Public Works and Government Services Canada

Requisition No.: EZ897-171180

Buy and Sell ID No.: _____

Specifications for

Site Remediation

Fireside Maintenance Camp, KM 839, Alaska Highway, BC

Project No. R.018388 Date

APPROVED BY:

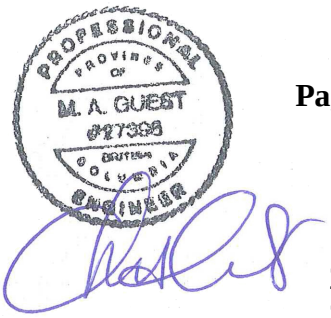
Regional Manager ES — Date: 16 Aug 2016

for C. Patterson
Construction Safety Coordinator — Date: 2016-08-16

TENDER:

Project Manager — Date: 2016-08-15

Real Property Services Branch, Professional and Technical Services, Pacific Region
#219 – 800 Burrard Street, Vancouver, B.C. V6Z 0B9



Appendix No.	Appendix Title
A	Environmental Investigations - FY 2015/2016 Feasibility Study Data Report, Fireside Maintenance Camp, KM 839, Alaska Highway, BC – PWGSC Project # R.018388.003, dated March 31, 2016 - Tables of Detailed Soil and Groundwater Analytical Results - Select Borehole Logs
B	Geotechnical Investigations - Tabulated and Actual Sieve Analysis Results and Standard Penetration Test Data
C	Groundwater Information - Groundwater Elevation Trends
D	Soil Treatment Facility Construction and Design Specifications - Location Plan (300) - Site Plan (301) - Proposed Soil Treatment Facility Locations (302) - Soil Treatment Facility Design Specifications (303) - Site Photos

1. PART 1 - GENERAL

1.1. Measurement Procedures

1.1.1. Pre-mobilization Submittals will be paid in accordance with lump sum price established for all Preconstruction Meetings, final design, planning, health and safety, and other Submittals in accordance with the Contract or required and accepted by the Departmental Representative as in accordance with the Contract prior to mobilization to Site.

1.1.2. Mobilization will be paid in accordance with lump sum price established for mobilizing all necessary equipment, materials, supplies, facilities, and personnel associated with the Works to the Site. Includes initial insurance, bonding, and permits. Additional insurance, bonding, and permits due to changes in scope, cost, and schedule as accepted by the Departmental Representative will be included in Contract amendments.

1.1.3. Site Preparation will be paid in accordance with lump sum price established to prepare the Site for planned construction works. Includes clearing and grubbing, temporary removal of existing infrastructure, utility location, rerouting, and protection, and construction of temporary onsite access roads. Also includes removal of any incidental or generated material. Also includes Preconstruction Precondition Survey and Preconstruction As-Built Documents.

1.1.4. Site Facilities Provision will be paid in accordance with lump sum price established to design, temporarily provide for duration of Work, and erect all infrastructure in accordance with the Contract. Includes temporary structures and facilities, temporary hoarding, security fencing, federal signage, sanitary facilities, stormwater management infrastructure, and utility installation.

1.1.5. Site Facilities Operation will be paid in accordance with unit rate price established for time to operate and maintain all infrastructure between mobilization and demobilization. Measurement as recorded time by Departmental Representative. Includes temporary structures and facilities including temporary hoarding, security fencing, federal signage, sanitary facilities, stormwater management infrastructure, and utility installation Also includes ongoing services including project management, security, surveying, noise monitoring, vibration monitoring, utilities, project meetings, inspections, progress Submittals, traffic control, health and safety, Environmental Protection and cleaning. Also, includes living out allowances, travel and room and board. Rate must not vary even if hours of work and/or days of work vary. Time will only be paid for duration in accordance with the Contract and changes in schedule as accepted by the Departmental Representative and included in Extension of Time on Contracts.

1.1.6. Standby Time will be paid in accordance with unit rate price established, for time when construction Work is unable to proceed, and that is directly attributable to any neglect or delay that occurs after the date of the Contract on the part of the Departmental Representative in providing any information or in doing any act that the Contract expressly requires the Departmental Representative. Measurement as recorded time by Departmental Representative. Includes machinery and labour standby costs. Does not include items covered by Site Facilities Operation. Standby Time may be pro-rated based on hours of work. Make all efforts to minimize impacts due to delays caused by the Departmental Representative, including re-sequencing Work. Provide documentation of a sufficient description of the facts and circumstances of the occurrence to enable the Departmental Representative to determine whether or not the Standby Time is justified. Reviews, sampling, or other work conducted by the Departmental Representative with time allowances in accordance with the Contract will result in no increase to the Contract Amount nor Extension of Time for completion of the Work.

1.1.7. Contaminated Water Treatment Plant Provision will be paid in accordance with lump sum price established to design, temporarily provide for duration of Work, and erect Contaminated Water Treatment Plant. Includes all ancillary tanks, storage containers, equipment and piping to collect, store, treat, sample, and discharge contaminated or potentially Contaminated Water.

1.1.8. Contaminated Water Treatment Plant Operation will be paid in accordance with the unit rate price established for volume of treatment by the Contaminated Water Treatment Plant. Measurement as recorded volume by an inline flow meter. Includes all ancillary tanks, storage containers, equipment and piping to collect, store, treat, sample, and discharge contaminated or potentially Contaminated Water. Includes sampling and analysis, and consumables for water treatment.

1.1.9. Temporary Sloping and Shoring will be paid in accordance with lump sum price established to design and provide temporary sloping and/or shoring required to excavate contaminated material to extents shown on Drawings. Includes backfilling and compaction within excavation any acceptable temporary slope material.

1.1.10. Excavation will be paid in accordance with unit rate price established for volume of material removed to excavate contaminated material to extents shown on Drawings. Measurement as recorded volume of contaminated material excavation limits as surveyed by Departmental Representative. Includes handling, transport, and stockpiling onsite.

1.1.11. Excavated Material Screening Operation will be paid in accordance with unit rate price established for volume of material removed to screen material from excavation. Measurement as recorded ex-situ volume of screened material stockpiles by Departmental Representative. Includes stockpiling within work area as instructed by Departmental Representative. Provision of screening plant to be included in Site Facilities Provision.

1.1.12. Waste Oversize Debris Removal will be paid in accordance with unit rate price established for time to remove oversize material from excavation. Measurement as recorded time by Departmental Representative. Does not include Transport or Disposal.

1.1.13. Backfill-Import will be paid in accordance with unit rate price established per weight for backfill material imported. Measurement as recorded on backfill source weigh scale certified by Measurement Canada receipts and results provided to Departmental Representative. Includes provision, transport to Site, onsite transport, placing, grading and compacting as specified on Drawings.

1.1.14. Backfill-Owner Supplied will be paid in accordance with unit rate price established per volume for backfill material supplied by PWGSC. Measurement as recorded volume of excavation limits as surveyed by Departmental Representative. Measurement as recorded volume of excavation backfilled as surveyed by Departmental Representative. Includes onsite transport, placing, grading and compacting.

1.1.15. Contaminated Material Transport-Offsite will be paid in accordance with unit rate price established for weight of material transported. Measurement as recorded on Treatment Facility or Disposal Facility weigh scale certified by Measurement Canada and results provided to Departmental Representative. Includes loading, hauling, interim storage, and handling for all material transported from Site. If material is taken to a Treatment Facility-Offsite before a Disposal Facility, payment includes transport and handling to both Treatment Facility and Disposal Facility.

1.1.16. Contaminated Material Transport-Owner Soil Treatment Facility will be paid in accordance with unit rate price established for volume of material transported. Measurement as recorded by survey of Owner Soil Treatment Facility by Departmental Representative. Includes handling, stockpiling, loading, unloading, hauling, and interim storage for all material transported to Owner Soil Treatment Facility.

1.1.17. Non-Contaminated Material and Waste Transport will be paid in accordance with unit rate price established for weight of material removed. Measurement as recorded on Landfill weigh scale certified by Measurement Canada and results provided to Departmental Representative. Includes loading, hauling, interim storage, and handling for all material transported from Site.

1.1.18. Contaminated Material Disposal will be paid in accordance with unit rate price established for weight of material disposed. Measurement as recorded on Disposal Facility weigh scale certified by Measurement Canada and results provided to Departmental Representative on Certificates of Disposal. Contaminated Material Disposal includes Contaminated Material Treatment-Offsite, as required by Disposal Facility.

1.1.19. Non-Contaminated Material and Waste Disposal will be paid in accordance with unit rate price established for weight of material disposed. Measurement as recorded on Landfill facility weigh scale certified by Measurement Canada and results provided to Departmental Representative on Certificates of Disposal.

1.1.20. Site Restoration will be paid in accordance with the lump sum price established to restore the Site to make suitable for post-Work use as shown on Drawings. Includes re-establishment of pre-existing infrastructure and deconstructing and removal from Site all temporary facilities and removal of any incidental or generated material.

1.1.21. Owner Soil Treatment Facility Construction will be paid in accordance with lump sum price established to prepare and construct the Soil Treatment Facilities for planned construction works. Includes clearing and grubbing, levelling of base protection layer, and construction as detailed in Appendix D.

1.1.22. Demobilization will be paid in accordance with lump sum price established for demobilizing all equipment and personnel associated with the Works from the Site. Includes decontaminating all equipment prior to removal from Site.

1.1.23. Closeout Submittals will be paid in accordance with lump sum price established for Final Site Inspection (for Certificate of Completion purposes), Closeout Meetings, provision of final as-built documents and completion documents as instructed by the Departmental Representative.

1.2. Definitions

1.2.1. Certificate of Completion: see General Conditions.

1.2.2. Change Order: PWGSC form issued by the Departmental Representative to the Contractor as per the relevant Contemplated Change Notice.

1.2.3. Confirmation Samples: soil samples collected from the base and walls of the excavation by the Departmental Representative to confirm that the remedial objectives for the Work have been met.

1.2.4. Contaminated Material: soil and other material where substances occur at concentrations that: (i) are above background levels and pose, or are likely to pose, an immediate or long-term hazard to human health or the environment, or (ii) exceed the levels specified in policies and regulations. Includes Hazardous Waste and Waste Quality; does not include Non-Contaminated Material or Waste. Relevant regulations, unless otherwise in accordance with the Contract or as instructed by the Departmental Representative, include:

1.2.4.1. For all sites: Canadian Council of Ministers of the Environment (CCME) *Canadian Environmental Quality Guidelines* and CCME *Canada-Wide Standards*.

1.2.4.2. For sites in BC: BC *Hazardous Waste Regulations*, BC *Approved Water Quality Guidelines*, BC *Contaminated Sites Regulation*.

1.2.5. Contaminated Water: liquid material where substances occur at concentrations that: (i) are above background levels and pose, or are likely to pose, an immediate or long-term hazard to human health or the environment, or (ii) meet or exceed the levels specified in policies and regulations. Includes Hazardous Waste and Waste Quality Water; does not include Non-Contaminated Water or Sewage Wastewater. Relevant regulations, unless otherwise in accordance with the Contract or as instructed by the Departmental Representative, include:

1.2.5.1. For all sites: Canadian Council of Ministers of the Environment (CCME) *Canadian Environmental Quality Guideline*s and CCME *Canada-Wide Standards*.

1.2.5.2. For sites in BC: BC *Hazardous Waste Regulations*, BC *Approved Water Quality Guidelines*.

1.2.6. Contaminated Water Treatment Plant: a temporary onsite or existing offsite facility located in Canada that is designed, constructed and operated for the handling or processing of Contaminated Water in such a manner as to change the physical, chemical or biological character or composition of the water to lower than the site-specific remedial objective, Discharge Approval, and in compliance with all regulations.

1.2.7. Contemplated Change Notice: PWGSC form issued by the Departmental Representative to the Contractor requesting Contractor to provide a quote, which may result in a Change Order.

1.2.8. Contract: see General Conditions.

1.2.9. Contract Amount: see General Conditions.

1.2.10. Contractor: see General Conditions.

1.2.11. Departmental Representative: see General Conditions.

1.2.12. Discharge Approval: permit, certificate, approval, or any other form of authorization issued by appropriate federal agency, province, territory, or municipality having jurisdiction and authorizing offsite discharge.

