Phase Two Conceptual Site Model (CSM)

1. Phase Two Property Site Description

The Phase Two Property (RSC 6) is located at 335 St. Laurent Blvd., Ottawa, Ontario. It is currently owned by Canada Lands Company (CLC) and is part of what was previously known as CFB Rockcliffe, located in the north-east end of the City of Ottawa, Ontario. It is currently vacant and undeveloped. It has an irregular shape and covers an area of 15.059 hectares.

2. Summary of Environmental Concerns and Remedial Work

The following provides a summary of the history of environmental site assessment and remedial work that has been completed at the Property.

2.1 Previous Investigations

2.1.1 Oliver, Mangione, McCalla & Associates Ltd. (OMM), 1991

- In April of 1991, a 22,730 L Underground Storage Tank (UST) formerly used to store heating oil for several oil fired boilers within the Bld 164 School was removed by Drain-All Ltd when a leak in the tank was suspected due to the presence of oil in the interior basement sump. During removal, the tank was found to be in an advanced state of corrosion and petroleum contaminated soil was found adjacent to the tank;
- After removing approximately 2,000 tonnes of soil, a decision was made to stop the excavation in order to further assess the extent of contamination requiring remediation.

2.1.2 Defence Construction Canada, 1998

- Four monitoring wells were installed surrounding the Bld 164 site;
- Soil and water samples exhibited low levels of total petroleum hydrocarbons (TPH) and BTEX below federal and provincial guidelines;
- No recommendations were provided.

2.1.3 Greenbank Environmental Ltd., 2004

- A total of three boreholes, two coreholes, and one testpit was advanced by Greenbank. The bore and coreholes were instrumented with monitoring wells;
- The analytical results for soil samples obtained during the study were found to be non-detect for TPH;
- Groundwater collected from several wells in the study area had detectable concentrations of TPH up to 5,000 ug/L and a visible sheen on sample water.

2.2 Phase III Environmental Site Assessment (ESA) - Building 164 CFB Rockcliffe, Ottawa, Ontario. DST Consulting Engineers Inc., September 2010.

DST was retained by Public Works and Government Services Canada (PWGSC) on behalf of the Department of National Defence (DND) to complete a Phase III Environmental Site Assessment (ESA) at the Building 164 Site at CFB Rockcliffe. The purpose of the Phase III ESA was to assess

and delineate previously reported TPH impacts from 1991 – 2004, associated with the former UST. As TPH guidelines/standards no longer existed in 2010, a reassessment of the entire area was completed for analysis of PHCs/BTEX.

The field program consisted of coordinating and supervising the advancement of nine (9) test pits (164-TP1 – 164-TP9), one (1) borehole/monitoring well (164-BHMW1 (2010)) and sampling of six (6) existing monitoring wells. Based on field screening and visual observations (e.g. staining, odour) of petroleum hydrocarbon (PHC) contamination, ten (10) representative soil samples from five (5) test pits, one (1) borehole and one (1) borehole/monitoring well were sent for laboratory analyses of PHCs/BTEX.

Based on the results of the above-noted investigation, a contaminated soil plume was identified and confirmed on the site during this assessment. The plume consisted of PHC F2 and F3 soil contamination in excess of applicable federal criteria. The contaminated soil plume was estimated as a plume of impacts within the courtyard of Building 164, including 164-TP2, 164-TP3, 164-TP7, 164-BHMW1 (2010). Note that there were no samples from 164-TP1 and 164-TP9 collected or submitted for chemical analysis.

Free product (approx. 6 cm thick) was noted within monitoring well MW-98-4. However, no analytical exceedances were reported for groundwater samples submitted, which were analyzed for PHCs/BTEX (note that since the borehole log for MW-98-4 was not available for review, the total well depth of 8 m.b.g.s and the groundwater depth of 3.94 m.b.g.s. were collected during the subject 2010 Phase III ESA). Moreover, bedrock groundwater quality assessed from 164-BHMW1 (2010) was confirmed to be below evaluation criteria. A free product sample was never collected from MW-98-4, given the quantity of measured free product. Further, no evidence of free product was noted in any of the adjacent test pits and borehole/monitoring wells advanced during this investigation. Thus, it was in DST's opinion that free product was likely minimal and localized within MW-98-4.

2.3 Phase One ESA

2.3.1 Phase One ESA (DST, 2015)

In March 2015, DST completed a Phase One ESA of the entire former CFB Rockcliffe, including the Record of Site Condition (RSC) 6 study area pertaining to the subject Phase Two Property. Based on the Phase One ESA review, the following areas of environmental concern (AECs) and areas of potential environmental concern (APECs) were identified:

APEC No.	Location of APEC on the Phase One Property	Location of Potential Contaminating Activity (PCA)	Potential Contaminants of Concern (PCOCs)	Media Potentially Impacted (Groundwater, soil, and/or sediment)
APEC 1	South-west corner of the Phase One property, north of Montfort Hospital.	PCA 1-4 - Off-site, approximately 100 m south-west of the Phase One property. (713 Montreal Rd.)	PHCs BTEX PAHs VOCs	Soil Groundwater
AEC No.	**Location of AEC**	**Location of AEC (on- Site or off-Site)**	**Contaminants of Concern (COCs)**	**Media Impacted (Groundwater, soil, and/or sediment)**
AEC 23	Building No. 164 (North Side)	PCA 5 - On-Site (associated with former fuel underground storage tank)	PHCs/BTEX	Soil Groundwater

BTEX- Benzene, Toluene, Ethylbenzene, Xylenes
PHCs- Petroleum Hydrocarbons (F1-F4)
PAHs- Polyaromatic Hydrocarbons
VOCs- Volatile Organic Compounds

PCA No.	Potentially Contaminating Activity(1)
PCA1	Waste generators, including: - Inorganic Acid Waste; - Heavy Metals; - Alkaline Waste-Heavy Metals; - Reactive Anion Wastes,; - Inorganic Laboratory Chemicals; - Aromatic Solvents; - Petroleum Distillates; - Light Fuels; - Halogenated Pesticides, Non-halogenated Pesticides; - PCBs; - Oil Skimming & Sludges; - Waste Oils & Lubricants; - Detergents/Soaps; - Photo-processing Wastes; - Pathological Wastes; - Emulsified Oils; - Compressed Gases waste; and, - Amines.

PCA2	Several Spills: - 50 L of liquid petroleum spill (fuel oil) on 12/2/2008, underground storage tank gravel; -200 L Furnace oil due to UST leak on January 23, 2009; - 50 L of # 2 stove oil (from underground storage tank) to the gravel on December 02, 2008; - 80 L of (Ethylene Glycol- Antifreeze) to the soil on May 3, 2006; - 90 L Hydraulic oil to the land on March 03, 2005; - 250 L Diesel fuel to the land on February 14, 2007; - Liquid petroleum (liquid fuel) spill of 9000 Liter, on January 23, 2009; and, - 100 L Vegetable oil on June 26, 2008, led to soil contamination.
PCA3	Electricity Generation, Transformation and Power Stations. Three (3) Transformers with 233 weight of liquid of high level PCBs (>1000ppm). In- use equipment containing PCBs at unknown quantities were stored.
PCA4	900 L Furnace oil spill from Above Ground Tank in a basement on January 25, 1994. The spill was to the land under the tank pad which caused soil contamination.

Notes:

(1) PCOCs analyzed in soil/groundwater for APEC 1, as noted above, included PHCs/BTEX, VOCs and PAHs. These PCOCs were based only on reported spills (listed under PCA 2 and 4). As there were no reported spills from any of the off-Site transformers (PCA 3) and waste generators (PCA 1), other chemical groups (including polychlorinated biphenyls (PCBs) and metals) were not considered as PCOCs and thus were not analyzed in soil/groundwater for APEC 1.

Refer to Figure 1 for a depiction of the location of the above-noted APEC/AEC and PCAs.

2.4 Phase Two Environmental Site Assessment Update – Volume 6, Former CFB Rockcliffe, Ottawa, ON - DST Consulting Engineers Inc., 2015.

DST was retained by Canada Lands Company CLC Limited (CLC) to provide an update of a previously completed ESAs associated with the planned re-development of the Former CFB Rockcliffe located in Ottawa, Ontario. This report was prepared to support the submission of a Record of Site Condition (RSC), in accordance with Ontario Regulation (O.Reg.) 153/04, as amended. This report served as an update to the previously completed Phase ESA entitled: *"2010 Phase III Environmental Site Assessment (ESA) – Building 164 CFB Rockcliffe, Ottawa, Ontario".* DST Consulting Engineers Inc., September 2010.

The Phase Two ESA was updated to the current O.Reg. 153/04 (as amended) in order to establish an estimate of environmental liability with respect to the current provincial standards. This update included the following:

- In order to support the change in land use from commercial/industrial to residential use, DST compared historical analytical soil data to updated provincial standards. Soil analytical data were compared to O.Reg. 153/04 "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", April 15, 2011, Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water condition, Residential/Parkland/Institutional Property Use; and,
- Compliance to the Ministry of the Environment and Climate Change (MOECC) Ontario Regulation 153/04, Records of Site Condition.

The results of the comparison of the historical soil analytical results (DST, 2010) to the updated, currently applicable MOECC (2011) standards are summarized below.

PHCs F1 – F4 / BTEX:

- Concentrations of PHC F2 and/or PHC F3 in soil samples obtained from test pits 164-TP2, 164-TP3, 164-TP4, 164-TP7 and 164-BH1 SS6 exceed the currently applicable MOECC (2011) standards.

Refer to Figure 2 for a depiction of the approximate contaminated soil plume associated with the above-noted updated exceedances.

Additionally, the Phase One ESA (DST 2015) was also reviewed to identify COPCs, PCAs and APECs that were not previously identified. One APEC (APEC1 – refer to Section 2.3.1 above) was identified within the southwest corner of the RSC 6 study area. DST identified PHCs, BTEX, PAHs and VOCs as COPCs within APEC1. In order to address the potential environmental concerns within APEC1, DST advanced a borehole instrumented with a groundwater monitoring well (BHMW 14-46), and collected soil and groundwater samples. The analytical results of the laboratory-submitted soil and groundwater samples were below the applicable MOECC standards and, thus, no additional areas of concern were identified.

Based on these findings, one (1) area of concern was identified within the RSC 6 study area, related to residual soil contamination at the former Building 164 site. DST recommended that remedial activities be conducted to remediate the soil contamination in these areas.

2.5 Remedial Work

2.5.1 Soil Remediation at Former Building 164, Former Building 79 and Via Venus and Bishop Private, Former CFB Rockcliffe, Ottawa, Ontario. DST Consulting Engineers Inc., 2013.

DST was retained by Defence Construction Canada (DCC) on behalf of the DND to complete a Soil Remediation Program at three sites within DND's former Canadian Forces Base (CFB) Rockcliffe located in Ottawa, Ontario. The three sites included former Building 164 ("Former Building 164"), former Building 79 ("Former Building 79") and an area located near the intersection of Via Venus and Bishop Privates (herein referred to as "Via Venus and Bishop Private"). The following is a summary and discussion of the remediation completed at Building 164 only, as the other two sites do not apply to RSC 6.

Excavation interim and confirmatory sampling was completed by DST field personnel between August 8 and September 18, 2013. Select samples from the excavations were submitted for laboratory analysis of COCs based on field screening results. Based on laboratory analytical results, the extents of the excavations were extended laterally and/or vertically in areas of reported exceedances above applicable Canadian Council of Ministers of the Environment (CCME) guidelines. At Former Building 164, clean remedial excavation boundaries were established at the east wall, south wall, west wall and floor of the excavation. However, a clean boundary was not fully achieved at the north wall. On September 13, 2013, during excavation of the north wall, petroleum hydrocarbon contamination was observed in the coarse bedding material of the combined sanitary/storm sewer trench located along Via Venus Private, creating a preferential pathway for contaminant migration. Following discussions with DCC/DND, it was decided to

cease further remedial advancement of the north wall. Refer to Figure 5 for a depiction of the 2013 remedial extents. Approximately 6,200 m.t. (3,100 m^3) of the excavated soil was disposed of off-Site at a licensed waste disposal facility. Additionally, groundwater infiltrating into the excavation was pumped and treated on site by the Contractor using a mobile water treatment system supplied by Triangle Pump Service Ltd. (MOECC Registration # 7640-7H4H53). Treated groundwater was discharged into the municipal sanitary sewer system, under an agreement with the City of Ottawa. Approximately 37,465 L of groundwater was pumped, treated and discharges accordingly.

Backfill materials were brought to site by the Contractor from two different off-site quarry locations. Backfill materials utilized were crushed rock meeting OPSS1010 Granular B Type II requirements. This crushed rock material is not defined as "soil" (as per Section 1 of O.Reg. 153/04, as amended) and thus the requirements for sampling under Section 55 of O.Reg. 153/04 do not apply. Nonetheless, as a due diligence, a total of two samples (Offsite Backfill Sample 1 and Offsite Backfill Sample 2) were collected by DST and submitted for laboratory analysis of metals. Based on laboratory analytical results, Offsite Backfill Sample 1 and Offsite Backfill Sample 2 met MOECC Table 1 standards for metals.

Following the backfilling of the remedial excavations, and 90 days after the remedial excavation was completed, DST completed a groundwater quality assessment at Former Building 164 consisting of the advancement of five boreholes instrumented with groundwater monitoring wells (BHMW 13-01 to BHMW 13-05). A groundwater sample was collected from each newly installed monitoring well and submitted for laboratory analysis of PHCs F1 – F4 and BTEX. The collected groundwater samples were in compliance with the applicable Federal Guidelines and MOECC standards for PHCs F1 – F4 and BTEX.

2.5.2 Soil Remediation, Volume 6, Former CFB Rockcliffe, Ottawa, Ontario – DST Consulting Engineers Inc., 2015.

As noted in Section 2.5.1 above, analytical results of soil samples collected during the remediation program in 2013 were compared against CCME guidelines (commercial/industrial land use) as the site was federally-owned at the time of the remediation.

In order to support the change in land ownership from federal to provincial land, as well as the change in land use from commercial/industrial to residential use, the analytical soil data from 2013 were compared to the following:

- O.Reg. 153/04 "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", April 15, 2011, Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water condition, Residential/Parkland/Institutional Property Use, Fine textured soils.

The results of the comparison of the soil analytical results to the updated, currently applicable MOECC (2011) standards are summarized below.

