y code / Code Y (17)	National code in country of / Code du pays: Export / Exportation (18)	Import / Importation	Customs code(s) / Code(s) de douanes (19)

International use only

If handling code "Other" (specify) / Si code de manutention « autre » (spécifier) (36)

Receiver / consignee certification: I certify that the information contained in Part C is correct and complete. / Attestation du réceptionnaire / destinataire: J'atteste que tous les renseignements à la partie C sont exacts et complets. (37)

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie): Lorena Funnell
Signature: [signature] — Tel. No. / N° de tél.: 867-536-7361

Special handling / Manutention spéciale (22): ☐ Attached / Ci-joint: ☐ As follows / Ci-contre:

tor / consignor certification: I certify that the information contained in Part A is correct and te.
tion du producteur / expéditeur: J'atteste que tous les renseignements à la partie A sont et complets.

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie) — Signature — Tel. No. / N° de tél. ( ) (20)

(21) Date shipped / Date d'expédition: Year / Année | Month / Mois | Day / Jour — Time / Heure ☐ A.M. ☐ P.M. — Scheduled arrival date / Date d'arrivée prévue: Year / Année | Month / Mois | Day / Jour

04-1917 (07/07)

Instructions for completion and distribution on reverse / Instructions pour compléter et distribuer au verso

Copy / Copie 1 (white / blanche)

AFFIX BAR CODE HERE
CODE À BARRES ICI

Name of Carrier:
Nom du transporteur : 16142 Yukon Inc / ICPI

Original | Non Negotiable/Non négociable

FROM / DE

Date: Aug 25	Bill of Lading/Connaissement		
Name of Consignor / Nom de l'expéditeur: Amec		Telephone No. / N° de téléphone	
Address / Adresse			
City / Ville	Prov.	Postal Code / Code postal	

TO / À

Name of Consignee / Nom du destinataire: Northern Enviro Service / 16142		Telephone No. / N° de téléphone: 867-536-7361	
Attention / À l'attention de			
Address / Adresse			
City / Ville	Prov.	Postal Code / Code postal	

Invoice Charges To: (Third Party) / Facturer à un tiers — Name / Nom

Address / Adresse	City / Ville	Prov.	Postal Code / Code postal
Shipper Ref. No. / N° de référence de l'expéditeur		Order No. / N° de commande	

Special agreement between consignor and carrier, advise here. / Indiquer ici toute entente spéciale entre l'expéditeur et le transporteur.

ERS coolant clean up Sa Denathes

No. of Pkgs. / Nbre de colis	DG/MD *	Description of Goods and Special Marks / Description des marchandises et marques spéciales	N.M.F.C.	Class / Classe	Weight (Subject to Corr.) / Poids (sous toute réserve) LBS./LB	KGS./KG
6		Cubic Meters Contaminated Soil				

PLEASE CHECK ONE / COCHER UNE CASE

- Prepaid / Port payé ☐
- Collect / Port dû ☐

IF NEITHER CHECKED - THIS SHIPMENT WILL GO COLLECT
SI AUCUNE CASE N'EST COCHÉE - L'ENVOI SERA EN PORT DÛ

- Third Party /Facturer à ☐
- Charge to / un tiers

C.O.D. / C.R.

- Amount / Montant
- Fee / Frais
- ☐ C.O.D. Fee Prepaid / Frais de contre remboursement prépayés
- ☐ C.O.D. Fee Collect / Frais de contre remboursement à percevoir
- Non-Certified Customer Cheque / Chèque de client non certifié — OK ☐

PROTECTIVE SERVICE / SERVICE DE PROTECTION

If to be protected from heat or frost, mark temperature here. / Si l'envoi doit être protégé de la chaleur ou du gel, indiquer la température

Fahrenheit Celsius

DECLARED VALUE / VALEUR DÉCLARÉE

$

Maximum liability of $2.00 per pound unless declared valuation states otherwise. / Responsabilité maximale de 2 $ par livre à moins que la valeur déclarée soit différente.

TOTAL NUMBER OF PIECES/PACKAGES / NOMBRE TOTAL DE PIÈCES/COLIS	WHERE REQUIRED BY THE TARIFF DOUANIER, CARRIER MUST COMPLETE THE FOLLOWING. / LÀ OÙ LE TARIF L'EXIGE, LE TRANSPORTEUR DOIT REMPLIR CE QUI SUIT.			
	Dimensions of Shipment / Dimensions de l'envoi	Total Cubic Feet / Pi³ total	Total Weight / Poids total	Dimensional Weight / Masse volumique

*Note: Mark with "X" to designate dangerous goods as defined in the dept. of transportation regulations.
*Note : Les marchandises dangereuses doivent être identifiées par un « X » en vertu des règlements du ministère des transports.

EMERGENCY 24HR. PHONE NO. REQUIRED ON ALL DANGEROUS GOODS SHIPMENTS
INCLURE UN N° DE TÉLÉPHONE D'URGENCE (24 H) AVEC TOUS LES ENVOIS DE MARCHANDISES DANGEREUSES

Phone: / N° de tél. :

Received at the point of origin on the date specified, from the consignor mentioned herein, the property herein described, in apparent good order, except as noted (contents and condition of contents of packages unknown) marked, consigned and destined as indicated below, which the Carrier agrees to carry and to deliver to the Consignee at the said destination, if on its own authorized route or otherwise to cause to be carried by another carrier on the route to said destination, subject to the rates and classification in effect on the date of shipment. It is mutually agreed, as to each carrier of all or any of goods over all or any portion of the route to destination, and as to each party at any time interested in all or any of the goods, that every service to be performed hereunder shall be subject to all the uniform conditions of carriage, whether printed or written, including conditions applicable to all transportation of goods by for-hire highway carriers licensed under the Motor Vehicle Transportation Act (Canada), the Truck Transportation Act (Canada), and similar provincial statutes, which are hereby agreed by the consignor and accepted for itself and its assigns.

Reçues au point d'origine à la date spécifiée et de l'expéditeur mentionné aux présentes, les marchandises décrites en bon état apparent (contenu et état du contenu des colis inconnus), marquées, contresignées et destinées, tel que ci-après mentionné, que le transporteur consent à transporter et à livrer au destinataire à ladite destination, si elle se trouve sur la route qu'il est autorisé à desservir, sinon à faire transporter et livrer par un autre transporteur ; au taux et à la classification en vigueur à la date de l'expédition. Il est mutuellement convenu, pour ce qui est de chaque transporteur transportant les marchandises en tout ou en partie, sur le trajet entier ou sur toute portion du trajet jusqu'à destination, et pour ce qui est de chaque partie à tout moment intéressée par ladite expédition, que tout service à effectuer en vertu de la présente sera soumis à toutes les conditions identiques de transport imprimées ou écrites, y compris les conditions applicables au transport de marchandises par des transporteurs routiers embauchés agréés conformément à la loi sur les véhicules à moteur (Canada), la loi sur le camionnage (Canada) et les règlements provinciaux similaires, lesquelles sont acceptées par la présente par l'expéditeur pour lui-même et ses ayants-droit.

TRAILER LOADED BY / REMORQUE CHARGÉE PAR — ☐ Consignor / Expéditeur ☐ Driver / Conducteur

FREIGHT COUNTED BY / CHARGEMENT COMPTÉ PAR

- ☐ Consignor / Expéditeur
- ☐ Driver: Pallets said to contain / Conducteur : Les palettes devraient contenir
- ☐ Driver: Loose Pieces / Conducteur: Pièces en vrac
- ☐ Driver: Pallets containing / Conducteur : Les palettes contiennent
- ☐ SINGLE SHIPMENT PICKUP / RAMASSAGE D'UN SEUL ENVOI

N.B. CONDITIONS CONTAINED, OR DEEMED TO BE CONTAINED, HEREIN ARE HEREBY ACCEPTED.
N.B. LES CONDITIONS CONTENUES OU RÉPUTÉES ÊTRE CONTENUES DANS LA PRÉSENTE SONT ACCEPTÉES PAR LA PRÉSENTE.

Consignor / Expéditeur

Carrier Driver's Signature / Signature du conducteur du transporteur

Date: Aug 25/2014

Per/Par

Handling Unit / Unité manutentionnée

Pick-up Trailer # / N° de remorque de ramassage

1 ORIGINAL / ORIGINAL

UNCRATED MERCHANDISE AT OWNER'S RISK
LA MARCHANDISE QUI N'EST PAS EN CAISSE EST AUX RISQUES ET PÉRILS DU PROPRIÉTAIRE

(This bill of lading is to be signed by the Shipper and Carrier)
(Ce connaissement doit être signé par l'expéditeur et le transporteur)

ANY AGREEMENT COVERING TRANSPORTATION OF THE GOODS DESCRIBED HEREIN WITH OTHER THAN DUE DISPATCH OR FOR SPECIFIC TIME, MUST BE ENDORSED ON THIS BILL OF LADING AND SIGNED BY THE PARTIES HERETO.
TOUTE ENTENTE RELATIVE AU TRANSPORT DES MARCHANDISES DÉCRITES DANS LA PRÉSENTE SELON D'AUTRES CONDITIONS QUE LES MODALITÉS D'EXPÉDITION HABITUELLES OU POUR UN MOMENT PARTICULIER DOIT ÊTRE APPROUVÉE SUR CE CONNAISSEMENT ET SIGNÉE PAR LES PARTIES AUX PRÉSENTES.

AFFIX BAR CODE HERE
CODE À BARRES ICI

Name of Carrier:
Nom du transporteur : 16142 Yukon Inc / KPI

FROM / DE

Date: Aug 29/2014 | Bill of Lading/Connaissement | Original | Non Negotiable/Non négociable

Name of Consignor / Nom de l'expéditeur: Amec | Telephone No. / N° de téléphone:

Address / Adresse: chris.jeffrey@amec.com

City / Ville: | Prov.: | Postal Code / Code postal:

TO / A

Name of Consignee / Nom du destinataire: Northern Enviro Services / 16142 Yukon | Telephone No. / N° de téléphone: 867 536 7361

Attention / À l'attention de:

Address / Adresse: Mile 636 Alaska Highway Box 867

City / Ville: WATSON LAKE | Prov.: Y.T. | Postal Code / Code postal: Y0A 1C0

Invoice Charges To: (Third Party) / Facturer à un tiers — Name / Nom:

Address / Adresse: | City / Ville: | Prov.: | Postal Code / Code postal:

Shipper Ref. No. / N° de référence de l'expéditeur: | Order No. / N° de commande:

Special agreement between consignor and carrier, advise here. / Indiquer ici toute entente spéciale entre l'expéditeur et le transporteur.

Tank Decomissioning's

No. of Pkgs. / Nbre de colis	DG/MD *	Description of Goods and Special Marks / Description des marchandises et marques spéciales	N.M.F.C.	Class / Classe	Weight (Subject to Corr.) / Poids (sous toute réserve) LBS./LB	KGS./KG
1		tank containment liner				
2		fuel tanks				
23,000 L		gasoline				
11,890 L		diesel				
195,500 L		water				
4 steel		pylons				
2 fuel		pumps & fittings				

PLEASE CHECK ONE / COCHER UNE CASE

- Prepaid / Port payé ☐
- Collect / Port dû ☐

IF NEITHER CHECKED - THIS SHIPMENT WILL GO COLLECT
SI AUCUNE CASE N'EST COCHÉE - L'ENVOI SERA EN PORT DÛ

- Third Party / Facturer à ☐
- Charge to / un tiers

C.O.D. / C.R.

- Amount / Montant
- Fee / Frais
- ☐ C.O.D. Fee Prepaid / Frais de contre remboursement prépayés
- ☐ C.O.D. Fee Collect / Frais de contre remboursement à percevoir
- Non-Certified Customer Cheque / Chèque de client non certifié — OK ☐

PROTECTIVE SERVICE / SERVICE DE PROTECTION

If to be protected from heat or frost, mark temperature here. / Si l'envoi doit être protégé de la chaleur ou du gel, indiquer la température

Fahrenheit | Celsius

DECLARED VALUE / VALEUR DÉCLARÉE

$

Maximum liability of $2.00 per pound unless declared valuation states otherwise. / Responsabilité maximale de 2 $ par livre à moins que la valeur déclarée soit différente.

TOTAL NUMBER OF PIECES/PACKAGES / NOMBRE TOTAL DE PIÈCES/COLIS	Dimensions of Shipment / Dimensions de l'envoi	Total Cubic Feet / Pi³ total	Total Weight / Poids total	Dimensional Weight / Masse volumique

WHERE REQUIRED BY THE TARIFF DOUANIER, CARRIER MUST COMPLETE THE FOLLOWING. / LÀ OÙ LE TARIF L'EXIGE, LE TRANSPORTEUR DOIT REMPLIR CE QUI SUIT.

*Note: Mark with "X" to designate dangerous goods as defined in the dept. of transportation regulations.
*Note : Les marchandises dangereuses doivent être identifiées par un « X » en vertu des règlements du ministère des transports.

EMERGENCY 24HR. PHONE NO. REQUIRED ON ALL DANGEROUS GOODS SHIPMENTS / INCLURE UN N° DE TÉLÉPHONE D'URGENCE (24 H) AVEC TOUS LES ENVOIS DE MARCHANDISES DANGEREUSES — Phone: / N° de tél. :

Received at the point of origin on the date specified, from the consignor mentioned herein, the property herein described, in apparent good order, except as noted (contents and condition of contents of packages unknown) marked, consigned and destined as indicated below, which the Carrier agrees to carry and to deliver to the Consignee at the said destination, if on its own authorized route or otherwise to cause to be carried by another carrier on the route to said destination, subject to the rates and classification in effect on the date of shipment. It is mutually agreed, as to each carrier of all or any of goods over all or any portion of the route to destination, and as to each party at any time interested in all or any of the goods, that every service to be performed hereunder shall be subject to all the uniform conditions of carriage, whether printed or written, including conditions applicable to all transportation of goods by for-hire highway carriers licensed under the Motor Vehicle Transportation Act (Canada), the Truck Transportation Act (Canada), and similar provincial statutes, which are hereby agreed by the consignor and accepted for itself and its assigns.

Reçues au point d'origine à la date spécifiée et de l'expéditeur mentionné aux présentes, les marchandises décrites en bon état apparent (contenu et état du contenu des colis inconnus), marquées, contresignées et destinées, tel que ci-après mentionné, que le transporteur consent à transporter et à livrer au destinataire à ladite destination, si elle se trouve sur la route qu'il est autorisé à desservir, sinon à faire transporter et livrer par un autre transporteur ; au taux et à la classification en vigueur à la date de l'expédition. Il est mutuellement convenu, pour ce qui est de chaque transporteur transportant les marchandises en tout ou en partie, sur le trajet entier ou sur toute portion du trajet jusqu'à destination, et pour ce qui est de chaque partie à tout moment intéressée par ladite expédition, que tout service à effectuer en vertu de la présente sera soumis à toutes les conditions identiques de transport imprimées ou écrites, y compris les conditions applicables au transport de marchandises par des transporteurs routiers embauchés agréés conformément à la loi sur les véhicules à moteur (Canada), la loi sur le camionnage (Canada) et les règlements provinciaux similaires, lesquelles sont acceptées par la présente par l'expéditeur pour lui-même et ses ayants-droit.

TRAILER LOADED BY / REMORQUE CHARGÉE PAR ☐ Consignor / Expéditeur ☐ Driver / Conducteur

FREIGHT COUNTED BY / CHARGEMENT COMPTÉ PAR

- ☐ Consignor / Expéditeur
- ☐ Driver: Pallets said to contain / Conducteur : Les palettes devraient contenir
- ☐ Driver: Loose Pieces / Conducteur: Pièces en vrac
- ☐ Driver: Pallets containing / Conducteur : Les palettes contiennent
- ☐ SINGLE SHIPMENT PICKUP / RAMASSAGE D'UN SEUL ENVOI

N.B. CONDITIONS CONTAINED, OR DEEMED TO BE CONTAINED, HEREIN ARE HEREBY ACCEPTED.
N.B. LES CONDITIONS CONTENUES OU RÉPUTÉES ÊTRE CONTENUES DANS LA PRÉSENTE SONT ACCEPTÉES PAR LA PRÉSENTE.