1.2.13. Disposal Facility: a facility specifically used to introduce waste into the environment for the purpose of final burial.

1.2.14. Environmental Pollution and Damage: presence of chemical, physical, biological elements or agents which adversely affect human health and welfare; unfavourably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade environment aesthetically, culturally and/or historically.

1.2.15. Environmental Protection: prevention, control, mitigation, and restoration of pollution and habitat or environmental disruption during construction. Control of Environmental Pollution and Damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; vibrations; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.2.16. Environmental Protection Plan: plan developed by the Contractor to ensure Environmental Protection and prevent Environmental Pollution and Damage identifying all environmental risks and mitigation measures, including: personnel requirements, emergency contacts, Environmental Protection methods, procedures, and equipment, and emergency response including a Spill Control Plan.

1.2.17. Extension of Time: see General Conditions.

1.2.18. Extension of Time on Contracts: PWGSC form requesting an Extension of Time.

1.2.19. Final Completion: see General Conditions.

1.2.20. Hazardous Waste: Contaminated Material which meets the regulatory definition of Hazardous Waste.

1.2.21. Land Surveyor: a person working for the Contractor who is a qualified, registered land surveyor licensed to practice in relevant jurisdiction.
1.2.22. Landfill: an existing offsite facility located in Canada that is designed, constructed and operated to prevent any pollution from being caused by the facility outside the area of the facility from waste placed in or on land within the facility.
1.2.23. Materials Source Separation Program: consists of a series of ongoing activities to separate reusable and recyclable waste into categories from other types of waste at point of generation.
1.2.24. Non-Contaminated Material: soil and other material which meets the BC *Contaminated Sites Regulation* Schedule 7 Column IV.
1.2.25. Non-Contaminated Water: liquids which are suitable for direct discharge to the environment after removal of sediment, and which is not Contaminated Water or Sewage Wastewater. Includes surface runoff, stormwater, and groundwater which has not come into contact with Contaminated Material.
1.2.26. On Site Instruction: instructions or other communications issued by the Departmental Representative to the Contractor.
1.2.27. On Site Notice: notice or other communication issued by the Contractor to the Departmental Representative.
1.2.28. Overburden: Non-Contaminated Material excavated incidentally that is not Topsoil.
1.2.29. Progress Payment: see General Conditions.
1.2.30. PWGSC: Public Works and Government Services Canada. Representative of Canada with control of the Site.
1.2.31. Qualified Professional: a person working for the Contractor who is registered in relevant jurisdiction with his or her appropriate professional association, acts under that professional association's code of ethics, and is subject to disciplinary action by that professional association, and through suitable education, experience, accreditation and knowledge can be reasonably relied on to provide advice within his or her area of expertise. Includes Geotechnical Engineers and Environmental Consultants.
1.2.32. Quote: Contractor's cost estimate issued to the Departmental Representative as per the relevant Contemplated Change Notice via an On Site Notice.
1.2.33. Remediation by Excavation: complete excavation of Contaminated Material and incidental Non-Contaminated Material to the Site boundaries for the purpose of remediating the Site to meet numerical standards. Includes full treatment and disposal. Does not include risk assessment or risk management of material onsite. Does not include encapsulation or solidification in place.
1.2.34. Sewage Wastewater: liquid waste which is not suitable for direct discharge to the environment, and which must be either treated offsite or discharged to a sanitary sewer. Includes water from hand basin, shower, personal hygiene facilities, or other liquid waste from sanitary facilities.
1.2.35. Site: area shown on Drawings.
1.2.36. Subcontractor: see General Conditions.

1.2.37. Submit/Submittals: documents from the Contractor to the Departmental Representative as: required by Contract; stipulated in permit, certificate, approval, or any other form of authorization; by convention or industry practice. Submittals are final only after review and accepted in writing by Departmental Representative.
1.2.38. Substantial Performance: see General Conditions.
1.2.39. Superintendent: see General Conditions
1.2.40. Supplier: see General Conditions.
1.2.41. Topsoil: non-contaminated soil excavated incidentally that is a surface organic layer to facilitate vegetation growth.
1.2.42. Treatment Facility: a facility specifically used to treat Contaminated Material. May be Onsite (PWGSC provided) or Offsite (Contractor provided). Onsite facility is located on property under PWGSC control, but may be located at a different location than where construction work occurs.
1.2.43. Waste: Non-Contaminated Material that is not soil. Includes cleared and grubbed vegetation, litter, rubbish, debris, cobbles, boulders, excess construction material, lumber, steel, plastic, concrete, and asphalt.
1.2.44. Waste Oversize Debris: Waste that is required to be excavated and is: larger than 1 cubic metre or larger than 2 metres in one dimension, cannot be removed with a typical excavator with bucket, and requires the use of special equipment (e.g., saws, hydraulic cutters, excavator hammers, vibratory pile extractors). Includes bedrock, boulders, pilings, building structures, and concrete foundations.
1.2.45. Waste Quality: soil or other material that is not suitable for industrial, commercial, urban park, residential, agricultural, wildlands or any other land use specified in the BC *Contaminated Sites Regulation*.
1.2.46. Waste Reduction Plan: a written report which addresses opportunities for reduction, reuse or recycling of materials.
1.2.47. Work: see General Conditions.
1.2.48. Working Day: see General Conditions.

1.3. Action and Informational Submittals

1.3.1. After hours work: at least 5 Working Days prior to commencing after hours work Submit a schedule showing requested dates, times, and reasons for after hours work. Approval will only be granted for reasons valid in the opinion of the Departmental Representative and if request can be reasonably accommodated by other contracts.

1.4. Work Covered by Contract

1.4.1. Work under the Contract covers remediation of contaminated material by excavation and placement in offsite Public Works owned Soil Treatment Facility and/or offsite disposal.
1.4.2. Work to be performed under the Contract includes, but is not limited to, the following items covered further in the Contract:
1.4.2.1. Prime Contractor for health and safety and environmental protection at Site.

1.4.2.2. All required design activities to complete Work.
1.4.2.3. Pre-mobilization Submittals.
1.4.2.4. Progress Submittals, including cash flow and forecasting.
1.4.2.5. Prepare Site for Work, including clearing site as required and provision of onsite temporary office facilities for Departmental Representative and consultants.
1.4.2.6. Planning, preparation, construction and closure of Owner Soil Treatment Facility as shown on Drawings.
1.4.2.7. Plan excavation, including geotechnical design as required.
1.4.2.8. Design and operate Contaminated Water Treatment Plant.
1.4.2.9. Design and install temporary shoring support as required to allow excavation to extents as shown on Drawings.
1.4.2.10. Remove and replace existing infrastructure.
1.4.2.11. Excavate Non-Contaminated Material as instructed by the Departmental Representative.
1.4.2.12. Excavate Contaminated Material as instructed by the Departmental Representative.
1.4.2.13. Excavation of Contaminated Material to extents as shown on Drawings with zero percent residual contamination or as instructed by the Departmental Representative at Final Completion.
1.4.2.14. Backfill excavations with clean imported fill material.
1.4.2.15. Load and transport Contaminated Material and Non-Contaminated Material to a Treatment Facility as applicable and a Disposal Facility for final disposal.
1.4.2.16. Restore Site to pre-existing conditions.
1.4.2.17. As-built and closure Submittals.
1.4.2.18. All ancillary activities required to complete Work.
1.4.3. Green Requirements:
1.4.3.1. Use only environmentally responsible green materials/products with no Volatile Organic Compounds (VOC) emissions or minimum VOC emissions of indoor off-gassing contaminants for improved indoor air quality – subject of acceptance of Submittal of Materials Safety Data Sheet (MSDS) Product Data.
1.4.3.2. Use materials/products containing highest percentage of recycled and recovered materials practicable – consistent with maintaining cost effective satisfactory levels of competition.
1.4.3.3. Adhere to waste reduction requirement for reuse or recycling of waste materials, thus diverting materials from Landfill.
1.4.4. Work not included in the Contract comprises such work and services specifically listed as:
1.4.4.1. Not Used.

1.5. Location

1.5.1. The Site location is shown on Drawings.
1.5.2. There is no civic street address or PIN for the Site.

1.6. Project/Site Conditions

1.6.1. Work at Site will involve contact with contaminated materials, requiring appropriate health and safety and environmental protection procedures.

1.6.2. Complete list of anticipated contaminants and concentration levels on the Site available separately in assessment reports.

1.6.3. Existing condition on the Site is shown on Drawings.

1.7. Other Contracts

1.7.1. Other contracts are currently in progress at Site.

1.7.2. Other contracts are:

1.7.2.1. Environmental and other consultants.

1.7.2.2. Site users as identified in Contract.

1.7.3. Further contracts may be awarded while the Contract is in progress.

1.7.4. Cooperate with other contractors in carrying out their respective works and carry out instructions from Departmental Representative.

1.7.5. Coordinate Work with that of other contractors. If any part of Work under the Contract depends for its proper execution or result upon Work of another contractor, report promptly to Departmental Representative, in writing, any defects which can interfere with proper execution of this Work.

1.8. Products Supplied by the Departmental Representative

1.8.1. Not Used.

1.9. Contractor's Use of Site

1.9.1. Use of Site:

1.9.1.1. For the sole benefit of Canada.

1.9.1.2. Exclusive and only for completion of the execution of Work.

1.9.1.3. Assume responsibility for assigned premises for performance of this Work.

1.9.1.4. Be responsible for coordination of all Work activities onsite, including the Work of other contractors engaged by the Departmental Representative.

1.9.2. There are no pre-existing arrangements for encroachment on the neighbouring properties. Shoring designs accommodating no offsite encroachment, or arrangements for offsite encroachment, are the responsibility of the Contractor.

1.9.3. Perform Work in accordance with Contract. Ensure Work is carried out in accordance with schedule accepted by Departmental Representative.

1.9.4. Do not unreasonably encumber Site with material or equipment.

1.10. Existing Permits

1.10.1. Existing permits are:

1.10.1.1. None

1.11. Schedule Requirements

1.11.1. Work to be initiated: within 5 Working Days of Contract Award.
1.11.2. Pre-Mobilization Submittals: within 10 Working Days of Contract Award.
1.11.3. Mobilization: within 15 Working Days of Contract Award.
1.11.4. Site Works: Final Completion no later than 120 Working Days following mobilization.
1.11.5. Treatment Works: Final Completion no later than 120 Working Days following mobilization.
1.11.6. Completion of the Work: no later than 120 Working Days following mobilization. Includes all final Submittals including as-built documents, the Certificate of Completion, and the Statutory Declaration at Final Completion.

1.12. Hours of Work

1.12.1. Restrictive as follows:
1.12.1.1. Working Day work hours are 07:00 to 19:00.
1.12.2. Obtain consent from Departmental Representative for all after hours Work, including weekends and holidays.
1.12.2.1. Proceed only as instructed by the Departmental Representative.

1.13. Security Clearances

1.13.1. Not Used.

2. PART 2 - PRODUCTS

2.1. Not Used

2.1.1. Not Used.

3. PART 3 - EXECUTION

3.1. Not Used

3.1.1. Not Used.

END OF SECTION

1. PART 1 - GENERAL

1.1. Measurement Procedures

1.1.1. See 01 11 00.

1.2. Definitions

1.2.1. See 01 11 00.

1.3. Action and Informational Submittals

1.3.1. Utility Locations: at least 5 Working Days prior to commencing any subsurface disturbance, Submit drawings identifying all utilities on the Site. Update drawings as instructed by the Departmental Representative.

1.3.2. Breakdown of Lump Sum Prices: at least 5 Working Days prior to submitting the first Progress Payment, Submit a breakdown of the Contract lump sum prices including labour, material and time, in detail as instructed by the Departmental Representative and aggregating Contract Amount.

1.3.3. Daily Work Records: at the end of each shift Submit daily Work records, during onsite Work. Include:

1.3.3.1. Quantities for each Description of Work identified in the Unit Price Table and Change Orders.

1.3.3.2. Description of Work performed.

1.3.3.3. Current Site conditions.

1.3.3.4. General information including: date, time shift started and ended, Subcontractor(s) onsite, Health and Safety items, and Environmental Protection items.