<u>PHCs F1 – F4 / BTEX:</u>

- In addition to the contamination along the north wall of the remedial excavation, which was not fully remediated (as noted in Section 2.5.1), concentrations of PHC F1 in soil samples

WWSS8 and WWSS17, collected from the west wall of the excavation, exceeded the currently applicable MOECC (2011) standards.

Refer to Figure 5 for a depiction of the 2013 remedial extents, and Figures 6 – 8 for interim and confirmatory sampling details, updated to reflect the current MOECC (2011) standards.

Based on the above-noted remaining exceedances along the west and north walls of the previous 2013 remediation, DST was retained by CLC to complete a Soil Remediation Program at the remaining contaminated areas of the Former Building 164 Site located within the RSC 6 study area.

The remediation program at the site consisted of three remedial excavations (EXC.1 through EXC. 3). EXC. 1 addressed contaminated soils in the vicinity of the storm/sanitary sewer along Via Venus Private (North Wall), while EXC. 2 and EXC. 3 addressed contaminated soils at two locations along the western extent of the former remedial excavation. Remedial excavation activities were completed between December 15th, 2014, and January 27th, 2015. Refer to Figure 9 for a depiction of EXC. 1 -3.

Excavation confirmatory sampling activities at the site were completed by DST field personnel. Select samples from the final excavation floors and walls were submitted for laboratory analysis of COCs based on field screening results. Based on the results of the confirmatory samples collected from the remedial excavations, the contaminated soils were excavated and the final excavation walls and floors were in compliance with the currently applicable MOECC Table 2 Site Condition Standards. A total of 250 m^3 of contaminated soil was disposed of off-Site at a licensed waste disposal facility. Refer to Figure 10 and 11 for final confirmatory sampling details.

Following the backfilling of the remedial excavations with clean and inert backfill material (OPSS1010 Granular B Type II crushed rock), DST completed a groundwater quality assessment at the site consisting of the collection of groundwater samples from five existing on-site monitoring wells (BHMW13-01 through BHMW13-05). A total of five groundwater samples were collected (one sample from each well) and submitted for laboratory analysis of PHCs F1 – F4 and BTEX. The five collected groundwater samples were in compliance with the applicable MOECC Table 2 standards for PHC F1 – F4 and BTEX. Note that this groundwater sampling event, combined with the first groundwater sampling event (Refer to Section 2.5.1), indicated no exceedances above applicable MOECC standards, and thus two consecutive rounds of analytical groundwater results below applicable MOECC standards were achieved.

Based on the results of the soil remediation program and groundwater monitoring program, the know areas of environmental concern within RSC 6 study area were remediated to applicable MOECC standards.

3. Physical Setting of the Phase Two Property

According to the Phase One ESA (DST 2015), the former CFB Rockcliffe is relatively flat with a gentle slope downwards from the south-east (110 m above mean sea level (amsl)) to the north-west (85 m amsl). The Phase Two Property is devoid of buildings or structures with the exception of the presence of asphalt roads and pathways, gravel roads and driveways, and concrete pads where former buildings were located. The Property is cleared, and partially overgrown with

vegetation. With the exception of the local infrastructure, there is no visible evidence of development on the site.

The regional surface drainage appears to be to the north-west, towards the Ottawa River located approximately 650 m north of the Property. No waterways were identified within RSC6.

According to the Hydrogeological study conducted by DST in 2014 for the entire CFB Rockcliffe (DST 2014), the bedrock underlying the property consists largely of the Ordovician-aged Ottawa Group consisting of limestone with shaly partings. The Ottawa Group (Gull Lake Formation) overlies the St. Martin Formation shale with minor limestone, and the Rockcliffe Formation shale. The former CFB Rockcliffe contains variable thicknesses and types of overburden materials overlying the bedrock. Most of the property has overburden thickness from 2 m to 10 m. Grey-coloured silty clay is the dominant natural overburden type in the Southern portion of the former CFB, where RSC6 is located. Fill was identified on the former CFB from previous anthropogenic activities. Fill material consisted of silty sand, sand and gravel or clay with fill thickness ranging from approximately 0.5 to 4.3 m.

The deeper bedrock hydrogeological unit, characterized by competent limestone and minor shale bedrock below the shallow bedrock hydrogeological unit, was interpreted to have limited connectivity with groundwater in the shallow bedrock. The hydrogeological conceptual model thus assumed two hydrogeological units in the area: the overburden unit and the shallow bedrock unit. It was interpreted there is a level of hydraulic connectivity between the overburden and shallow bedrock hydrogeological units. Contours of the groundwater surfaces based on the groundwater elevations indicate that the overburden and bedrock groundwater flow directions are north to northwest, generally following the local topography descending towards the Ottawa River. In general, the overburden water table is slightly higher than the bedrock groundwater surface across much of the property. Depth to water table in the overburden varied from 0.6 to 4.57 m.b.g.s. Depth to water table in the bedrock varied from to 1.65 to 9.73 m.b.g.s.

Horizontal hydraulic gradients were estimated for the Property: the horizontal hydraulic gradient in the overburden was estimated to be approximately 0.038, and the horizontal hydraulic gradient in the shallow bedrock was estimated to range from approximately 0.008 to 0.06.

The estimated hydraulic conductivity for various overburden types ranges from 3.0×10^{-6} to 5.4×10^{-8} m/s (geometric mean = 2.8×10^{-7} m/s). Surficial deposits in the central and southern portion of the Property are represented by grey coloured clay with low infiltration rates and low hydraulic conductivity. The northern and eastern portions of the Property are generally underlain by till material consisting of grey-coloured compact silt, sand and minor gravel with more favourable infiltration parameters and higher hydraulic conductivity. Similar properties are assumed for the small area of reworked marine sediments, represented by compact silt, sand and gravel, found in the western part of the Property. The estimated hydraulic conductivity in the shallow bedrock ranges from 6.2×10^{-7} to 7.2×10^{-9} m/s (geometric mean = 6.0×10^{-8} m/s).

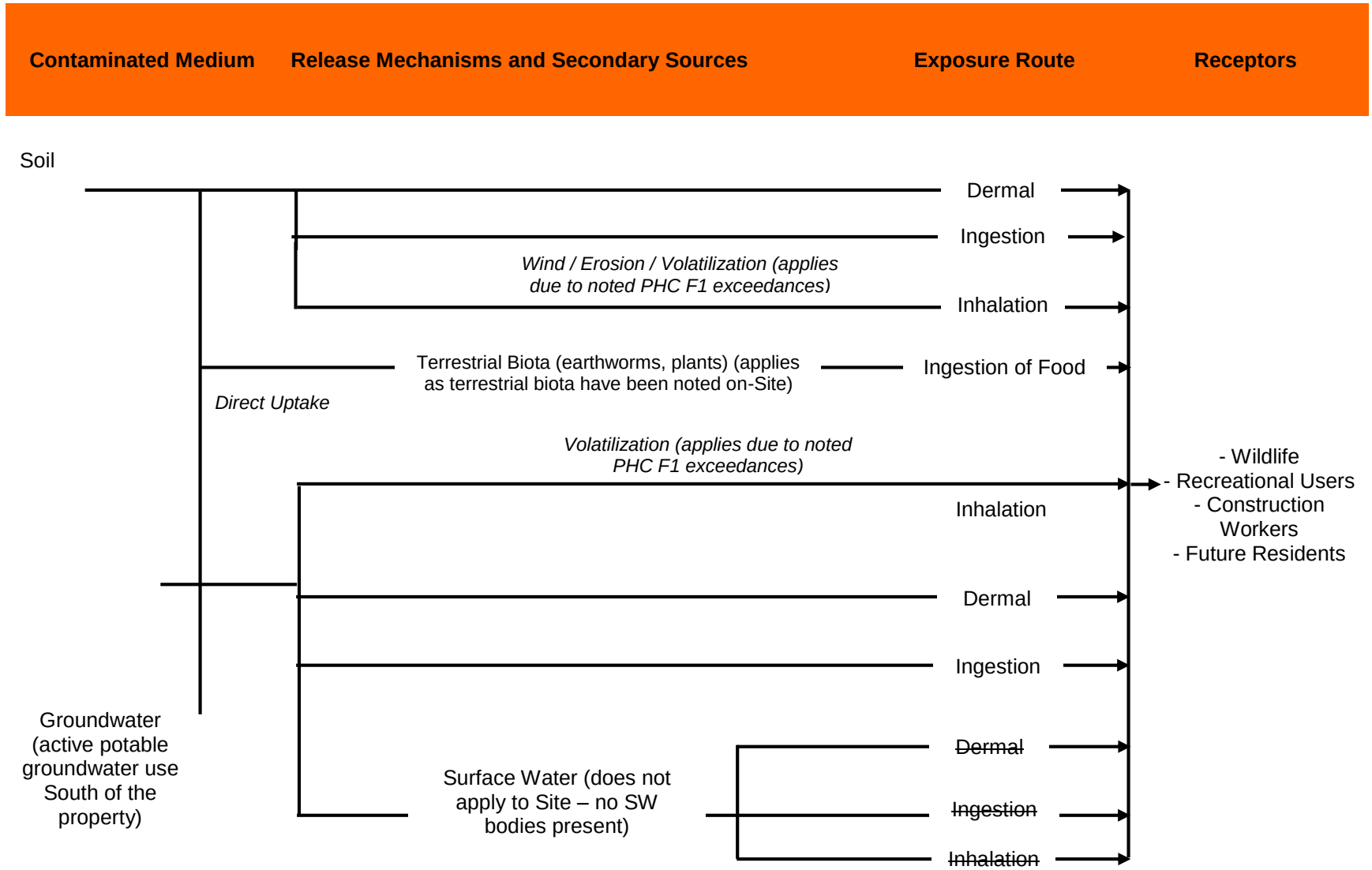
4. Figures

The following figures are attached to this CSM:

- Figure 1: Phase I ESA APEC/AEC Site Plan
- Figure 2: Pre-Remediation Site Plan (DST 2010)
- Figure 3: Pre-Remediation Cross-section A-A' (DST 2010)
- Figure 4: Pre-Remediation Cross-section B-B' (DST 2010)
- Figure 5: 2013 Remediation Site Plan (DST 2013)
- Figure 6: Remediation Sampling Details - Floor Sampling Plan (DST 2013)
- Figure 7: Remediation Sampling Details – North Wall Sampling Plan (DST 2013)
- Figure 8: Remediation Sampling Details – East, West and South Wall Sampling Plan (DST 2013)
- Figure 9: 2015 Remediation Site Plan (DST 2015)
- Figure 10: Remedial Sampling Details – Exc. 1 (DST 2015)
- Figure 11: Remedial Sampling Details – Exc. 2 and 3 (DST 2015)
- Figure 12: Final Extents of Remedial Excavations, including Groundwater Contours
- Figure 13: Post-Remediation Cross-section A-A'
- Figure 14: Post-Remediation Cross-section B-B'
- Figure 15: Post-Remediation Cross-section C-C'

5. Conceptual exposure models

Potential sources of contaminant transport include any buried utility lines (including sewer and water lines) traversing contaminated areas to non-contaminated areas, leaching, wind, erosion, runoff and direct contact. Potential affected media in the future may include clean soil, air (dust) and clean groundwater. Exposure to contaminated media may occur on site or off site due to contaminant migration and may occur via ingestion, dermal contact and/or inhalation. Potential receptors include future residents and wildlife.


Contaminated Medium
Release Mechanisms and Secondary Sources
Exposure Route
Receptors
Soil
Dermal
Ingestion
Wind / Erosion / Volatilization (applies due to noted PHC F1 exceedances)
Inhalation
Terrestrial Biota (earthworms, plants) (applies as terrestrial biota have been noted on-Site)
Ingestion of Food
Direct Uptake
Volatilization (applies due to noted PHC F1 exceedances)
Inhalation
- Wildlife
- Recreational Users
- Construction Workers
- Future Residents
Dermal
Ingestion
Groundwater (active potable groundwater use South of the property)
Surface Water (does not apply to Site – no SW bodies present)
~~Dermal~~
~~Ingestion~~
~~Inhalation~~

6. Summary of CSM

O.Reg. 153/04 (as amended), Schedule E, Table 1 – Checklist and Reference of Requirements for the Phase Two CSM:

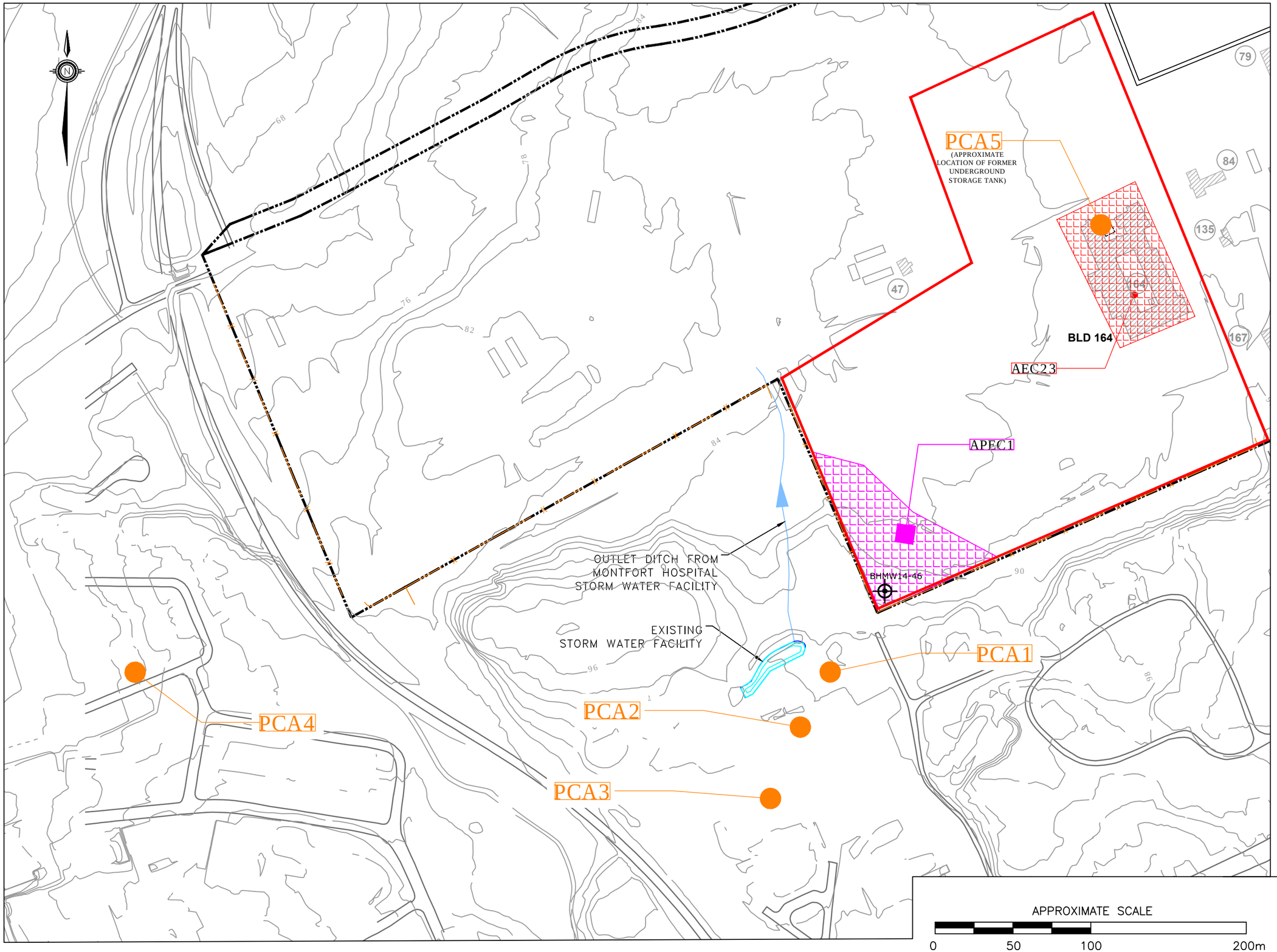
(x) Phase Two Conceptual Site Model		
i	a description and assessment of,	Addressed Figure1
	A. areas where potentially contaminating activity has occurred,	
	B. areas of potential environmental concern, and	
	C. any subsurface structures and utilities on, in or under the phase two property that may affect contaminant distribution and transport,	
ii	a description of and, as appropriate, figures illustrating, the physical setting of the phase two property and any areas under it including,	
	A. stratigraphy from ground surface to the deepest aquifer or aquitards investigated	Addressed in Section 3 and Figures 3, 4, 13, 14 and 15
	B. Hydrogeological characteristics, including aquifers, aquitards and, in each hydrostratigraphic unit where one or more contaminants is present at concentrations above the applicable site condition standards, lateral and vertical gradients,	Addressed in Section 3 and Figures 3 and 4
	C. approximate depth to bedrock	Addressed in Section 3 and Figures 3, 4, 13, 14 and 15 - Note that although Figures 3 and 4 indicate that the remediation excavation extended below the depth of the groundwater table, at the time of the actual remedial work in 2015, groundwater was not encountered in this area and thus no groundwater control or treatment measures were required. However, in 2013, groundwater was encountered during remedial work, and, as noted in Section 2.5.1, groundwater infiltrating into the excavation was pumped and treated on site using a mobile water treatment system and discharged into the municipal sanitary sewer system.
	D. approximate depth to water table,	
	E. any respect in which section 41 or 43.1 of the regulation applies to the property,	Section 41 and 43.1 do not apply to this Property. **I) Section 41** The property is not: a) within an area of natural significance; b) is adjacent to an area of natural significance or part of such an area; and, c) includes land that is within 30 metres of an area of natural significance or part of such an area. The soil at the property does not have a pH value as follows: a) for surface soil, less than 5 or greater than 9; and, b) for sub-surface soil, less than 5 or greater than 11. **II) Section 43.1** The property is not a shallow soil property and does not include a water body, and is not within 30 metres of a water body.

	F. areas where soil has been brought from another property and placed on, in or under the phase two property,	Addressed in Section 2 and Figures 2, 3, 4, 8, 9 and 10 - As noted in Section 2, fill was identified on the former CFB from previous anthropogenic activities. During the previously completed ESA (DST, 2010), a test pit/borehole program was completed on the subject Property (refer to Section 2.2), where analysis of PHCs/BTEX, PAHs and VOCs in soil was conducted. There were no PAH exceedances above applicable MOECC SCS, and thus, no environmental concerns associated with the above-noted fill. - The remedial excavations completed on site (Refer to Sections 2.5.1 and 2.5.2) were backfilled with imported clean and inert fill materials (OPSS1010 Granular B Type II).materials. Refer to Section 2.5.1 for details on the backfill materials utilized.
	G. approximate locations, if known, of any proposed buildings and other structures,	Proposed buildings and structures are unknown at this time.
iii	where a contaminant is present on, in or under the phase two property at a concentration greater than the applicable site condition standard, identification of,	
	A. each area where a contaminant is present on, in or under the phase two property at a concentration greater than the applicable site condition standard,	Addressed in Section 2 and Figures 1 to 4
	B. the contaminants associated with each of the areas referred to in subparagraph A,	
	C. each medium in which a contaminant associated with an area referred to in subparagraph is present,	
	D. a description and assessment of What is known about each of the areas referred to in subparagraph A,	
	E. the distribution, in each of the areas referred to in subparagraph A, of each contaminant present in the area at a concentration greater than the applicable site condition standard, for each medium in which the contaminant is present, together with figures showing the distribution,	
	F. anything known about the reason for the discharge of the contaminants present on, in or under the phase two property at a concentration greater than the applicable site condition standard into the natural environment	Section 2 and Figure 1 – former underground storage tank associated with Bld 164.
	G. anything known about migration of the contaminants present on, in or under the phase two property at a concentration greater than the applicable site condition standard away from any area of potential environmental concern, including the identification of any preferential pathways,	
	H. climatic or meteorological conditions that may have influenced distribution and migration of the contaminants, such as temporal fluctuations in ground water levels, and	- There were no climatic or meteorological conditions that influenced distribution and migration of contaminants on the property. Concentrations of COCs in groundwater have never been above applicable standards, and thus, temporal fluctuations in groundwater levels had no effect.
	I. if applicable, information concerning soil vapour intrusion of the contaminants into buildings including,	Does not apply – no buildings.
	1. relevant construction features of a building, such as a basement or crawl space	

	2. building heating, ventilating and air conditioning design and operation	
	3. subsurface utilities	
iv	where contaminants on, in or under the phase two property are present at concentrations greater than the applicable site condition standard, one or more cross-sections showing	Addressed in Figures 3 and 4
	A. the lateral and vertical distribution of a contaminant in each area where the contaminants is present at concentrations greater than the applicable site condition standard in soil, ground water and sediment,	
	B. approximate depth to water table in each area referred to in subparagraph A	
	C. stratigraphy from ground surface to the deepest aquifer or aquitards investigated, and	
	D. any subsurface structures and utilities that may affect contaminant distribution and transport in each area referred to in subparagraph A, and	
v	for each area where a contaminant is present on, in or under the property at a concentration greater than the applicable site condition standard for the contaminant, a diagram identifying, with narrative explanatory notes,	Addressed in Section 5
	A. the release mechanisms	
	B. contaminant transport pathway,	
	C. the human and ecological receptors located on, in or under the phase two property,	
	D.	
	E. receptor exposure points, and	
	F. routes of exposure	

7. References

- "Hydrogeological Report, Stormwater Management Support Study, Former CFB Rockcliffe Development, Ottawa, Ontario". DST Consulting Engineers Inc., June 2014. DST File No: OE-OT-017184
- "Phase One Environmental Site Assessment, Former CFB Rockcliffe, Ottawa, Ontario". DST Consulting Engineers Inc., March 2015.
- "Phase III Environmental Site Assessment (ESA) - Building 164 CFB Rockcliffe, Ottawa, Ontario". DST Consulting Engineers Inc., September 2010.
- "Soil Remediation at Former Building 164, Former Building 79 and Via Venus and Bishop Private, Former CFB Rockcliffe, Ottawa, Ontario". DST Consulting Engineers Inc., January 2014.
- Phase Two Environmental Site Assessment Update - Volume 6, Former CFB Rockcliffe, Ottawa, ON - DST Consulting Engineers Inc., February 2016.



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LEGEND:

- RSC 6 - PHASE I - A DEVELOPMENT AREA
- PCA — POTENTIAL CONTAMINATING ACTIVITY
- APEC — AREA OF POTENTIAL ENVIRONMENTAL CONCERN
- AEC — AREA OF ENVIRONMENTAL CONCERN (WITHIN PHASE ONE PROPERTY)
- PROPERTY BOUNDARY
- FENCE LINE
- APPROXIMATE BOREHOLE/MONITORING WELL LOCATION (DST, 2014)
- FORMER BUILDING FOOTPRINT
- 66 — FORMER BUILDING NUMBER
- EXISTING WATERCOURSES AND/OR ROADSIDE DITCHES

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0	20/02/16	ORIGINAL	A.N.

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CANADA LANDS COMPANY

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SOCIÉTÉ IMMOBILIÈRE DU CANADA

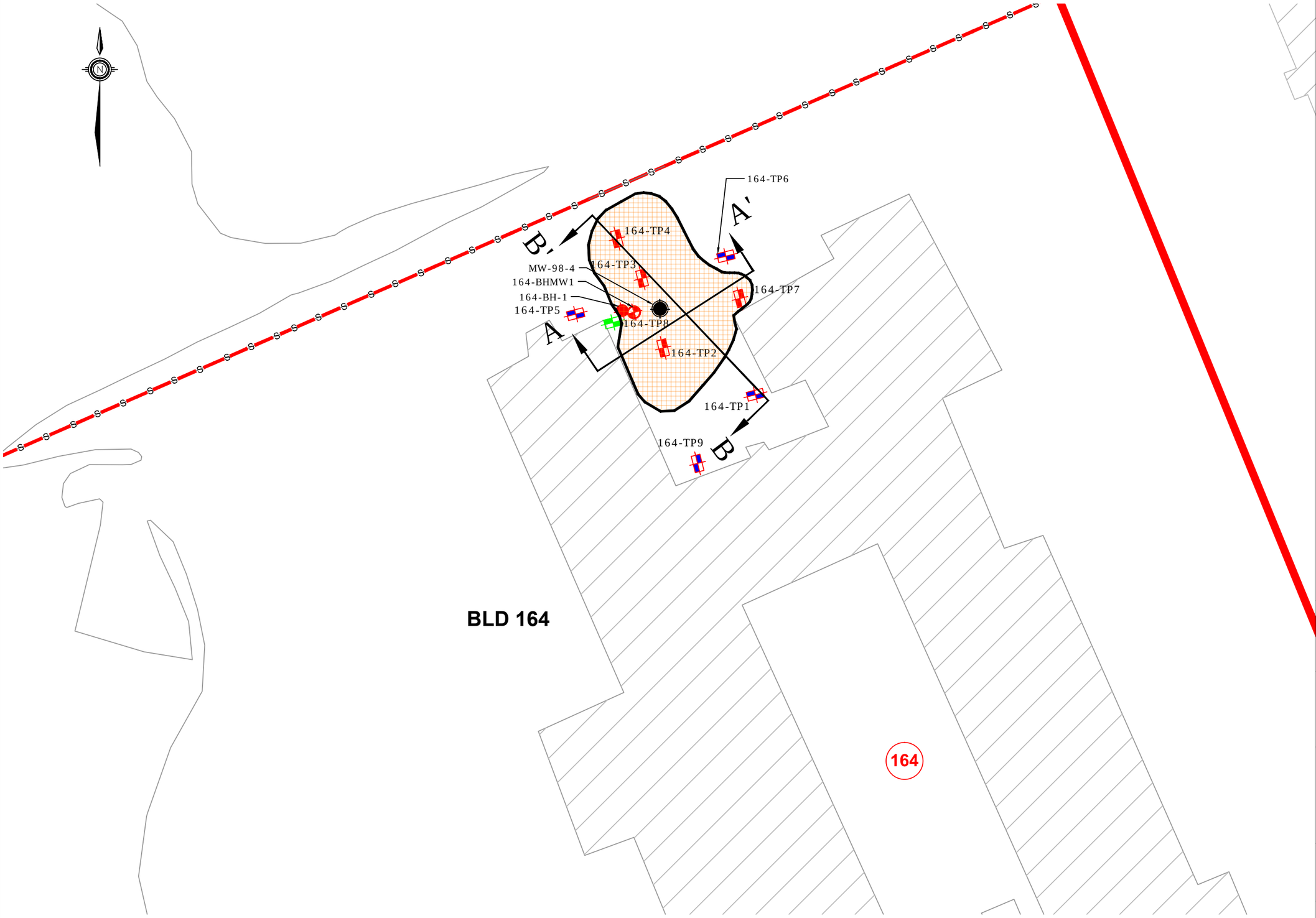
PROJECT TITLE

**PHASE TWO ENVIRONMENTAL SITE ASSESSMENT UPDATE - VOLUME 6
FORMER CFB ROCKCLIFFE
OTTAWA, ON**

DRAWING TITLE

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT - APEC/AEC

DESIGNED BY: A.N.	SCALE: AS SHOWN
DRAWN BY: H.R.	DATE: February 2016
PROJECT MANAGER: A.N.	PROJECT NO.: OE-OT-015358
FIGURE No.: 1	CAD FILE NAME.: OEOT015358_RSC6_MOE_FIG01



APPROXIMATE SCALE (METRES)

0 12.5 25 50

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LEGEND:

- RSC 6 - PHASE I - A DEVELOPMENT AREA BOUNDARY
- APPROXIMATE AREA OF SOIL CONTAMINATION (PHC, F2) IN EXCEEDANCE OF MOECC STANDARDS
- APPROXIMATE LOCATION OF HISTORICAL MONITORING WELL (DCC 1998)
- APPROXIMATE LOCATION OF HISTORICAL BEDROCK MONITORING WELL (DST, 2010) - EXCEEDS MOECC STANDARDS FOR PHC-F2
- APPROXIMATE LOCATION OF HISTORICAL BOREHOLE (DST, 2010) - EXCEEDS MOECC STANDARDS FOR PHC-F2
- APPROXIMATE LOCATION OF HISTORICAL TEST PIT (DST, 2010)
- `APPROXIMATE LOCATION OF HISTORICAL TEST PIT (DST, 2010) - MEETS MOECC STANDARDS FOR PHCs/BTEX
- APPROXIMATE LOCATION OF HISTORICAL TEST PIT (DST, 2010) - EXCEEDS MOECC STANDARDS FOR PHC-F2 and/or F3
- BUILDING FOOTPRINT
- 164 FORMER BUILDING NUMBER
- APPROXIMATE LOCATION OF STORM/SANITARY SEWER

A A' CROSS - SECTION A-A'

NOTE:
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE ASSOCIATED TECHNICAL REPORT.