Consignor / Expéditeur

Carrier Driver's Signature / Signature du conducteur du transporteur

Date: Aug 29/14

Per/Par

Handling Unit / Unité manutentionnée

Pick-up Trailer # / N° de remorque de ramassage

1 ORIGINAL / ORIGINAL

UNCRATED MERCHANDISE AT OWNER'S RISK
LA MARCHANDISE QUI N'EST PAS EN CAISSE EST AUX RISQUES ET PÉRILS DU PROPRIÉTAIRE

(This bill of lading is to be signed by the Shipper and Carrier)
(Ce connaissement doit être signé par l'expéditeur et le transporteur)

ANY AGREEMENT COVERING TRANSPORTATION OF THE GOODS DESCRIBED HEREIN WITH OTHER THAN DUE DISPATCH, OR FOR SPECIFIC TIME, MUST BE ENDORSED ON THIS BILL OF LADING AND SIGNED BY THE PARTIES HERETO.
TOUTE ENTENTE RELATIVE AU TRANSPORT DES MARCHANDISES DÉCRITES DANS LA PRÉSENTE SELON D'AUTRES CONDITIONS QUE LES MODALITÉS D'EXPÉDITION HABITUELLES OU POUR UN MOMENT PARTICULIER DOIT ÊTRE APPROUVÉE SUR CE CONNAISSEMENT ET SIGNÉE PAR LES PARTIES AUX PRÉSENTES.

Name of Carrier:
Nom du transporteur : 16142 Yukon Inc / KPI

AFFIX BAR CODE HERE
CODE À BARRES ICI

FROM / DE

Date: Sept. 2, 2014 | Bill of Lading/Connaissement | Original | Non Negotiable/Non négociable

Name of Consignor / Nom de l'expéditeur: Amec | Telephone No. / N° de téléphone

Address / Adresse

City / Ville | Prov. | Postal Code / Code postal

TO / À

Name of Consignee / Nom du destinataire: Northern Enviro Service | Telephone No. / N° de téléphone: 867-536-7361

Attention / À l'attention de

Address / Adresse

City / Ville | Prov. | Postal Code / Code postal

Invoice Charges To: (Third Party) / Facturer à un tiers — Name / Nom

Address / Adresse | City / Ville | Prov. | Postal Code / Code postal

Shipper Ref. No. / N° de référence de l'expéditeur | Order No. / N° de commande

Special agreement between consignor and carrier, advise here. / Indiquer ici toute entente spéciale entre l'expéditeur et le transporteur.

No. of Pkgs. / Nbre de colis	DG/MD *	Description of Goods and Special Marks / Description des marchandises et marques spéciales	N.M.F.C.	Class / Classe	Weight (Subject to Corr.) / Poids (sous toute réserve) LBS./LB	KGS./KG
3		Contaminated Soil Cubic Meters.				
1						
14						
4						

TOTAL NUMBER OF PIECES/PACKAGES / NOMBRE TOTAL DE PIÈCES/COLIS

WHERE REQUIRED BY THE TARIFF DOUANIER, CARRIER MUST COMPLETE THE FOLLOWING. / LÀ OÙ LE TARIF L'EXIGE, LE TRANSPORTEUR DOIT REMPLIR CE QUI SUIT.

Dimensions of Shipment / Dimensions de l'envoi	Total Cubic Feet / Pi³ total	Total Weight / Poids total	Dimensional Weight / Masse volumique

*Note: Mark with "X" to designate dangerous goods as defined in the dept. of transportation regulations.
*Note : Les marchandises dangereuses doivent être identifiées par un « X » en vertu des règlements du ministère des transports.

EMERGENCY 24HR. PHONE NO. REQUIRED ON ALL DANGEROUS GOODS SHIPMENTS. INCLURE UN N° DE TÉLÉPHONE D'URGENCE (24 H) AVEC TOUS LES ENVOIS DE MARCHANDISES DANGEREUSES | Phone: / N° de tél. :

Received at the point of origin on the date specified, from the consignor mentioned herein, the property herein described, in apparent good order, except as noted (contents and condition of contents of packages unknown) marked, consigned and destined as indicated below, which the Carrier agrees to carry and to deliver to the Consignee at the said destination, if on its own authorized route or otherwise to cause to be carried by another carrier on the route to said destination, subject to the rates and classification in effect on the date of shipment. It is mutually agreed, as to each carrier of all or any of goods over all or any portion of the route to destination, and as to each party at any time interested in all or any of the goods, that every service to be performed hereunder shall be subject to all the uniform conditions of carriage, whether printed or written, including conditions applicable to all transportation of goods by for-hire highway carriers licensed under the Motor Vehicle Transportation Act (Canada), the Truck Transportation Act (Canada), and similar provincial statutes, which are hereby agreed by the consignor and accepted for itself and its assigns.

Reçues au point d'origine à la date spécifiée et de l'expéditeur mentionné aux présentes, les marchandises décrites en bon état apparent (contenu et état du contenu des colis inconnus), marquées, contresignées et destinées, tel que ci-après mentionné, que le transporteur consent à transporter et à livrer au destinataire à ladite destination, si elle se trouve sur la route qu'il est autorisé à desservir, sinon à faire transporter et livrer par un autre transporteur ; au taux et à la classification en vigueur à la date de l'expédition. Il est mutuellement convenu, pour ce qui est de chaque transporteur transportant les marchandises en tout ou en partie, sur le trajet entier ou sur toute portion du trajet jusqu'à destination, et pour ce qui est de chaque partie à tout moment intéressée par ladite expédition, que tout service à effectuer en vertu de la présente sera soumis à toutes les conditions identiques de transport imprimées ou écrites, y compris les conditions applicables au transport de marchandises par des transporteurs routiers embauchés agréés conformément à la loi sur les véhicules à moteur (Canada), la loi sur le camionnage (Canada) et les règlements provinciaux similaires, lesquelles sont acceptées par la présente par l'expéditeur pour lui-même et ses ayants-droit.

PLEASE CHECK ONE / COCHER UNE CASE

- Prepaid / Port payé ☐
- Collect / Port dû ☐

IF NEITHER CHECKED - THIS SHIPMENT WILL GO COLLECT
SI AUCUNE CASE N'EST COCHÉE - L'ENVOI SERA EN PORT DÛ

- Third Party /Facturer à ☐
- Charge to / un tiers

C.O.D. / C.R.

- Amount / Montant
- Fee / Frais
- ☐ C.O.D. Fee Prepaid / Frais de contre remboursement prépayés
- ☐ C.O.D. Fee Collect / Frais de contre remboursement à percevoir
- Non-Certified Customer Cheque / Chèque de client non certifié — OK ☐

PROTECTIVE SERVICE / SERVICE DE PROTECTION

If to be protected from heat or frost, mark temperature here. / Si l'envoi doit être protégé de la chaleur ou du gel, indiquer la température

Fahrenheit Celsius

DECLARED VALUE / VALEUR DÉCLARÉE

$

Maximum liability of $2.00 per pound unless declared valuation states otherwise. / Responsabilité maximale de 2 $ par livre à moins que la valeur déclarée soit différente.

TRAILER LOADED BY / REMORQUE CHARGÉE PAR ☐ Consignor / Expéditeur ☐ Driver / Conducteur

FREIGHT COUNTED BY / CHARGEMENT COMPTÉ PAR

- ☐ Consignor / Expéditeur
- ☐ Driver: Pallets said to contain / Conducteur : Les palettes devraient contenir
- ☐ Driver: Loose Pieces / Conducteur: Pièces en vrac
- ☐ Driver: Pallets containing / Conducteur : Les palettes contiennent
- ☐ SINGLE SHIPMENT PICKUP / RAMASSAGE D'UN SEUL ENVOI

N.B. CONDITIONS CONTAINED, OR DEEMED TO BE CONTAINED, HEREIN ARE HEREBY ACCEPTED.
N.B. LES CONDITIONS CONTENUES OU RÉPUTÉES ÊTRE CONTENUES DANS LA PRÉSENTE SONT ACCEPTÉES PAR LA PRÉSENTE.

Consignor / Expéditeur

Carrier Driver's Signature / Signature du conducteur du transporteur

Date: Sept. 2/14

Per/Par

Handling Unit / Unité manutentionnée

Pick-up Trailer # / N° de remorque de ramassage

1 ORIGINAL
ORIGINAL

UNCRATED MERCHANDISE AT OWNER'S RISK
LA MARCHANDISE QUI N'EST PAS EN CAISSE EST AUX RISQUES ET PÉRILS DU PROPRIÉTAIRE

(This bill of lading is to be signed by the Shipper and Carrier)
(Ce connaissement doit être signé par l'expéditeur et le transporteur)

ANY AGREEMENT COVERING TRANSPORTATION OF THE GOODS DESCRIBED HEREIN WITH OTHER THAN DUE DISPATCH, OR FOR SPECIFIC TIME, MUST BE ENDORSED ON THIS BILL OF LADING AND SIGNED BY THE PARTIES HERETO.
TOUTE ENTENTE RELATIVE AU TRANSPORT DES MARCHANDISES DÉCRITES DANS LA PRÉSENTE SELON D'AUTRES CONDITIONS QUE LES MODALITÉS D'EXPÉDITION HABITUELLES OU POUR UN MOMENT PARTICULIER DOIT ÊTRE APPROUVÉE SUR CE CONNAISSEMENT ET SIGNÉE PAR LES PARTIES AUX PRÉSENTES.

AFFIX BAR CODE HERE
CODE À BARRES ICI

Name of Carrier:
Nom du transporteur : KPL / 16142 Yukon Inc

FROM / DE

Date: Sept. 4	Bill of Lading/Connaissement	Original	Non Negotiable/Non négociable
Name of Consignor / Nom de l'expéditeur: Amec		Telephone No. / N° de téléphone	
Address / Adresse: S			
City / Ville	Prov.	Postal Code / Code postal	

TO / À

Name of Consignee / Nom du destinataire: NORTHERN Enviro Service		Telephone No. / N° de téléphone: 867-536-7361
Attention / À l'attention de		
Address / Adresse		
City / Ville	Prov.	Postal Code / Code postal

Invoice Charges To: (Third Party) / Facturer à un tiers — Name / Nom

Address / Adresse	City / Ville	Prov.	Postal Code / Code postal
Shipper Ref. No. / N° de référence de l'expéditeur		Order No. / N° de commande	

Special agreement between consignor and carrier, advise here. / Indiquer ici toute entente spéciale entre l'expéditeur et le transporteur.

No. of Pkgs. / Nbre de colis	DG/MD *	Description of Goods and Special Marks / Description des marchandises et marques spéciales	N.M.F.C.	Class / Classe	Weight (Subject to Corr.) / Poids (sous toute réserve) LBS./LB	KGS./KG
1		Truck load Used Pipe				

TOTAL NUMBER OF PIECES/PACKAGES / NOMBRE TOTAL DE PIÈCES/COLIS	WHERE REQUIRED BY THE TARIFF DOUANIER, CARRIER MUST COMPLETE THE FOLLOWING. LÀ OÙ LE TARIF L'EXIGE, LE TRANSPORTEUR DOIT REMPLIR CE QUI SUIT.			
	Dimensions of Shipment / Dimensions de l'envoi	Total Cubic Feet / Pi³ total	Total Weight / Poids total	Dimensional Weight / Masse volumique

*Note: Mark with "X" to designate dangerous goods as defined in the dept. of transportation regulations.
*Note : Les marchandises dangereuses doivent être identifiées par un « X » en vertu des règlements du ministère des transports.

EMERGENCY 24HR. PHONE NO. REQUIRED ON ALL DANGEROUS GOODS SHIPMENTS
INCLURE UN N° DE TÉLÉPHONE D'URGENCE (24 H) AVEC TOUS LES ENVOIS DE MARCHANDISES DANGEREUSES

Phone: / N° de tél. :

Received at the point of origin on the date specified, from the consignor mentioned herein, the property herein described, in apparent good order, except as noted (contents and condition of contents of packages unknown) marked, consigned and destined as indicated below, which the Carrier agrees to carry and to deliver to the Consignee at the said destination, if on its own authorized route or otherwise to cause to be carried by another carrier on the route to said destination, subject to the rates and classification in effect on the date of shipment. It is mutually agreed, as to each carrier of all or any of goods over all or any portion of the route to destination, and as to each party at any time interested in all or any of the goods, that every service to be performed hereunder shall be subject to all the uniform conditions of carriage, whether printed or written, including conditions applicable to all transportation of goods by for-hire highway carriers licensed under the Motor Vehicle Transportation Act (Canada), the Truck Transportation Act (Canada), and similar provincial statutes, which are hereby agreed by the consignor and accepted for [illegible] and its assigns.

Reçues au point d'origine à la date spécifiée et de l'expéditeur mentionné aux présentes, les marchandises décrites en bon état apparent (contenu et état du contenu des colis inconnus), marquées, contresignées et destinées, tel que ci-après mentionné, que le transporteur consent à transporter et à livrer au destinataire à ladite destination, si elle se trouve sur la route qu'il est autorisé à desservir, sinon à faire transporter et livrer par un autre transporteur ; au taux et à la classification en vigueur à la date de l'expédition. Il est mutuellement convenu, pour ce qui est de chaque transporteur transportant les marchandises en tout ou en partie, sur le trajet entier ou sur toute portion du trajet jusqu'à destination, et pour ce qui est de chaque partie à tout moment intéressée par ladite expédition, que tout service à effectuer en vertu de la présente sera soumis à toutes les conditions identiques de transport imprimées ou écrites, y compris les conditions applicables au transport de marchandises par des transporteurs routiers embauchés agréés conformément à la loi sur les véhicules à moteur (Canada), la loi sur le camionnage (Canada) et les réglements provinciaux similaires, lesquelles sont acceptées par la présente par l'expéditeur pour lui-même et ses ayants-droit.

PLEASE CHECK ONE / COCHER UNE CASE

- Prepaid / Port payé ☐
- Collect / Port dû ☐

IF NEITHER CHECKED - THIS SHIPMENT WILL GO COLLECT
SI AUCUNE CASE N'EST COCHÉE - L'ENVOI SERA EN PORT DÛ

- Third Party /Facturer à ☐
- Charge to / un tiers

C.O.D. / C.R.

- Amount / Montant
- Fee / Frais
- ☐ C.O.D. Fee Prepaid / Frais de contre remboursement prépayés
- ☐ C.O.D. Fee Collect / Frais de contre remboursement à percevoir
- Non-Certified Customer Cheque / Chèque de client non certifié — OK ☐

PROTECTIVE SERVICE / SERVICE DE PROTECTION

If to be protected from heat or frost, mark temperature here.
Si l'envoi doit être protégé de la chaleur ou du gel, indiquer la température

Fahrenheit Celsius

DECLARED VALUE / VALEUR DÉCLARÉE

$

Maximum liability of $2.00 per pound unless declared valuation states otherwise.
Responsabilité maximale de 2 $ par livre à moins que la valeur déclarée soit différente.

TRAILER LOADED BY / REMORQUE CHARGÉE PAR ☐ Consignor / Expéditeur ☐ Driver / Conducteur

FREIGHT COUNTED BY / CHARGEMENT COMPTÉ PAR

- ☐ Consignor / Expéditeur
- ☐ Driver: Pallets said to contain / Conducteur : Les palettes devraient contenir
- ☐ Driver: Loose Pieces / Conducteur: Pièces en vrac
- ☐ Driver: Pallets containing / Conducteur : Les palettes contiennent
- ☐ SINGLE SHIPMENT PICKUP / RAMASSAGE D'UN SEUL ENVOI

N.B. CONDITIONS CONTAINED, OR DEEMED TO BE CONTAINED, HEREIN ARE HEREBY ACCEPTED.
N.B. LES CONDITIONS CONTENUES OU RÉPUTÉES ÊTRE CONTENUES DANS LA PRÉSENTE SONT ACCEPTÉES PAR LA PRÉSENTE.

Consignor / Expéditeur

Carrier Driver's Signature / Signature du conducteur du transporteur

Date: Sept 4

Per/Par

Handling Unit / Unité manutentionnée

Pick-up Trailer # / N° de remorque de ramassage

1 ORIGINAL
ORIGINAL

UNCRATED MERCHANDISE AT OWNER'S RISK
LA MARCHANDISE QUI N'EST PAS EN CAISSE EST AUX RISQUES ET PÉRILS DU PROPRIÉTAIRE

(This bill of lading is to be signed by the Shipper and Carrier)
(Ce connaissement doit être signé par l'expéditeur et le transporteur)

ANY AGREEMENT COVERING TRANSPORTATION OF THE GOODS DESCRIBED HEREIN WITH OTHER THAN DUE DISPATCH, OR FOR SPECIFIC TIME, MUST BE ENDORSED ON THIS BILL OF LADING AND SIGNED BY THE PARTIES HERETO.
TOUTE ENTENTE RELATIVE AU TRANSPORT DES MARCHANDISES DÉCRITES DANS LA PRÉSENTE SELON D'AUTRES CONDITIONS QUE LES MODALITÉS D'EXPÉDITION HABITUELLES OU POUR UN MOMENT PARTICULIER DOIT ÊTRE APPROUVÉE SUR CE CONNAISSEMENT ET SIGNÉE PAR LES PARTIES AUX PRÉSENTES.