1.3.3.5. Signature of Superintendent and Departmental Representative.

1.3.4. Cash Flow: with each Progress Payment, Submit a cash flow forecast. Include:

1.3.4.1. Calculation of planned cost versus actual cost and schedule forecasting and cash flow projections on a monthly basis, indicating anticipated value of future Progress Payments, for each Description of Work identified in the Unit Price Table.

1.3.4.2. Progress Payments will not be processed until cash flow has been accepted by the Departmental Representative.

1.3.5. Coordination Meeting Minutes and Drawings: at least 5 Working Days prior to relevant Work commencing, Submit final meeting minutes and drawings from coordination with Subcontractors.

1.3.6. Quality Management Plan: within 15 Working Days after Contract award. Submit a quality management plan. Include:

1.3.6.1. Details on planned review, inspection and testing to provide Quality Assurance and Quality Control for the Work.

1.3.6.2. Subcontractors responsible for review, inspection and testing.

1.3.6.3. Schedule of submittals of review, inspection and testing results.

1.3.7. Review, Inspection, and Testing Results: within 5 Working Days of receipt, Submit all results of reviews, inspection, and testing performed as part of the Work, including laboratory reports.

1.4. Division of Specifications

1.4.1. This specification is subdivided into Divisions and Sections in accordance with the six digit National Master Specifications System.

1.4.2. A Division or Section may consist of the Work of more than one Subcontractor. Responsibility for determining which Subcontractor provides the labour, material, equipment and services required to complete the Work rests solely with the Contractor.

1.5. Documents Required

1.5.1. Maintain 1 copy each of the following posted at the job Site:

1.5.1.1. General Conditions.
1.5.1.2. Drawings.
1.5.1.3. Specifications.
1.5.1.4. Addenda or other modifications to Contract.
1.5.1.5. Change orders.
1.5.1.6. Copy of current Work schedule.
1.5.1.7. Reviewed and final shop drawings Submittals.
1.5.1.8. One set of record drawings and Specifications for “as-built” purposes.
1.5.1.9. Field and laboratory test reports.
1.5.1.10. Reviewed and accepted Submittals.
1.5.1.11. Manufacturers’ installation and application instructions (as appropriate).
1.5.1.12. *National Building Code of Canada* (as appropriate).
1.5.1.13. Current construction standards of workmanship listed in technical Sections (as appropriate).
1.5.1.14. Health and Safety documents, including all daily toolbox meetings, Notice of Project, and utility clearances.
1.5.1.15. Environmental Protection Plan.
1.5.1.16. Quality Management Plan.
1.5.1.17. Final Meeting Minutes, Agendas and associated attachments.
1.5.1.18. Permits and other approvals.

1.6. Setting out of Work

1.6.1. Assume full responsibility for and execute complete layout of Work to locations, lines and elevations in accordance with the Contract.

1.6.2. Provide devices needed to layout and construct Work.

1.6.3. Supply such services and devices in accordance with the Contract to facilitate Departmental Representative’s inspection of Work.

1.7. Acceptance of Substrates

1.7.1. Each trade must examine surfaces prepared by others and job conditions which can affect his work, and must report defects to the Departmental Representative. Commencement of Work will imply acceptance of prepared Work or substrate surfaces.

1.8. Works Coordination

1.8.1. Coordinate Work of Subcontractors.

1.8.1.1. Designate one person to be responsible for review of Contract and shop drawings and managing coordination of Work.

1.8.2. Convene meetings between Subcontractors whose Work interfaces and ensure awareness of areas and extent of interface required.

1.8.2.1. Provide each Subcontractor with complete Drawings and Specifications for Contract, to assist them in planning and carrying out their respective work.

1.8.2.2. Develop coordination drawings when required, illustrating potential interference between Work of various trades and distribute to affected parties.

1.8.2.3. Facilitate meeting and review coordination drawings. Ensure Subcontractors agree and sign off on coordination drawings.

1.8.2.4. Publish minutes of each meeting.

1.8.2.5. Submit a copy of coordination drawings and meeting minutes as instructed by the Departmental Representative.

1.8.3. Submit shop drawings and order of prefabricated equipment or rebuilt components only after coordination meeting for such items has taken place.

1.8.4. Work coordination:

1.8.4.1. Ensure cooperation between trades in order to facilitate general progress of Work and avoid situations of spatial interference.

1.8.4.2. Ensure that each trade provides all other trades reasonable opportunity for Final Completion of Work and in such a way as to prevent unnecessary delays, cutting, patching and removal or replacement of completed Work.

1.8.4.3. Ensure disputes between Subcontractors are resolved.

1.8.5. Failure to coordinate Work is responsibility of Contractor.

1.9. Approvals of Shop Drawings, Product Data and Samples

1.9.1. The term "shop drawings" means drawings, figures, diagrams, illustrations, schedules, performance charts, brochures and other data which are Submittals by Contractor to illustrate details of a portion of Work.

1.9.2. Submit as instructed by the Departmental Representative the requested shop drawings, product data, MSDS sheets and samples in accordance with the Contract.

1.9.3. Allow sufficient time for the following:

1.9.3.1. Review of product data.

1.9.3.2. Acceptance of shop drawings.

1.9.3.3. Review of re-submission.

1.9.3.4. Ordering of accepted material and/or products.

1.10. Relics and Antiquities

1.10.1. See General Conditions.

1.11. Additional Drawings

1.11.1. The Departmental Representative may furnish additional Drawings for clarification. These additional Drawings have the same meaning and intent as if they were included with Drawings referred to in the Contract.

1.11.2. Upon request, Departmental Representative may furnish up to a maximum of 2 sets of Drawings for use by the Contractor at no additional cost. Should more than 2 sets of documents be required the Departmental Representative will provide them at additional cost.

1.12. Record Keeping

1.12.1. On Site Notifications: All correspondence from Contractor to the Departmental Representative, including Submittals, Quotes, and Extension Of Time On Contracts, must be as a sequentially numbered On Site Notifications. Include cross references to applicable On Site Instructions. The status of the Contractor, including the function of Prime Contractor, must not change by reason of any On Site Notifications.

1.12.2. On Site Instructions: All correspondence from the Departmental Representative to the Contractor, including Contemplated Change Notices, Change Orders, and Extension of Time on Contracts, will be as sequentially numbered On Site Instructions. Include cross references to applicable On Site Notifications. The status of the Contractor, including the function of Prime Contractor, must not change by reason of any On Site Instructions.

1.12.3. Maintain adequate records to support information provided to Departmental Representative.

1.12.4. Maintain asbestos waste shipment records or other Hazardous Waste Manifests for minimum of 3 years from date of shipment or longer period required by applicable law or regulation.

1.12.5. Maintain bills of ladings for minimum of 300 days from date of shipment or longer period required by applicable law or regulation.

1.13. Change Documents

1.13.1. Change Documents do not relieve Contractor of any obligation.

1.13.2. Change Documents do not change the Contractor's responsibility for sequencing, methods and means.

1.13.3. Change Documents do not change by any reason the status of the Contractor, including the function of Prime Contractor or as supervisor.

1.13.4. Change Documents include:

1.13.4.1. Change Order: There may be an increase to the Contract Amount by reason of any Change Order. No Extension of Time for completion of the Work by reason of any Change Order.

1.13.4.2. Contemplated Change Notice: No increase to the Contract Amount by reason of any Contemplated Change Notice. No Extension of Time for completion of the Work by reason of any Contemplated Change Notice.

1.13.4.3. Extension of Time on Contracts: No increase to the Contract Amount by reason of any Extension of Time on Contracts. There may be an Extension of Time for completion of the Work by reason of an Extension of Time on Contracts.

1.13.4.4. Quote: No increase to the Contract Amount by reason of any Quote. No Extension of Time for completion of the Work by reason of any Quote. The status of the Contractor, including the function of Prime Contractor, must not change by reason of any Quote.

1.14. System of Measurement

1.14.1. The metric system of measurement (SI) will be employed on the Contract.

2. PART 2 - PRODUCTS

2.1. Not Used

2.1.1. Not Used.

3. PART 3 - EXECUTION

3.1. Not Used

3.1.1. Not Used.

END OF SECTION

1. PART 1 - GENERAL

1.1. Measurement Procedures

1.1.1. See 01 11 00.

1.2. Definitions

1.2.1. See 01 11 00.

1.3. Action and Informational Submittals

1.3.1. Preconstruction Meeting Minutes: within 2 Working Days of the Preconstruction Meeting, Submit meeting minutes.

1.3.2. Progress Meeting Minutes: within 2 Working Days of a Progress Meeting, Submit meeting minutes.

1.3.3. Information for Progress Meetings: at least 2 Working Days prior to scheduled Progress Meetings, Submit all information in accordance with the Contract for Progress Meetings. Include:

1.3.3.1. Agenda for the proposed Progress Meeting.

1.3.3.2. Updated Project Schedule.

1.3.3.3. Copies of transport manifests and disposal receipts for all materials removed from Site.

1.3.3.4. Other information as instructed by the Departmental Representative or relevant to agenda for upcoming progress meeting.

1.3.4. Final Site Inspection: within 2 Working Days of the Final Site Inspection, Submit meeting minutes.

1.3.5. Closeout Meetings: within 2 Working Days of the Closeout Meeting, Submit meeting minutes.

1.4. Administrative

1.4.1. Schedule and administer project meetings throughout the progress of the Work weekly and at the call of the Departmental Representative.

1.4.2. Prepare agenda for meetings.

1.4.3. Submit written notice with agenda of each meeting 2 Working Days in advance of meeting date as instructed by the Departmental Representative.

1.4.4. Provide physical space and make arrangements for meetings, or arrange for teleconference meetings, as instructed by Departmental Representative.

1.4.5. Preside at meetings.

1.4.6. Record the meeting minutes. Include significant proceedings and decisions. Identify actions by parties.

1.4.7. Maintain records of meeting minutes for a minimum of 2 years after Work is completed.

1.4.8. Representative of Contractor, Subcontractor(s) and Supplier(s) attending meetings must be qualified and authorized to act on behalf of party each represents.

1.5. Preconstruction Meeting

1.5.1. Within 5 Working Days after award of Contract, request a meeting of parties in Contract to discuss and resolve administrative procedures and responsibilities.

1.5.2. Departmental Representative, Contractor, Superintendent, major Subcontractor(s), field inspectors and supervisors must be in attendance.

1.5.3. Establish time and location of meeting subject to approval by Departmental Representative and notify parties concerned at least 3 Working Days before meeting.

1.5.4. Agenda to include:

1.5.4.1. Appointment of official representative of participants in the Work, including Contractor's Superintendent and Departmental Representative.

1.5.4.2. Schedule of Work.

1.5.4.3. Schedule of Submittals.

1.5.4.4. Requirements for temporary facilities.

1.5.4.5. Site security.

1.5.4.6. Change orders, procedures, approvals required, administrative requirements.

1.5.4.7. Monthly Progress Payments, administrative procedures, hold backs.

1.5.4.8. Appointment of inspection and testing agencies or firms.

1.5.4.9. List of Subcontractor(s).

1.6. Progress Meetings

1.6.1. During course of Work schedule progress meetings weekly subject to approval by Departmental Representative.

1.6.2. Contractor, Superintendent, major Subcontractor(s) involved in Work, and Departmental Representative are to be in attendance.

1.6.3. Agenda to include:

1.6.3.1. Review and acceptance of minutes of previous meeting.

1.6.3.2. Review health and safety, including incidents, near misses, and corrective measures.

1.6.3.3. Review Environmental Protection, including incidents, near misses, and corrective measures.

1.6.3.4. Review contractual compliance.

1.6.3.5. Review regulatory compliance.

1.6.3.6. Review communications, problems or concerns with community.

1.6.3.7. Review of Work progress since previous meeting.

1.6.3.8. Field observations, problems, conflicts.

1.6.3.9. Updated progress schedule detailing activities planned over next 2 week period. Include review of progress with respect to previously established dates for starting and stopping various stages of Work.