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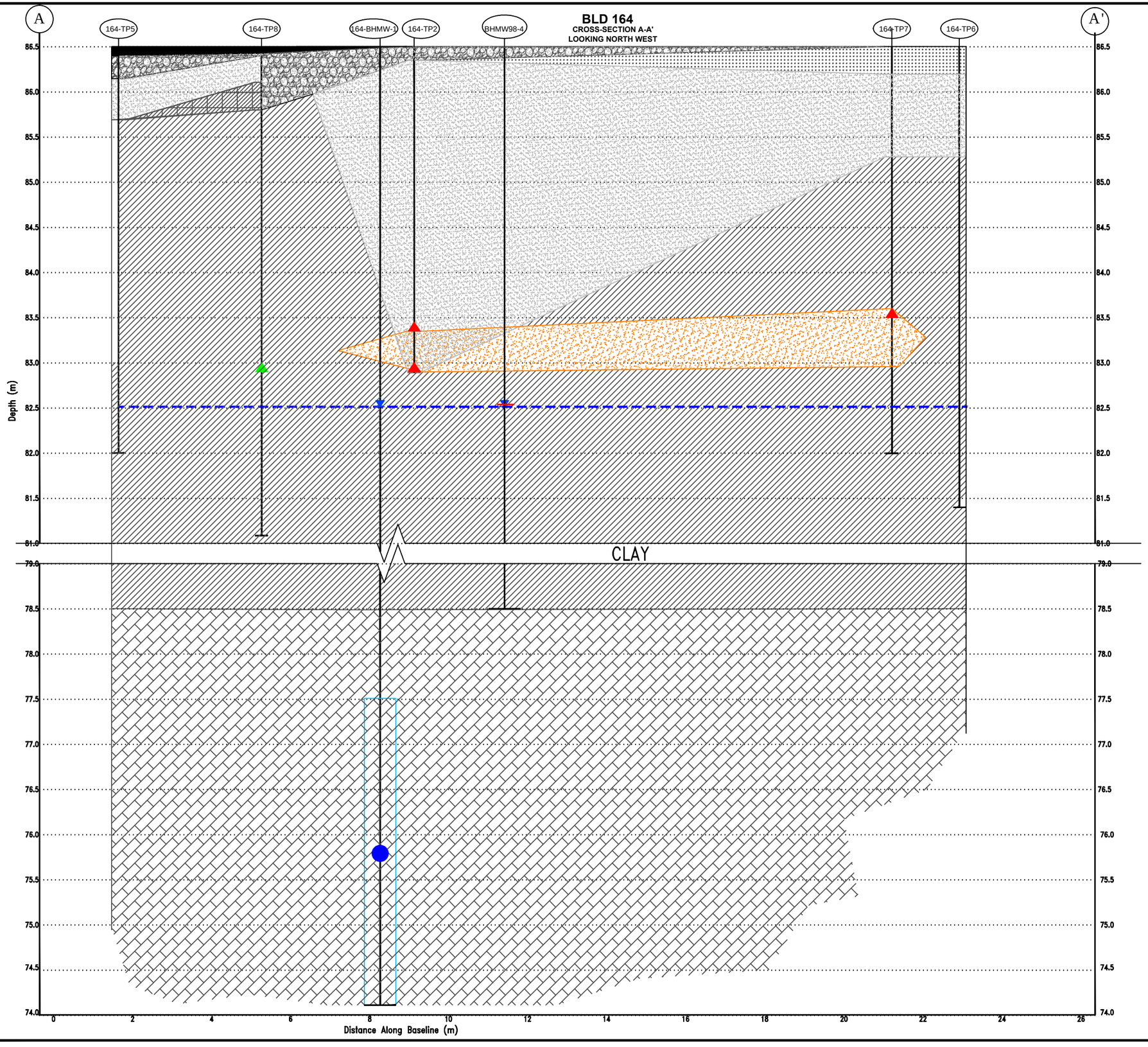
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT UPDATE - VOLUME 6 FORMER CFB ROCKCLIFFE OTTAWA, ON

DRAWING TITLE

PRE-REMEDIATION SITE PLAN (DST, 2010), TEST PIT LOCATIONS AND CROSS-SECTIONS

DESIGNED BY H.R.	SCALE AS SHOWN
DRAWN BY H.R./R.P.	DATE February 2016
PROJECT MANAGER A.N.	PROJECT NO.: OE-OT-015358
FIGURE No.: 2	CAD FILE NAME.: OEOT015358_RSC6_MOE_FIG02



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LEGEND:

- ASPHALT
- SAND FILL
- GRAVEL (FILL)
- TOPSOIL
- CLAY
- BEDROCK (LIMESTONE)
- SILTY CLAY
- ANTICIPATED SOIL CONTAMINATION EXTENT (DST, 2010)
- WELL LOCATION
- WELL SCREEN
- LOCATION OF GROUNDWATER (2013 & 2015) SAMPLE - MEETS MOECC STANDARDS FOR PHCs/BTEX
- LOCATION OF SAMPLE - MEETS MOECC STANDARDS FOR PHCs/BTEX
- LOCATION OF SAMPLE - EXCEEDS MOECC STANDARDS FOR PHC - F2 and/or F3
- OBSERVED FREE PRODUCT LAYER (6 cm)
- GROUNDWATER ELEVATION (AUGUST 2010)
- ESTIMATED GROUNDWATER TABLE

NOTES:

1. BOREHOLE LOG FOR MW-98-4 NOT AVAILABLE FOR REVIEW. TOTAL WELL AND GROUNDWATER ELEVATIONS BASED ON 2010 ASSESSMENT.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE ASSOCIATED TECHNICAL REPORT.

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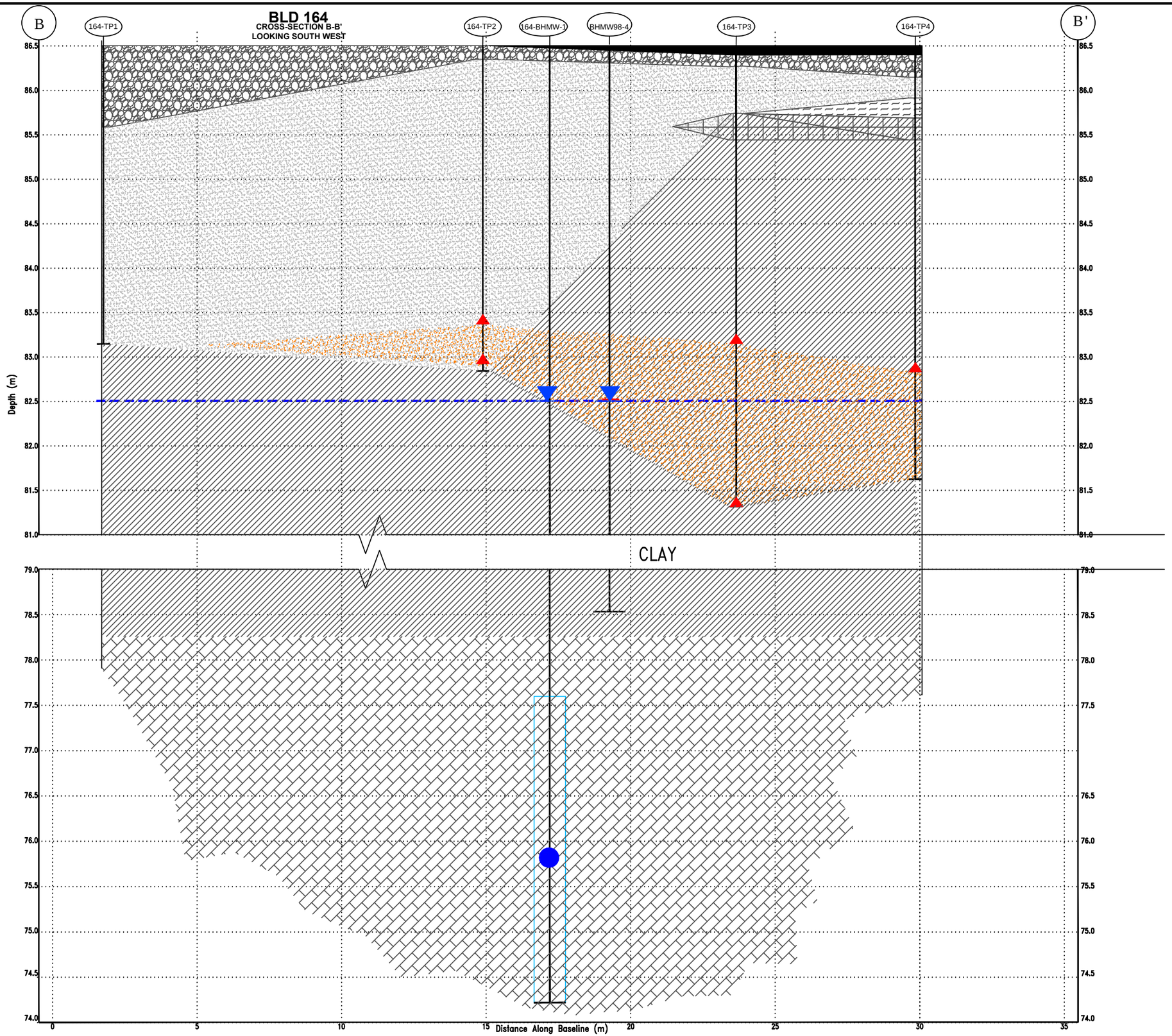
PROJECT TITLE

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT UPDATE - VOLUME 6 FORMER CFB ROCKCLIFFE OTTAWA, ON

DRAWING TITLE

CROSS-SECTION A-A'
PRE-REMEDIATION (DST, 2010)

DESIGNED BY: S.P.	SCALE: AS SHOWN
DRAWN BY: R.P.	DATE: February 2016
PROJECT MANAGER: A.N.	PROJECT NO.: OE-OT-015358
FIGURE No.: 3	CAD FILE NAME.: OEOT015358_RSC6_MOE_FIG03



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LEGEND:

- ASPHALT
- BEDROCK (LIMESTONE)
- GRAVEL (FILL)
- SAND FILL
- CLAY
- SILT
- SILTY CLAY
- ORGANICS
- ANTICIPATED SOIL CONTAMINATION EXTENT (DST, 2010)
- WELL LOCATION
- WELL SCREEN
- LOCATION OF GROUNDWATER (2013 & 2015) SAMPLE - MEETS MOECC STANDARDS FOR PHCs/BTEX
- LOCATION OF SAMPLE - EXCEEDS MOECC STANDARDS FOR PHC - F2 and/or F3
- TEST PIT LOCATION
- OBSERVED FREE PRODUCT LAYER (6 cm)
- GROUNDWATER TABLE (AUGUST, 2010)

NOTES:
1. BOREHOLE LOG FOR MW-98-4 NOT AVAILABLE FOR REVIEW. TOTAL WELL AND GROUNDWATER ELEVATIONS BASED ON 2010 ASSESSMENT.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE ASSOCIATED TECHNICAL REPORT.

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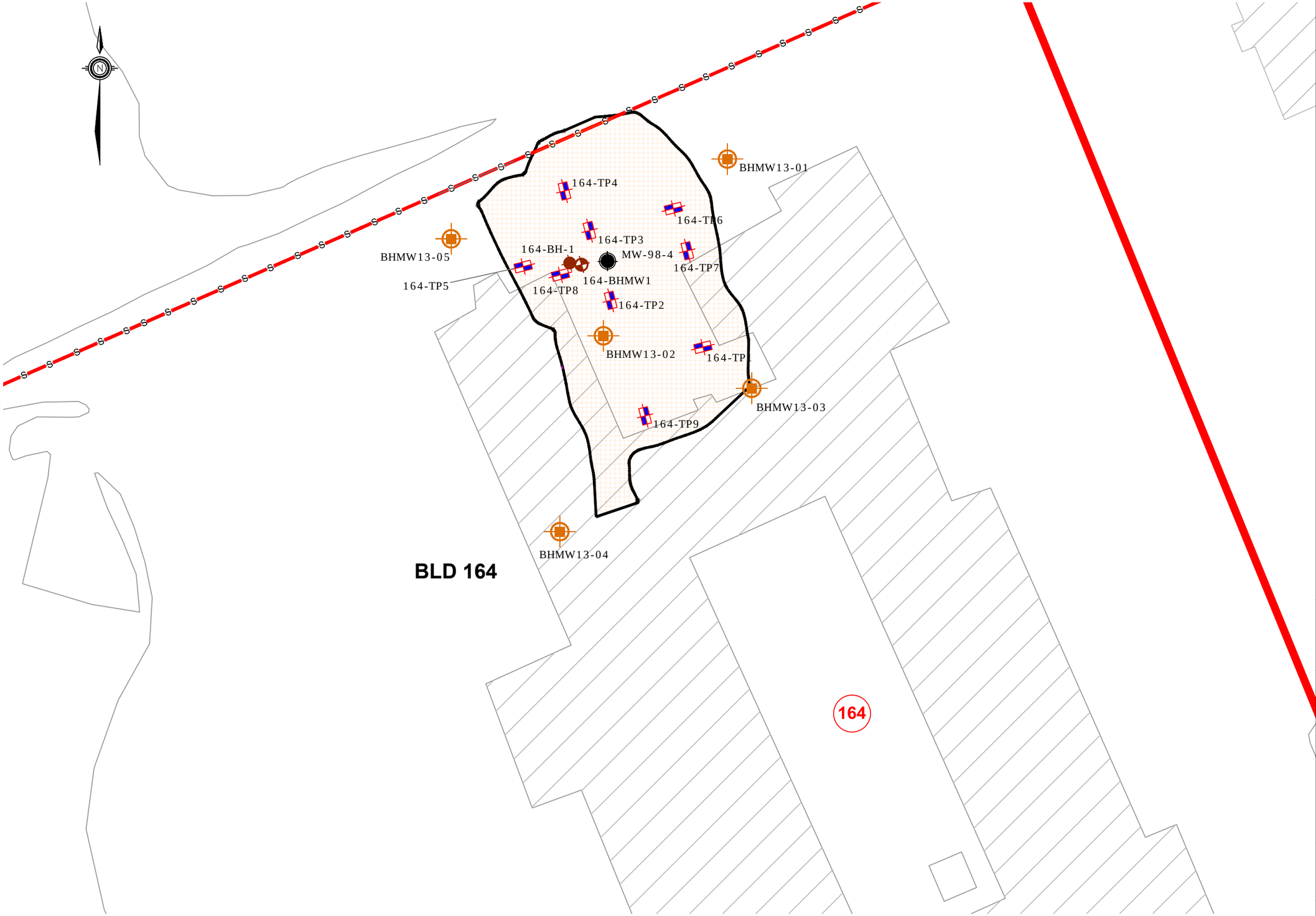
PROJECT TITLE

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT UPDATE - VOLUME 6 FORMER CFB ROCKCLIFFE OTTAWA, ON

DRAWING TITLE

CROSS-SECTION B-B'
PRE-REMEDIATION (DST, 2010)

DESIGNED BY S.P.	SCALE AS SHOWN
DRAWN BY R.P.	DATE February 2016
PROJECT MANAGER A.N.	PROJECT NO.: OE-OT-015358
FIGURE No.: 4	CAD FILE NAME.: OEOT015358_RSC6_MOE_FIG04



APPROXIMATE SCALE (METRES)

0 12.5 25 50

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LEGEND:

- RSC 6 - PHASE I - A DEVELOPMENT AREA BOUNDARY
- APPROXIMATE OUTLINE OF REMEDIAL EXCAVATION (DST, 2013)
- APPROXIMATE LOCATION OF MONITORING WELL (DST, 2013)
- APPROXIMATE LOCATION OF HISTORICAL MONITORING WELL (DCC 1998)
- APPROXIMATE LOCATION OF HISTORICAL MONITORING WELL (DST, 2010)
- APPROXIMATE LOCATION OF HISTORICAL BOREHOLE (DST, 2010)
- APPROXIMATE LOCATION OF HISTORICAL TEST PIT (DST, 2010)
- FORMER BUILDING FOOTPRINT
- 164 FORMER BUILDING NUMBER
- APPROXIMATE LOCATION OF STORM/SANITARY SEWER

NOTE:
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE ASSOCIATED TECHNICAL REPORT.

