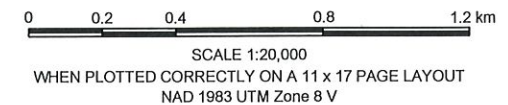


NOTES:
 REFERENCED FROM GOVERNMENT OF YUKON GIS DATA AND CITY OF WHITEHORSE GIS OPEN DATA. IMAGERY: © 2016 GOVERNMENT OF YUKON (IMAGE DATE: 2011).

BASEDATA:
 © Department of Natural Resources Canada, All rights reserved; National Road Network, National Railway Network Geobase®, Downloaded March 2014; Waterbodies 50k, GeomaticsYukon, Downloaded August 2016; Watercourses 50k, GeomaticsYukon, Downloaded August 2016; Contours 50k, GeomaticsYukon, Downloaded August 2016;

- Rail Line
- Contour (10m)
- Watercourse
- Wetlands
- Buildings
- Wooded Area
- Developed Area
- Expressway / Highwa
- Arterial
- Local / Street
- Resource / Recreation

- LEGEND:
- PROPERTY BOUNDARY
 - WORK AREA
 - PROPOSED TRUCKING ROUTE



THIS DRAWING IS FOR CONCEPTUAL PURPOSES ONLY. ACTUAL LOCATIONS MAY VARY AND NOT ALL STRUCTURES ARE SHOWN.

**PUBLIC WORKS AND GOVERNMENT SERVICES
 WHITEHORSE INTERNATIONAL AIRPORT
 WHITEHORSE, YT**

**2017 NORTH APRON REMEDIATION
 SPECIFICATIONS**

SITE LOCATION

Date: August 9, 2017
 Project No. 205.03874.00000

Drawing No. **1**





LEGEND:
 - - - AIRPORT BOUNDARY
 - - - TRUCKING ROUTE

NOTES:
 IMAGERY: GOOGLE © 2017 DIGITALGLOBE (IMAGE DATE: 2016)

**PUBLIC WORKS AND GOVERNMENT SERVICES
 WHITEHORSE INTERNATIONAL AIRPORT
 WHITEHORSE, YT**

**2017 NORTH APRON REMEDIATION
 SPECIFICATIONS**

SITE LAYOUT

Date: August 9, 2017	Drawing No.
Project No. 205.03874.00000	2



0 100 200 400 600 m
 SCALE 1:10,000
 WHEN PLOTTED CORRECTLY ON A 11 x 17 PAGE LAYOUT
 NAD 1983 UTM Zone 8 V

THIS DRAWING IS FOR CONCEPTUAL PURPOSES ONLY. ACTUAL LOCATIONS MAY VARY AND NOT ALL STRUCTURES ARE SHOWN.



Cadfile name: S_205-03874-00000-A1.dwg



NOTES:
 IMAGERY: GOOGLE © 2017 DIGITALGLOBE (IMAGE DATE: 2016)

LEGEND:
 AIRPORT BOUNDARY
 ELEVATION CONTOUR (0.25 m INTERVAL)
 UTILITIES
 U/G SANITARY SEWER
 U/G STORM SEWER



SCALE 1:600
 WHEN PLOTTED CORRECTLY ON A 11 x 17 PAGE LAYOUT
 NAD 1983 UTM Zone 8 V
 THIS DRAWING IS FOR CONCEPTUAL PURPOSES ONLY. ACTUAL
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**PUBLIC WORKS AND GOVERNMENT SERVICES
 WHITEHORSE INTERNATIONAL AIRPORT
 WHITEHORSE, YT**

**2017 NORTH APRON REMEDIATION
 SPECIFICATIONS**

REMEDIATION DETAILS

Date: August 9, 2017	Drawing No. 3
Project No. 205.03874.00000	



Caddfile name: S_205-03874-00000-A1.dwg



NOTES:
 IMAGERY: GOOGLE © 2017 DIGITALGLOBE (IMAGE DATE: 2016)