1.6.3.10. Problems which impede construction schedule.

1.6.3.11. Corrective measures and procedures to regain projected schedule.

1.6.3.12. Revision to construction schedule.

1.6.3.13. Progress schedule, during succeeding Work period.

1.6.3.14. Review submittal schedules: expedite as required.

1.6.3.15. Maintenance of quality standards.
1.6.3.16. Quantities of material transported, treated, and disposed.
1.6.3.17. Review proposed changes for affect on construction schedule and on Final Completion date.
1.6.3.18. Other business.

1.7. Toolbox Meetings

1.7.1. During the course of the Work, schedule daily toolbox meetings at the start of each Work shift. Multiple meetings are required if the Contractor works multiple shifts within a 24-hour period.
1.7.2. All on Site workers to attend, including Contractor, Superintendent, major Subcontractor(s), and environmental consultants. Departmental Representative may attend.
1.7.3. Agenda to include:
1.7.3.1. Planned Work activities and environmental considerations for that shift.
1.7.3.2. Coordination activities required between Contractor, Subcontractor(s), Departmental Representative, and other contractor(s) including environmental consultant.
1.7.3.3. Health and Safety items.
1.7.3.4. Environmental Protection items.

1.8. Final Site Inspection

1.8.1. Within 5 Working Days of completion of Site Works but prior to Demobilization, request a meeting on Site to review the Site.
1.8.2. Departmental Representative, Contractor, Superintendent, major Subcontractor(s), field inspectors and supervisors must be in attendance.
1.8.3. Establish time and location of meeting subject to approval by Departmental Representative and notify parties concerned at least 3 Working Days before meeting.
1.8.4. Agenda to include:
1.8.4.1. Inspect removal of all temporary equipment, materials, supplies, and facilities.
1.8.4.2. Inspect final surface grades.
1.8.4.3. Inspect final vegetation.
1.8.4.4. Inspect permanent facilities for performance and damage.
1.8.4.5. Document all damage, deficiencies, missing items, and non-conformance.
1.8.5. If required, and in the opinion of the Departmental Representative, perform another Final Site Inspection after resolving all documented damage, deficiencies, missing items, and non-conformance.

1.9. Closeout Meeting

1.9.1. Within 10 Working Days of completion of the Work, request a meeting to review the project.

1.9.2. Departmental Representative, Contractor, Superintendent, major Subcontractor(s), field inspectors and supervisors must be in attendance.

1.9.3. Establish time and location of meeting subject to approval by Departmental Representative and notify parties concerned at least 3 Working Days before meeting.

1.9.4. Agenda to include:

1.9.4.1. Review Certificate of Completion.

1.9.4.2. Review final payment.

1.9.4.3. Identify lessons learned.

1.9.4.4. Perform Contractor Performance Evaluation Report Form.

2. PART 2 - PRODUCTS

2.1. Not Used

2.1.1. Not Used.

3. PART 3 - EXECUTION

3.1. Not Used

3.1.1. Not Used.

END OF SECTION

1. PART 1 - GENERAL

1.1. Measurement Procedures

1.1.1. See 01 11 00.

1.2. Definitions

1.2.1. See 01 11 00.

1.3. Action and Informational Submittals

1.3.1. Schedule: within 10 Working Days after Contract award, Submit a Master Plan.

1.3.2. Schedule of Interruption of Services: at least 5 Working Days prior to any shutdown or closure of active utilities or facilities Submit a schedule identifying type of service and dates of shutdown or closure.

1.3.3. Project Schedule and Updates: with Progress Payment, Submit a Project Schedule updated as appropriate. Progress Payment submission is incomplete without an updated Project Schedule acceptable to Departmental Representative.

1.4. Requirements

1.4.1. Ensure Master Plan and detail Project Schedules are practical and remain within specified Contract duration.

1.4.2. Plan to complete Work in accordance with prescribed milestones and time frame.

1.4.3. Limit activity durations to maximum of approximately 10 Working Days, to allow for progress reporting.

1.4.4. Ensure that it is understood that Award of Contract or time of beginning, rate of progress, Interim Certificate and Final Certificate as defined times of completion are of essence of this contract.

1.4.5. Include Work sequencing description and schedule:

1.4.5.1. Work Sequencing description must describe sequence, methods and means to perform each major task.

1.4.5.2. Work Sequencing schedule must show on a Gantt chart, start, end and dependencies of each major task and also indicates Work to be performed in sequence and in parallel.

1.4.5.3. Major tasks includes all items identified on Unit Price Table.

1.5. Master Plan

1.5.1. Structure schedule to allow orderly planning, organizing and execution of Work as Bar Chart (GANTT).

1.5.2. Departmental Representative will review and return revised schedules within 5 Working Days.

1.5.3. Revise impractical schedule and resubmit within 5 Working Days.

1.5.4. Accepted revised schedule will become Master Plan and be used as baseline for updates.

1.6. Project Schedule

1.6.1. Develop detailed Project Schedule derived from Master Plan.

1.6.2. Ensure detailed Project Schedule includes as minimum milestone and activity types as follows:

1.6.2.1. Dates of commencement and completion of Work for each Description of Work identified on the Unit Price Table.

1.6.2.2. Dates of Submittals including shop drawings, product data, MSDS sheets and samples.

1.6.2.3. Dates of inspection and testing.

1.6.2.4. Final Completion date within the time period in accordance with the Contract, including Amendments.

1.7. Project Schedule Reporting

1.7.1. Update Project Schedule on monthly basis reflecting activity changes and completions, as well as activities in progress.

1.7.2. Include as part of Project Schedule, narrative report identifying Work status to date, comparing current progress to baseline, presenting current forecasts, defining problem areas, anticipated delays and impact with possible mitigation.

1.8. Project Meetings

1.8.1. Discuss Project Schedule at regular site meetings, identify activities that are behind schedule and provide measures to regain slippage. Activities considered behind schedule are those with projected start or completion dates later than current approved dates shown on baseline schedule.

1.8.2. Weather related delays with their remedial measures will be discussed and negotiated

2. PART 2 - PRODUCTS

2.1. Not Used

2.1.1. Not Used.

3. PART 3 - EXECUTION

3.1. Not Used

3.1.1. Not Used.

END OF SECTION

1. PART 1 - GENERAL

1.1. Measurement Procedures

1.1.1. See 01 11 00.

1.2. Definitions

1.2.1. See 01 11 00.

1.3. Action and Informational Submittals

1.3.1. Shop Drawings: at least 5 Working Days prior to commencing applicable Work, Submit Shop Drawings signed by a Qualified Professional.

1.4. General

1.4.1. This section specifies general requirements and procedures for the Contractor's Submittals of design drawings, shop drawings, product data, samples and other submittals in accordance with the Contract to Departmental Representative. Additional specific requirements for Submittals are identified in individual technical sections.

1.4.2. Present shop drawings, product data and samples in SI Metric units.

1.4.3. Where items or information is not produced in SI Metric units, converted values are acceptable.

1.4.4. Contractor's responsibility for errors and omissions in Submittals is not relieved by the Departmental Representative's review of Submittals.

1.4.5. Notify Departmental Representative in writing at time of Submittals, identifying deviations from requirements of Contract and stating reasons for deviations.

1.4.6. Contractor's responsibility for deviations in Submittals from requirements of Contract is not relieved by the Departmental Representative's review of Submittals unless Departmental Representative gives written acceptance of specific deviations.

1.4.7. Make any changes in Submittals which Departmental Representative requires to be in accordance with the Contract and resubmit as instructed by the Departmental Representative.

1.4.8. Notify Departmental Representative in writing, when resubmitting, of any revisions other than those instructed by the Departmental Representative.

1.4.9. Do not proceed with Work until relevant Submittals are finalized and have been accepted.

1.4.10. Submit to Departmental Representative submittals listed for review. Submit promptly and in orderly sequence to not cause delay in Work. Failure to Submit in ample time is responsibility of Contractor.

1.4.11. Review Submittals prior to submission to Departmental Representative. This review represents that necessary requirements have been determined and verified, or will be, and that each Submittal has been checked and coordinated with requirements of Work and Contract. Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and considered rejected.
1.4.12. Verify field measurements and affected adjacent Work are coordinated.
1.4.13. Adjustments made on Submittals by the Departmental Representative will not result in an increase the Contract Amount nor an Extension of Time for completion of the Work. If adjustments result in an increase to the Contract Amount or an Extension of Time for completion of the Work, notify Departmental Representative and receive approval prior to proceeding with Work.
1.4.14. Keep one final copy of each Submittal onsite.

1.5. Submission Requirements

1.5.1. Coordinate each Submittal with the requirements of the Work and the Contract. Individual Submittals will not be reviewed until:
1.5.1.1. Submittals are complete.
1.5.1.2. All related information is available.
1.5.2. Allow 10 Working Days for Departmental Representative's review of each Submittal, unless otherwise specified.
1.5.3. All Submittals are to be sent to Departmental Representative in duplicate as a hardcopy and in electronic format compatible with Departmental Representative's software.
1.5.4. Accompany Submittals with On Site Notification:
1.5.4.1. Date.
1.5.4.2. Project title and number.
1.5.4.3. Contractor's name and address.
1.5.4.4. Identification and quantity of each shop drawing, product data and sample.
1.5.4.5. Other pertinent data.
1.5.5. Submittals must include:
1.5.5.1. Date and revision dates.
1.5.5.2. Project title and number.
1.5.5.3. Name and address of:
1.5.5.3.1. Subcontractor.
1.5.5.3.2. Supplier.
1.5.5.3.3. Manufacturer.
1.5.5.4. Signature of Superintendent, certifying approval of Submittals, verification of field measurements and in accordance with the Contract.
1.5.5.5. Qualified Professional to sign and seal Submittals in accordance with the Contract. Submittals to include at a minimum 1 hard copy of original ink sealed document.
1.5.5.6. Details of appropriate portions of Work as applicable.

1.6. Shop Drawings

1.6.1. Shop drawings are drawings, figures, diagrams, illustrations, schedules, performance charts, brochures and other data intended to illustrate details of a portion of the Work which are provided by the Qualified Professional of record.

1.6.2. Maximum sheet size: ANSI E (864 x 1118 mm).

1.6.3. Submit, as instructed by the Departmental Representative, 2 copies of shop drawings for each requirement requested in the specification sections and/or as instructed by the Departmental Representative.

1.6.4. Cross-reference shop drawing information to applicable portions of the Contract.

1.6.5. Qualified Professional to sign and seal each individual shop drawing.

1.6.6. Qualified Professional to sign and seal final design drawings and submit as instructed by the Departmental Representative upon Final Completion of the construction project. Final design drawings are prepared by a Qualified Professional to reflect design changes made during the construction of the Remediation by Excavation project. Final design drawings are intended to incorporate addenda, change orders and other significant design changes, but not necessarily Site instructions.

1.6.7. Shop drawings must include:

1.6.7.1. The original date of issue.

1.6.7.2. The dates of all applicable revisions.

1.6.7.3. The project title.

1.6.7.4. The project address.

1.6.7.5. The project number.

1.6.7.6. Wherever applicable, the name(s) of the: Contractor, Subcontractor(s), Supplier(s), manufacturers, and separate detailers.

1.6.7.7. The sequence number for each shop drawing.

1.6.7.8. Identifications of all products and materials.

1.6.7.9. Relation to adjacent structures or materials.

1.6.7.10. Clearly identified field dimensions.

1.6.7.11. Applicable standards.

1.7. Shop Drawings Review

1.7.1. Departmental Representative's review of shop drawings is to determine if shop drawings are consistent with the general intent of the Contract and are in accordance with the Contract.

1.7.2. This review will not mean that Departmental Representative approves the detail design inherent in the shop drawings, responsibility for which will remain with Contractor submitting same.

1.7.3. This review will not relieve the Contractor of responsibility for errors or omissions in the shop drawings or of responsibility for meeting all requirements of the Contract.

1.7.4. Without restricting the generality of the foregoing, be responsible for:

1.7.4.1. Dimensions to be confirmed and correlated at the Site.

1.7.4.2. Information that pertains solely to fabrication processes or to techniques of construction and installation.
1.7.4.3. Coordination of the Work of all sub-trades.