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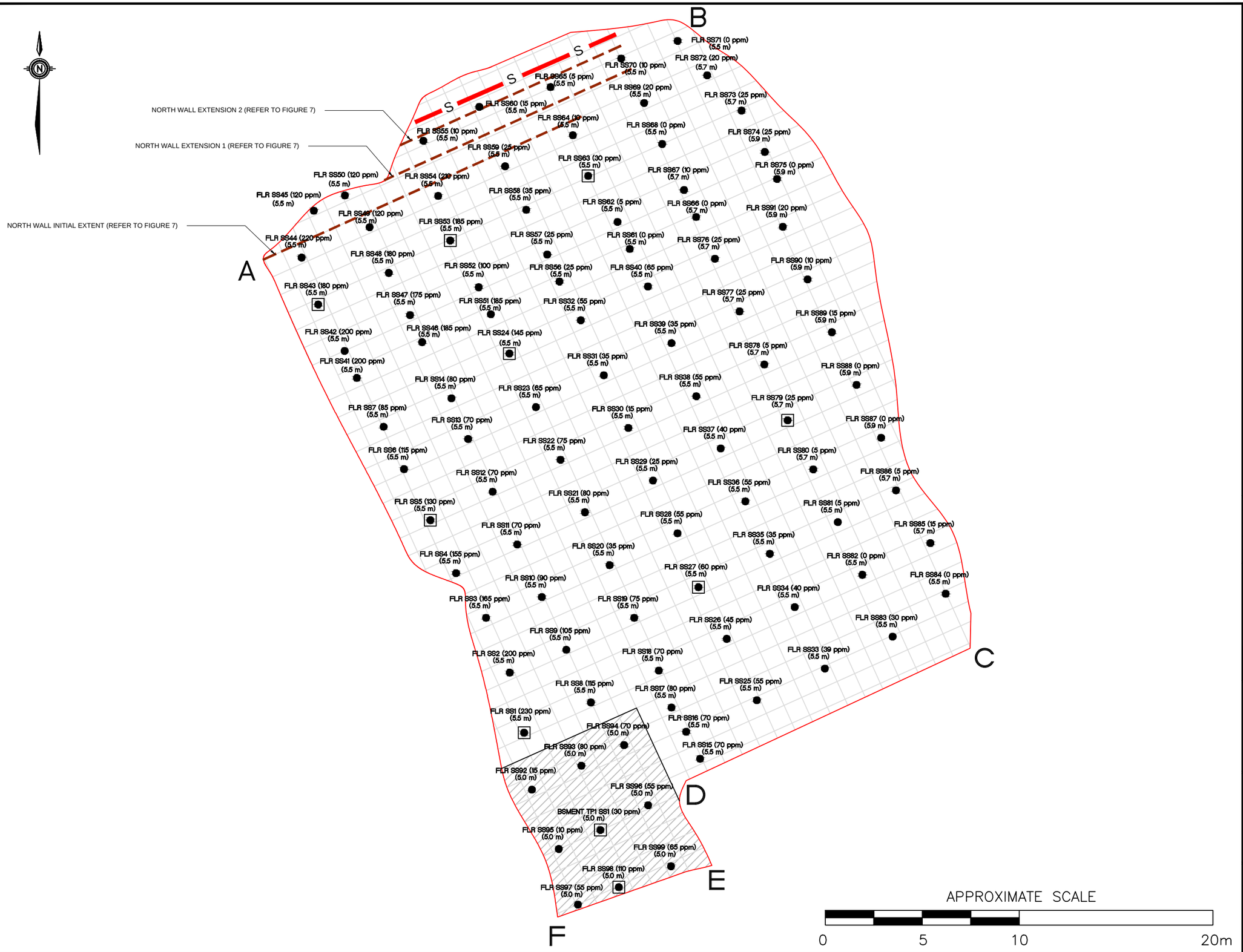
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT UPDATE - VOLUME 6 FORMER CFB ROCKCLIFFE OTTAWA, ON

DRAWING TITLE

2013 REMEDIATION SITE PLAN (DST, 2013)

DESIGNED BY H.R.	SCALE AS SHOWN
DRAWN BY H.R./R.P.	DATE January 2016
PROJECT MANAGER A.N.	PROJECT NO.: OE-OT-015358
FIGURE No.: 5	CAD FILE NAME.: OEOT015358_RSC6_MOE_FIG05



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LEGEND:

- EXTENT OF REMEDIAL EXCAVATION
- S — LOCATION OF STORM/ SANITARY SEWER
- APPROXIMATE LOCATION OF SCREENING SOIL SAMPLE
- APPROXIMATE LOCATION OF CONFIRMATORY SOIL SAMPLE SUBMITTED FOR LABORATORY ANALYSIS OF PHCs/BTEX - MEETS MOECC STANDARDS
- (5.5 m) — SAMPLE DEPTH IN METRES BELOW GROUND SURFACE
- (0 ppm) — MEASURED COMBUSTIBLE VAPOUR CONCENTRATION OF SAMPLE IN PARTS PER MILLION
- APPROXIMATE LOCATION OF FORMER CONCRETE BASEMENT FLOOR (REMOVED)

NOTE:
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE ASSOCIATED TECHNICAL REPORT.
2. ALL SAMPLE IDENTIFIERS ARE PREFIXED WITH 'BUILD 164' WHICH WAS LEFT OUT FOR DRAWING CLARITY.

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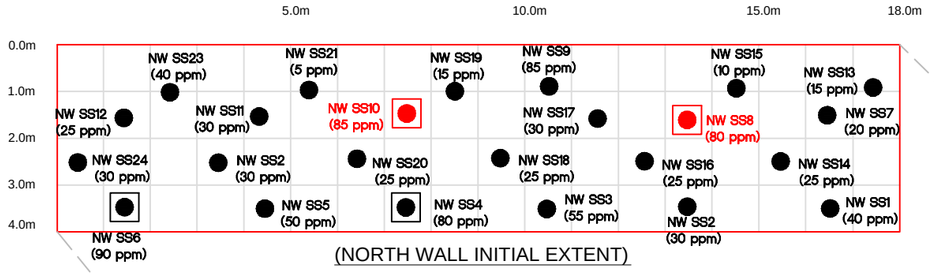
PROJECT TITLE

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT UPDATE - VOLUME 6 FORMER CFB ROCKCLIFFE OTTAWA, ON

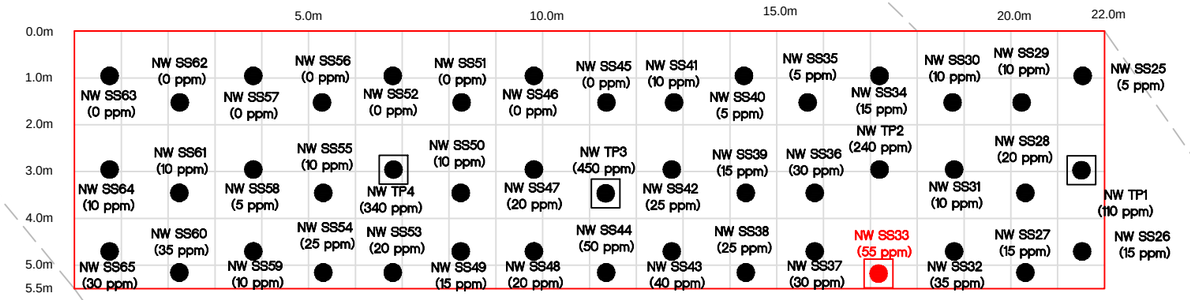
DRAWING TITLE

REMEDIATION SAMPLING DETAILS
FLOOR SAMPLING PLAN
(DST, 2013)

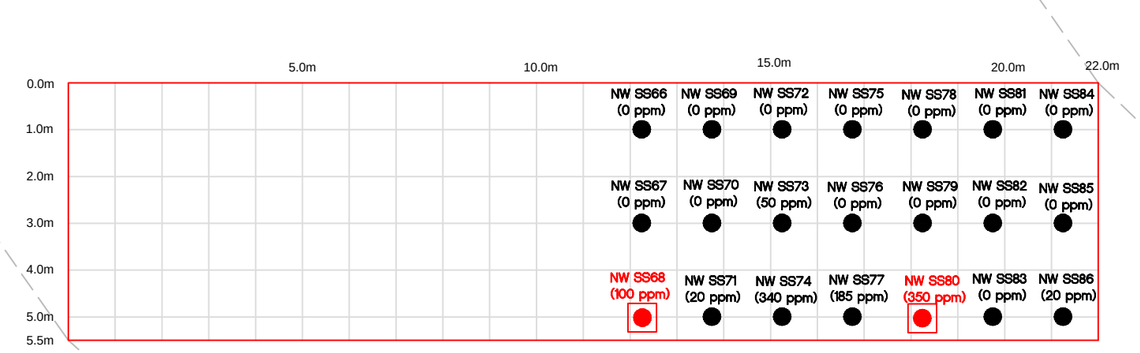
DESIGNED BY S.E.	SCALE AS SHOWN
DRAWN BY R.P.	DATE January 2016
PROJECT MANAGER A.N.	PROJECT NO.: OE-OT-015358
FIGURE No.: 6	CAD FILE NAME.: OEOT015358_RSC6_MOE_FIG06



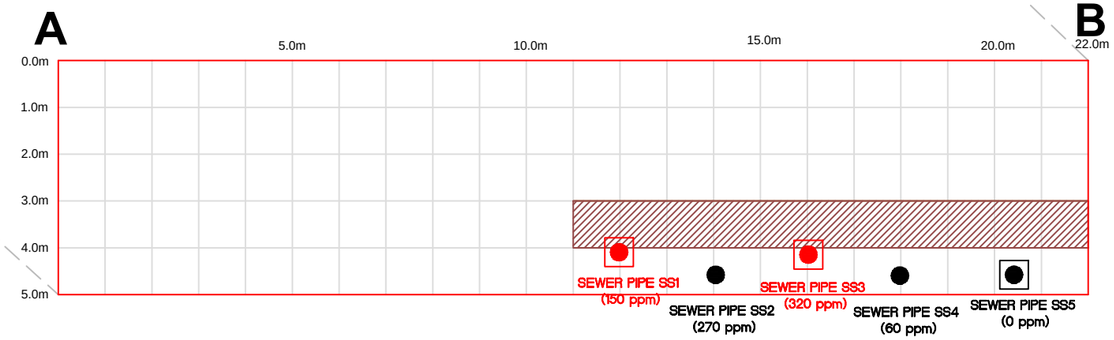
(NORTH WALL INITIAL EXTENT)



(NORTH WALL EXTENSION 1)



(NORTH WALL EXTENSION 2)



(NORTH WALL EXTENSION 3 - FINAL EXTENT)

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LEGEND:

- EXTENT OF REMEDIAL EXCAVATION
- APPROXIMATE LOCATION OF SCREENING SOIL SAMPLE
- APPROXIMATE LOCATION OF INTERIM SOIL SAMPLE SUBMITTED FOR LABORATORY ANALYSIS OF PHCs/BTEX MEETS MOECC STANDARDS
- APPROXIMATE LOCATION OF INTERIM SOIL SAMPLE SUBMITTED FOR LABORATORY ANALYSIS OF PHCs/BTEX EXCEEDS MOECC STANDARDS
- (0 ppm) MEASURED COMBUSTIBLE VAPOUR CONCENTRATION OF SAMPLE IN PARTS PER MILLION
- LOCATION OF STORM/SANITARY SEWER

NOTE:
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE ASSOCIATED TECHNICAL REPORT.
2. ALL SAMPLE IDENTIFIERS ARE PREFIXED WITH 'BUILD 164' WHICH WAS LEFT OUT FOR DRAWING CLARITY.