Name of Carrier: KPI / 16142 Yukon Inc
Nom du transporteur :

AFFIX BAR CODE HERE
CODE À BARRES ICI

FROM / DE

Date: Sept 17/14	Bill of Lading/Connaissement	Original	Non Negotiable/Non négociable
Name of Consignor / Nom de l'expéditeur: Amec		Telephone No. / N° de téléphone	
Address / Adresse		chris.jeffrey@amec.com	
City / Ville	Prov.	Postal Code / Code postal	

TO / À

Name of Consignee / Nom du destinataire: Northern Enviro Services		Telephone No. / N° de téléphone: 867 536 7361	
Attention / À l'attention de			
Address / Adresse: Box 867			
City / Ville: WATSON LAKE	Prov. YT.	Postal Code / Code postal: YOA 1C0	

Invoice Charges To: (Third Party) / Facturer à un tiers — Name / Nom

Address / Adresse	City / Ville	Prov.	Postal Code / Code postal
Shipper Ref. No. / N° de référence de l'expéditeur		Order No. / N° de commande	

Special agreement between consignor and carrier, advise here. / Indiquer ici toute entente spéciale entre l'expéditeur et le transporteur.

No. of Pkgs. / Nbre de colis	DG/MD *	Description of Goods and Special Marks / Description des marchandises et marques spéciales	N.M.F.C.	Class / Classe	Weight (Subject to Corr.) / Poids (sous toute réserve) LBS./LB	KGS./KG
4		Heavy truck tires				
1		20L pail of toluene				
1		pail soil/sorbent materials				
1		1600 Steel Oil Cube				
200		L contaminated oil				
22		L oil sludge				
85		L diesel sludge				
1		bin misc construction WASTE.				

TOTAL NUMBER OF PIECES/PACKAGES
NOMBRE TOTAL DE PIÈCES/COLIS

WHERE REQUIRED BY THE TARIFF DOUANIER, CARRIER MUST COMPLETE THE FOLLOWING.
LÀ OÙ LE TARIF L'EXIGE, LE TRANSPORTEUR DOIT REMPLIR CE QUI SUIT.

Dimensions of Shipment / Dimensions de l'envoi	Total Cubic Feet / Pi³ total	Total Weight / Poids total	Dimensional Weight / Masse volumique

*Note: Mark with "X" to designate dangerous goods as defined in the dept. of transportation regulations.
*Note : Les marchandises dangereuses doivent être identifiées par un « X » en vertu des règlements du ministère des transports.

EMERGENCY 24HR. PHONE NO. REQUIRED ON ALL DANGEROUS GOODS SHIPMENTS
INCLURE UN N° DE TÉLÉPHONE D'URGENCE (24 H) AVEC TOUS LES ENVOIS DE MARCHANDISES DANGEREUSES

Phone: / N° de tél. :

Received at the point of origin on the date specified, from the consignor mentioned herein, the property herein described, in apparent good order, except as noted (contents and condition of contents of packages unknown) marked, consigned and destined as indicated below, which the Carrier agrees to carry and to deliver to the Consignee at the said destination, if on its own authorized route or otherwise to cause to be carried by another carrier on the route to said destination, subject to the rates and classification in effect on the date of shipment. It is mutually agreed, as to each carrier of all or any of goods over all or any portion of the route to destination, and as to each party at any time interested in all or any of the goods, that every service to be performed hereunder shall be subject to all the uniform conditions of carriage, whether printed or written, including conditions applicable to all transportation of goods by for-hire highway carriers licensed under the Motor Vehicle Transportation Act (Canada), the Truck Transportation Act (Canada), and similar provincial statutes, which are hereby agreed by the consignor and accepted for itself and its assigns.

Reçues au point d'origine à la date spécifiée et de l'expéditeur mentionné aux présentes, les marchandises décrites en bon état apparent (contenu et état du contenu des colis inconnus), marquées, contresignées et destinées, tel que ci-après mentionné, que le transporteur consent à transporter et à livrer au destinataire à ladite destination, si elle se trouve sur la route qu'il est autorisé à desservir, sinon à faire transporter et livrer par un autre transporteur ; au taux et à la classification en vigueur à la date de l'expédition. Il est mutuellement convenu, pour ce qui est de chaque transporteur transportant les marchandises en tout ou en partie, sur le trajet entier ou sur toute portion du trajet jusqu'à destination, et pour ce qui est de chaque partie à tout moment intéressée par ladite expédition, que tout service à effectuer en vertu de la présente sera soumis à toutes les conditions identiques de transport imprimées ou écrites, y compris les conditions applicables au transport de marchandises par des transporteurs routiers embauchés agréés conformément à la loi sur les véhicules à moteur (Canada), la loi sur le camionnage (Canada) et les règlements provinciaux similaires, lesquelles sont acceptées par la présente par l'expéditeur pour lui-même et ses ayants-droit.

PLEASE CHECK ONE / COCHER UNE CASE

- Prepaid / Port payé ☐
- Collect / Port dû ☐

IF NEITHER CHECKED - THIS SHIPMENT WILL GO COLLECT
SI AUCUNE CASE N'EST COCHÉE - L'ENVOI SERA EN PORT DÛ

- Third Party /Facturer à ☐
- Charge to / un tiers

C.O.D. / C.R.

- Amount / Montant
- Fee / Frais
- ☐ C.O.D. Fee Prepaid / Frais de contre remboursement prépayés
- ☐ C.O.D. Fee Collect / Frais de contre remboursement à percevoir
- Non-Certified Customer Cheque / Chèque de client non certifié OK ☐

PROTECTIVE SERVICE / SERVICE DE PROTECTION

If to be protected from heat or frost, mark temperature here.
Si l'envoi doit être protégé de la chaleur ou du gel, indiquer la température

Fahrenheit Celsius

DECLARED VALUE / VALEUR DÉCLARÉE

$

Maximum liability of $2.00 per pound unless declared valuation states otherwise.
Responsabilité maximale de 2 $ par livre à moins que la valeur déclarée soit différente.

TRAILER LOADED BY / REMORQUE CHARGÉE PAR ☐ Consignor / Expéditeur ☐ Driver / Conducteur

FREIGHT COUNTED BY / CHARGEMENT COMPTÉ PAR

☐ Consignor / Expéditeur	☐ Driver: Pallets said to contain / Conducteur : Les palettes devraient contenir
☐ Driver: Loose Pieces / Conducteur: Pièces en vrac	☐ Driver: Pallets containing / Conducteur : Les palettes contiennent

☐ SINGLE SHIPMENT PICKUP / RAMASSAGE D'UN SEUL ENVOI

N.B. CONDITIONS CONTAINED, OR DEEMED TO BE CONTAINED, HEREIN ARE HEREBY ACCEPTED.
N.B. LES CONDITIONS CONTENUES OU RÉPUTÉES ÊTRE CONTENUES DANS LA PRÉSENTE SONT ACCEPTÉES PAR LA PRÉSENTE.

Consignor / Expéditeur

Carrier Driver's Signature / Signature du conducteur du transporteur

Date

Per/Par

Handling Unit / Unité manutentionnée

Pick-up Trailer # / N° de remorque de ramassage

1 ORIGINAL

UNCRATED MERCHANDISE AT OWNER'S RISK
LA MARCHANDISE QUI N'EST PAS EN CAISSE EST AUX RISQUES ET PÉRILS DU PROPRIÉTAIRE

(This bill of lading is to be signed by the Shipper and Carrier)

ANY AGREEMENT COVERING TRANSPORTATION OF THE GOODS DESCRIBED HEREIN WITH OTHER THAN DUE DISPATCH, OR FOR SPECIFIC TIME, MUST BE ENDORSED ON THIS BILL OF LADING AND SIGNED BY THE PARTIES HERETO.
TOUTE ENTENTE RELATIVE AU TRANSPORT DES MARCHANDISES DÉCRITES DANS LA PRÉSENTE SELON D'AUTRES CONDITIONS QUE LES MODALITÉS D'EXPÉDITION HABITUELLES OU POUR UN MOMENT PARTICULIER DOIT ÊTRE

Name of Carrier:
Nom du transporteur : KPI / 16142 Yukon Inc

AFFIX BAR CODE HERE
CODE À BARRES ICI

FROM / DE

Date: Sept 17/14 | Bill of Lading/Connaissement | Original | Non Negotiable/Non négociable

Name of Consignor / Nom de l'expéditeur: Amec | Telephone No. / N° de téléphone:

Address / Adresse: chris.joffrey@amec.com

City / Ville | Prov. | Postal Code / Code postal

TO / À

Name of Consignee / Nom du destinataire: Northern Enviro Services | Telephone No. / N° de téléphone: 867 536-7361

Attention / À l'attention de

Address / Adresse: Mile 636, Alaska Highway

City / Ville: Watson Lake | Prov.: YT. | Postal Code / Code postal: Y0A 1C0

Invoice Charges To: (Third Party) / Facturer à un tiers — Name / Nom

Address / Adresse | City / Ville | Prov. | Postal Code / Code postal

Shipper Ref. No. / N° de référence de l'expéditeur | Order No. / N° de commande

Special agreement between consignor and carrier, advise here. / Indiquer ici toute entente spéciale entre l'expéditeur et le transporteur.

MOUNTAIN WORKS

No. of Pkgs. / Nbre de colis	DG/MD *	Description of Goods and Special Marks / Description des marchandises et marques spéciales	N.M.F.C.	Class / Classe	Weight (Subject to Corr.) / Poids (sous toute réserve) LBS./LB	KGS./KG
5		Fire Extinguishers				
8		Batteries				
7		Large gas cylinder				
3		20lb gas cylinder				
1		5 gal pail				
5		2/5 plastic drum				
6		loader tires				
6		truck tires				

TOTAL NUMBER OF PIECES/PACKAGES / NOMBRE TOTAL DE PIÈCES/COLIS

WHERE REQUIRED BY THE TARIFF DOUANIER, CARRIER MUST COMPLETE THE FOLLOWING. / LÀ OÙ LE TARIF L'EXIGE, LE TRANSPORTEUR DOIT REMPLIR CE QUI SUIT.

Dimensions of Shipment / Dimensions de l'envoi	Total Cubic Feet / Pi³ total	Total Weight / Poids total	Dimensional Weight / Masse volumique

*Note: Mark with "X" to designate dangerous goods as defined in the dept. of transportation regulations.
*Note : Les marchandises dangereuses doivent être identifiées par un « X » en vertu des règlements du ministère des transports.

EMERGENCY 24HR. PHONE NO. REQUIRED ON ALL DANGEROUS GOODS SHIPMENTS / INCLURE UN N° DE TÉLÉPHONE D'URGENCE (24 H) AVEC TOUS LES ENVOIS DE MARCHANDISES DANGEREUSES — Phone: / N° de tél. :

Received at the point of origin on the date specified, from the consignor mentioned herein, the property herein described, in apparent good order, except as noted (contents and condition of contents of packages unknown) marked, consigned and destined as indicated below, which the Carrier agrees to carry and to deliver to the Consignee at the said destination, if on its own authorized route or otherwise to cause to be carried by another carrier on the route to said destination, subject to the rates and classification in effect on the date of shipment. It is mutually agreed, as to each carrier of all or any of goods over all or any portion of the route to destination, and as to each party at any time interested in all or any of the goods, that every service to be performed hereunder shall be subject to all the uniform conditions of carriage, whether printed or written, including conditions applicable to all transportation of goods by for-hire highway carriers licensed under the Motor Vehicle Transportation Act (Canada), the Truck Transportation Act (Canada), and similar provincial statutes, which are hereby agreed by the consignor and accepted for itself and its assigns.

Reçues au point d'origine à la date spécifiée et de l'expéditeur mentionné aux présentes, les marchandises décrites en bon état apparent (contenu et état du contenu des colis inconnus), marquées, contresignées et destinées, tel que ci-après mentionné, que le transporteur consent à transporter et à livrer au destinataire à ladite destination, si elle se trouve sur la route qu'il est autorisé à desservir, sinon à faire transporter et livrer par un autre transporteur ; au taux et à la classification en vigueur à la date de l'expédition. Il est mutuellement convenu, pour ce qui est de chaque transporteur transportant les marchandises en tout ou en partie, sur le trajet entier ou sur toute portion du trajet jusqu'à destination, et pour ce qui est de chaque partie à tout moment intéressée par ladite expédition, que tout service à effectuer en vertu de la présente sera soumis à toutes les conditions identiques de transport imprimées ou écrites, y compris les conditions applicables au transport de marchandises par des transporteurs routiers embauchés agréés conformément à la loi sur les véhicules à moteur (Canada), la loi sur le camionnage (Canada) et les règlements provinciaux similaires, lesquelles sont acceptées par la présente par l'expéditeur pour lui-même et ses ayants-droit.

PLEASE CHECK ONE / COCHER UNE CASE

- Prepaid / Port payé ☐
- Collect / Port dû ☐

IF NEITHER CHECKED - THIS SHIPMENT WILL GO COLLECT
SI AUCUNE CASE N'EST COCHÉE - L'ENVOI SERA EN PORT DÛ

- Third Party /Facturer à ☐
- Charge to / un tiers

C.O.D. / C.R.

- Amount / Montant
- Fee / Frais
- ☐ C.O.D. Fee Prepaid / Frais de contre remboursement prépayés
- ☐ C.O.D. Fee Collect / Frais de contre remboursement à percevoir
- Non-Certified Customer Cheque / Chèque de client non certifié — OK ☐

PROTECTIVE SERVICE / SERVICE DE PROTECTION

If to be protected from heat or frost, mark temperature here. / Si l'envoi doit être protégé de la chaleur ou du gel, indiquer la température

Fahrenheit | Celsius

DECLARED VALUE / VALEUR DÉCLARÉE

$

Maximum liability of $2.00 per pound unless declared valuation states otherwise. / Responsabilité maximale de 2 $ par livre à moins que la valeur déclarée soit différente.

TRAILER LOADED BY / REMORQUE CHARGÉE PAR — ☐ Consignor / Expéditeur ☐ Driver / Conducteur

FREIGHT COUNTED BY / CHARGEMENT COMPTÉ PAR

- ☐ Consignor / Expéditeur
- ☐ Driver: Pallets said to contain / Conducteur : Les palettes devraient contenir
- ☐ Driver: Loose Pieces / Conducteur: Pièces en vrac
- ☐ Driver: Pallets containing / Conducteur : Les palettes contiennent
- ☐ SINGLE SHIPMENT PICKUP / RAMASSAGE D'UN SEUL ENVOI

N.B. CONDITIONS CONTAINED, OR DEEMED TO BE CONTAINED, HEREIN ARE HEREBY ACCEPTED.
N.B. LES CONDITIONS CONTENUES OU RÉPUTÉES ÊTRE CONTENUES DANS LA PRÉSENTE SONT ACCEPTÉES PAR LA PRÉSENTE.

Consignor / Expéditeur

Carrier Driver's Signature / Signature du conducteur du transporteur

Date: Sept 17/14

Per/Par

Handling Unit / Unité manutentionnée

Pick-up Trailer # / N° de remorque de ramassage

1 ORIGINAL / ORIGINAL

UNCRATED MERCHANDISE AT OWNER'S RISK
LA MARCHANDISE QUI N'EST PAS EN CAISSE EST AUX RISQUES ET PÉRILS DU PROPRIÉTAIRE

(This bill of lading is to be signed by the Shipper and Carrier)
(Ce connaissement doit être signé par l'expéditeur et le transporteur)

ANY AGREEMENT COVERING TRANSPORTATION OF THE GOODS DESCRIBED HEREIN WITH OTHER THAN DUE DISPATCH, OR FOR SPECIFIC TIME, MUST BE ENDORSED ON THIS BILL OF LADING AND SIGNED BY THE PARTIES HERETO.
TOUTE ENTENTE RELATIVE AU TRANSPORT DES MARCHANDISES DÉCRITES DANS LA PRÉSENTE SELON D'AUTRES CONDITIONS QUE LES MODALITÉS D'EXPÉDITION HABITUELLES OU POUR UN MOMENT PARTICULIER DOIT ÊTRE APPROUVÉE SUR CE CONNAISSEMENT ET SIGNÉE PAR LES PARTIES AUX PRÉSENTES.