2. PART 2 - PRODUCTS

2.1. Not Used
2.1.1. Not Used.

3. PART 3 - EXECUTION

3.1. Not Used
3.1.1. Not Used.

END OF SECTION

4. PART 1 - GENERAL

4.1. Measurement Procedures

4.1.1. See 01 11 00.

4.2. Definitions

4.2.1. See 01 11 00.

4.3. Action and Informational Submittals

4.3.1. List of Signs and Devices: within 15 Working Days after Contract award and prior to mobilization to Site. Submit a list of signs and other devices required for the project.

4.4. Protection of Public Traffic

4.4.1. Comply with requirements of acts, regulations and bylaws in force for regulation of traffic or use of roadways upon or over which it is necessary to carry out Work or haul materials or equipment.

4.4.2. Comply with current version of BC Ministry of Transportation and Infrastructure *Traffic Control Manual for Work on Roadways*.

4.4.3. Provide and maintain road access and egress to property fronting Site and in other areas in accordance with the Contract, except where other means of road access exist that are accepted.

4.5. Informational and Warning Devices

4.5.1. Provide and maintain signs, flashing warning lights, and other devices required to indicate construction activities or other temporary and unusual conditions resulting from Work which requires road user response.

4.5.2. Supply and erect signs, delineators, barricades and miscellaneous warning devices to comply with current version of BC Ministry of Transportation and Infrastructure *Traffic Control Manual for Work on Roadways*.

4.5.3. Place signs and other devices in locations recommended in current version of BC Ministry of Transportation and Infrastructure *Traffic Control Manual for Work on Roadways*.

4.5.4. Meet with Departmental Representative prior to commencement of Work to prepare list of signs and other devices required for project. If situation onsite changes, revise list for approval.

4.5.5. Continually maintain traffic control devices in use:

4.5.5.1. Check signs daily for legibility, damage, suitability and location. Clean, repair or replace to ensure clarity and reflectance.

4.5.5.2. Remove or cover signs which do not apply to conditions existing from day to day.

4.6. Control of Public Traffic

4.6.1. Provide competent flag personnel, trained in accordance with, and properly equipped to, current version of BC Ministry of Transportation and Infrastructure *Traffic Control Manual for Work on Roadways* for situations as follows:

4.6.1.1. When public traffic is required to pass working vehicles or equipment that block all or part of travelled roadway.

4.6.1.2. In situations where complete protection for workers, working equipment and public traffic is not provided by other traffic control devices.

4.7. Operational Requirements

4.7.1. Maintain existing conditions for traffic throughout period of Contract except that, when required for construction in accordance with the Contract and when measures have been taken in accordance with the Contract and accepted by Departmental Representative to protect and control public traffic, existing conditions for traffic to be restricted as follows:

4.7.1.1. Maintain existing conditions for traffic crossing right-of-way.

5. PART 2 - PRODUCTS

5.1. Not Used

5.1.1. Not Used.

6. PART 3 - EXECUTION

6.1. Not Used

6.1.1. Not Used.

END OF SECTION

1. PART 1 - GENERAL

1.1. Measurement Procedures

1.1.1. See 01 11 00.

1.2. Definitions

1.2.1. See 01 11 00.

1.3. Action and Informational Submittals

1.3.1. Contaminated Material and Non-Contaminated Material Management Plan: within 10 Working Days after Contract award and prior to mobilization to Site, Submit plan detailing management of Contaminated Material and Non-Contaminated Material. Include:

1.3.1.1. Sequence, methods and means to ensure different categories of waste are segregated.

1.3.1.2. Sequence, methods and means to handle, transport, and store Contaminated Material and Non-Contaminated Material onsite.

1.3.1.3. Sequence, methods and means to transport Contaminated Material and Non-Contaminated Material offsite. Include name, vehicle type, and licenses of transporters. Include name, location, provincial or territorial authorizations, and evidence of compliance with municipal zoning and bylaws of all transfer stations and interim storage facilities.

1.3.1.4. Sequence, methods and means to treat Contaminated Material offsite. Include proposed treatment method, schedule for treatment, and name, location, provincial or territorial authorizations, and evidence of compliance with municipal zoning and bylaws of Treatment Facilities.

1.3.1.5. Sequence, methods and means to dispose Contaminated Material and Non-Contaminated Material offsite. Include name, location, provincial or territorial authorizations, and evidence of compliance with municipal zoning and bylaws of Disposal Facilities.

1.3.2. Contaminated Water Treatment Plant Provision Plan: within 15 Working Days after Contract award and prior to mobilization to Site, Submit design, operation procedures, manufacturers' instructions, and monitoring and sampling plan of onsite Contaminated Water Treatment Plant.

1.3.3. Contaminated Water Treatment Plant Initial Testing: within 5 Working Days of conducting initial operations testing, and prior to operating or discharge, Submit results of initial operations test.

1.3.4. Contaminated Water Treatment Plant Operational Testing: within 5 Working Days of sampling Submit sampling results of operational (recurrent) testing.

1.3.5. Certificate of Seaworthiness: Prior to barge shipments, Submit a Certificate of Seaworthiness by an independent licensed Marine Surveyor for all marine vessels transporting Contaminated Material.

1.3.6. Transport Manifests: within 5 Working Days of offsite transport, Submit documentation verifying that material has been transported appropriately. Include:
1.3.6.1. Method of transport.
1.3.6.2. Name of transport company.
1.3.6.3. Weigh scale receipt including location, date, and weight of loading.
1.3.6.4. Weigh scale receipt including location, date, and weight of unloading.
1.3.7. Certificate of Treatment: within 30 Working Days of treatment at offsite Treatment Facility, Submit documentation verifying that materials have been treated by Contractor. Include:
1.3.7.1. Issued by the Treatment Facility.
1.3.7.2. On company letterhead.
1.3.7.3. Name and location of facility where the material is being treated.
1.3.7.4. Date and weight for each shipment received and total weight received at the offsite facility.
1.3.7.5. Date and weight for each treatment event and total weight treated at the offsite facility.
1.3.7.6. Treatment methodology.
1.3.7.7. Laboratory certificates demonstrating treatment objectives were met.
1.3.7.8. Disposition of treated material.
1.3.7.9. Signed by identified authorized treatment company representative.
1.3.8. Certificate of Disposal: within 30 Working Days of disposal at Disposal Facility, Submit documentation verifying that materials have been disposed by Contractor. Include:
1.3.8.1. Issued by the Disposal Facility.
1.3.8.2. On company letterhead.
1.3.8.3. Name and location of facility where the material is being disposed.
1.3.8.4. Date and weight for each shipment received and total weight received at the Disposal Facility.
1.3.8.5. Identification of final ownership of material.
1.3.8.6. Signed by identified authorized disposal company representative.

1.4. Sequencing and Scheduling

1.4.1. Commence Work involving contact with Contaminated or potentially Contaminated Material or Wastewater after all applicable Environmental Protection procedures (including those identified in Contaminated Material and Non-Contaminated Material Management Plan and Environmental Protection Plan) and facilities (including those identified in Site Layout) are operational and accepted by Departmental Representative.
1.4.2. Plan work sequencing and traffic patterns to prevent contamination of clean areas due to traffic or debris.

1.5. Equipment Decontamination Facility

1.5.1. Prior to commencing Work involving equipment contact with potentially Contaminated Material, construct equipment decontamination facilities to accommodate the largest potentially contaminated equipment onsite.

1.5.2. Collect and contain equipment decontamination wastewater and sediment. Transfer collected wastewater and sediment to treatment facilities accepted by Departmental Representative.

1.6. Personnel Decontamination Facility

1.6.1. Provide an area or areas close to the workers' changing facilities to enable workers and other personnel leaving areas such as exclusion area to remove deleterious and contaminated materials from boots, clothing and skin surfaces.

1.6.2. Be responsible for ensuring that all materials, chemicals, protective clothing, wash water and deleterious materials are collected, treated and disposed of in accordance with applicable environmental standards and regulations.

1.6.3. Personnel Decontamination Facility to be available for use by persons other than the Contractor's workers and Subcontractors, including federal employees, other contractor(s), and environmental agencies. Provide use of facilities to other persons.

1.7. Drum Staging Pad

1.7.1. Provide, maintain, and operate drum staging pad as required.

1.7.2. Construct drum staging pad with sump capable of collecting leachate and rain runoff. Place impermeable liner that contours over top of berm, and collects leachate and runoff from staging pad which is conducted solely to sump on staging pad. Leachate is Contaminated Water.

1.8. Contaminated Water Treatment Plant

1.8.1. Design Requirements:

1.8.1.1. Design and Operating Criteria: design Contaminated Water Treatment Plant capable of treating Contaminated Water generated from dewatering excavations and Work areas to meet Discharge Approval requirements, capable of removing oil, suspended solids, particulates, and asbestos fibers, and filter water through 5-micron particulate filter prior to discharge.

1.8.1.2. Ensure that discharges from Site are in compliance with applicable permit requirements and limitations.

1.8.1.3. Design piping to transfer liquid/solid mixtures generated by dewatering operations which require treatment to Contaminated Water Treatment Plant.

1.8.1.4. Design Contaminated Water Treatment Plant capable of receiving liquid/solid mixtures and not causing delay to dewatering operations.

1.8.1.5. Piping: suitable material type, of sufficient diameter and structural thickness for purpose intended; satisfactorily tested for leaks with potable water in presence of Departmental Representative before handling Contaminated Water.

1.8.2. Installation:

1.8.2.1. Prepare Site for Contaminated Water Treatment Plant.

1.8.2.2. Install component systems in accordance with installation procedures and as required.

1.8.2.3. Following installation of system, implement initial operation test in accordance with procedures developed by Contractor and submit results as instructed by the Departmental Representative.

1.8.2.4. Install piping in accordance with manufacturer's instructions and test for leakage using potable water prior to commencing dewatering and treatment operations.

1.8.3. Initial Testing: determine performance of Contaminated Water Treatment Plant provided by Contractor as follows prior to commencing excavation:

1.8.3.1. Test run with potable water to ensure it is operating currently and no leaks are occurring.

1.8.3.2. Performance verification (contaminant removal) of Contaminated Water treated, stored, tested, assessed, and accepted by Departmental Representative prior to discharge.

1.8.3.3. Provide access for independent collection of treated stored water samples by the Departmental Representative.

1.8.4. Operational Testing:

1.8.4.1. Operate Contaminated Water Treatment Plant using experienced, qualified personnel and in accordance with manufacturer's instructions and procedures as Submittals by Contractor.

1.8.4.2. Collect, analyze, and assess samples as recommended by a Qualified Professional.

1.8.4.3. Provide access for independent collection of samples by the Departmental Representative.

1.8.4.4. On basis of analytical results by Contractor or Departmental Representative obtained from samples collected at the discharge point, make system modifications required for effluent to satisfy effluent criteria, or continue with normal dewatering operations as instructed by the Departmental Representative.

1.8.5. Decommissioning/Dismantling:

1.8.5.1. Decontaminate and remove salvageable components of Contaminated Water Treatment Plant including treatment system, pumps, piping, and electrical equipment. Decontaminate salvageable equipment as required prior to demobilization from Site.

1.8.5.2. Dispose of non-salvageable equipment and materials at Disposal Facility accepted by the Departmental Representative.

1.9. Soil Stockpiling

1.9.1. Provide, maintain, and operate temporary storage/stockpiling facilities as per Contractor's Site Layout.

1.9.2. Segregate Contaminated Material from Non-Contaminated Material into separate stockpiles to prevent cross-contamination and as instructed by the Departmental Representative.

1.9.3. Prevent precipitation from infiltrating or from directly running off stockpiled materials. Cover stockpiled materials with an impermeable cover during periods of Work stoppage including at end of each Working Day and as instructed by the Departmental Representative.

1.9.4. Securely fasten covers over stockpiled material until material is loaded for offsite transport.

1.9.5. Store excavated Non-Contaminated Material only on non-contaminated surface areas. Ensure no contact between excavated Non-Contaminated Material and drainage of Contaminated Water or Contaminated Material.