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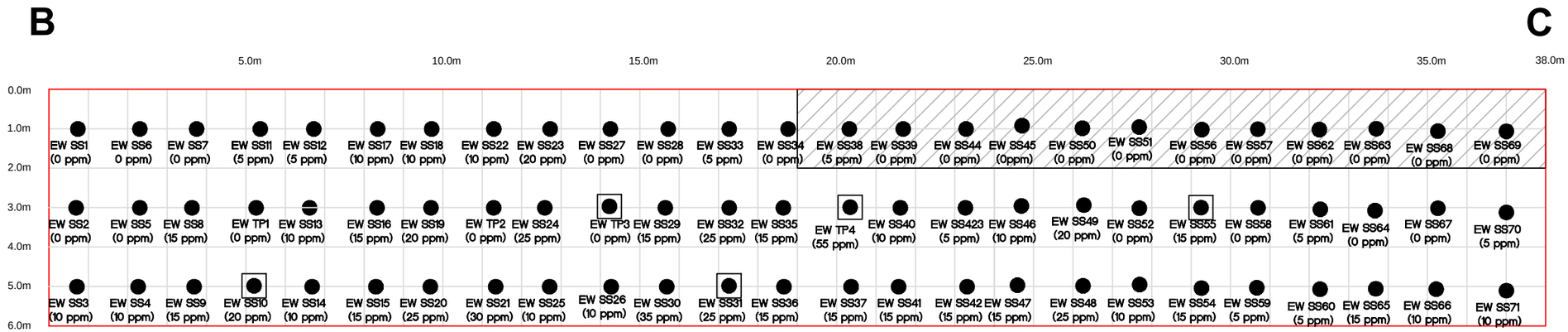
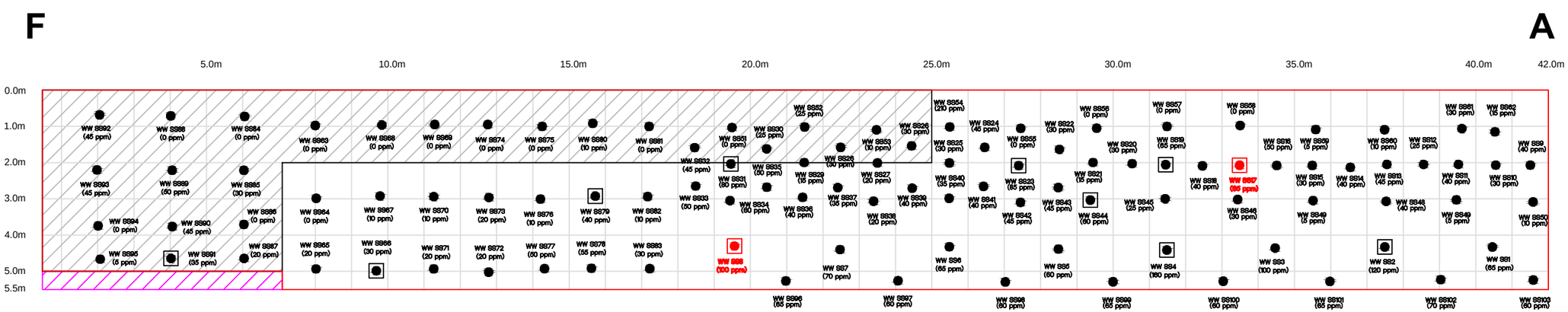
PROJECT TITLE
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT UPDATE - VOLUME 6 FORMER CFB ROCKCLIFFE OTTAWA, ON

DRAWING TITLE
REMEDIATION SAMPLING DETAILS
NORTH WALL SAMPLING PROFILE
(DST, 2013)

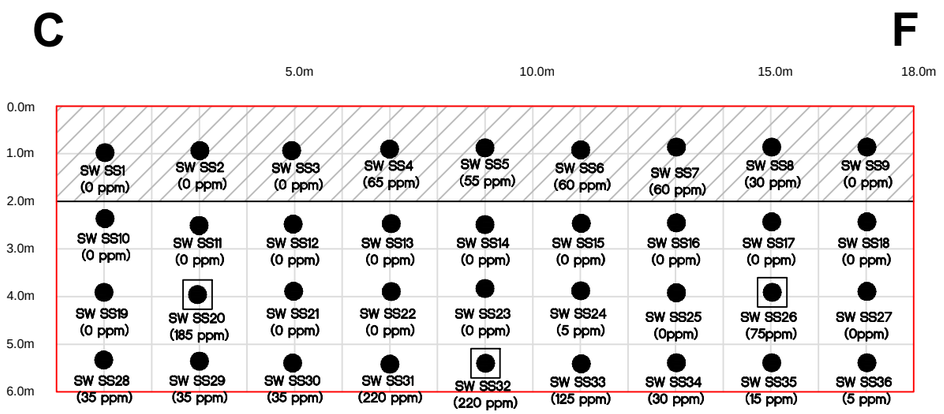
DESIGNED BY S.E.	SCALE AS SHOWN
DRAWN BY R.P.	DATE January 2016
PROJECT MANAGER A.N.	PROJECT NO.: OE-OT-015358
FIGURE No.: 7	CAD FILE NAME.: OEOT015358_RSC6_MOE_FIG07



(EAST WALL)



(WEST WALL)



(SOUTH WALL)

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LEGEND:

- EXTENT OF REMEDIAL EXCAVATION
- APPROXIMATE LOCATION OF SCREENING SOIL SAMPLE
- APPROXIMATE LOCATION OF CONFIRMATORY SOIL SAMPLE SUBMITTED FOR LABORATORY ANALYSIS OF PHCs/BTEX - MEETS MOECC STANDARDS
- APPROXIMATE LOCATION OF INTERIM SOIL SAMPLE SUBMITTED FOR LABORATORY ANALYSIS OF PHCs/BTEX EXCEEDS MOECC STANDARDS
- (0 ppm) MEASURED COMBUSTIBLE VAPOUR CONCENTRATION OF SAMPLE IN PARTS PER MILLION
- APPROXIMATE LOCATION OF FORMER BUILDING FOUNDATION (REMOVED)
- APPROXIMATE LOCATION OF FORMER CONCRETE BASEMENT FLOOR (REMOVED)

NOTE:
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE ASSOCIATED TECHNICAL REPORT.
2. ALL SAMPLE IDENTIFIERS ARE PREFIXED WITH 'BUILD 164' WHICH WAS LEFT OUT FOR DRAWING CLARITY.

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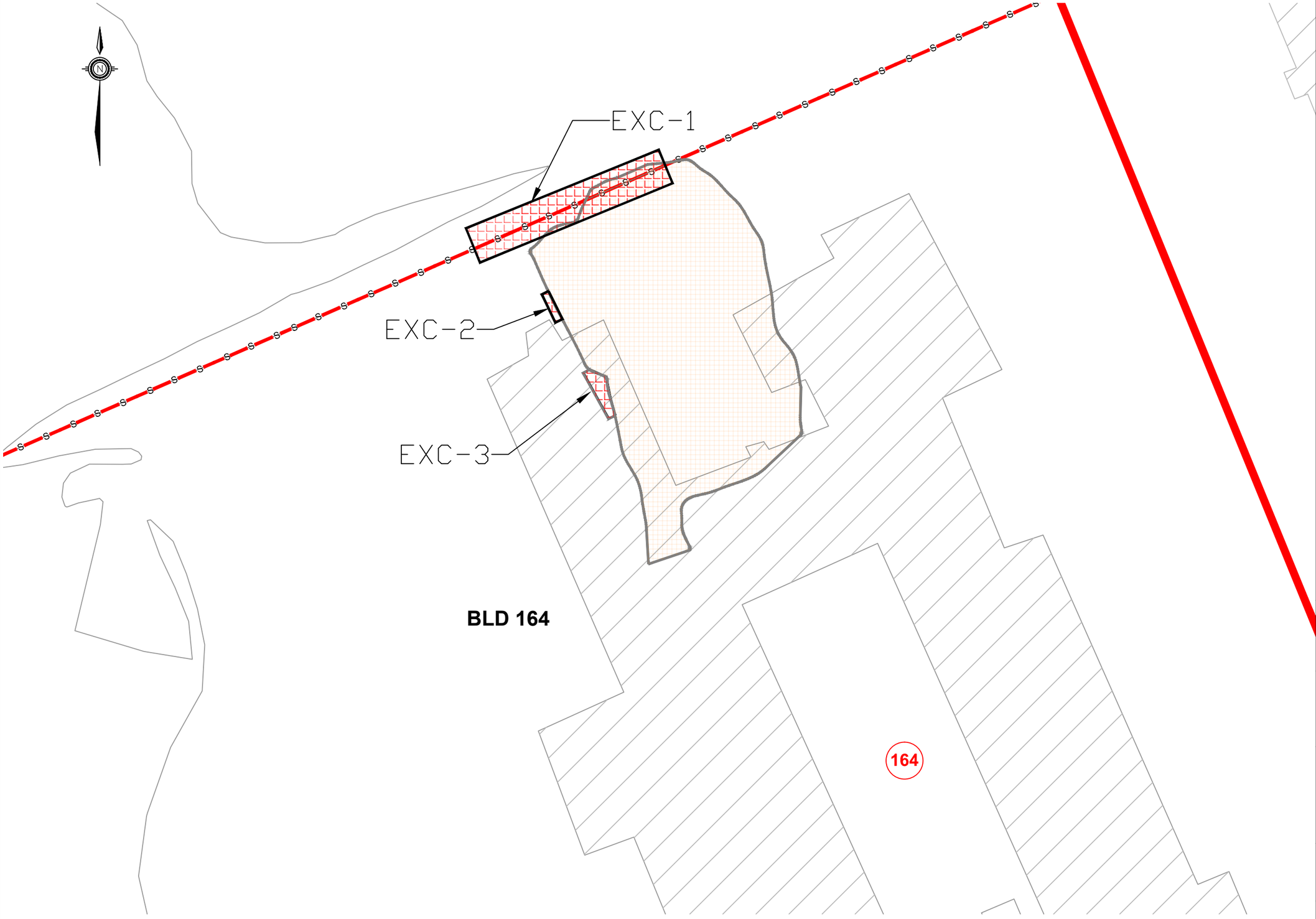
PROJECT TITLE
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT UPDATE - VOLUME 6 FORMER CFB ROCKCLIFFE OTTAWA, ON

DRAWING TITLE
REMEDIATION SAMPLING DETAILS EAST, WEST AND SOUTH WALLS SAMPLING PROFILE (DST, 2013)

DESIGNED BY S.E.	SCALE AS SHOWN
DRAWN BY R.P.	DATE January 2016
PROJECT MANAGER A.N.	PROJECT NO.: OE-OT-015358
FIGURE No.: 8	CAD FILE NAME.: OEOT015358_RSC6_MOE_FIG08



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LEGEND:

- RSC 6 - PHASE I - A DEVELOPMENT AREA BOUNDARY
- APPROXIMATE AREA OF 2013 REMEDIATION
- EXCAVATION LIMITS (DST, 2015)
- FORMER BUILDING FOOTPRINT
- 164 FORMER BUILDING NUMBER
- APPROXIMATE LOCATION OF STORM/SANITARY SEWER

NOTE:
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE ASSOCIATED TECHNICAL REPORT.

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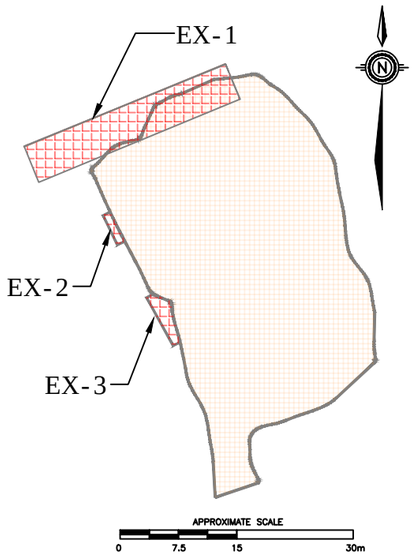
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT UPDATE - VOLUME 6 FORMER CFB ROCKCLIFFE OTTAWA, ON

DRAWING TITLE

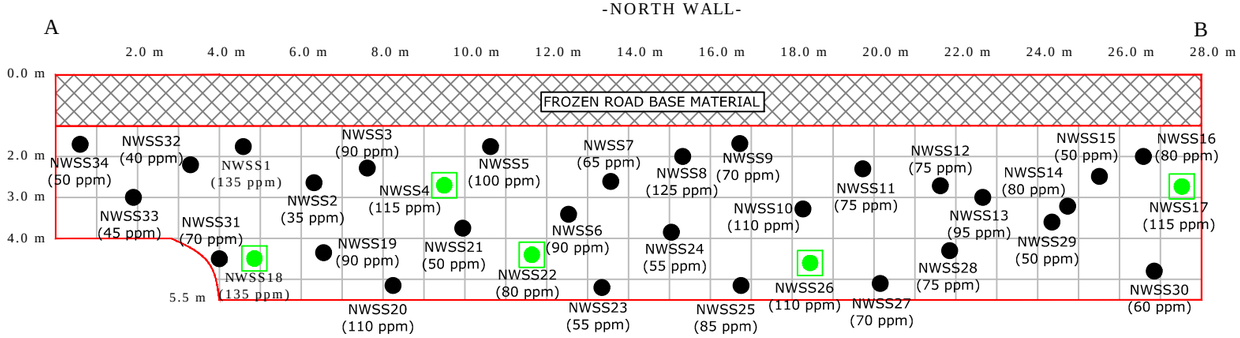
2015 REMEDIATION SITE PLAN (DST, 2015)

DESIGNED BY H.R.	SCALE AS SHOWN
DRAWN BY H.R./R.P.	DATE January 2016
PROJECT MANAGER A.N.	PROJECT NO.: OE-OT-015358
FIGURE No.: 9	CAD FILE NAME.: OEOT015358_RSC6_MOE_FIG09