Name of Carrier:
Nom du transporteur : KPI / 1614 2 Yukon Inc

AFFIX BAR CODE HERE
CODE À BARRES ICI

FROM / DE

Date: Sept 26/14	Bill of Lading/Connaissement	Original	Non Negotiable/Non négociable
Name of Consignor / Nom de l'expéditeur: Amec		Telephone No. / N° de téléphone	
Address / Adresse		chris.jeffrey@amec.com	
City / Ville	Prov.	Postal Code / Code postal	

TO / À

Name of Consignee / Nom du destinataire: Northern Enviro Service/1614 2 Yuk		Telephone No. / N° de téléphone	867 536 7361
Attention / À l'attention de			
Address / Adresse: Mile 636 Alaska Highway / Box 867			
City / Ville: WATSON LAKE	Prov. YT.	Postal Code / Code postal	Y0A 1C0

Invoice Charges To: (Third Party) / Facturer à un tiers — Name / Nom

Address / Adresse	City / Ville	Prov.	Postal Code / Code postal
Shipper Ref. No. / N° de référence de l'expéditeur		Order No. / N° de commande	

Special agreement between consignor and carrier, advise here. / Indiquer ici toute entente spéciale entre l'expéditeur et le transporteur.

MOUNTAIN WORKS

No. of Pkgs. / Nbre de colis	DG/MD *	Description of Goods and Special Marks / Description des marchandises et marques spéciales	N.M.F.C.	Class / Classe	Weight (Subject to Corr.) / Poids (sous toute réserve) LBS./LB	KGS./KG
2		shacks				
1		sediment pond liner				
2		heaters units + support				
9		steel pylons				
1		oil drum				
80 l		used oil				

TOTAL NUMBER OF PIECES/PACKAGES
NOMBRE TOTAL DE PIÈCES/COLIS

WHERE REQUIRED BY THE TARIFF DOUANIER, CARRIER MUST COMPLETE THE FOLLOWING.
LÀ OÙ LE TARIF L'EXIGE, LE TRANSPORTEUR DOIT REMPLIR CE QUI SUIT.

Dimensions of Shipment / Dimensions de l'envoi	Total Cubic Feet / Pi³ total	Total Weight / Poids total	Dimensional Weight / Masse volumique

*Note: Mark with "X" to designate dangerous goods as defined in the dept. of transportation regulations.
*Note : Les marchandises dangereuses doivent être identifiées par un « X » en vertu des règlements du ministère des transports.

EMERGENCY 24HR. PHONE NO. REQUIRED ON ALL DANGEROUS GOODS SHIPMENTS INCLURE UN N° DE TÉLÉPHONE D'URGENCE (24 H) AVEC TOUS LES ENVOIS DE MARCHANDISES DANGEREUSES — Phone: / N° de tél. :

Received at the point of origin on the date specified, from the consignor mentioned herein, the property herein described, in apparent good order, except as noted (contents and condition of contents of packages unknown) marked, consigned and destined as indicated below, which the Carrier agrees to carry and to deliver to the Consignee at the said destination, if on its own authorized route or otherwise to cause to be carried by another carrier on the route to said destination, subject to the rates and classification in effect on the date of shipment. It is mutually agreed, as to each carrier of all or any of goods over all or any portion of the route to destination, and as to each party at any time interested in all or any of the goods, that every service to be performed hereunder shall be subject to all the uniform conditions of carriage, whether printed or written, including conditions applicable to all transportation of goods by for-hire highway carriers licensed under the Motor Vehicle Transportation Act (Canada), the Truck Transportation Act (Canada), and similar provincial statutes, which are hereby agreed by the consignor and accepted for itself and its assigns.

Reçues au point d'origine à la date spécifiée et de l'expéditeur mentionné aux présentes, les marchandises décrites en bon état apparent (contenu et état du contenu des colis inconnus), marquées, contresignées et destinées, tel que ci-après mentionné, que le transporteur consent à transporter et à livrer au destinataire à ladite destination, si elle se trouve sur la route qu'il est autorisé à desservir, sinon à faire transporter et livrer par un autre transporteur ; au taux et à la classification en vigueur à la date de l'expédition. Il est mutuellement convenu, pour ce qui est de chaque transporteur transportant les marchandises en tout ou en partie, sur le trajet entier ou sur toute portion du trajet jusqu'à destination, et pour ce qui est de chaque partie à tout moment intéressée par ladite expédition, que tout service à effectuer en vertu de la présente sera soumis à toutes les conditions identiques de transport imprimées ou écrites, y compris les conditions applicables au transport de marchandises par des transporteurs routiers embauchés agréés conformément à la loi sur les véhicules à moteur (Canada), la loi sur le camionnage (Canada) et les règlements provinciaux similaires, lesquelles sont acceptées par la présente par l'expéditeur pour lui-même et ses ayants-droit.

PLEASE CHECK ONE / COCHER UNE CASE

- Prepaid / Port payé ☐
- Collect / Port dû ☐

IF NEITHER CHECKED - THIS SHIPMENT WILL GO COLLECT
SI AUCUNE CASE N'EST COCHÉE - L'ENVOI SERA EN PORT DÛ

- Third Party / Facturer à ☐
- Charge to / un tiers

C.O.D. / C.R.

- Amount / Montant
- Fee / Frais
- ☐ C.O.D. Fee Prepaid / Frais de contre remboursement prépayés
- ☐ C.O.D. Fee Collect / Frais de contre remboursement à percevoir
- Non-Certified Customer Cheque / Chèque de client non certifié — OK ☐

PROTECTIVE SERVICE / SERVICE DE PROTECTION

If to be protected from heat or frost, mark temperature here.
Si l'envoi doit être protégé de la chaleur ou du gel, indiquer la température

Fahrenheit Celsius

DECLARED VALUE / VALEUR DÉCLARÉE

$

Maximum liability of $2.00 per pound unless declared valuation states otherwise.
Responsabilité maximale de 2 $ par livre à moins que la valeur déclarée soit différente.

TRAILER LOADED BY / REMORQUE CHARGÉE PAR ☐ Consignor / Expéditeur ☐ Driver / Conducteur

FREIGHT COUNTED BY / CHARGEMENT COMPTÉ PAR

- ☐ Consignor / Expéditeur
- ☐ Driver: Loose Pieces / Conducteur: Pièces en vrac
- ☐ Driver: Pallets said to contain / Conducteur : Les palettes devraient contenir
- ☐ Driver: Pallets containing / Conducteur : Les palettes contiennent
- ☐ SINGLE SHIPMENT PICKUP / RAMASSAGE D'UN SEUL ENVOI

N.B. CONDITIONS CONTAINED, OR DEEMED TO BE CONTAINED, HEREIN ARE HEREBY ACCEPTED.
N.B. LES CONDITIONS CONTENUES OU RÉPUTÉES ÊTRE CONTENUES DANS LA PRÉSENTE SONT ACCEPTÉES PAR LA PRÉSENTE.

Consignor / Expéditeur

Carrier Driver's Signature / Signature du conducteur du transporteur

Date: Sept 26/14

Per/Par

Handling Unit / Unité manutentionnée

Pick-up Trailer # / N° de remorque de ramassage

1 ORIGINAL / ORIGINAL

UNCRATED MERCHANDISE AT OWNER'S RISK
LA MARCHANDISE QUI N'EST PAS EN CAISSE EST AUX RISQUES ET PÉRILS DU PROPRIÉTAIRE

(This bill of lading is to be signed by the Shipper and Carrier)
(Ce connaissement doit être signé par l'expéditeur et le transporteur)

ANY AGREEMENT COVERING TRANSPORTATION OF THE GOODS DESCRIBED HEREIN WITH OTHER THAN DUE DISPATCH, OR FOR SPECIFIC TIME, MUST BE ENDORSED ON THIS BILL OF LADING AND SIGNED BY THE PARTIES HERETO.
TOUTE ENTENTE RELATIVE AU TRANSPORT DES MARCHANDISES DÉCRITES DANS LA PRÉSENTE SELON D'AUTRES CONDITIONS QUE LES MODALITÉS D'EXPÉDITION HABITUELLES OU POUR UN MOMENT PARTICULIER DOIT ÊTRE APPROUVÉE SUR CE CONNAISSEMENT ET SIGNÉE PAR LES PARTIES AUX PRÉSENTES.

Name of Carrier:
Nom du transporteur : 16142 Yoka/KPI

AFFIX BAR CODE HERE
CODE À BARRES ICI

FROM / DE

Date: Sept 29/14	Bill of Lading/Connaissement	Original	Non Negotiable/Non négociable
Name of Consignor / Nom de l'expéditeur: Amec		Telephone No. / N° de téléphone	
Address / Adresse: chris.joffrey@amec.com			
City / Ville	Prov.	Postal Code / Code postal	

TO / À

Name of Consignee / Nom du destinataire: Northern Enviro Services 16142 Inc		Telephone No. / N° de téléphone: 867-536 7361	
Attention / À l'attention de			
Address / Adresse: Mile 636 Alaska Highway Box 867			
City / Ville: Watson Lake	Prov. YT,	Postal Code / Code postal: Y0A 1C0	

Invoice Charges To: (Third Party)
Facturer à un tiers — Name / Nom

Address / Adresse	City / Ville	Prov.	Postal Code / Code postal
Shipper Ref. No. / N° de référence de l'expéditeur		Order No. / N° de commande	

Special agreement between consignor and carrier, advise here. / Indiquer ici toute entente spéciale entre l'expéditeur et le transporteur.
Mountain Works

No. of Pkgs. / Nbre de colis	DG/MD *	Description of Goods and Special Marks / Description des marchandises et marques spéciales	N.M.F.C.	Class / Classe	Weight (Subject to Corr.) / Poids (sous toute réserve) LBS./LB	KGS./KG
1		Containment liner large.				

TOTAL NUMBER OF PIECES/PACKAGES / NOMBRE TOTAL DE PIÈCES/COLIS	WHERE REQUIRED BY THE TARIFF DOUANIER, CARRIER MUST COMPLETE THE FOLLOWING. LÀ OÙ LE TARIF L'EXIGE, LE TRANSPORTEUR DOIT REMPLIR CE QUI SUIT.			
	Dimensions of Shipment / Dimensions de l'envoi	Total Cubic Feet / Pi³ total	Total Weight / Poids total	Dimensional Weight / Masse volumique

*Note: Mark with "X" to designate dangerous goods as defined in the dept. of transportation regulations.
*Note : Les marchandises dangereuses doivent être identifiées par un « X » en vertu des règlements du ministère des transports.

EMERGENCY 24HR. PHONE NO. REQUIRED ON ALL DANGEROUS GOODS SHIPMENTS
INCLURE UN N° DE TÉLÉPHONE D'URGENCE (24 H) AVEC TOUS LES ENVOIS DE MARCHANDISES DANGEREUSES
Phone: / N° de tél. :

Received at the point of origin on the date specified, from the consignor mentioned herein, the property herein described, in apparent good order, except as noted (contents and condition of contents of packages unknown) marked, consigned and destined as indicated below, which the Carrier agrees to carry and to deliver to the Consignee at the said destination, if on its own authorized route or otherwise to cause to be carried by another carrier on the route to said destination, subject to the rates and classification in effect on the date of shipment. It is mutually agreed, as to each carrier of all or any of goods over all or any portion of the route to destination, and as to each party at any time interested in all or any of the goods, that every service to be performed hereunder shall be subject to all the uniform conditions of carriage, whether printed or written, including conditions applicable to all transportation of goods by for-hire highway carriers licensed under the Motor Vehicle Transportation Act (Canada), the Truck Transportation Act (Canada), and similar provincial statutes, which are hereby agreed by the consignor and accepted for itself and its assigns.

Reçues au point d'origine à la date spécifiée et de l'expéditeur mentionné aux présentes, les marchandises décrites en bon état apparent (contenu et état du contenu des colis inconnus), marquées, contresignées et destinées, tel que ci-après mentionné, que le transporteur consent à transporter et à livrer au destinataire à ladite destination, si elle se trouve sur la route qu'il est autorisé à desservir, sinon à faire transporter et livrer par un autre transporteur ; au taux et à la classification en vigueur à la date de l'expédition. Il est mutuellement convenu, pour ce qui est de chaque transporteur transportant les marchandises en tout ou en partie, sur le trajet entier ou sur toute portion du trajet jusqu'à destination, et pour ce qui est de chaque partie à tout moment intéressée par ladite expédition, que tout service à effectuer en vertu de la présente sera soumis à toutes les conditions identiques de transport imprimées ou écrites, y compris les conditions applicables au transport de marchandises par des transporteurs routiers embauchés agréés conformément à la loi sur les véhicules à moteur (Canada), la loi sur le camionnage (Canada) et les règlements provinciaux similaires, lesquelles sont acceptées par la présente par l'expéditeur pour lui-même et ses ayants-droit.

PLEASE CHECK ONE / COCHER UNE CASE

- Prepaid / Port payé ☐
- Collect / Port dû ☐

IF NEITHER CHECKED - THIS SHIPMENT WILL GO COLLECT
SI AUCUNE CASE N'EST COCHÉE - L'ENVOI SERA EN PORT DÛ

- Third Party /Facturer à ☐
- Charge to / un tiers

C.O.D. / C.R.

- Amount / Montant
- Fee / Frais
- ☐ C.O.D. Fee Prepaid / Frais de contre remboursement prépayés
- ☐ C.O.D. Fee Collect / Frais de contre remboursement à percevoir
- Non-Certified Customer Cheque / Chèque de client non certifié — OK ☐

PROTECTIVE SERVICE / SERVICE DE PROTECTION

If to be protected from heat or frost, mark temperature here.
Si l'envoi doit être protégé de la chaleur ou du gel, indiquer la température

Fahrenheit Celsius

DECLARED VALUE / VALEUR DÉCLARÉE

$

Maximum liability of $2.00 per pound unless declared valuation states otherwise.
Responsabilité maximale de 2 $ par livre à moins que la valeur déclarée soit différente.

TRAILER LOADED BY / REMORQUE CHARGÉE PAR ☐ Consignor / Expéditeur ☐ Driver / Conducteur

FREIGHT COUNTED BY / CHARGEMENT COMPTÉ PAR

- ☐ Consignor / Expéditeur
- ☐ Driver: Pallets said to contain / Conducteur : Les palettes devraient contenir
- ☐ Driver: Loose Pieces / Conducteur: Pièces en vrac
- ☐ Driver: Pallets containing / Conducteur : Les palettes contiennent
- ☐ SINGLE SHIPMENT PICKUP / RAMASSAGE D'UN SEUL ENVOI

N.B. CONDITIONS CONTAINED, OR DEEMED TO BE CONTAINED, HEREIN ARE HEREBY ACCEPTED.
N.B. LES CONDITIONS CONTENUES OU RÉPUTÉES ÊTRE CONTENUES DANS LA PRÉSENTE SONT ACCEPTÉES PAR LA PRÉSENTE.

Consignor / Expéditeur

Carrier Driver's Signature / Signature du conducteur du transporteur

Date: Sept 29/14

Per/Par

Handling Unit / Unité manutentionnée

Pick-up Trailer # / N° de remorque de ramassage

2 THE SHIPPING ORDER / LE BORDEREAU D'EXPÉDITION

UNCRATED MERCHANDISE AT OWNER'S RISK
LA MARCHANDISE QUI N'EST PAS EN CAISSE EST AUX RISQUES ET PÉRILS DU PROPRIÉTAIRE

(This bill of lading is to be signed by the Shipper and Carrier)
(Ce connaissement doit être signé par l'expéditeur et le transporteur)

ANY AGREEMENT COVERING TRANSPORTATION OF THE GOODS DESCRIBED HEREIN WITH OTHER THAN DUE DISPATCH OR FOR SPECIFIC TIME, MUST BE ENDORSED ON THIS BILL OF LADING AND SIGNED BY THE PARTIES HERETO.
TOUTE ENTENTE RELATIVE AU TRANSPORT DES MARCHANDISES DÉCRITES DANS LA PRÉSENTE SELON D'AUTRES CONDITIONS QUE LES MODALITÉS D'EXPÉDITION HABITUELLES OU POUR UN MOMENT PARTICULIER DOIT ÊTRE APPROUVÉE SUR CE CONNAISSEMENT ET SIGNÉE PAR LES PARTIES AUX PRÉSENTES.

Yukon
Environment

Permit No: 4202-23-574

RELOCATION PERMIT

Issued for the Relocation of Contaminated Material Pursuant to the *Environment Act* and the *Contaminated Sites Regulation*

Permittee: 16142 Yukon Inc.