LEGEND:
 - - - AIRPORT BOUNDARY
 - - - UTILITIES
 - - - U/G SANITARY SEWER
 - - - U/G STORM SEWER



SCALE 1:2,000
 WHEN PLOTTED CORRECTLY ON A 11 x 17 PAGE LAYOUT
 NAD 1983 UTM Zone 8 V

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**PUBLIC WORKS AND GOVERNMENT SERVICES
 WHITEHORSE INTERNATIONAL AIRPORT
 WHITEHORSE, YT**

**2017 NORTH APRON REMEDIATION
 SPECIFICATIONS**

WORK AREA LAYOUT

Date: August 9, 2017	Drawing No. 4
Project No. 205.03874.00000	

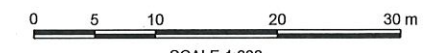


Cadfile name: S_205-03874-00000-A1.dwg



NOTES:
 IMAGERY: GOOGLE © 2017 DIGITALGLOBE (IMAGE DATE: 2016)
 UTILITY LOCATIONS ARE APPROXIMATE.
 UTILITIES ON THIS SITE ARE BASED OFF UTILITY MAPS AS SUCH UTILITIES ARE NOT VERIFIED FOR CURRENT CONFIGURATION AND MUST BE PROPERLY LOCATED IN THE FIELD

- LEGEND:
- PROPERTY BOUNDARY
 - PROPOSED SITE ACCESS ROUTE
 - X FENCE
 - UTILITIES
 - U/G FUEL PIPELINE
 - U/G ELECTRICAL LINE
 - U/G ELECTRICAL LINE (ABANDONED)
 - U/G SANITARY SEWER LINE
 - U/G SANITARY SEWER LINE (ABANDONED)
 - U/G STORM SEWER LINE
 - U/G STORM SEWER LINE (ABANDONED)
 - U/G WATER LINE (ABANDONED)
 - U/G UNKNOWN LINE



SCALE 1:600
 WHEN PLOTTED CORRECTLY ON A 11 x 17 PAGE LAYOUT
 NAD 1983 UTM Zone 8 V
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PUBLIC WORKS AND GOVERNMENT SERVICES
WHITEHORSE INTERNATIONAL AIRPORT
WHITEHORSE, YT

2017 NORTH APRON REMEDIATION SPECIFICATIONS

KNOWN UTILITIES

Date: August 9, 2017	Drawing No.
Project No. 205.03874.00000	5



Caddfile name: S_205-03874-00000-A1.dwg

Max Soil Concentrations Identified within Excavation Limits		Max Groundwater Concentrations Identified within Excavation Limits	
mg/kg		mg/kg	
VPH	910	VPH	13,000
EPH (C10-19)	2000	VH	21,000
		Toluene	2,200
		LEPH	6,680
		Naphthalene	90
		Phenanthrene	3.7
		Pyrene	1.9
		Benzo(a)Pyrene	0.71

2017 EXCAVATIONS

- Low profile barriers required
- Excavate in stages the overburden approximately 0 - 3 m or otherwise directed
- Excavate in stages contaminated zone approximately 3 - 5 m or otherwise directed
- Transport contaminated soil to owner supplied facility shown on drawing 1
- Backfill as directed by departmental representative using client supplied back fill as specified in appendix B

PROPANE TANK

- Propane tank not empty
- Must be returned to original location after work complete
- Concrete pad must be removed and disposed at an approved landfill
- Concrete pad must be reinstalled after work complete

FUEL AST

- Must be relocated to approved location and remain active and accessible, or temporary tanks and fuel must be made available
- Will require relocation of the buried electrical lines
- Must be returned to original location after work complete

Soil contamination may remain in place in these locations under the storm and sanitary line after the excavation is complete. In locations where soil contamination remains, Placement of 30 mil HDPE liner with at least 2 metre overlap along those slopes will be required

Soil contamination may remain in place in these locations under the storm and sanitary line after the excavation is complete. In locations where soil contamination remains, Placement of 30 mil HDPE liner with at least 2 metre overlap along those slopes will be required

NOTES:
IMAGERY: GOOGLE © 2017 DIGITALGLOBE (IMAGE DATE: 2016)
UTILITY LOCATIONS ARE APPROXIMATE.