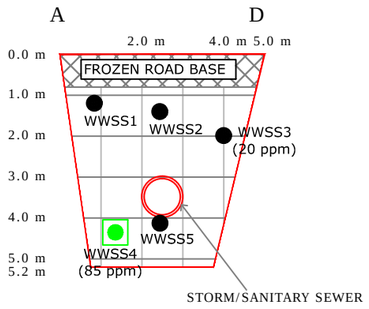


-PLAN VIEW-

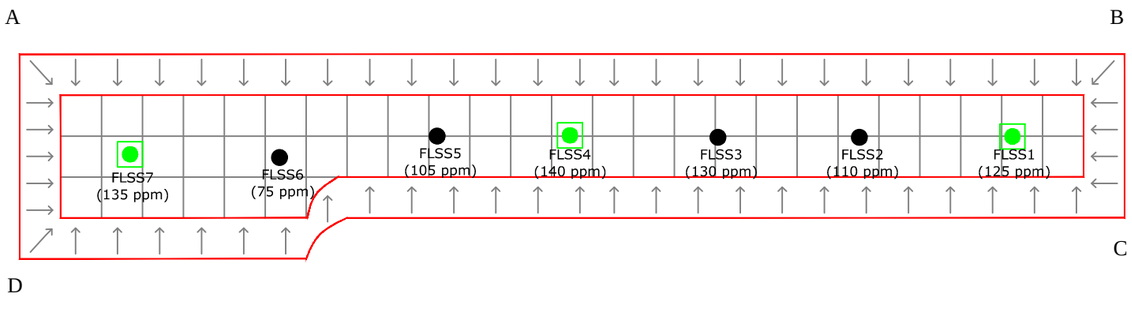
-NORTH WALL-



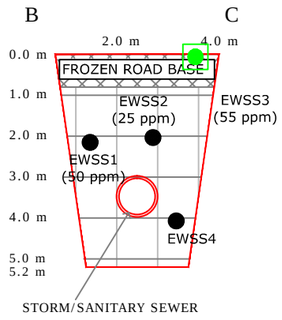
-WEST WALL-



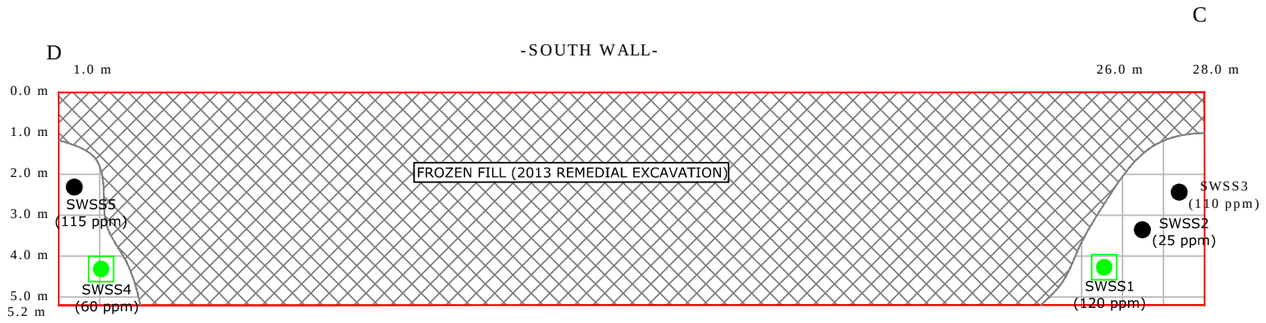
-FLOOR-



-EAST WALL-



-SOUTH WALL-



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LEGEND:

- EXTENT OF REMEDIAL EXCAVATION
- APPROXIMATE LOCATION OF SCREENING SOIL SAMPLE
- APPROXIMATE LOCATION OF CONFIRMATORY SOIL SAMPLE SUBMITTED FOR LABORATORY ANALYSIS OF PHCs/BTEX
  - MEETS MOECC STANDARDS
- (0 ppm) MEASURED COMBUSTIBLE VAPOUR CONCENTRATION OF SAMPLE IN PARTS PER MILLION
- ← SLOPE WALLS

NOTE:
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE ASSOCIATED TECHNICAL REPORT.

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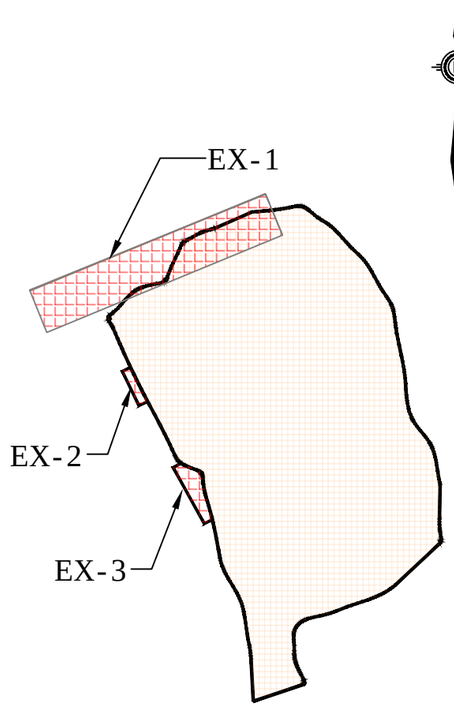
PROJECT TITLE

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT UPDATE - VOLUME 6 FORMER CFB ROCKCLIFFE OTTAWA, ON

DRAWING TITLE

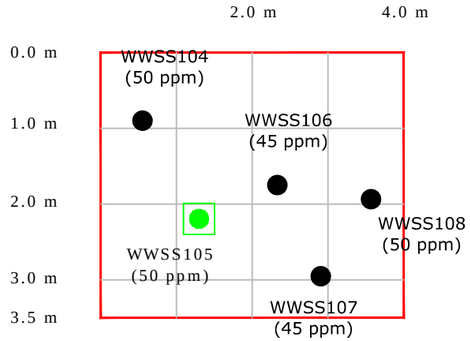
REMEDIATION SAMPLING DETAILS
(DST, 2015)
EXC-1

DESIGNED BY: S.P.	SCALE: AS SHOWN
DRAWN BY: R.P.	DATE: January 2016
PROJECT MANAGER: A.N.	PROJECT NO.: OE-OT-015358
FIGURE No.: 10	CAD FILE NAME.: OEOT015358_RSC6_MOE_FIG10

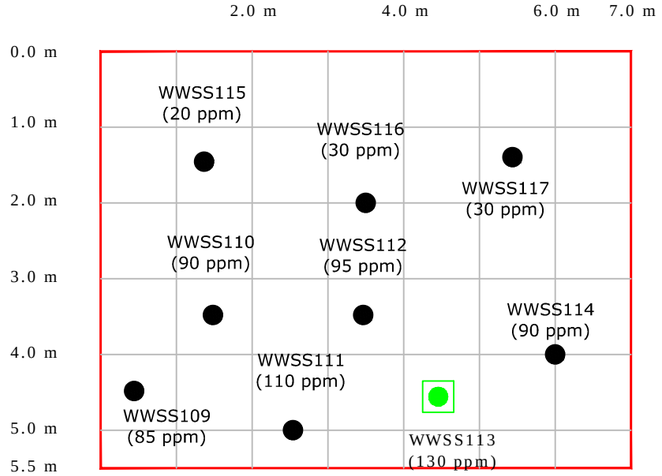


-PLAN VIEW-

-WEST WALL EXTENTION - EXC. 2-



-WEST WALL EXTENTION - EXC. 3-



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LEGEND:

- EXTENT OF REMEDIAL EXCAVATION
- APPROXIMATE LOCATION OF SCREENING SOIL SAMPLE
- APPROXIMATE LOCATION OF CONFIRMATORY SOIL SAMPLE SUBMITTED FOR LABORATORY ANALYSIS OF PHCs/BTEX
  - MEETS MOECC STANDARDS
- (0 ppm) MEASURED COMBUSTIBLE VAPOUR CONCENTRATION OF SAMPLE IN PARTS PER MILLION

NOTE:
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE ASSOCIATED TECHNICAL REPORT.

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SOCIÉTÉ IMMOBILIÈRE DU CANADA

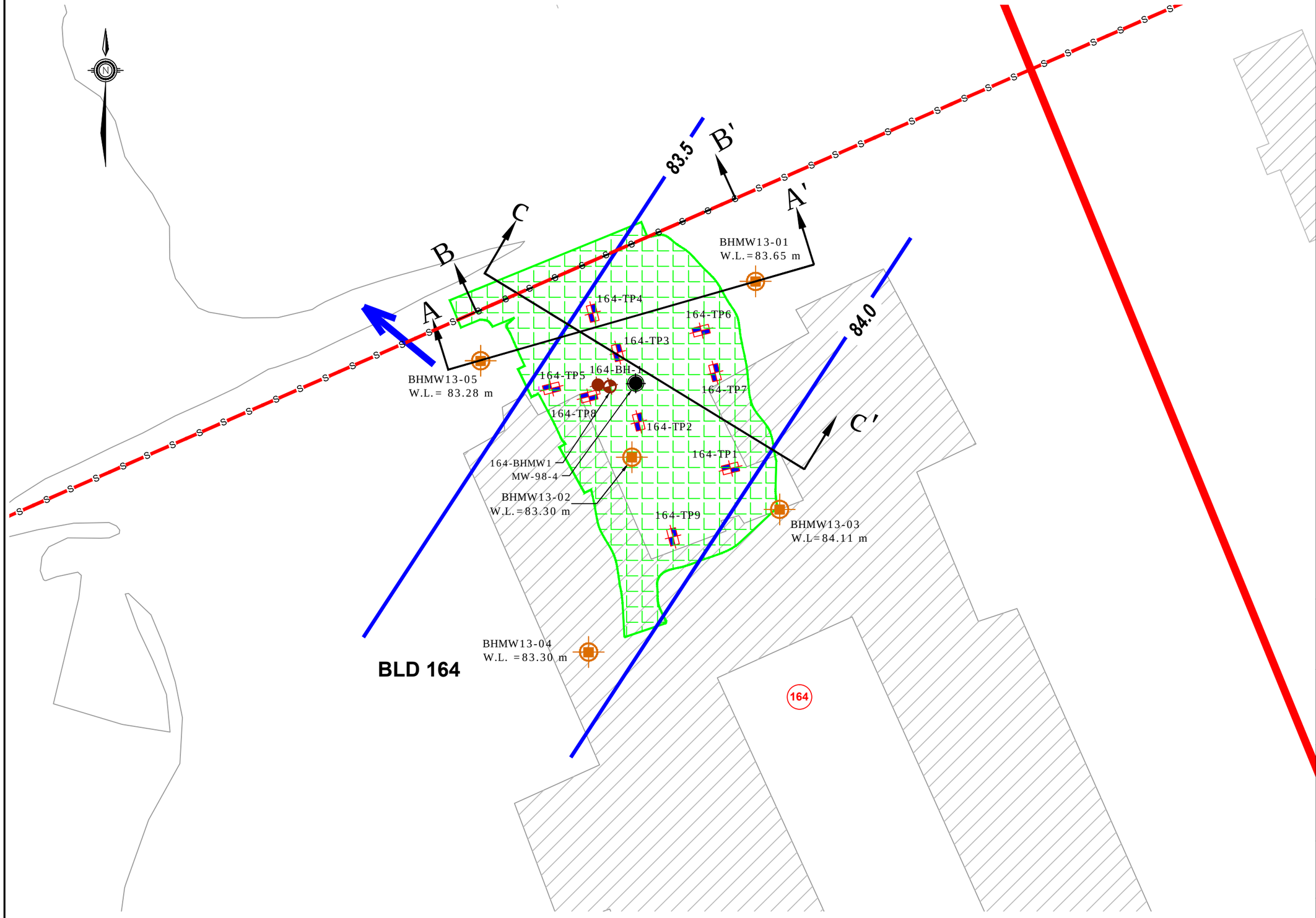
PROJECT TITLE

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT UPDATE - VOLUME 6 FORMER CFB ROCKCLIFFE OTTAWA, ON

DRAWING TITLE

2015 REMEDIATION SAMPLING DETAILS (DST, 2015) EXC- 2 AND EXC- 3

DESIGNED BY S.P.	SCALE AS SHOWN
DRAWN BY R.P.	DATE January 2016
PROJECT MANAGER A.N.	PROJECT NO.: OE-OT-015358
FIGURE No.: 11	CAD FILE NAME.: OEOT015358_RSC6_MOE_FIG11



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LEGEND:

- RSC 6 - PHASE I - A DEVELOPMENT AREA BOUNDARY
- APPROXIMATE LOCATION OF POST REMEDIATION MONITORING WELL (DST, 2013)
- APPROXIMATE LOCATION OF HISTORICAL BEDROCK MONITORING WELL (DST, 2010)
- APPROXIMATE LOCATION OF HISTORICAL BEDROCK MONITORING WELL (1998)
- APPROXIMATE LOCATION OF HISTORICAL BOREHOLE (DST, 2010)
- APPROXIMATE LOCATION OF HISTORICAL TEST PIT (DST, 2010)
- FORMER BUILDING FOOTPRINT
- APPROXIMATE LOCATION OF STORM/SANITARY SEWER
- FINAL REMEDIATION EXTENTS
- 83.0 CONTOUR LINES
- W.L. = 83.5 m GROUNDWATER ELEVATION (APRIL 5, 2015)
- GROUNDWATER FLOW DIRECTION
- C C' CROSS - SECTION C-C'

NOTE:
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE ASSOCIATED TECHNICAL REPORT.

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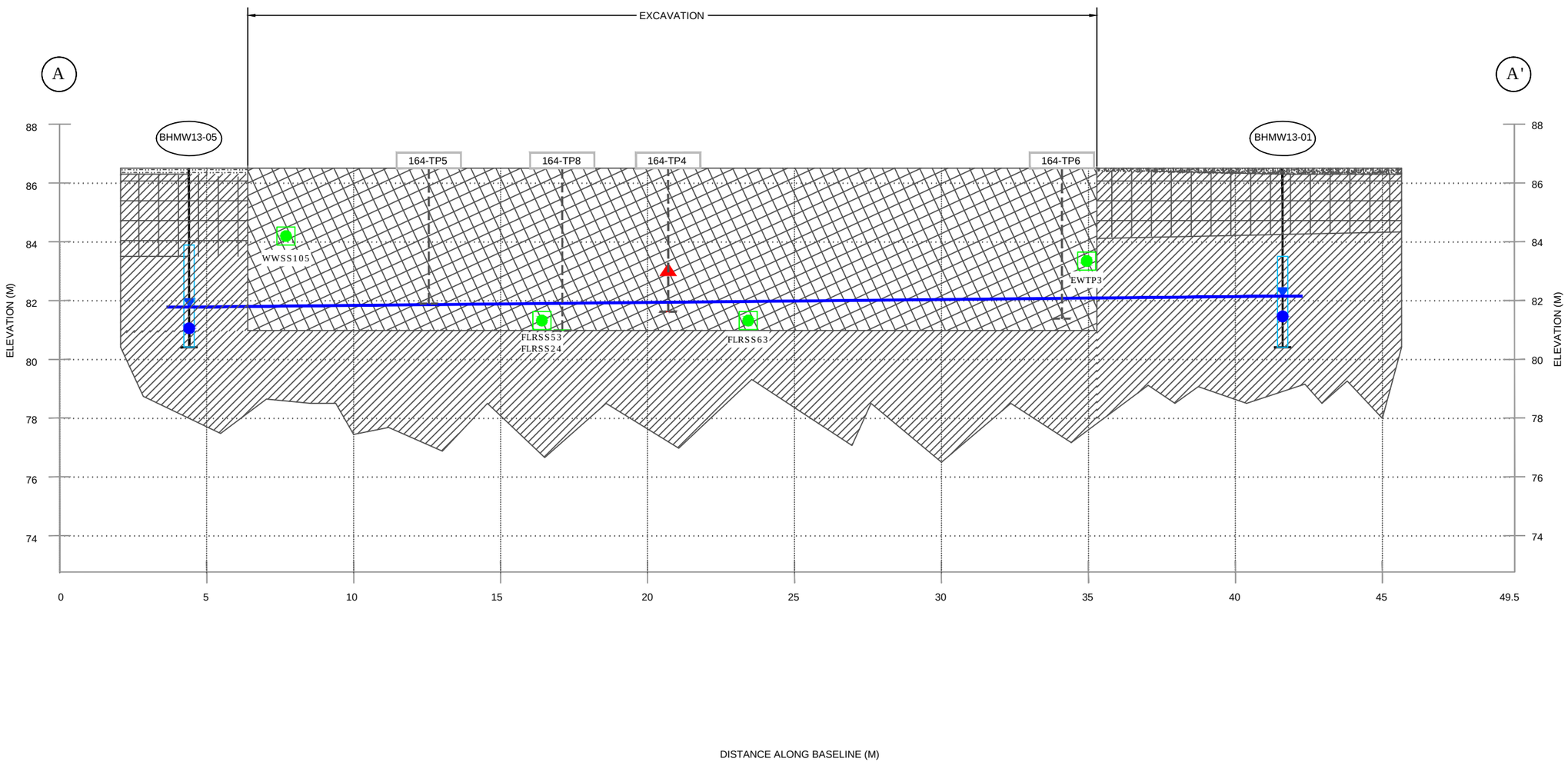
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT UPDATE - VOLUME 6 FORMER CFB ROCKCLIFFE OTTAWA, ON