Mailing Address: Box 867, Watson Lake, YT YOA 1C0

Authorized Representative: Kerry Peters

Phone/Fax: (867) 536-7361

Email: kerrypeters@live.ca

Effective Date: Date of Director's signature
Expiry Date: December 31, 2014

Removal Location: Sa Dena Hes Mine Site (Watson Lake)

Receiving Location: Kerry Peters' LTF (16142 Yukon Inc.)

Scope of Authorization: In accordance with your application, **16142 Yukon Inc.**, represented by yourself, is hereby permitted to relocate soil contaminated with petroleum hydrocarbons, hereinafter referred to as contaminated material, from the removal location to the receiving location, both as specified above, as set out in the terms and conditions of this permit.

22 m³ Soil

Dated this 19th day of August, 2014

Director, Environmental Programs Branch
Environment Yukon

DEPARTMENT OF ENVIRONMENT
ENVIRONMENTAL PROGRAMS
Whitehorse, Yukon
Certified true copy of original
Date: 19 Aug 14 Initials: JKM

Yukon
Environment

RELOCATION PERMIT DOCUMENTATION TRACKING FORM

All information submitted to satisfy the reporting requirements of a **Relocation Permit** must be accompanied by this form.

All information submitted to satisfy the reporting requirements of a **Special Waste Relocation Permit**, with the exception of the waste manifest described in Part 6 of the permit, must be accompanied by this form.

This form may be submitted in any of the following ways:

In person: 10 Burns Road, Whitehorse, YT
By mail: Environmental Programs, Box 2703 **(V-8)**, Whitehorse, YT, Y1A 2C6
By fax: (867) 393-6205
By email: cspermit@gov.yk.ca

Permittee: 1614 2 Yukon Inc

Permit number: 4202-23-574

Office use only	
Received	Verified

Confirmed volume of relocated **soil**: 22 m^3

Confirmed volume of relocated **water**: _____ L

Confirmed volume of relocated **snow and ice**: _____ m^3

Has all contaminated material been removed from the removal location?
☑ Yes ☐ No

Has the excavation been backfilled?
☑ Yes ☐ No

Documents attached (check all that apply):

☐ Laboratory reports for samples taken to characterize the relocated material

☐ Laboratory reports for confirmatory samples taken from the base and walls of the excavation

☐ A figure showing the locations from which all confirmatory samples were taken

☐ Other: _____

I, Jan Peters *(print name clearly)*, am the authorized representative of the permittee named above, and I certify that the information provided with this form is correct and complete to the best of my knowledge.

Signature

Date: Sept 26/14

YG(5809EQ)F1 11/2011

Yukon
Environment

Permit No: 4202-23-575

RELOCATION PERMIT

Issued for the Relocation of Contaminated Material Pursuant to the *Environment Act* and the *Contaminated Sites Regulation*

Permittee: 16142 Yukon Inc.

Mailing Address: Box 867, Watson Lake, YT Y0A 1C0

Authorized Representative: Lorena Funnell

Phone/Fax: (867) 536-7361

Email: lhfunnell@gmail.com / kerrypeters@live.ca

Effective Date: Date of Director's signature
Expiry Date: December 31, 2014

Removal Location: Sa Dena Hes Mine Site, UTM Zone 9V 507419mE, 6709662mN

Receiving Location: Kerry Peters' LTF (16142 Yukon Inc.)

Scope of Authorization: In accordance with your application, **16142 Yukon Inc.**, represented by yourself, is hereby permitted to relocate soil contaminated with petroleum hydrocarbons, hereinafter referred to as contaminated material, from the removal location to the receiving location, both as specified above, as set out in the terms and conditions of this permit.

Dated this 28th day of August, 2014

Director, Environmental Programs Branch
Environment Yukon

DEPARTMENT OF ENVIRONMENT
ENVIRONMENTAL PROGRAMS
Whitehorse, Yukon
Certified true copy of original
Date: 28 Aug 14 Initials: JCM

6 m3 Coolant

Yukon
Environment

RELOCATION PERMIT DOCUMENTATION TRACKING FORM

All information submitted to satisfy the reporting requirements of a **Relocation Permit** must be accompanied by this form.

All information submitted to satisfy the reporting requirements of a **Special Waste Relocation Permit**, with the exception of the waste manifest described in Part 6 of the permit, must be accompanied by this form.

This form may be submitted in any of the following ways:

In person: 10 Burns Road, Whitehorse, YT
By mail: Environmental Programs, Box 2703 **(V-8)**, Whitehorse, YT, Y1A 2C6
By fax: (867) 393-6205
By email: cspermit@gov.yk.ca

Permittee: 16142 Yukon Inc.

Permit number: 4202-23-575

Office use only	
Received	Verified

Confirmed volume of relocated **soil**: 6 m^3

Confirmed volume of relocated **water**: _____ L

Confirmed volume of relocated **snow and ice**: _____ m^3

Has all contaminated material been removed from the removal location?
☑ Yes ☐ No

Has the excavation been backfilled?
☑ Yes ☐ No

Documents attached (check all that apply):

☐ Laboratory reports for samples taken to characterize the relocated material

☐ Laboratory reports for confirmatory samples taken from the base and walls of the excavation

☐ A figure showing the locations from which all confirmatory samples were taken

☐ Other: _____

I, LORENA FUNNELL *(print name clearly)*, am the authorized representative of the permittee named above, and I certify that the information provided with this form is correct and complete to the best of my knowledge.

Signature

Date: Oct 16/2014

YG(5809EQ)F1 11/2011

amec foster wheeler

APPENDIX K
Electrical Decommissioning Photographs

Electrical Decommissioning (ELEC) Photographs

ELEC Photograph 1: CIPC technician disconnecting cable from power pole.

ELEC Photograph 2: CIPC removing electrical panel from Reclaim Dam pump shack.

ELEC Photograph 3: CIPC technicians removing hardware from power poles near Jewelbox 1408 Portal.

ELEC Photograph 4: CIPC disconnecting cable from power pole near Jewelbox waste rock dump.

ELEC Photograph 5: CIPC disconnecting power cable from poles at mill site.

ELEC Photograph 6: IKC excavator working on behalf of CIPC removing power pole near main gate area.

ELEC Photograph 7: Decommissioning of above-ground transformer near North Creek Dyke.

ELEC Photograph 8: Power poles leaving site.

ELEC Photograph 9: Electrical infrastructure leaving site.

ELEC Photograph 10: One pole (with osprey nest) remains near former Reclaim Dam pump shack.

amec foster wheeler

APPENDIX L
Transformer PCB Testing Documentation

CASH CLIENTS - WHITEHORSE
ATTN: Bob Surgenor
Canadian Industrial Power and Control
NA NA NA

Date Received: 04-SEP-14
Report Date: 08-SEP-14 11:26 (MT)
Version: FINAL

Client Phone: 250-334-7048

Certificate of Analysis

Lab Work Order #: L1512597

Project P.O. #: NOT SUBMITTED
Job Reference:
C of C Numbers: 10-218759
Legal Site Desc:

Courtney Deverall
Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1512597-1	L1512597-2	L1512597-3		
	Description	Oil	Oil	Oil		
	Sampled Date	03-AUG-14	03-AUG-14	03-AUG-14		
	Sampled Time	10:30	10:34	10:40		
	Client ID	1973	OIL 74	1991		
Grouping	**Analyte**					
PRODUCT						
Polychlorinated Biphenyls	Total Polychlorinated Biphenyls (mg/kg)	<1.0	1.0	<1.0		

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
PCB-OIL-LL-ECD-VA	Product	PCBs in Oil by GCECD	EPA - 600/4-81-045

The procedure involves dilution or extraction of a subsample of the oil with hexane followed by one or more of the following clean-up procedures (if required): florisil, sulphur, sulphuric acid. The final extract is analysed by capillary column gas chromatography with electron capture detection (GC/ECD).

PCB-SUM-CALC-VA	Product	Total PCBs in oil	CALCULATION

Calculation of Total PCB. Total PCB is the sum of the concentrations of PCB aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260, 1262, and 1268. Results below detection limit (DL) are treated as zero. The Total PCB detection limit is equal to the highest of the aroclor detection limits used in the sum.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

10-218759

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.
mg/kg - milligrams per kilogram based on dry weight of sample.
mg/kg wwt - milligrams per kilogram based on wet weight of sample.
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.
mg/L - milligrams per litre.
< - Less than.
D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

ALS Environmental

Chain of Custody / Analytical Requ
Canada Toll Free: 1 800 668 9
www.alsglobal.com

L1512597-COFC

0-218759

Page ____ of ____

Report To		Report Format / Distribution		Service Request:(Rush subject to availability - Contact ALS to confirm TAT)	
Company:	Canadian Industrial Power and control	Standard:	Other (specify):		Regular (Standard Turnaround Times - Business Days)
Contact:	Bob Surgenor	Select: PDF	Excel Digital Fax		Priority(2-4 Business Days)-50% surcharge - Contact ALS to confirm TAT
Address:		Email 1:	Bobsurgenor@live.com	X	Emergency (1-2 Business Days)-100% Surcharge - Contact ALS to confirm TAT
	1-250-218-7216	Email 2:			Same Day or Weekend Emergency - Contact ALS to confirm TAT
Phone:	1 250-334-7048 Fax:				
Invoice To	Same as Report ? (circle) Yes or No (if No, provide details)	Client / Project Information		Analysis Request	
	Copy of Invoice with Report? (circle) Yes or No	Job #:		(Indicate Filtered or Preserved, F/P)	
Company:		PO / AFE:			
Contact:		LSD:			
Address:					
Phone:	Fax:	Quote #:			
Lab Work Order # (lab use only)		ALS Contact:	Sampler:		

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	PCB 0:1	Number of Containers
1	1973	03/Aug/14	10:30			
2	0:1 74	03/Aug/14	10:34			
3	1991	03/Aug/14	10:40			

Special Instructions / Regulation with water or land use (CCME- Freshwater Aquatic Life/BC CSR-Commercial/AB Tier 1-Natural/ETC) / Hazardous Details

JISA 4505 5300 4346 5853 3118

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

SHIPMENT RELEASE (client use)			SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)			
Released by:	Date:	Time:	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF
				4 Sep 14	10:15	13.1 °C				

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION | WHITE - LABORATORY COPY | YELLOW - CLIENT COPY | GENF 18.01 Front

amec foster wheeler

APPENDIX M
Tank Decommissioning Photographs

Tank Decommissioning (TANK) Photographs

TANK Photograph 1: Diesel tank from Burnick 1200 level loaded onto truck for off-site disposal.

TANK Photograph 2: KPI pumping water from containment berm around tank near ball storage area into tanker for off-site disposal.

TANK Photograph 3: Tank from near ball storage area loaded for transport for off-site disposal.

TANK Photograph 4: KPI loading tank containment berm liner into truck for transport to the Northern Environmental Services facility in Watson Lake.

APPENDIX N
Other Site Activities Photographs

Other Site Activities (MISC) Photographs

MISC Photograph 1: Road maintenance activities along SDH main access road.

MISC Photograph 2: Road maintenance activities along SDH main access road.

MISC Photograph 3: Removal, dismantling and stockpiling of pipeline along lower access road to TMA.

MISC Photograph 4: Boneyard clean-up including dismantling and stockpiling of pipeline for future off-site transport.

MISC Photograph 5: Assembly of pipeline along east side of Reclaim Pond in preparation for South Pond dewatering associated with the TMA Decommissioning works.

MISC Photograph 6: Construction of landfill cell.

MISC Photograph 7: Excavator removing former siphon pipeline from exit chute of Camp Creek Diversion Channel.

MISC Photograph 8: Labourers extracting core from core racks and placing in loader bucket for haul to Jewelbox for disposal.

MISC Photograph 9: Core rack demolition operations on ridge adjacent to Exploration Camp.

MISC Photograph 10: Crushing and capping activities at landfill.

MISC Photograph 11: Surface water drainage channel constructed through landfill area.

MISC Photograph 12: Golder Associates Ltd. overseeing installation of new groundwater monitoring well at landfill.

MISC Photograph 13: Hazardous waste being loaded into container for off-site disposal at Northern Environmental Services facility in Watson Lake.

MISC Photograph 14: View of mill capping and shaping operations from former crusher pad.

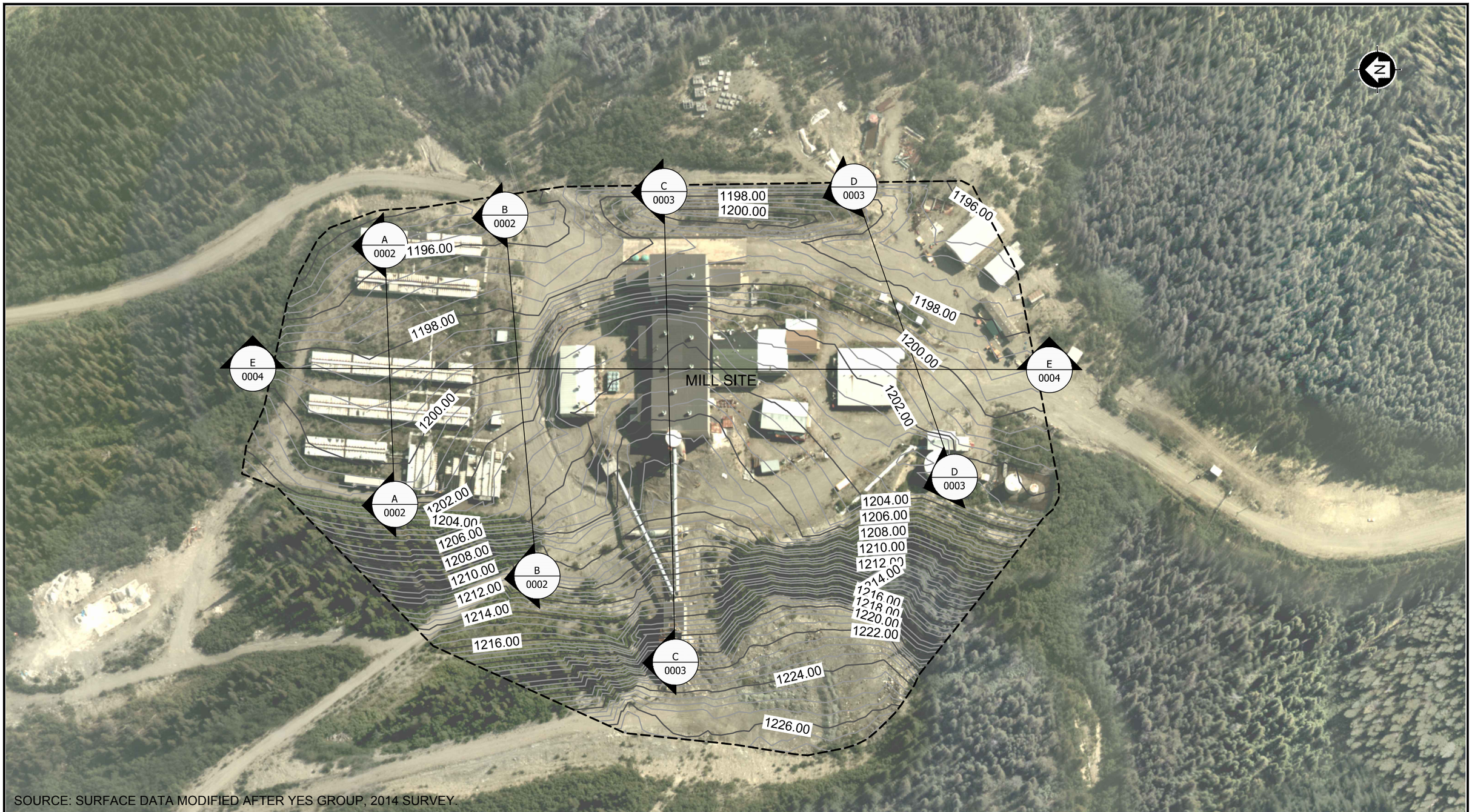
MISC Photograph 15: View of mill capping and shaping operations from east of former mill.

MISC Photograph 16: North Creek Dyke – construction of riprap lined channel through dyke at former culvert locations.

MISC Photograph 17: Rolled erosion control blanket installation at reshaped mill site.