LEGEND:

- PROPERTY BOUNDARY
- - - PROPOSED SITE ACCESS ROUTE
- X FENCE
- ⊕ MONITORING WELL
- ⊕ TEST PIT
- HISTORICAL CONFIRMATORY WALL SOIL SAMPLE
- ▲ CONFIRMATORY SOIL SAMPLE, EXCAVATION WALL
- EXCEEDS FOR GROUNDWATER PARAMETER
- COMPLIANT
- ONE OR MORE SOIL ANALYTICAL PARAMETERS ARE GREATER THAN THE CSR CL STANDARD
- ONE OR MORE SOIL ANALYTICAL PARAMETERS ARE GREATER THAN THE SW STANDARD

UTILITIES

- U/G FUEL PIPELINE
- U/G ELECTRICAL LINE
- - - U/G ELECTRICAL LINE (ABANDONED)
- - - U/G SANITARY SEWER LINE
- - - U/G SANITARY SEWER LINE (ABANDONED)
- - - U/G STORM SEWER LINE
- - - U/G STORM SEWER LINE (ABANDONED)
- - - U/G WATER LINE (ABANDONED)
- - - U/G UNKNOWN LINE



SCALE 1:600
WHEN PLOTTED CORRECTLY ON A 11 x 17 PAGE LAYOUT
NAD 1983 UTM Zone 8 V
THIS DRAWING IS FOR CONCEPTUAL PURPOSES ONLY. ACTUAL LOCATIONS MAY VARY AND NOT ALL STRUCTURES ARE SHOWN.