1.9.6. Store excavated Contaminated Material in temporary stockpiles.

1.9.6.1. Install impermeable liner (eg asphalt or minimum 20 mil (0.5mm) polyethylene) below proposed stockpile locations to prevent contact between stockpile material and ground.

1.9.6.2. Cover stockpiled material when not being worked or sampled to prevent release of airborne dust, vapours, or odours, and to prevent saturation and leachate generation from material.

1.9.6.3. Prevent Non-Contaminated Water, such as surface water, from coming into contact with Contaminated Material stockpiles.

1.9.7. Segregate Contaminated Material into different treatment/disposal streams, including at a minimum:

1.9.7.1. Hazardous Waste

1.9.7.2. Waste Quality

1.9.8. Segregate different suspect material in discrete stockpiles to facilitate ex-situ characterization as instructed by the Departmental Representative.

1.9.9. Assist Departmental Representative in collection of stockpile samples for exsitu characterization. Ex-situ characterization may take up to 5 Working Days, not counting the day the sample is collected. No Standby Time charges or increases to Contract Amount or Extension of Time for completion of the Work can be incurred for Confirmation Sample results provided within 5 Working Days, not counting the day the sample is collected.

1.9.10. Do not remove Contaminated Material from stockpiles until exsitu characterization completed and as instructed by Departmental Representative.

1.10. Equipment Decontamination

1.10.1. At minimum, perform following steps during equipment decontamination: mechanically remove packed dirt, grit, and debris by scraping and brushing without using steam or high-pressure water to reduce amount of water needed and to reduce amount of contaminated rinsate generated.

1.10.2. If required, as instructed by the Departmental Representative, use high-pressure, low-volume, hot water or steam supplemented by detergents or solvents as appropriate. Pay particular attention to tire treads, equipment tracks, springs, joints, sprockets, and undercarriages. Scrub surfaces with long handle scrub brushes and cleaning agent. Rinse off and collect cleaning agent. Air dry equipment in clean area before removing from Site or travelling on clean areas. Perform assessment as instructed by the Departmental Representative to determine effectiveness of decontamination.

1.10.2.1. Take appropriate measures necessary to minimize drift of mist and spray during decontamination including provision of wind screens.

1.10.2.2. Collect decontamination wastewater and sediment which accumulate in decontamination location. Treat collected wastewater as Contaminated Water. Manage decontamination sediment as Hazardous Waste.

1.10.3. In the opinion of the Departmental Representative, each piece of equipment must be inspected by the Departmental Representative after decontamination and prior to travel on clean areas or demobilization from Site. Perform additional decontamination as required in the opinion of the Departmental Representative.

1.10.4. Furnish and equip personnel engaged in equipment decontamination with protective equipment including suitable disposable clothing, respiratory protection, and face shields.

1.11. Progress Decontamination

1.11.1. Decontaminate equipment after working in potentially contaminated Work areas and prior to subsequent Work or travel on clean areas.

1.12. Final Decontamination

1.12.1. Perform final decontamination of construction facilities, equipment, and materials which may have come in contact with potentially Contaminated Material prior to demobilization from Site.

1.13. Drums

1.13.1. Storage of liquid waste: 200 L steel drums meeting Transportation and Dangerous Goods Act, closable lids, complete with labels for marking contents and date filled.

1.13.2. Storage of solid waste: 200 L steel drums meeting Transportation and Dangerous Goods Act, closable lids, complete with labels for marking contents and date filled.

1.14. Contaminated Water

1.14.1. Assume ownership of, and be responsible for Contaminated Water once it is loaded on a vehicle, barge, or other vessel for transport offsite or once it enters the Contaminated Water Treatment Plant.

1.14.2. Collect Contaminated Water that has, or potentially has, come into contact with Contaminated Material including excavation and stockpile areas, or is otherwise potentially contaminated from Work activities.

1.14.3. Transport and treat collected Contaminated Water at Contaminated Water Treatment Plant.

1.14.4. Discharge to environment: obtain Discharge Approval from authority having jurisdiction. Comply with Waterway Impact Requirements.

1.15. Onsite Contaminated Water Treatment Plant

1.15.1. Onsite Contaminated Water Treatment: at Contractor's discretion, treat at Treatment Facility onsite provided by Contractor and accepted by the Departmental Representative.

1.15.2. Design Requirements:

1.15.2.1. Design and Operating Criteria: design Contaminated Water Treatment Plant capable of treating Contaminated Water generated from dewatering excavations and Work areas to meet Discharge Approval requirements, capable of removing oil, suspended solids, particulates, and asbestos fibers, and filter water through 5-micron particulate filter prior to discharge.

1.15.2.2. Ensure that discharges from Site are in compliance with applicable permit requirements and limitations.

1.15.2.3. Design piping to transfer liquid/solid mixtures generated by dewatering operations which require treatment to Contaminated Water Treatment Plant.

1.15.2.4. Design Contaminated Water Treatment Plant capable of receiving liquid/solid mixtures and not causing delay to dewatering operations.

1.15.2.5. Piping: suitable material type, of sufficient diameter and structural thickness for purpose intended; satisfactorily tested for leaks with potable water in presence of Departmental Representative before handling Contaminated Water.

1.15.3. Installation:

1.15.3.1. Prepare Site for Contaminated Water Treatment Plant.

1.15.3.2. Install component systems in accordance with installation procedures and as required.

1.15.3.3. Following installation of system, implement initial operation test in accordance with procedures developed by Contractor and submit results as directed by the Departmental Representative.

1.15.3.4. Install piping in accordance with manufacturer's instructions and test for leakage using potable water prior to commencing dewatering and treatment operations.

1.15.4. Initial Testing: determine performance of Contaminated Water Treatment Plant provided by Contractor as follows prior to commencing excavation:

1.15.4.1. Test run with potable water to ensure it is operating currently and no leaks are occurring.
1.15.4.2. Performance verification (contaminant removal) of Contaminated Water treated, stored, tested, assessed, and accepted by Departmental Representative prior to discharge.
1.15.4.3. Provide access for independent collection of treated stored water samples by the Departmental Representative.
1.15.5. Operational Testing:
1.15.5.1. Operate Contaminated Water Treatment Plant using experienced, qualified personnel and in accordance with manufacturer's instructions and procedures as Submittals by Contractor.
1.15.5.2. Collect, analyze, and assess samples as required by a Qualified Professional.
1.15.5.3. Provide access for independent collection of samples by the Departmental Representative.
1.15.5.4. On basis of analytical results by Contractor or Departmental Representative obtained from samples collected at the discharge point, make system modifications required for effluent to satisfy effluent criteria, or continue with normal dewatering operations as directed by the Departmental Representative.
1.15.6. Decommissioning/Dismantling:
1.15.6.1. Decontaminate and remove salvageable components of Contaminated Water Treatment Plant including treatment system, pumps, piping, and electrical equipment.
1.15.6.2. Dispose of non-salvageable equipment and materials at Disposal Facility accepted by the Departmental Representative. Decontaminate salvageable equipment as required prior to demobilization from Site.
1.15.7. Discharge to environment: obtain Discharge Approval from authority having jurisdiction.

1.16. Contaminated Material Management

1.16.1. Remove all Contaminated Material within Work areas in accordance with the Contract and as instructed by the Departmental Representative.
1.16.2. Minimize generation of Contaminated Material to greatest extent practicable. Take necessary precautions to avoid mixing during excavation, handling, loading, stockpiling, and transport of Non-Contaminated Material with Contaminated Material, and Waste Quality with Hazardous Waste.
1.16.3. Segregate, excavate, handle, stockpile, load, transport, treat, and dispose Contaminated Material separately into the following classifications in accordance with the Contract or as instructed by the Departmental Representative based on in-situ results, field observations, field measurements, and/or ex-situ characterization:
1.16.3.1. Hazardous Waste
1.16.3.2. Waste Quality

1.16.4. Handle, stockpile, load, and transport Contaminated Material from the Site separately from material from other sites.
1.16.5. Treat and dispose Contaminated Material from the Site separately from material from other sites to the extent practicable as acceptable to the Departmental Representative.
1.16.6. Material characterization additional to information provided in Contract required by transport, Treatment Facility or Disposal Facility responsibility of Contractor.

1.17. Contaminated Material Transport-Offsite

1.17.1. Assume ownership of, and be responsible for, Contaminated Material once it is loaded on a vehicle, barge, or other vessel for transport.
1.17.2. Transport material as soon as practical. Do not unreasonably stockpile material onsite.
1.17.3. Cover material while being transported to prevent release of airborne dust, vapours, or odours, and to prevent saturation and leachate generation from material.
1.17.4. Excess water in soil or sediment must not be allowed to flow out of vehicle or vessel during transport.
1.17.5. Stabilize soil and sediment as necessary.
1.17.6. All vehicles, vessels and operators must be appropriately licensed and equipped to transport Hazardous Waste soil and sediment.
1.17.7. Manifest and correlate weights of all material transported from Site documenting weight at removal from Site, movement, transfer stations, interim storage and treatment, and weight of material at final Disposal Facility. Submit all manifests, as instructed by the Departmental Representative.
1.17.8. Material transported with discrepancies in manifests must be resolved as required by regulations and as acceptable to the Departmental Representative. Discrepancies include:
1.17.8.1. No manifest or an incomplete manifest.
1.17.8.2. The material transported does not match the description in the manifest.
1.17.8.3. The amount transported differs by more than 5% in the manifest.
1.17.8.4. The material transported is in a hazardous condition.

1.18. Contaminated Material Transport-Owner Soil Treatment Facility

1.18.1. Assume ownership of, and be responsible for, Contaminated Material once it is loaded on a vehicle, barge, or other vessel for transport.
1.18.2. Transport material as soon as practical. Do not unreasonably stockpile material onsite.
1.18.3. Cover material while being transported to prevent release of airborne dust, vapours, or odours, and to prevent saturation and leachate generation from material.
1.18.4. Excess water in soil or sediment must not be allowed to flow out of vehicle or vessel during transport.
1.18.5. Stabilize soil and sediment as necessary.

1.18.6. All vehicles, vessels and operators must be appropriately licensed and equipped to transport Hazardous Waste soil and sediment.
1.18.7. Transport material to location shown on Drawings.
1.18.8. Place in Owner Soil Treatment Facility in locations and thicknesses as shown on Drawings.
1.18.9. Be responsible for any damage to Owner Soil Treatment Facility caused by placement.
1.18.10. Manifest estimated volumes of all material transported from Site to Owner Soil Treatment Facility. Submit all manifests, as instructed by the Departmental Representative.

1.19. Contaminated Material Disposition

1.19.1. Treat and dispose of Contaminated Material as follows, otherwise in accordance with the Contract, or as instructed by the Departmental Representative:
1.19.1.1. Hazardous Waste: May be treated at a Treatment Facility prior to disposal at a Disposal Facility.
1.19.1.2. Waste Quality: May be treated at a Treatment Facility prior to disposal at a Disposal Facility.

1.20. Contaminated Material Transport-Owner Soil Treatment Facility

1.20.1. Assume ownership of, and be responsible for, Contaminated Material once it is loaded on a vehicle, barge, or other vessel for transport.
1.20.2. Transport material as soon as practical. Do not unreasonably stockpile material onsite.
1.20.3. Cover material while being transported to prevent release of airborne dust, vapours, or odours, and to prevent saturation and leachate generation from material.
1.20.4. Excess water in soil or sediment must not be allowed to flow out of vehicle or vessel during transport.
1.20.5. Stabilize soil and sediment as necessary.
1.20.6. All vehicles, vessels and operators must be appropriately licensed and equipped to transport Hazardous Waste soil and sediment.
1.20.7. Transport material to location shown on Drawings.
1.20.8. Manifest estimated volumes of all material transported from Site to Owner Soil Treatment Facility. Submit all manifests as directed by the Departmental Representative.

1.21. Contaminated Material Treatment- Owner Soil Treatment Facility

1.21.1. Contaminated Material Treatment-Onsite: place Contaminated Material at Treatment Facility provided by Owner.
1.21.1.1. Place in Owner Soil Treatment Facility in locations and thicknesses according to Drawings.
1.21.1.2. Be responsible for any damage to Owner Soil Treatment Facility caused by placement.
1.21.2. Treat soil according to Drawings.