APPENDIX O
Mill Area As-built Drawings

Drawing SDH04-B-C-0001.....As-built Mill Site Plan View and Section Locations
Drawing SDH04-B-C-0002.....As-built Mill Site Sections A-A and B-B
Drawing SDH04-B-C-0003.....As-built Mill Site Sections C-C and D-D
Drawing SDH04-B-C-0004.....As-built Mill Site Section E-E



SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

LEGEND:

- 1485.00 — TOPOGRAPHIC CONTOUR (0.5m INTERVALS)
- 2014 AS BUILT SURVEY BOUNDARY
- A 0002 — A 0002 — SECTION LOCATION (SEE DWG SDH04-B-C-0002, 0003 AND 0004)

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: TE133100

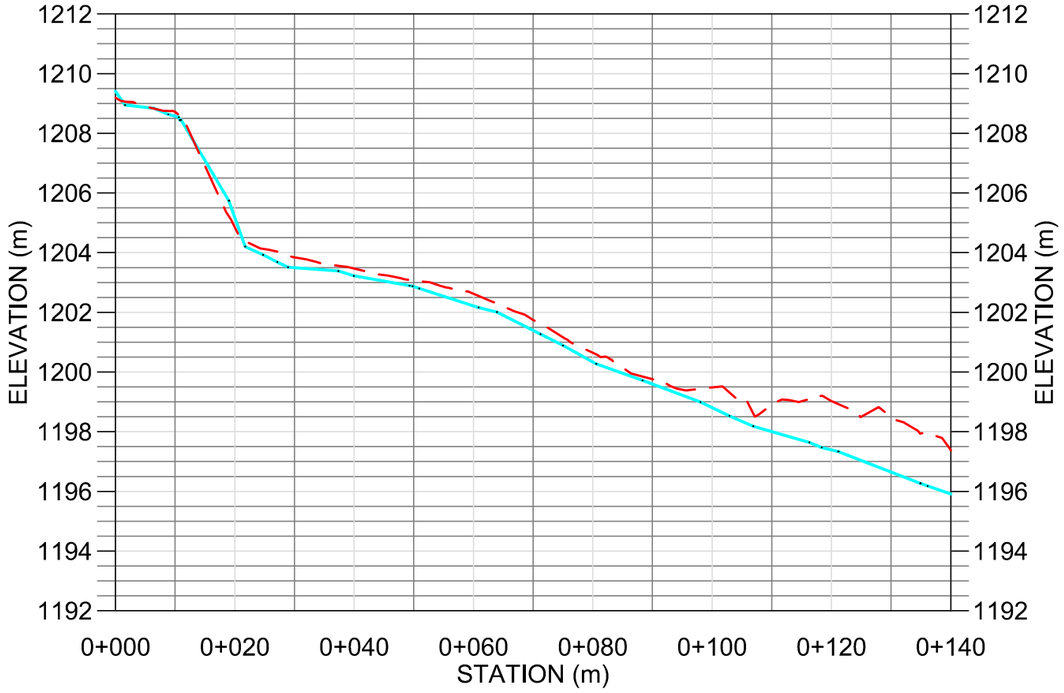
FILE NO: SDH04-B-C-0001-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

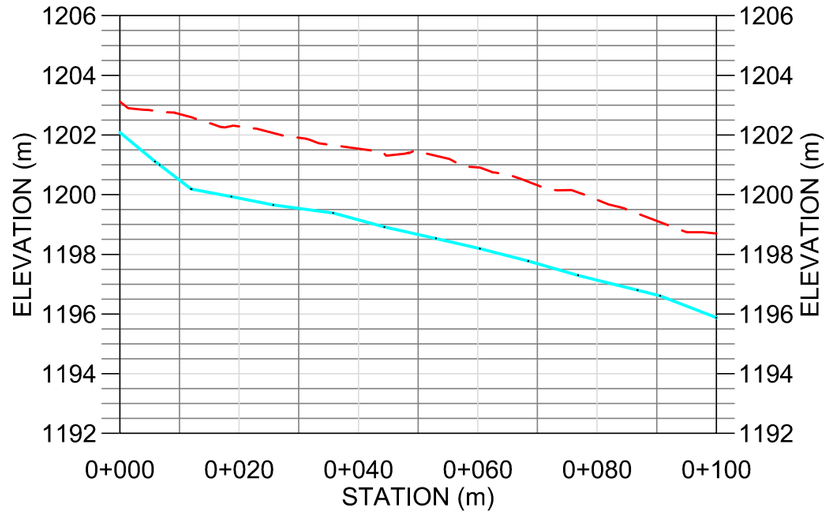
TITLE: 2014 AS BUILT MILL SITE PLAN VIEW AND SECTION LOCATIONS

DWN BY:	J.T./D.M.
CHK'D BY:	LW/CJ
DATE:	2014/12/19
REV. NO:	R0
FIGURE NO:	SDH04-B-C-0001

P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH04_B_C_MASTER_R0.dwg - 3/26/2015 5:19 PM - McCoy, Dale



SECTION A-A



SECTION B-B

LEGEND:

2014 AS BUILT SURFACE

2012 LIDAR SURFACE

NOTES:

1. SEE DWG SDH04-B-C-0001 FOR SECTION LOCATIONS.

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: AS SHOWN

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH04-B-C-0002-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT MILL SITE SECTIONS A-A AND B-B

DWN BY: D.M.

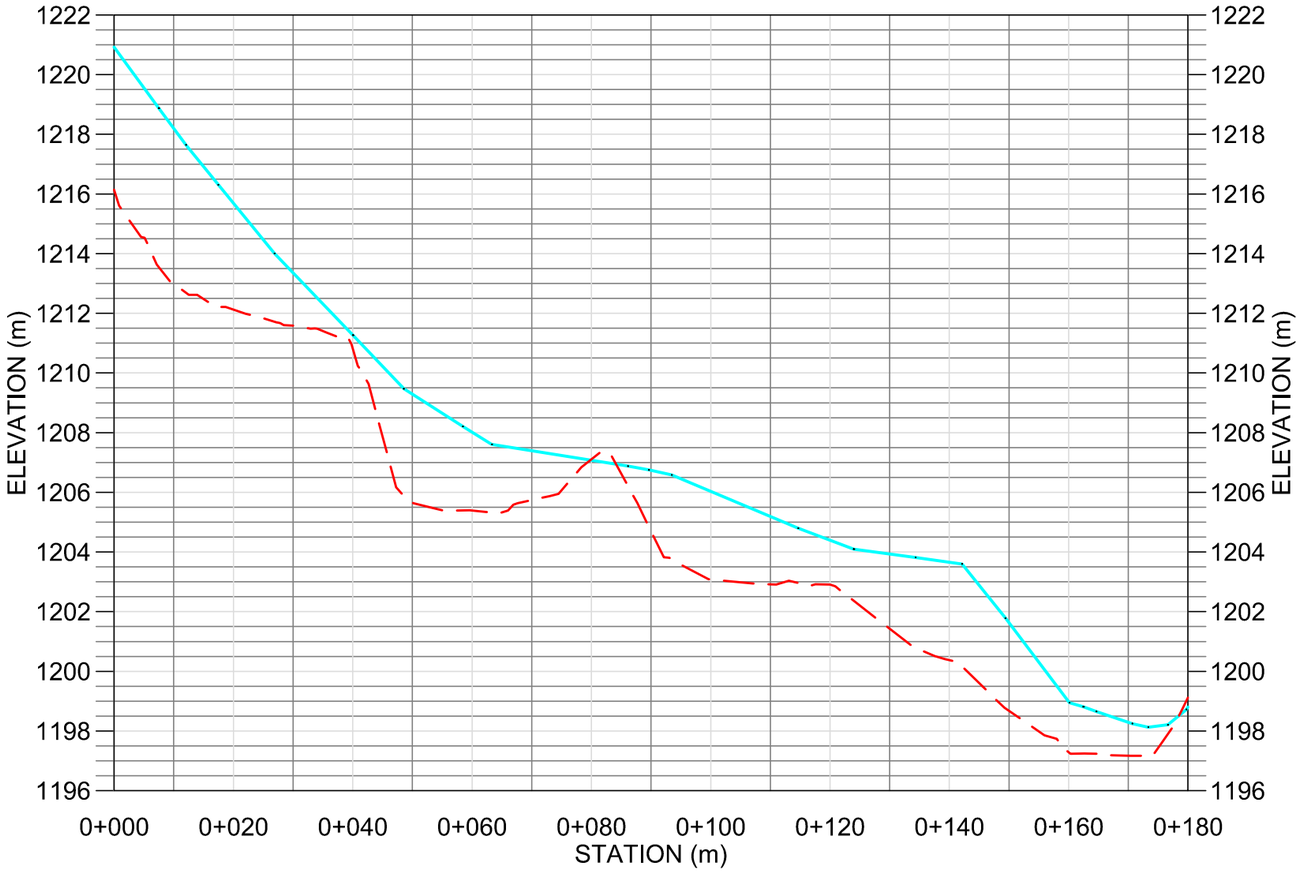
CHK'D BY: LW/CJ

DATE: 2014/12/19

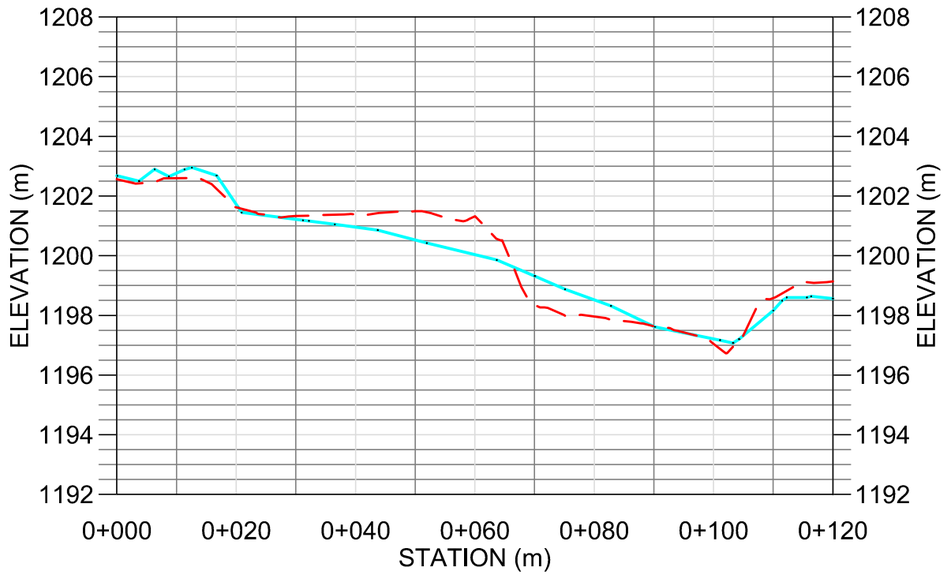
REV. NO: R0

FIGURE NO: SDH04-B-C-0002

P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH04_B_C_MASTER_R0.dwg - 3/28/2015 3:47 PM - McCoy, Dale



SECTION C-C



SECTION D-D

LEGEND:

2014 AS BUILT SURFACE

2012 LIDAR SURFACE

NOTES:

1. SEE DWG SDH04-B-C-0001 FOR SECTION LOCATIONS.

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: AS SHOWN

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH04-B-C-0003-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT MILL SITE SECTIONS C-C AND D-D

DWN BY: D.M.

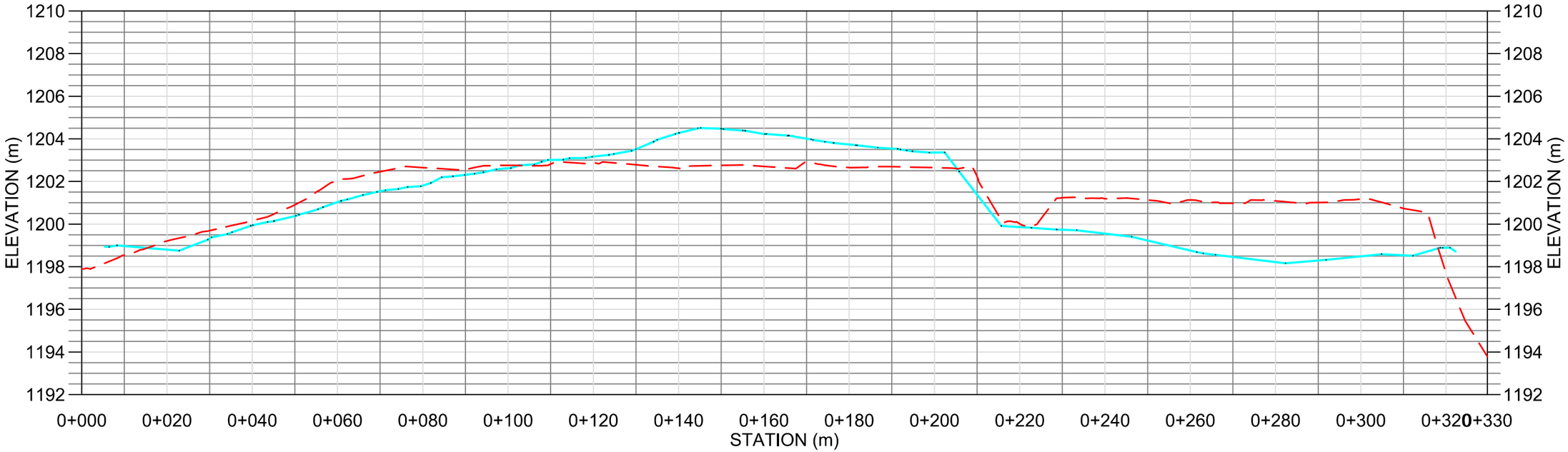
CHK'D BY: LW/CJ

DATE: 2015/03/21

REV. NO: R0

FIGURE NO: SDH04-B-C-0003

P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH04_B_C_MASTER_R0.dwg - 3/28/2015 3:49 PM - McCoy, Dale



SECTION E-E

LEGEND:

2014 AS BUILT SURFACE

2012 LIDAR SURFACE

NOTES:

1. SEE DWG SDH04-B-C-0001 FOR SECTION LOCATIONS.

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: AS SHOWN

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH04-B-C-0004-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT MILL SITE SECTION E-E

DWN BY: D.M.

CHK'D BY: LW/CJ

DATE: 2015/03/21

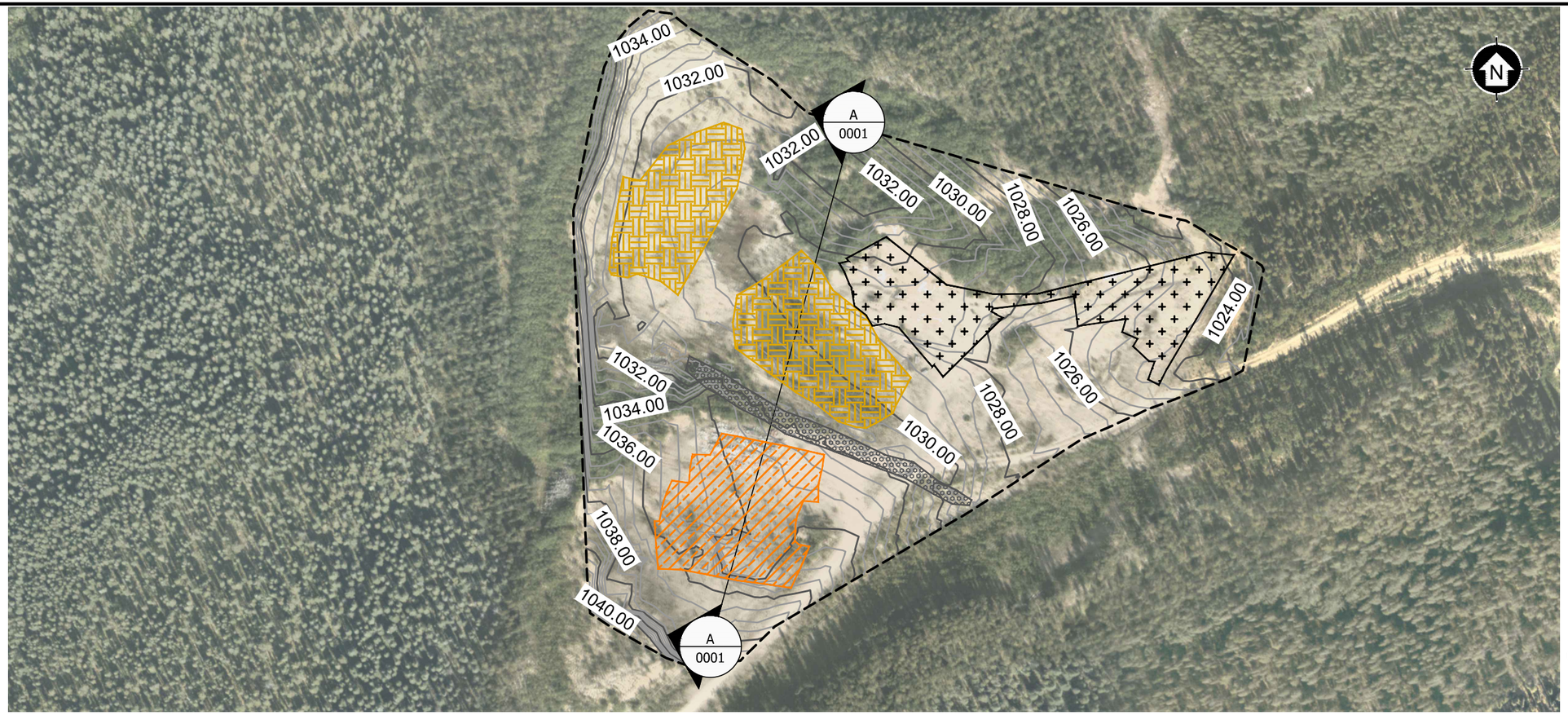
REV. NO: R0

FIGURE NO: SDH04-B-C-0004

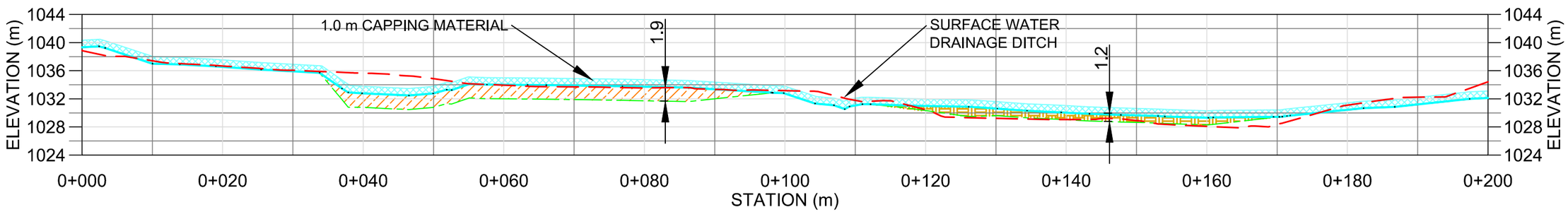
P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH04_B_C_MASTER_R0.dwg - 3/28/2015 3:50 PM - McCoy, Dale

APPENDIX P
Landfill As-built Drawings

Drawing SDH05-B-C-0001.....2014 As-built Landfill Plan View and Section



PLAN VIEW



SECTION A-A

SOURCE: SURFACE DATA MODIFIED AFTER YES GROUP, 2014 SURVEY.