**PUBLIC WORKS AND GOVERNMENT SERVICES
WHITEHORSE INTERNATIONAL AIRPORT
WHITEHORSE, YT**

**2017 NORTH APRON REMEDIATION
SPECIFICATIONS**

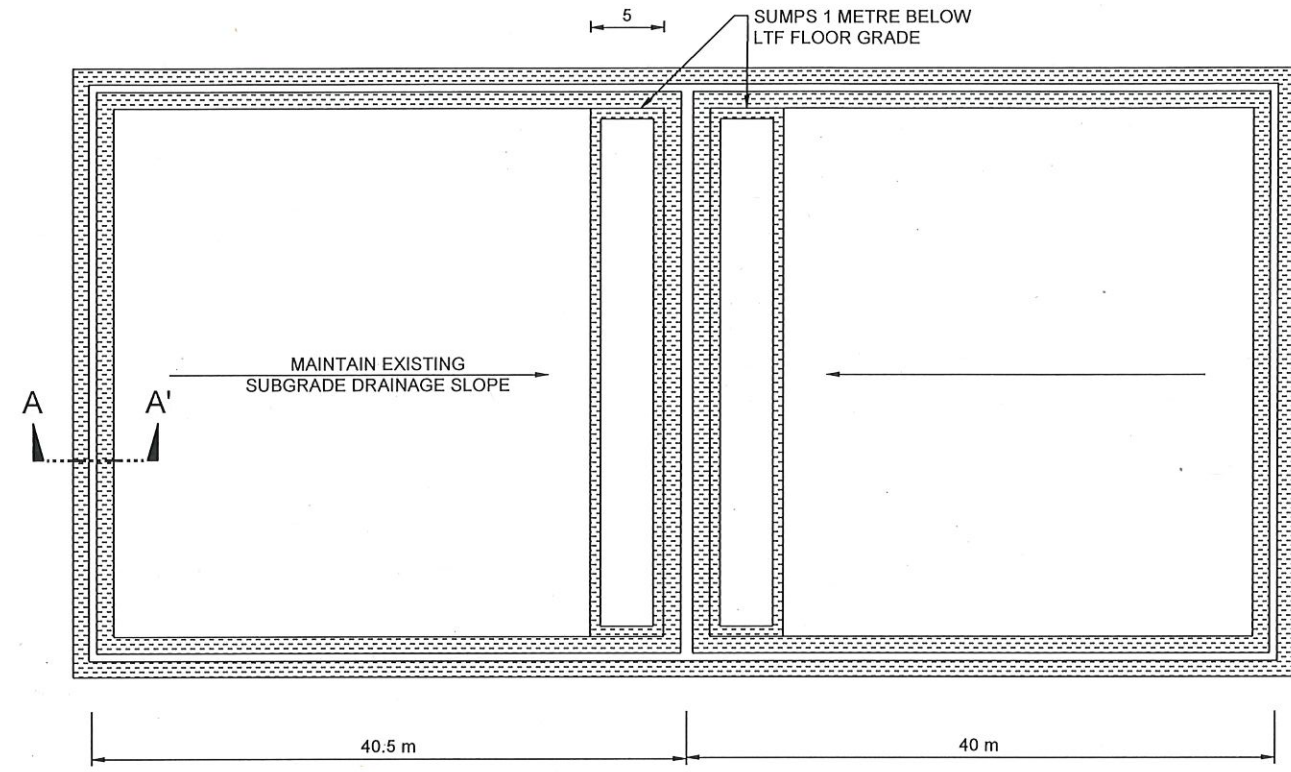
WORK DESCRIPTION

Date: August 9, 2017
Project No. 205.03874.00000
Drawing No. 6

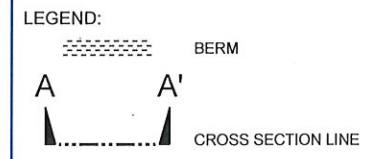
APEC	Surface Area (m ²)	Station	Approximate Contaminated Soil Depth Interval (m)	Estimated Contaminated Soil Volume in-site (m ³)	Overburden Depth Interval (m)	Estimated Overburden Soil Volume in-site (m ³)
20C	544	20C-MW09-13	4.6 - 5.3	1058	0 - 3.0	1632
			3 - 5			
Optional Work						
20C	200	3-MW05-1	3.0 - 4.5	300	0 - 3.0	600