DRAWING TITLE
FINAL REMEDIATION EXTENTS AND PIEZOMETRIC MAP

DESIGNED BY H.R.	SCALE AS SHOWN
DRAWN BY H.R./R.P.	DATE February 2016
PROJECT MANAGER A.N.	PROJECT NO.: OE-OT-015358
FIGURE No.: 12	CAD FILE NAME.: OEOT015358_RSC6_MOE_FIG12

BLD 164

CROSS-SECTION A-A'
LOOKING NORTH



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LEGEND:

- GRANULAR B (FILL)
- SAND
- CLAY
- SILTY CLAY
- TOPSOIL
- NWSS18 — APPROXIMATE LOCATION OF CONFIRMATORY SOIL SAMPLE SUBMITTED FOR LABORATORY ANALYSIS OF PHCs/BTEX - MEETS MOECC STANDARDS (REFER TO FIGURES 6, 8 & 11 FOR DETAILS)
- WELL LOCATION / WELL SCREEN
- LOCATION OF GROUNDWATER (2013 & 2015) SAMPLE - MEETS MOECC STANDARDS FOR PHCs/BTEX
- GROUNDWATER ELEVATION (APRIL 5, 2016)
- GROUNDWATER TABLE (APRIL 5, 2015)
- LOCATION OF PREVIOUS TESTPIT (2010) EXCAVATED IN 2013
- LOCATION OF PRE-REMEDIATION CONTAMINATED SOIL SAMPLE - EXCEEDED MOECC STANDARDS FOR PHC - F2 and/or F3

NOTE:
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PROJECT TITLE

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT UPDATE - VOLUME 6 FORMER CFB ROCKCLIFFE OTTAWA, ON

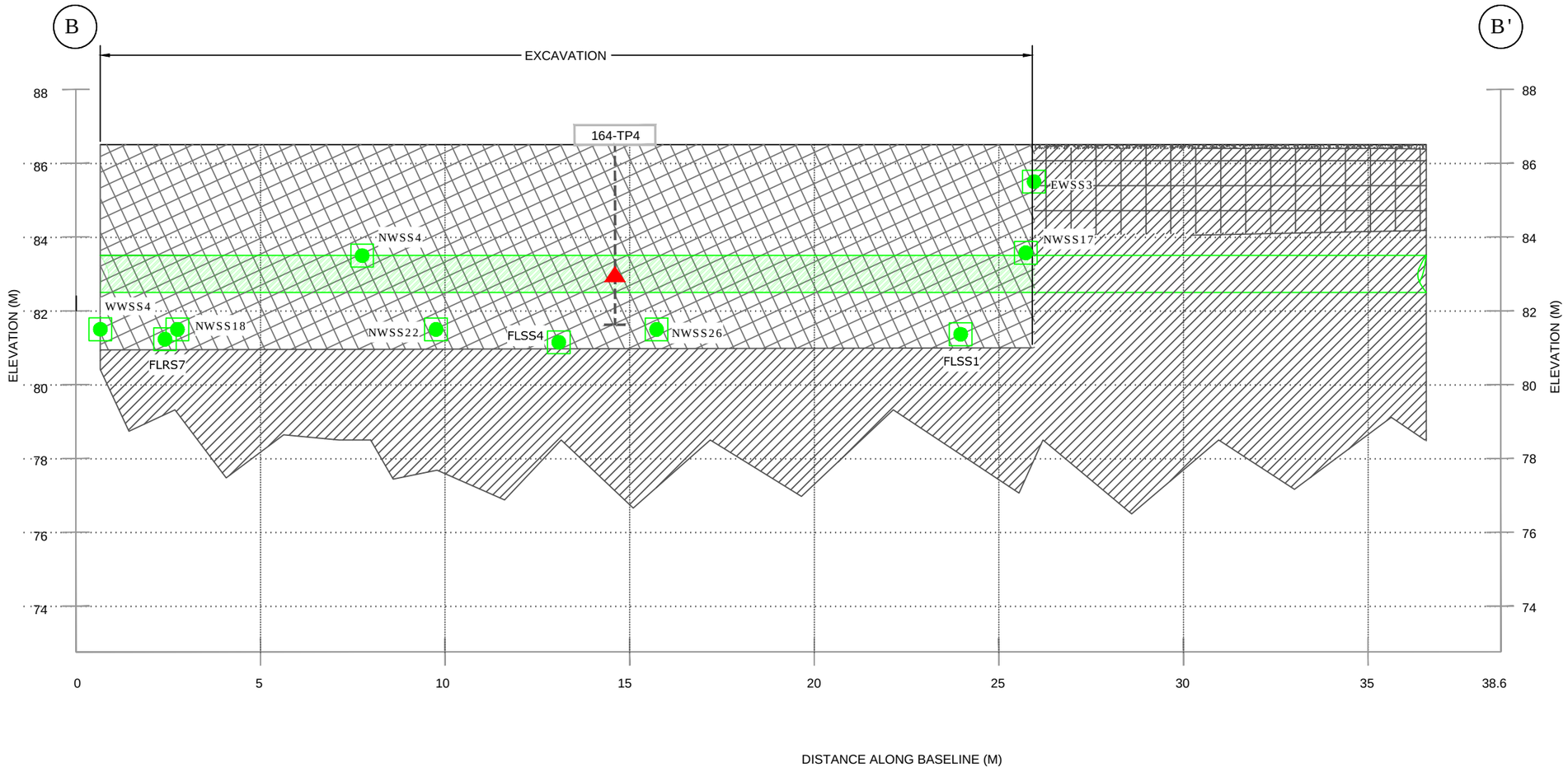
DRAWING TITLE

CROSS-SECTION A-A'
POST-REMEDIATION
(DST, 2015)

DESIGNED BY: S.P.	SCALE: AS SHOWN
DRAWN BY: R.P.	DATE: February 2016
PROJECT MANAGER: A.N.	PROJECT NO.: OE-OT-015358
FIGURE No.: 13	CAD FILE NAME.: OEOT015358_RSC6_MOE_FIG13

BLD 164

CROSS-SECTION B-B'
LOOKING NORTH



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LEGEND:

- GRANULAR B (FILL)
- SAND
- CLAY
- SILTY CLAY
- TOPSOIL
- APPROXIMATE LOCATION OF STORM/SANITARY SEWER REPLACED SECTION
- NWSS18 — APPROXIMATE LOCATION OF CONFIRMATORY SOIL SAMPLE SUBMITTED FOR LABORATORY ANALYSIS OF PHCs/BTEX - MEETS MOECC STANDARDS (REFER TO FIGURE 10 FOR DETAILS)
- LOCATION OF PREVIOUS TESTPIT (2010) EXCAVATED IN 2013
- LOCATION OF PRE-REMEDIATION CONTAMINATED SOIL SAMPLE - EXCEEDED MOECC STANDARDS FOR PHC - F2 AND/OR F3

NOTE:
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PHASE TWO ENVIRONMENTAL SITE ASSESSMENT UPDATE - VOLUME 6 FORMER CFB ROCKCLIFFE OTTAWA, ON

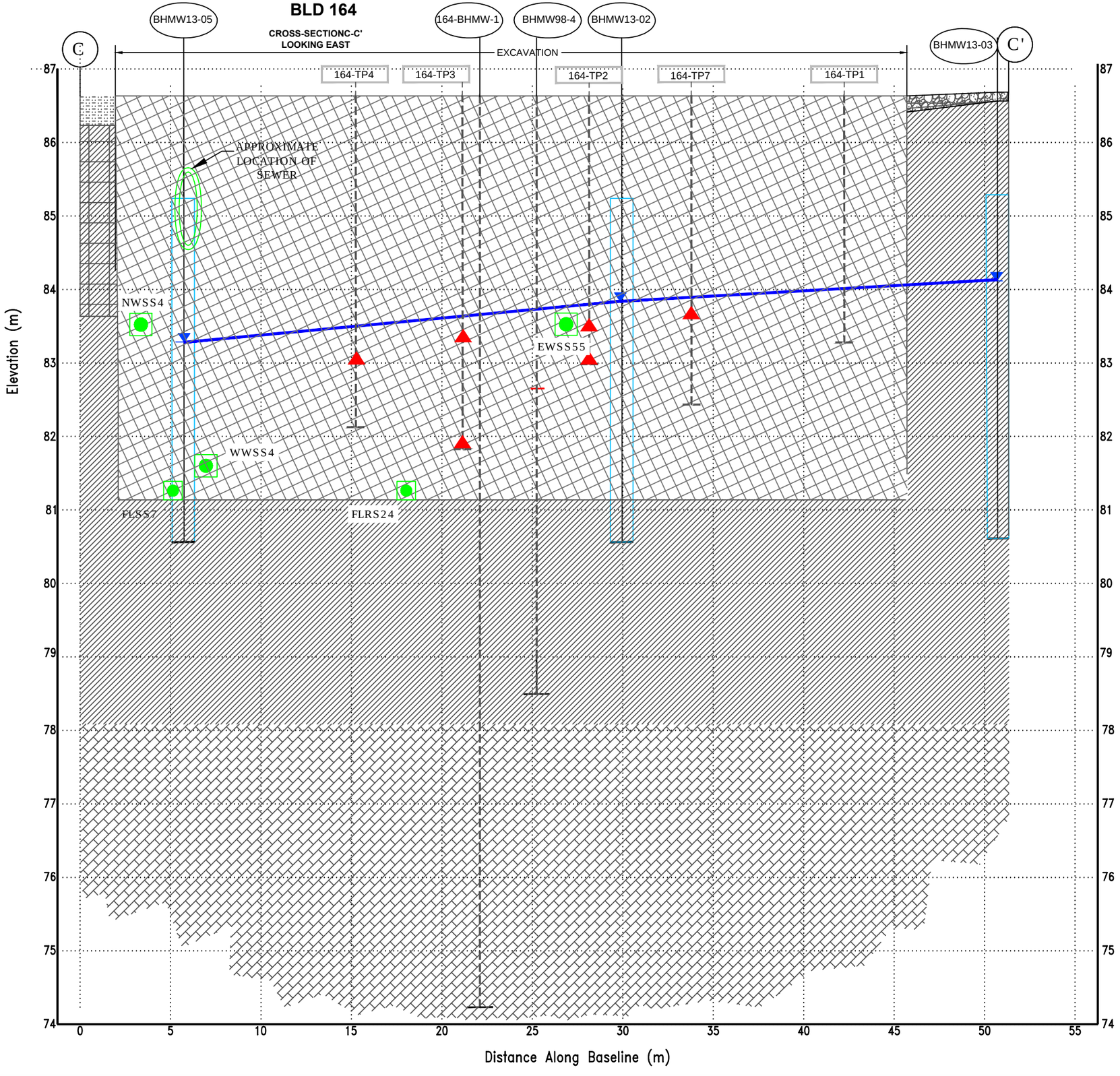
DRAWING TITLE

CROSS-SECTION B-B'
POST-REMEDIATION
(DST, 2015)

DESIGNED BY: H.R.	SCALE: AS SHOWN
DRAWN BY: H.R./R.P.	DATE: February 2016
PROJECT MANAGER: A.N.	PROJECT NO.: OE-OT-015358
FIGURE No.: 14	CAD FILE NAME.: OEOT015358_RSC6_MOE_FIG14

BLD 164

CROSS-SECTIONC-C'
LOOKING EAST



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LEGEND:

- GRANULAR B (FILL)
- SAND
- CLAY
- SILTY CLAY
- TOPSOIL
- BEDROCK (LIMESTONE)
- NWSS18 — APPROXIMATE LOCATION OF CONFIRMATORY SOIL SAMPLE SUBMITTED FOR LABORATORY ANALYSIS OF PHCs/BTEX - MEETS MOECC STANDARDS (REFER TO FIGURES 6,8 &10 FOR DETAILS)
- WELL LOCATION
- WELL SCREEN
- LOCATION OF GROUNDWATER (2013 & 2015) SAMPLE - MEETS MOECC STANDARDS FOR PHCs/BTEX
- GROUNDWATER ELEVATION (APRIL 5, 2015)
- GROUNDWATER TABLE (APRIL 5, 2015)
- LOCATION OF PREVIOUS MONITORING WELL (2010) DECOMMISSIONED IN 2013
- LOCATION OF PREVIOUS TESTPIT (2010) EXCAVATED IN 2013
- LOCATION OF PRE-REMEDIATION CONTAMINATED SOIL SAMPLE - EXCEEDED MOECC STANDARDS FOR PHC - F2 and/or F3
- LOCATION OF PRE-REMEDIATION OBSERVED FREE PRODUCT LAYER

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PROJECT TITLE

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT UPDATE - VOLUME 6
FORMER CFB ROCKCLIFFE
OTTAWA, ON

DRAWING TITLE

CROSS-SECTION C-C'
POST-REMEDIATION
(DST, 2015)

DESIGNED BY: H.R.	SCALE: AS SHOWN
DRAWN BY: H.R.	DATE: February 2016
PROJECT MANAGER: A.N.	PROJECT NO.: OE-OT-015358
FIGURE No.: 15	CAD FILE NAME.: OEOT015358_RSC6_MOE_FIG15