LEGEND:

- 2012 LIDAR
- 2014 AS BUILT SURFACE
- LANDFILL CELL BOTTOM
- CAPPING MATERIAL
- SECTION LOCATION (A 0002 / A 0002)
- SURFACE WATER DRAINAGE CHANNEL
- 2013 CAMP AND OFFICE COMPLEX DISPOSAL CELL
- MISCELLANEOUS SITE DEBRIS DISPOSAL CELL
- MILL DEBRIS DISPOSAL CELL

CLIENT: Teck Sä Dena Hes Project

amec foster wheeler

SCALE: AS SHOWN

DATUM & PROJECTION: NAD83 CSRS, UTM ZONE 9N

PROJECT NO: TE133100

FILE NO: SDH05-B-C-0001-R0

PROJECT: DETAILED DECOMMISSIONING AND RECLAMATION PLAN

TITLE: 2014 AS BUILT LANDFILL PLAN VIEW AND SECTION

DWN BY: J.T./D.M.

CHK'D BY: LW/CJ

DATE: 2014/12/19

REV. NO: R0

FIGURE NO: SDH05-B-C-0001

P:\GIS\PROJECTS\SDH_TECK_DDRP_Yukon\CAD\DRAWINGS\SDH05_B_C_0001_R0.dwg - 3/28/2015 4:15 PM - McCoy, Dale

APPENDIX Q
Groundwater Monitoring Well Decommissioning Logs

Sä Dena Hes Mine Decommissioning & Reclamation
Monitoring Well Decommissioning Report: TH01-91

Weather Conditions: Overcast	**Amec Foster Wheeler Construction Monitor:** Chris Jeffrey
Temperature: 4°C	**Amec Foster Wheeler Inspector:** Gordon Shupe
Completion Date: October 1, 2014	**Contractor:** IKC

This report provides details from the monitoring well decommissioning activities at TH01-91.

Procedure:

1. No PVC pipe was discovered within the monitoring well.
2. Confirmed diameter (0.15m) and depth of well (40.0m from top of pipe).
3. Created a 6 m plug using bentonite (to 34m from top of pipe). Supplier suggested three bags would create an approximate 3m plug. Plug was allowed to sit overnight to improve effectiveness.
4. Excavated around the wellhead to approximately 2m below grade.
5. Cut well so top of well is approximately 1m below grade.
6. Filled well with sand to approximately 3m below top of pipe.
7. Filled remaining volume with bentonite-cement grout to the top of casing.
8. Backfilled the excavated area with excavated material.

Materials Used:

Material	Quantity
Bentonite	3 bags
Sand	1 Loader bucket
Grout	1 bag; 3 handfuls of bentonite

Plug Information:

Material	Top (m)	Bottom (m)
Pipe Removed	0.0	2.8
Grout	2.8	4.3
Sand	4.3	34.0
Bentonite	34.0	40.0

Note 1: All measurements based off original pipe height.
Note 2: Water level was 12.0m

Borehole Log:

See attached borehole log for TH01-91.

Photographs from TH01-91:

Photo 1: Monitoring Well TH01-91 being filled with sand after being exposed and cut down.

Photo 2: Mixing grout to cap TH01-91.

Report Prepared By: Gordon Shupe, Amec Foster Wheeler

LOG OF BOREHOLE TH01-91

PROJECT No.:	**TE133102**	ELEVATION:	**1031.21 m**
CLIENT:	**Teck Resources Ltd.**	DATUM:	**Geodedic**
PROJECT NAME:	**Sä Dena Hes Mine Decommissioning**	METHOD:	**01/10/2014**
LOCATION:	**Sä Dena Hes Mine, YT**	DIAMETER:	**150 mm**
DATE DRILLED:		WATER LEVEL:	**12.00 m**
LOGGED BY:	**G. Shupe**	CONTRACTOR:	**IKC**

amec foster wheeler

DEPTH (m)	ELEVATION (m)	STRATIGRAPHIC DESCRIPTION	STRATA PLOT	WATER LEVEL
0	**1031.21**	Pipe removed		
	1028.41			
	1026.91	Grout		
5		Sand		
10				
15				
20				
25				
30				
	997.21			
35		Bentonite plug		
	991.21			
40		End of Borehole @ 40 m Elevation and measurements from top of original pipe height		

GEOTECHNICAL BOREHOLE MONITORING WELL LOGS.GPJ AMEC HALIFAX.GDT 17/2/15

Sä Dena Hes Mine Decommissioning & Reclamation
Monitoring Well Decommissioning Report: TH07-91

Weather Conditions: Overcast	**Amec Foster Wheeler Construction Monitor:** Chris Jeffrey
Temperature: 4°C	**Amec Foster Wheeler Inspector:** Gordon Shupe
Completion Date: September 30, 2014	**Contractor:** IKC

This report provides details from the monitoring well decommissioning activities at TH07-91.

Procedure:

1. No PVC pipe was discovered within the monitoring well.
2. Confirmed diameter (0.15m) and depth of well (25.8m from top of pipe).
3. Created an approximate 4m (to 21.3m from top of pipe) plug using bentonite. Supplier suggested three bags would create an approximate 3m plug. Plug was allowed to sit overnight to improve effectiveness.
4. Filled well with sand to approximately 3m below top of pipe.
5. Excavated around the wellhead to approximately 2m below grade.
6. Cut well so top of well is approximately 1m below grade.
7. Filled remaining volume with bentonite-cement grout to the top of casing.
8. Backfilled the excavated area with excavated material.

Materials Used:

Material	Quantity
Bentonite	3 bags
Sand	½ Loader bucket
Grout	1/3 bag; 3 handfuls of bentonite

Plug Information:

Material	Top (m)	Bottom (m)
Pipe Removed	0.0	2.0
Grout	2.0	2.75
Sand	2.75	21.3
Bentonite	21.3	25.8

Note 1: All measurements based off original pipe height.
Note 2: Water level was 3.6m

Borehole Log:

See attached borehole log for TH07-91.

Photographs from TH07-91:

Photo 1: Adding sand to monitoring well TH07-91.

Photo 2: TH07-91 exposed prior to cutting.

Report Prepared By: Gordon Shupe, Amec Foster Wheeler

LOG OF BOREHOLE TH07-91

PROJECT No.:	**TE133102**	ELEVATION:	**1008.49 m**
CLIENT:	**Teck Resources Ltd.**	DATUM:	**Geodedic**
PROJECT NAME:	**Sä Dena Hes Mine Decommissioning**	METHOD:	**30/09/2014**
LOCATION:	**Sä Dena Hes Mine, YT**	DIAMETER:	**150 mm**
DATE DRILLED:		WATER LEVEL:	**3.60 m**
LOGGED BY:	**G. Shupe**	CONTRACTOR:	**IKC**

amec foster wheeler

DEPTH (m)	ELEVATION (m)	STRATIGRAPHIC DESCRIPTION	STRATA PLOT	WATER LEVEL
0	**1008.49**	Pipe removed		
	1006.49			
	1005.74	Grout		
		Sand		
5				
10				
15				
20	987.19			
		Bentonite plug		
25	982.69			
		End of Borehole @ 25.8 m		
		Elevation and measurements from top of original pipe height		

Sä Dena Hes Mine Decommissioning & Reclamation
Monitoring Well Decommissioning Report: TH13-91

Weather Conditions: Overcast	**Amec Foster Wheeler Construction Monitor:** Chris Jeffrey
Temperature: 4°C	**Amec Foster Wheeler Inspector:** Gordon Shupe
Completion Date: September 30, 2014	**Contractor:** IKC

This report provides details from the monitoring well decommissioning activities at TH13-91.

Procedure:

1. No PVC pipe was discovered within the monitoring well.
2. Confirmed diameter (0.15m) and depth of well (23.0m from top of pipe).
3. Created an 8m plug using bentonite (to 15m from top of pipe). Supplier suggested three bags would create an approximate 3m plug. Plug was allowed to sit overnight to improve effectiveness.
4. Filled well with sand to approximately 3m below top of pipe.
5. Excavated around the wellhead to approximately 2m below grade.
6. Cut well so top of well is approximately 1m below grade.
7. Filled remaining volume with bentonite-cement grout to the top of casing.
8. Backfilled the excavated area with excavated material.

Materials Used:

Material	Quantity
Bentonite	3 bags
Sand	½ Loader bucket
Grout	1/3 bag; 3 handfuls of bentonite

Plug Information:

Material	Top (m)	Bottom (m)
Pipe Removed	0.0	2.0
Grout	2.0	2.75
Sand	2.75	15.0
Bentonite	15.0	23.0

Note 1: All measurements based off original pipe height.
Note 2: Water level was 20.0m

Borehole Log:

See attached borehole log for TH13-91.

Photographs from TH13-91:

Photo 1: Monitoring Well TH13-91 exposed and cut down.

Photo 2: Adding grout to cap TH13-91.

Report Prepared By: Gordon Shupe, Amec Foster Wheeler

LOG OF BOREHOLE TH13-91

PROJECT No.:	**TE133102**	ELEVATION:	**993.26 m**
CLIENT:	**Teck Resources Ltd.**	DATUM:	**Geodedic**
PROJECT NAME:	**Sä Dena Hes Mine Decommissioning**	METHOD:	**30/09/2014**
LOCATION:	**Sä Dena Hes Mine, YT**	DIAMETER:	**150 mm**
DATE DRILLED:		WATER LEVEL:	**20.00 m**
LOGGED BY:	**G. Shupe**	CONTRACTOR:	**IKC**

amec foster wheeler

DEPTH (m)	ELEVATION (m)	STRATIGRAPHIC DESCRIPTION	STRATA PLOT	WATER LEVEL
0	**993.26**			
	991.26	Pipe removed		
	990.51	Grout		
		Sand		
5				
10				
	978.26			
15		Bentonite plug		
20				
	970.26			
		End of Borehole @ 23 m Elevation and measurements from top of original pipe height		

Sä Dena Hes Mine Decommissioning & Reclamation
Monitoring Well Decommissioning Report: TH14-91

Weather Conditions: Overcast	**Amec Foster Wheeler Construction Monitor:** Chris Jeffrey
Temperature: 0°C	**Amec Foster Wheeler Inspector:** Gordon Shupe
Completion Date: October 2, 2014	**Contractor:** IKC

This report provides details from the monitoring well decommissioning activities for TH14-91.

Procedure:

1. No PVC pipe was discovered within the monitoring well.
2. Confirmed diameter (0.15m) and depth of well (14.1m from top of pipe).
3. Created a 3m plug using bentonite (to 11.0m from top of pipe). Supplier suggested three bags would create an approximate 3m plug. Plug was allowed to sit overnight to improve effectiveness.
4. Filled well with sand to approximately 2m below top of pipe.
5. Excavated around the wellhead to approximately 0.5m below grade.
6. Cut well so top of well is approximately 0.5m below grade.
7. Filled remaining volume with bentonite-cement grout to the top of casing.
8. Backfilled the excavated area with excavated material.

Materials Used:

Material	Quantity
Bentonite	3 bags
Sand	1/3 Loader bucket
Grout	1/3 bag; 3 handfuls of bentonite

Plug Information:

Material	Top (m)	Bottom (m)
Pipe Removed	0.0	1.5
Grout	1.5	2.5
Sand	2.5	11.0
Bentonite	11.0	14.1

Note 1: All measurements based off original pipe height.
Note 2: Water level was 11.0m

Borehole Log:

See attached borehole log for TH14-91.

Photographs from TH14-91:

Photo 1: Loading sand into monitoring well TH14-91.

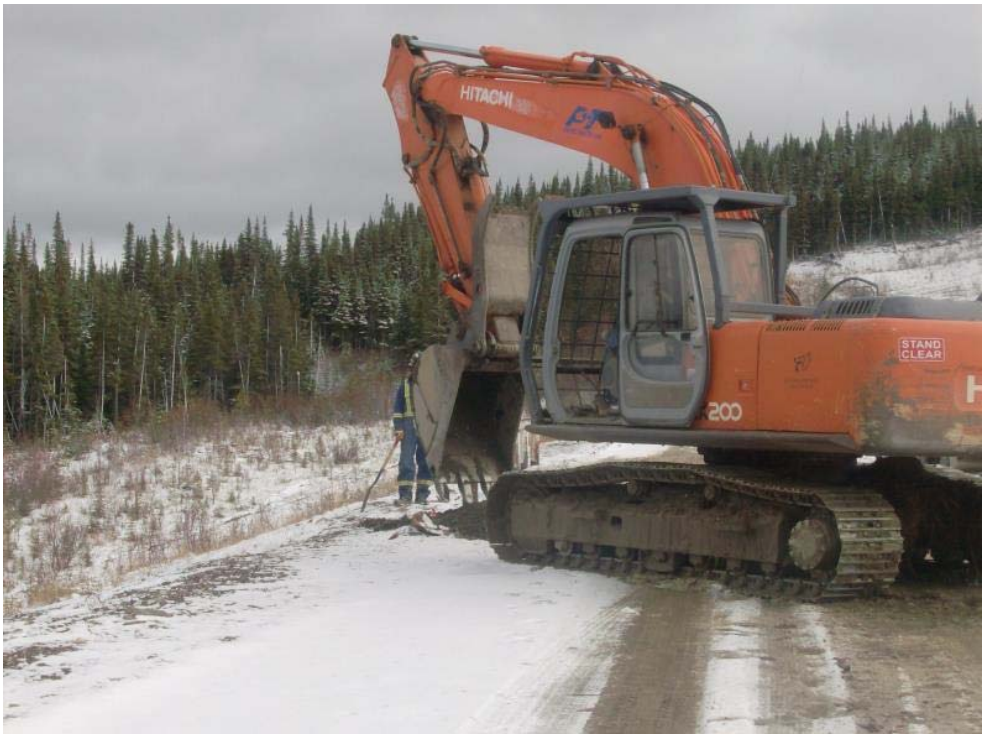


Photo 2: EX 200 exposing TH14-91.