1.22. Contaminated Material Treatment - Offsite

1.22.1. Contaminated Material Treatment-Offsite: treat at Treatment Facility provided by Contractor and accepted by the Departmental Representative.

1.22.2. Treatment Facility must:

1.22.2.1. Be an existing offsite facility located in Canada or the United States.

1.22.2.2. Be designed, constructed and operated for the handling or processing of waste in such a manner as to change the physical, chemical or biological character or composition of waste amenable to treatment to lower than the BC *Contaminated Sites Regulation* Schedule 7 Column II.

1.22.2.3. Hold a valid and subsisting permit, certificate, approval, or any other form of authorization issued by a province or territory for the treatment of soil or other material that is Hazardous Waste or Waste Quality, as applicable.

1.22.2.4. Comply with applicable municipal zoning, bylaws, and other applicable requirements.

1.22.3. Facility Regulator:

1.22.3.1. For facilities within provincial or territorial jurisdiction, the relevant provincial or territorial ministry.

1.22.3.2. For facilities on First Nations reserve land in Canada not subject to the First Nation Land Management regime: Indigenous and Northern Affairs Canada.

1.22.3.3. For facilities on First Nations reserve land in Canada subject to the First Nation Land Management regime, the relevant First Nation Council. In addition, a Qualified Professional must certify that the facility is appropriate for the relevant Contaminated Material.

1.22.3.4. For facilities in the United States of America, either or both of the Environmental Protection Agency and the relevant State, as appropriate.

1.22.4. Treat material as soon as practical and within 100 Working Days of leaving Site or as required by Contract unless otherwise accepted by Departmental Representative.

1.22.5. Material treated offsite must subsequently be disposed of at a Disposal Facility after treatment.

1.22.6. Treatment includes bioremediation, thermal desorption, and incineration. Treatment does not include blending, mixing, or dilution.

1.22.7. If proposed Treatment Facility is not acceptable to Departmental Representative, identify an alternate Treatment Facility that is acceptable.

1.22.8. Submit Certificates of Treatment for all material treated offsite.

1.23. Contaminated Material Disposal

1.23.1. Contaminated Material Disposal: dispose Contaminated Material at Disposal Facility provided by Contractor and accepted by the Departmental Representative.

1.23.2. Disposal Facility must:

1.23.2.1. Be an existing offsite facility located in Canada or the United States.

1.23.2.2. Be designed, constructed and operated to prevent any pollution from being caused by the facility outside the area of the facility from waste placed in or on land within the facility.

1.23.2.3. Hold a valid and subsisting permit, certificate, approval, or any other form of authorization issued by a province or territory for the disposal of soil or other material that is Waste Quality.

1.23.2.4. Comply with applicable municipal zoning, bylaws, and other applicable requirements.

1.23.3. Facility Regulator:

1.23.3.1. For facilities within provincial or territorial jurisdiction, the relevant provincial or territorial ministry.

1.23.3.2. For facilities on First Nations reserve land in Canada not subject to the First Nation Land Management regime: Indigenous and Northern Affairs Canada.

1.23.3.3. For facilities on First Nations reserve land in Canada subject to the First Nation Land Management regime, the relevant First Nation Council. In addition, a Qualified Professional must certify that the facility is appropriate for the relevant Contaminated Material.

1.23.3.4. For facilities in the United States of America, either or both of the Environmental Protection Agency and the relevant State, as appropriate.

1.23.4. Dispose material as soon as practical and within 100 Working Days of leaving Site or as required by Contract unless otherwise accepted by Departmental Representative.

1.23.5. Material sent to a Disposal Facility must be permanently stored at that facility.

1.23.6. If proposed Disposal Facility is not acceptable to Departmental Representative, provide an alternate Disposal Facility that is acceptable.

1.23.7. Submit Certificates of Disposal for all material disposed offsite.

2. PART 2 - PRODUCTS

2.1. Not Used

2.1.1. Not Used.

3. PART 3 - EXECUTION

3.1. Not Used

3.1.1. Not Used.

END OF SECTION

1. PART 1 - GENERAL

1.1. Measurement Procedures

1.1.1. See 01 11 00.

1.2. Definitions

1.2.1. See 01 11 00.

1.3. Action and Informational Submittals

1.3.1. Submit to Departmental Representative Submittals listed for review.
1.3.2. Work affected by Submittal must not proceed until review is complete.
1.3.3. Submit the following:
1.3.3.1. Health and Safety Plan.
1.3.3.2. Copies of reports or directions issued by federal and provincial health and safety inspectors.
1.3.3.3. Copies of incident and accident reports.
1.3.3.4. Complete set of Material Safety Data Sheets (MSDS), and all other documentation required by Workplace Hazardous Materials Information System (WHMIS) requirements.
1.3.3.5. Emergency Procedures.
1.3.3.6. Notice of Project.
1.3.4. The Departmental Representative will review the Contractor's site-specific project Health and Safety Plan and emergency procedures, and provide comments to the Contractor within 5 Working Days after receipt of the plan.
1.3.5. If changes are required, revise the plan as appropriate and resubmit to Departmental Representative within 5 Working Days.
1.3.6. Submittal of the Health and Safety Plan, and any revised version, to the Departmental Representative is for information and reference purposes only. It will not:
1.3.6.1. Be construed to imply approval by the Departmental Representative.
1.3.6.2. Be interpreted as a warranty of being complete, accurate and legislatively compliant.
1.3.6.3. Relieve the Contractor of his legal obligations for the provision of health and safety on the project.

1.4. References

1.4.1. Government of Canada:
1.4.1.1. Canada Labour Code - Part II.
1.4.1.2. Canada Occupational Health and Safety Regulations.
1.4.2. National Building Code of Canada (NBC):
1.4.2.1. Part 8, Safety Measures at Construction and Demolition Sites.
1.4.3. Canadian Standards Association (CSA) as amended:
1.4.3.1. CSA Z797-2009 Code of Practice for Access Scaffold.
1.4.3.2. CSA S269.1-1975 (R2003) Falsework for Construction Purposes.

1.4.3.3. CSA S350-M1980 (R2003) Code of Practice for Safety in Demolition of Structures.
1.4.4. National Fire Code of Canada 2010 (as amended):
1.4.4.1. Part 5 – Hazardous Processes and Operations and Division B as applicable and required.
1.4.4.2. FCC No. 302, Standard for Welding and Cutting.
1.4.5. American National Standards Institute (ANSI):
1.4.5.1. ANSI A10.3, Operations – Safety Requirements for Powder-Actuated Fastening Systems.
1.4.6. Province of British Columbia:
1.4.6.1. Workers Compensation Act Part 3-Occupational Health and Safety.
1.4.6.2. Occupational Health and Safety Regulation.

1.5. Regulatory Requirements

1.5.1. Comply with codes, acts, bylaws, standards and regulations applicable to the performance of the Work in accordance with the Contract to ensure safe operations at Site.
1.5.2. In event of conflict between any provision of the above authorities, the most stringent provision will apply. Should a dispute arise in determining the most stringent requirement, the Departmental Representative will instruct on the course of action to be followed.

1.6. Worker's Compensation Board Coverage

1.6.1. Comply fully with the Workers' Compensation Act, regulations and orders made pursuant thereto, and any amendments up to the Final Completion of the Work.
1.6.2. Maintain Workers' Compensation Board coverage during the term of the Contract, until and including the date that the Certificate of Final Completion is issued.

1.7. Compliance with Regulations

1.7.1. PWGSC may terminate the Contract without liability to PWGSC where the Contractor, in the opinion of PWGSC, refuses to comply with a requirement of the Workers' Compensation Act or the Occupational Health and Safety Regulations.
1.7.2. It is the Contractor's responsibility to ensure that all workers are qualified, competent and certified to perform the Work as required by the Workers' Compensation Act or the Occupational Health and Safety Regulations.

1.8. Responsibility

1.8.1. Assume responsibility as the Prime Contractor for Work under this Contract.
1.8.1.1. Be responsible for health and safety of persons onsite, safety of property onsite and for protection of persons adjacent to Site and environment to extent that they may be affected by conduct of Work.

1.8.1.2. Comply with and enforce compliance by employees with safety requirements of Contract, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan.

1.9. Health and Safety Coordinator

1.9.1. The Health and Safety Coordinator must:

1.9.1.1. Be responsible for completing all health and safety training, and ensuring that personnel that do not successfully complete the required training are not permitted to enter the Site to perform Work.

1.9.1.2. Be responsible for implementing, daily enforcing, and monitoring the site-specific Health and Safety Plan.

1.9.1.3. Be on Site during execution of Work.

1.10. General Conditions

1.10.1. Provide safety barricades and lights around Site as required to provide a safe working environment for workers and protection for pedestrian and vehicular traffic.

1.10.2. Ensure that non-authorized persons are not allowed to circulate in designated construction areas of the Site:

1.10.2.1. Provide appropriate means by use of barricades, fences, warning signs, traffic control personnel, and temporary lighting as required.

1.11. Project/Site Conditions

1.11.1. Work at Site will involve contact with contaminants identified in Specifications and environmental reports.

1.12. Work Permits

1.12.1. Obtain specialty permits related to project before start of Work.

1.13. Filing of Notice

1.13.1. The Prime Contractor is to complete and submit a Notice of Project as required by Provincial or Territorial authorities.

1.13.2. Provide copies of all notices to the Departmental Representative.

1.14. Health and Safety Plan

1.14.1. Conduct a site-specific hazard assessment based on review of Contract, required Work, and project Site. Identify any known and potential health risks and safety hazards.

1.14.2. Prepare and comply with a site-specific project Health and Safety Plan based on hazard assessment, including, but not limited to, the following:

1.14.2.1. Primary requirements:

1.14.2.1.1. Contractor's safety policy.

1.14.2.1.2. Identification of applicable compliance obligations.

1.14.2.1.3. Definition of responsibilities for project safety/organization chart for project.
1.14.2.1.4. General safety rules for project.
1.14.2.1.5. Job-specific safe work, procedures.
1.14.2.1.6. Inspection policy and procedures.
1.14.2.1.7. Incident reporting and investigation policy and procedures.
1.14.2.1.8. Occupational Health and Safety Committee/Representative procedures.
1.14.2.1.9. Occupational Health and Safety meetings.
1.14.2.1.10. Occupational Health and Safety communications and record keeping procedures.
1.14.2.2. Summary of health risks and safety hazards resulting from analysis of hazard assessment, with respect to site tasks and operations which must be performed as part of the Work.
1.14.2.3. List hazardous materials to be brought onsite as required by Work.
1.14.2.4. Indicate engineering and administrative control measures to be implemented at the Site for managing identified risks and hazards.
1.14.2.5. Identify personal protective equipment (PPE) to be used by workers.
1.14.2.6. Identify personnel and alternates responsible for site safety and health.
1.14.2.7. Identify personnel training requirements and training plan, including site orientation for new workers.
1.14.3. Develop the plan in collaboration with all Subcontractors. Ensure that work/activities of Subcontractors are included in the hazard assessment and are reflected in the plan.
1.14.4. Revise and update Health and Safety Plan as required, and re-submit to the Departmental Representative.
1.14.5. Departmental Representative's review: the review of Health and Safety Plan by Public Service and Procurement Canada (PWGSC) will not relieve the Contractor of responsibility for errors or omissions in final Health and Safety Plan or of responsibility for meeting all requirements of construction and Contract.

1.15. Emergency Procedures

1.15.1. List standard operating procedures and measures to be taken in emergency situations. Include an evacuation plan and emergency contacts (ie names/telephone numbers) of:
1.15.1.1. Designated personnel from own company.
1.15.1.2. Regulatory agencies applicable to Work and as per legislated regulations.
1.15.1.3. Local emergency resources.
1.15.1.4. Departmental Representative and site staff.
1.15.2. Include the following provisions in the emergency procedures:
1.15.2.1. Notify workers and the first-aid attendant, of the nature and location of the emergency.
1.15.2.2. Evacuate all workers safely.
1.15.2.3. Check and confirm the safe evacuation of all workers.