Caddfile name: S_205.03874.00000-A1.dwg

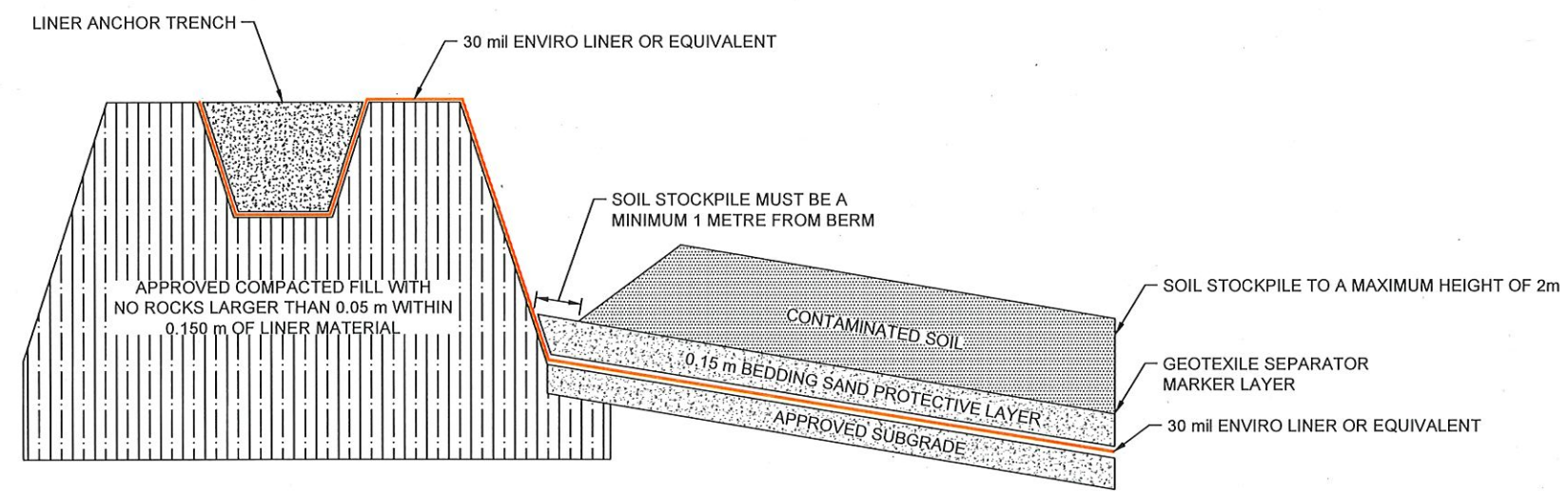
*SLOPE CONTAMINATED SOIL AS REQUIRED BY SOIL CONDITIONS



NOTES:
 REFERENCED FROM: CITY OF WHITEHORSE OPEN DATA CATALOGUE, SNC LAVALIN DRAWING NO. 2 TITLED: SUMP WATER COLLECTION AND DISCHARGE LOCATION (09_16_15), FRANZ ENVIROMENTAL INC. DRAWING 3 TITLED: LTF 1 & 2 DETAIL PLAN AND BERM CROSS SECTION (06_14) AND SITE RECONNAISSANCE INFORMATION.



A A'



NOTES:
 -FILL COMPACTED TO 95% MODIFIED PROCTOR MAXIMUM DRY DENSITY
 -BERM SLOPES TO BE OVERBUILT, COMPACTED TO 95%, AND CUT BACK TO FINAL DESIGN CONFIGURATION

NOT TO SCALE
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**PUBLIC WORKS AND GOVERNMENT SERVICES
 WHITEHORSE INTERNATIONAL AIRPORT
 WHITEHORSE, YT**

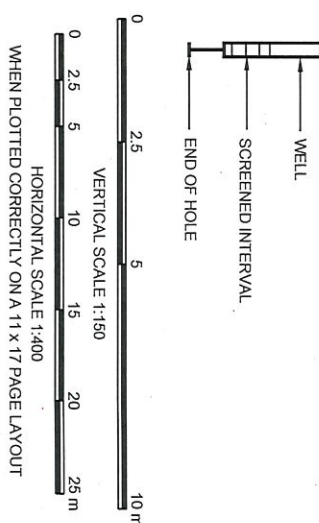
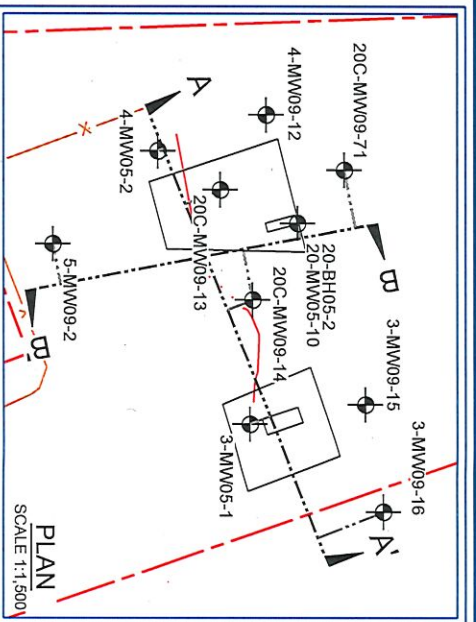
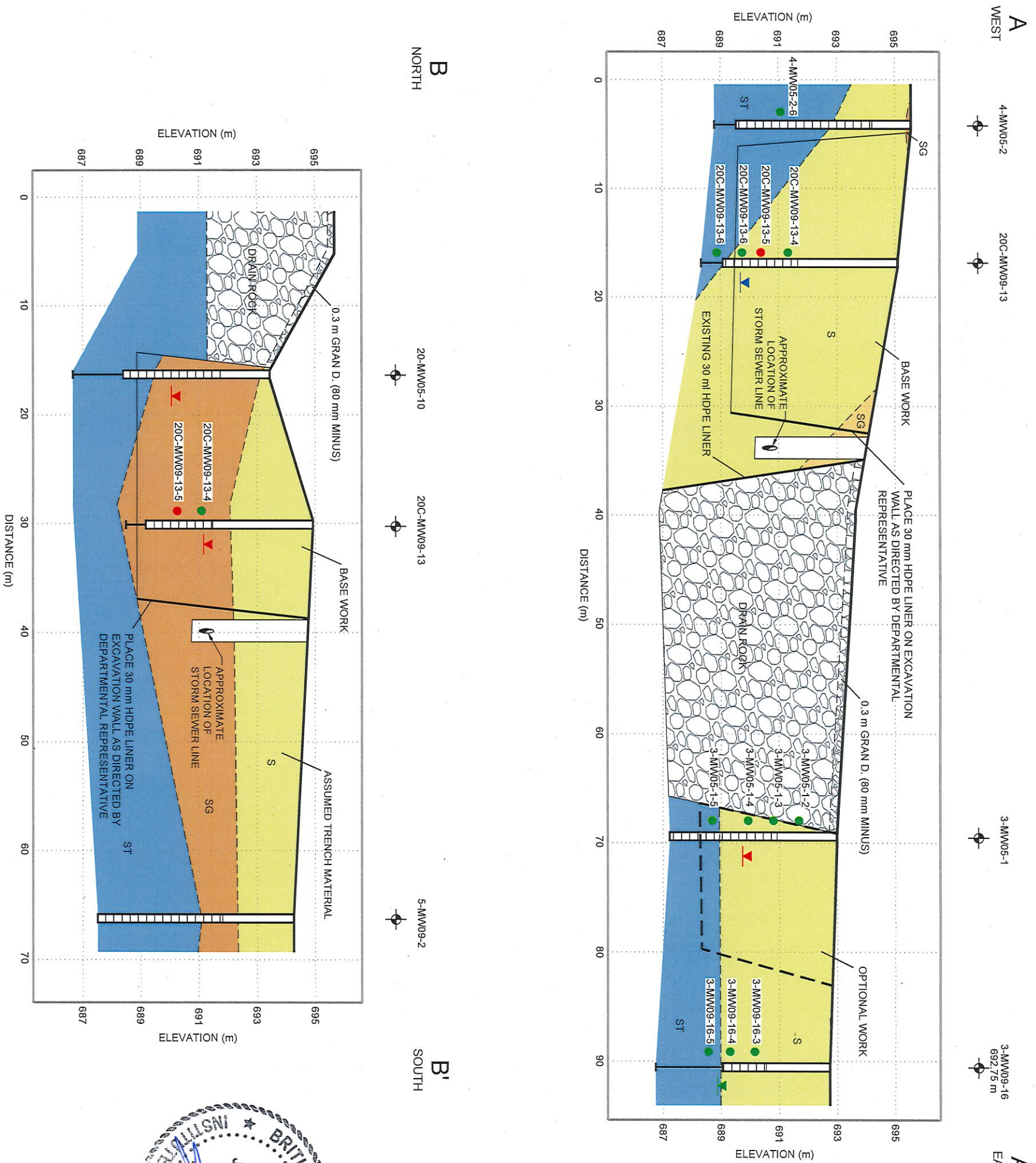
**2017 NORTH APRON REMEDIATION
 SPECIFICATIONS**