Report Prepared By: Gordon Shupe, Amec Foster Wheeler

LOG OF BOREHOLE TH14-91

PROJECT No.:	**TE133102**	ELEVATION:	**1101.19 m**
CLIENT:	**Teck Resources Ltd.**	DATUM:	**Geodedic**
PROJECT NAME:	**Sä Dena Hes Mine Decommissioning**	METHOD:	**02/10/2014**
LOCATION:	**Sä Dena Hes Mine, YT**	DIAMETER:	**150 mm**
DATE DRILLED:		WATER LEVEL:	**11.00 m**
LOGGED BY:	**G. Shupe**	CONTRACTOR:	**IKC**

amec foster wheeler

DEPTH (m)	ELEVATION (m)	STRATIGRAPHIC DESCRIPTION	STRATA PLOT	WATER LEVEL
0	**1101.19**			
	1099.69	Pipe removed		
	1098.69	Grout		
		Sand		
5				
10	1090.19			▽
		Bentonite plug		
	1087.09			
		End of Borehole @ 14.1 m Elevation and measurements from top of original pipe height		

Sä Dena Hes Mine Decommissioning & Reclamation
Monitoring Well Decommissioning Report: TH15-91

Weather Conditions: Overcast	**Amec Foster Wheeler Construction Monitor:** Chris Jeffrey
Temperature: 6°C	**Amec Foster Wheeler Inspector:** Gordon Shupe
Completion Date: September 30, 2014	**Contractor:** IKC

This report provides details from the monitoring well decommissioning activities at TH15-91.

Procedure:

1. No PVC pipe was discovered within the monitoring well.
2. Confirmed diameter (0.15m) and depth of well (35.0m from top of pipe).
3. Created a 5m (to 30m from top of pipe) plug using bentonite. Supplier suggested three bags would create an approximate 3m plug. Plug was allowed to sit overnight to improve effectiveness.
4. Filled well with sand to approximately 3m below top of pipe.
5. Excavated around the wellhead to approximately 2m below grade.
6. Cut well so top of well is approximately 1m below grade.
7. Filled remaining volume with bentonite-cement grout to the top of casing.
8. Backfilled the excavated area with excavated material.

Materials Used:

Material	Quantity
Bentonite	3 bags
Sand	½ Loader bucket
Grout	1/3 bag; 3 handfuls of bentonite

Plug Information:

Material	Top (m)	Bottom (m)
Pipe Removed	0.0	2.5
Grout	2.5	3.25
Sand	3.25	30.0
Bentonite	30.0	35.0

Note 1: All measurements based off original pipe height.
Note 2: Water level was 10.5m

Borehole Log:

See attached borehole log for TH15-91.

Photographs from TH15-91:

Photo 1: Monitoring Well TH15-91 exposed and cut down.

Photo 2: Sand installed into TH15-91.

Report Prepared By: Gordon Shupe, Amec Foster Wheeler

LOG OF BOREHOLE TH15-91

PROJECT No.:	**TE133102**	ELEVATION:	**977.43 m**
CLIENT:	**Teck Resources Ltd.**	DATUM:	**Geodedic**
PROJECT NAME:	**Sä Dena Hes Mine Decommissioning**	METHOD:	**30/09/2014**
LOCATION:	**Sä Dena Hes Mine, YT**	DIAMETER:	**150 mm**
DATE DRILLED:		WATER LEVEL:	**10.50 m**
LOGGED BY:	**G. Shupe**	CONTRACTOR:	**IKC**

amec foster wheeler

DEPTH (m)	ELEVATION (m)	STRATIGRAPHIC DESCRIPTION	STRATA PLOT	WATER LEVEL
0	**977.43**	Pipe removed		
	974.93			
	974.18	Grout		
		Sand		
5				
10				
15				
20				
25				
30	947.43			
		Bentonite plug		
35	942.43			
		End of Borehole @ 35 m		
		Elevation and measurements from top of original pipe height		

GEOTECHNICAL BOREHOLE MONITORING WELL LOGS.GPJ AMEC HALIFAX.GDT 17/2/15

Sä Dena Hes Mine Decommissioning & Reclamation
Monitoring Well Decommissioning Report: TH18-91

Weather Conditions: Overcast	**Amec Foster Wheeler Construction Monitor:** Chris Jeffrey
Temperature: 1°C	**Amec Foster Wheeler Inspector:** Gordon Shupe
Completion Date: October 3, 2014	**Contractor:** IKC

This report provides details from the monitoring well decommissioning activities at TH18-91.

Procedure:

1. No PVC pipe was discovered within the monitoring well.
2. Confirmed diameter (0.15m) and depth of well (24.0m from top of pipe).
3. Created a 3m (to 21m from top of pipe) plug using bentonite. Supplier suggested three bags would create an approximate 3m plug. Plug was allowed to sit overnight to improve effectiveness.
4. Excavated around the wellhead to approximately 3m below grade.
5. Cut well so top of well is approximately 1.5m below grade.
6. Filled well with sand to approximately 1m below new top of pipe.
7. Filled remaining volume with bentonite-cement grout to the top of casing.
8. Backfilled the excavated area with excavated material.

Materials Used:

Material	Quantity
Bentonite	3 bags
Sand	1 Loader bucket
Grout	1/3 bag; 3 handfuls of bentonite

Plug Information:

Material	Top (m)	Bottom (m)
Pipe Removed	0.0	2.5
Grout	2.5	3.5
Sand	3.5	21.0
Bentonite	21.0	24.0

Note 1: All measurements based off original pipe height.
Note 2: Water level was 14.3m

Borehole Log:

See attached borehole log for TH18-91.

Photographs from TH18-91:

Photo 1: Monitoring Well TH18-91 exposed.

Photo 2: Sand being installed into TH18-91.

Report Prepared By: Gordon Shupe, Amec Foster Wheeler

LOG OF BOREHOLE TH18-91

PROJECT No.:	**TE133102**	ELEVATION:	**1084.05 m**
CLIENT:	**Teck Resources Ltd.**	DATUM:	**Geodedic**
PROJECT NAME:	**Sä Dena Hes Mine Decommissioning**	METHOD:	**03/10/2014**
LOCATION:	**Sä Dena Hes Mine, YT**	DIAMETER:	**150 mm**
DATE DRILLED:		WATER LEVEL:	**14.30 m**
LOGGED BY:	**G. Shupe**	CONTRACTOR:	**IKC**

amec foster wheeler

DEPTH (m)	ELEVATION (m)	STRATIGRAPHIC DESCRIPTION	STRATA PLOT	WATER LEVEL
0	**1084.05**	Pipe removed		
	1081.55			
	1080.55	Grout		
		Sand		
5				
10				
15				
20	1063.05			
		Bentonite plug		
	1060.05			
		End of Borehole @ 24 m		
		Elevation and measurements from top of original pipe height		

GEOTECHNICAL BOREHOLE MONITORING WELL LOGS.GPJ AMEC HALIFAX.GDT 17/2/15

Sä Dena Hes Mine Decommissioning & Reclamation
Monitoring Well Decommissioning Report: TH19-91

Weather Conditions: Overcast	**Amec Foster Wheeler Construction Monitor:** Chris Jeffrey
Temperature: 8ºC	**Amec Foster Wheeler Inspector:** Gordon Shupe
Completion Date: September 30, 2014	**Contractor:** IKC

This report provides details from the monitoring well decommissioning activities at TH19-91.

Procedure:

1. No PVC pipe was discovered within the monitoring well.
2. Confirmed diameter (0.15m) and depth of well (4.5m from top of pipe).
3. Excavated around the wellhead to approximately 2m below grade.
4. Cut well so top of well is approximately 1m below grade.
5. Filled volume with bentonite/cement grout mixture to the top of casing.
6. Backfilled the excavated area with excavated material.

Materials Used:

Material	Quantity
Bentonite	1 bag
Sand	None
Grout	1/3 bag

Plug Information:

Material	Top (m)	Bottom (m)
Pipe Removed	0.0	2.5
Bentonite/Cement Grout Mixture	2.5	4.5

Note 1: All measurements based off original pipe height.
Note 2: Water level was 3.8m

Borehole Log:

See attached borehole log for TH19-91.

Photographs from TH19-91:

Photo 1: Monitoring Well TH19-91 exposed prior to cutting down.

Photo 2: TH19-91 after surrounding area backfilled.

Report Prepared By: Gordon Shupe, Amec Foster Wheeler

LOG OF BOREHOLE TH19-91

PROJECT No.:	**TE133102**	ELEVATION:	**959.85 m**
CLIENT:	**Teck Resources Ltd.**	DATUM:	**Geodedic**
PROJECT NAME:	**Sä Dena Hes Mine Decommissioning**	METHOD:	**30/09/2014**
LOCATION:	**Sä Dena Hes Mine, YT**	DIAMETER:	**150 mm**
DATE DRILLED:		WATER LEVEL:	**3.80 m**
LOGGED BY:	**G. Shupe**	CONTRACTOR:	**IKC**

amec foster wheeler

DEPTH (m)	ELEVATION (m)	STRATIGRAPHIC DESCRIPTION	STRATA PLOT	WATER LEVEL
0	**959.85**	Pipe removed		
	957.35	Bentonite/Cement Grout Mixture		▽
	955.35	End of Borehole @ 4.5 m Elevation and measurements from top of original pipe height		

Sä Dena Hes Mine Decommissioning & Reclamation
Monitoring Well Decommissioning Report: TH20-91

Weather Conditions: Overcast	**Amec Foster Wheeler Construction Monitor:** Chris Jeffrey
Temperature: -5ºC	**Amec Foster Wheeler Inspector:** Gordon Shupe
Completion Date: October 2, 2014	**Contractor:** IKC

This report provides details from the monitoring well decommissioning activities at TH20-91.

Procedure:

1. No PVC pipe was discovered within the monitoring well.
2. Confirmed diameter (0.15m) and depth of well (53.5m from top of pipe).
3. Created a 5.5m (to 48m from top of pipe) plug using bentonite. Supplier suggested three bags would create an approximate 3m plug. Plug was allowed to sit overnight to improve effectiveness.
4. Filled well with sand to approximately 3m below top of pipe.
5. Excavated around the wellhead to approximately 2m below grade.
6. Cut well so top of well is approximately 1.5m below grade.
7. Filled remaining volume with bentonite-cement grout to the top of casing.
8. Backfilled the excavated area with excavated material.

Materials Used:

Material	Quantity
Bentonite	3 bags
Sand	2 Loader buckets
Grout	½ bag; 3 handfuls of bentonite

Plug Information:

Material	Top (m)	Bottom (m)
Pipe Removed	0.0	1.8
Grout	1.8	2.3
Sand	2.3	48.0
Bentonite	48.0	53.5

Note 1: All measurements based off original pipe height.
Note 2: Water level was 2.3m

Borehole Log:

See attached borehole log for TH20-91.

Photographs from TH20-91:

Photo 1: Monitoring Well TH20-91 being filled with sand after being exposed and cut down.

Report Prepared By: Gordon Shupe, Amec Foster Wheeler

L O G O F B O R E H O L E TH20-91

PROJECT No.:	**TE133102**	ELEVATION:	**---**
CLIENT:	**Teck Resources Ltd.**	DATUM:	**Geodedic**
PROJECT NAME:	**Sä Dena Hes Mine Decommissioning**	METHOD:	**02/10/2014**
LOCATION:	**Sä Dena Hes Mine, YT**	DIAMETER:	**150 mm**
DATE DRILLED:		WATER LEVEL:	**2.30 m**
LOGGED BY:	**G. Shupe**	CONTRACTOR:	**IKC**

amec foster wheeler

DEPTH (m)	ELEVATION (m)	STRATIGRAPHIC DESCRIPTION	STRATA PLOT	WATER LEVEL
0		Pipe removed		
		Grout		
		Sand		
5				
10				
15				
20				
25				
30				
35				
40				
45				
		Bentonite plug		
50				
		End of Borehole @ 53.5 m Elevation and measurements from top of original pipe height		

Sä Dena Hes Mine Decommissioning & Reclamation
Monitoring Well Decommissioning Report: TH24-91

Weather Conditions: Overcast	**Amec Foster Wheeler Construction Monitor:** Chris Jeffrey
Temperature: -5ºC	**Amec Foster Wheeler Inspector:** Gordon Shupe
Completion Date: October 2, 2014	**Contractor:** IKC

This report provides details from the monitoring well decommissioning activities at TH24-91.

Procedure:

1. No PVC pipe was discovered within the monitoring well.
2. Confirmed diameter (0.15m) and depth of well (53.0m from top of pipe).
3. Created a 5m (to 48m from top of pipe) plug using bentonite. Supplier suggested three bags would create an approximate 3m plug. Plug was allowed to sit overnight to improve effectiveness.
4. Filled well with sand to approximately 3m below top of pipe.
5. Excavated around the wellhead to approximately 1m below grade.
6. Cut well so top of well is approximately 1.0m below grade.
7. Filled remaining volume with bentonite-cement grout to the top of casing.
8. Backfilled the excavated area with excavated material.

Materials Used:

Material	Quantity
Bentonite	3 bags
Sand	2 Loader buckets
Grout	½ bag; 3 handfuls of bentonite

Plug Information:

Material	Top (m)	Bottom (m)
Pipe Removed	0.0	1.0
Grout	1.0	2.0
Sand	2.0	48.0
Bentonite	48.0	53.0

Note 1: All measurements based off original pipe height.
Note 2: Water level was 1.7m

Borehole Log:

See attached borehole log for TH24-91.

Photographs from TH24-91:

Photo 1: Monitoring Well TH24-91 exposed.

Report Prepared By: Gordon Shupe, Amec Foster Wheeler

LOG OF BOREHOLE TH24-91

PROJECT No.:	**TE133102**	ELEVATION:	**---**
CLIENT:	**Teck Resources Ltd.**	DATUM:	**Geodedic**
PROJECT NAME:	**Sä Dena Hes Mine Decommissioning**	METHOD:	**02/10/2014**
LOCATION:	**Sä Dena Hes Mine, YT**	DIAMETER:	**150 mm**
DATE DRILLED:		WATER LEVEL:	**1.70 m**
LOGGED BY:	**G. Shupe**	CONTRACTOR:	**IKC**

amec foster wheeler

DEPTH (m)	ELEVATION (m)	STRATIGRAPHIC DESCRIPTION	STRATA PLOT	WATER LEVEL
0		Pipe removed		
		Grout		
		Sand		
5				
10				
15				
20				
25				
30				
35				
40				
45				
		Bentonite plug		
50				
		End of Borehole @ 53 m Elevation and measurements from top of original pipe height		

Sä Dena Hes Mine Decommissioning & Reclamation
Monitoring Well Decommissioning Report: GW-1B

Weather Conditions: Overcast	**Amec Foster Wheeler Construction Monitor:** Chris Jeffrey
Temperature: 1°C	**Amec Foster Wheeler Inspector:** Gordon Shupe
Completion Date: October 3, 2014	**Contractor:** IKC

This report provides details from the monitoring well decommissioning activities at GW-1B.

Procedure:

1. PVC pipe was discovered within the monitoring well.
2. Metal casing was removed.
3. Confirmed diameter (0.05m) and depth of well (1.5m below grade).
4. Excavated around the wellhead to approximately 2m below grade.
5. Created a 0.5m plug using bentonite (to 1m below grade).
6. Cut well so top of well is approximately 1m below grade.
7. Backfilled the excavated area with excavated material.

Materials Used:

Material	Quantity
Bentonite	3 handfulls
Sand	None
Grout	None

Plug Information:

Material	Top (m)	Bottom (m)
Pipe Removed	0.0	1.0
Bentonite	1.0	1.5

Note 1: All measurements based off original pipe height.
Note 2: No water was discovered.
Note 3: Sludge well was also buried in same excavation.

Borehole Log:

See attached borehole log for GW-1B.

Photographs from GW-1B:

Photo 1: Well GW-1B filled with bentonite after being exposed and cut down.

Photo 2: Well GW-1B after covering.

Report Prepared By: Gordon Shupe, Amec Foster Wheeler

L O G O F B O R E H O L E GW-1B

PROJECT No.:	**TE133102**	ELEVATION:	**---**
CLIENT:	**Teck Resources Ltd.**	DATUM:	**Geodedic**
PROJECT NAME:	**Sä Dena Hes Mine Decommissioning**	METHOD:	**03/10/2014**
LOCATION:	**Sä Dena Hes Mine, YT**	DIAMETER:	**150 mm**
DATE DRILLED:		WATER LEVEL:	
LOGGED BY:	**G. Shupe**	CONTRACTOR:	**IKC**

amec foster wheeler

DEPTH (m)	ELEVATION (m)	STRATIGRAPHIC DESCRIPTION	STRATA PLOT	WATER LEVEL
0		Pipe removed		
		Bentonite plug		
		End of Borehole @ 1.5 m		
		Elevation and measurements from top of original pipe height		