**OWNER SUPPLIED LAND TREATMENT
 FACILITY DETAILS**

Date: August 9, 2017	Drawing No. 7
Project No. 205.03874.00000	



THIS DRAWING IS FOR CONCEPTUAL PURPOSES ONLY. ACTUAL LOCATIONS MAY VARY AND NOT ALL STRUCTURES ARE SHOWN.



SOIL SAMPLE. ALL ANALYTICAL PARAMETERS ARE LESS THAN THE APPLICABLE YT CSR CL SOIL STANDARDS

SOIL SAMPLE. ONE OR MORE ANALYTICAL PARAMETERS ARE GREATER THAN THE APPLICABLE YT CSR CL SOIL STANDARDS

ALL ANALYTICAL PARAMETERS ARE LESS THAN THE APPLICABLE YT CSR CL SOIL STANDARDS

ONE OR MORE ANALYTICAL PARAMETERS ARE GREATER THAN THE APPLICABLE YT CSR CL SOIL STANDARDS

WELL
 SCREENED INTERVAL
 END OF HOLE

PUBLIC WORKS AND GOVERNMENT SERVICES
WHITEHORSE INTERNATIONAL AIRPORT
WHITEHORSE, YT
2017 NORTH APRON REMEDIATION SPECIFICATIONS

CROSS SECTIONS
 Date: August 9, 2017
 Project No. 205.03874.00000
 Drawing No. 8