1.15.2.4. Notify the fire department or other emergency responders.
1.15.2.5. Notify adjacent workplaces or residences which may be affected if the risk extends beyond the workplace.
1.15.2.6. Notify Departmental Representative and Site staff.
1.15.3. Provide written rescue/evacuation procedures as required for, but not limited to:
1.15.3.1. Work at high angles.
1.15.3.2. Work in confined spaces or where there is a risk of entrapment.
1.15.3.3. Work with hazardous substances.
1.15.3.4. Underground work.
1.15.3.5. Work on, over, under and adjacent to water.
1.15.3.6. Workplaces where there are persons who require physical assistance to be moved.
1.15.4. Design and mark emergency exit routes to provide quick and unimpeded exit.
1.15.5. Revise and update emergency procedures as required, and re-submit to the Departmental Representative.

1.16. Hazardous Products

1.16.1. Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage and disposal of hazardous materials, and regarding labelling and provision of Material Safety Data Sheets (MSDS) acceptable to the Departmental Representative and in accordance with the Canada Labour Code.
1.16.2. Where use of hazardous and toxic products cannot be avoided:
1.16.2.1. Notify Departmental Representative beforehand of the product(s) intended for use. Submit applicable MSDS and WHMIS documents as required.
1.16.2.2. In conjunction with Departmental Representative, schedule to carry out Work during "off hours" when tenants have left the building.
1.16.2.3. Provide adequate means of ventilation as required.

1.17. Unforeseen Hazards

1.17.1. Should any unforeseen or peculiar safety-related factor, hazard or condition become evident during performance of the Work, immediately stop Work and notify the Departmental Representative verbally and in writing.

1.18. Posted Documents

1.18.1. Post legible versions of the following documents onsite:
1.18.1.1. Health and Safety Plan.
1.18.1.2. Sequence of Work.
1.18.1.3. Emergency procedures.
1.18.1.4. Site drawing showing project layout, locations of the first-aid station, evacuation route and marshalling station, and the emergency transportation provisions.
1.18.1.5. Notice of Project.
1.18.1.6. Floor plans or Site plans.

1.18.1.7. Notice as to where a copy of the Workers' Compensation Act and Regulations are available on the Site for review by employees and workers.
1.18.1.8. Workplace Hazardous Materials Information System (WHMIS) documents.
1.18.1.9. Material Safety Data Sheets (MSDS).
1.18.1.10. List of names of Joint Health and Safety Committee members, or Health and Safety Representative, as applicable.
1.18.2. Post all Material Safety Data Sheets (MSDS) onsite, in a common area, visible to all workers and in locations accessible to tenants when Work of this Contract includes construction activities adjacent to occupied areas.
1.18.3. Postings should be protected from the weather, and visible from the street or the exterior of the principal construction site shelter provided for workers and equipment, or as accepted by the Departmental Representative.

1.19. Meetings

1.19.1. Attend health and safety preconstruction meeting and all subsequent meetings called by the Departmental Representative.
1.19.2. Ensure all site personnel attend a health and safety toolbox meeting at the beginning of each shift, which must include:
1.19.2.1. Sign-in of all attendees.
1.19.2.2. Planned Work activities and environmental considerations for that shift.
1.19.2.3. Hazards associated with these Work activities, including environmental hazards (eg potential for hypothermia, heat exhaustion, heat stroke).
1.19.2.4. Appropriate job-specific safe work procedures.
1.19.2.5. Required personal protective equipment (PPE).
1.19.2.6. Appropriate emergency procedures.
1.19.2.7. Review recent accidents on Site, including near misses.
1.19.3. Retain records of all health and safety meetings onsite during Work, and retain as corporate records for a minimum of 7 years after Work is completed.

1.20. Correction of Non-Compliance

1.20.1. Immediately address health and safety non-compliance issues identified by the Departmental Representative.
1.20.2. Provide Departmental Representative with written report of action taken to correct non-compliance with health and safety issues identified.
1.20.3. The Departmental Representative may issue a "stop work order" if non-compliance of health and safety regulations is not corrected immediately or within posted time.
1.20.4. Correct non-compliance.

1.21. Hazardous Occurrence Investigation and Reporting

1.21.1. Hazard includes:

1.21.1.1. Any source of potential damage, harm or adverse effects on life, health, property or environment at work. It refers to any biological, chemical, ergonomic, physical, psychosocial and safety factor that is reasonably likely to cause harm or damage to humans, other organisms, or the environment in the absence of its control. Sometimes a hazard is referred to as being the actual harm or the health effect it caused rather than the hazard. For example the disease tuberculosis might be called a hazard by some but in general the tuberculosis-causing bacteria would be considered the “hazard” or “hazardous biological agent”. Exposure to tuberculosis would be the hazardous incident. For types of Hazards refer to Annex 3 of the Standard on Hazard Prevention Program.

1.21.2. Hazardous Occurrence includes:

1.21.2.1. An event occurring at a PWGSC managed building or worksite, or through the course of an employee's work that results in, or has the potential to result in, a fatality, injury, illness, exposure to a hazardous substance or property damage or an escapement of a hazardous material. For the purpose of investigating, recording and reporting hazardous occurrences, the following are included under this term: disabling injuries, minor injuries and near-misses.

1.21.3. Hazardous Occurrence Investigation and Reporting Procedures:

1.21.3.1. Includes information regarding the person involved and the basic circumstances surrounding the hazardous occurrence.

1.21.3.2. Provides a detailed and thorough description of the hazardous occurrence and the sequence of events.

1.21.3.3. Indicates corrective measures that have been taken since the occurrence.

1.21.3.4. Requires the appointment of a qualified investigator.

1.21.3.5. Provides recommendations for additional corrective measures, if required.

1.21.4. Fatal or Serious Accidents Procedures:

1.21.4.1. Call (250) 774-2777 to advise the police organization having jurisdiction to secure the scene and investigate the matter.

1.21.4.2. Advise the Departmental Representative of the fatality or serious accident within 1 hour.

1.21.4.3. No investigation will be conducted at the scene until the police service having jurisdiction has released the scene.

1.21.4.4. No person shall, unless authorized to do so, remove or in any way interfere with or disturb any wreckage, article or thing related to the incident except to the extent necessary to: save a life, prevent injury or relieve human suffering in the vicinity; maintain an essential public service; or prevent unnecessary damage to or loss of property.

1.22. Utility Clearance

1.22.1. The Contractor is solely responsible for utility clearance.

1.22.2. The Contractor will not rely upon Drawings or other information provided with utility locations.

1.23. Personal Protective Equipment Program

1.23.1. Submit Personal Protective Equipment (PPE) program to the Departmental Representative addressing:

1.23.1.1. Donning and doffing procedures.

1.23.1.2. PPE selection based upon Site hazards.

1.23.1.3. PPE use and limitations of equipment.

1.23.1.4. Work mission duration, PPE maintenance and storage.

1.23.1.5. PPE decontamination and disposal.

1.23.1.6. PPE inspection procedures prior to, during, and after use.

1.23.1.7. Evaluation of effectiveness of PPE program, and limitations during temperature extremes, and other appropriate medical considerations.

1.23.1.8. Medical surveillance requirements for personnel assigned to work at Site.

1.23.1.9. Frequency and types of air monitoring, personnel monitoring, and environmental sampling techniques and instrumentation to be used, including methods of maintenance and calibration of monitoring and sampling equipment.

1.23.1.10. Site control measures employed at Site including site map, site work zones, use of 'buddy system', site communications including site security, alerting means for emergencies, standard operating procedures or safe work practices, and identification of nearest medical assistance.

1.23.1.11. Decontamination procedures for both personnel and equipment.

1.23.1.12. Emergency response requirements addressing: pre-emergency planning, personnel roles, lines of authority and communication, emergency recognition and prevention, safe distances and places of refuge, site security and control, evacuation routes and procedures, decontamination procedures not covered under decontamination section, emergency medical treatment and first aid, emergency alerting and response procedures, critique of response and follow-up, PPE and emergency equipment, site topography, layout, prevailing weather conditions, and procedures for reporting incidents to local, provincial, or federal agencies.

1.23.1.13. Written respiratory protection program for project activities.

1.23.1.14. Procedures dealing with heat and/or cold stress.

1.23.1.15. Spill containment program if waste material is generated, excavated, stored, or managed onsite.

1.24. Offsite Contingency and Emergency Response Plan

1.24.1. Prior to commencing Work involving handling of hazardous materials, develop offsite Contingency and Emergency Response Plan.

1.24.2. Plan must provide immediate response to serious site occurrence such as explosion, fire, or migration of significant quantities of toxic or hazardous material from Site.

1.25. Personnel Health, Safety, and Hygiene

1.25.1. Training: ensure personnel entering Site are trained in accordance with specified personnel training requirements. Training session must be completed by Health and Safety Officer.

1.25.2. Levels of Protection: establish levels of protection for each Work area based on planned activity and location of activity.

1.25.3. Personal Protective Equipment:

1.25.3.1. Furnish site personnel with appropriate PPE as specified above. Ensure that safety equipment and protective clothing is kept clean and maintained.

1.25.4. Develop protective equipment usage procedures and ensure that procedures are strictly followed by site personnel; include following procedures as minimum:

1.25.4.1. Ensure prescription eyeglasses worn are safety glasses and do not permit contact lenses onsite within work zones.

1.25.4.2. Ensure footwear is steel-toed safety shoes or boots and is covered by rubber overshoes when entering or working in potentially contaminated work areas.

1.25.4.3. Dispose of or decontaminate PPE worn onsite at end of each workday.

1.25.4.4. Decontaminate reusable PPE before reissuing.

1.25.4.5. Ensure site personnel have passed respirator fit test prior to entering potentially contaminated work areas.

1.25.4.6. Ensure facial hair does not interfere with proper respirator fit.

1.25.5. Respiratory Protection:

1.25.5.1. Provide site personnel with extensive training in usage and limitations of, and qualitative fit testing for, air purifying and supplied-air respirators in accordance with specified regulations.

1.25.5.2. Develop, implement, and maintain respirator program.

1.25.5.3. Monitor, evaluate, and provide respiratory protection for site personnel.

1.25.5.4. Ensure levels of protection as listed have been chosen consistent with site-specific potential airborne hazards associated with major contaminants identified onsite.

1.25.5.5. In absence of additional air monitoring information or substance identification, retain an industrial hygiene specialist to determine minimum levels of respiratory protection required.

1.25.5.6. Immediately notify Departmental Representative when level of respiratory protection required increases.

1.25.5.7. Ensure appropriate respiratory protection during Work activities. As minimum requirement, ensure that persons entering potentially contaminated work areas are supplied with and use appropriate respiratory protection.

1.25.6. Heat Stress/Cold Stress: implement heat stress or cold stress monitoring program as applicable and include in site-specific Health and Safety Plan.
1.25.7. Personnel Hygiene and Personnel Decontamination Procedures. Provide minimum as follows:
1.25.7.1. Suitable containers for storage and disposal of used disposable PPE.
1.25.7.2. Potable water and suitable sanitation facility.
1.25.8. Emergency and First-Aid Equipment:
1.25.8.1. Locate and maintain emergency and first-aid equipment in appropriate location onsite including first-aid kit to accommodate number of site personnel; portable emergency eye wash; two 9 kg ABC type dry chemical fire extinguishers.
1.25.9. Site Communications:
1.25.9.1. Identify, supply, and implement appropriate communication devices for Site and post emergency contact numbers near devices.
1.25.9.2. Ensure personnel use of "buddy" system and develop hand signal system appropriate for site activities.
1.25.9.3. Provide employee alarm system to notify employees of site emergency situations or to stop Work activities if necessary.
1.25.9.4. Furnish selected personnel with 2-way radios.
1.25.9.5. Safety Meetings: conduct mandatory daily safety meetings for personnel, and additionally as required by special or Work-related conditions; include refresher training for existing equipment and protocols, review ongoing safety issues and protocols, and examine new site conditions as encountered. Hold additional safety meetings on as-needed basis.

2. PART 2 - PRODUCTS

2.1. Not Used
2.1.1. Not Used.

3. PART 3 - EXECUTION

3.1. Not Used
3.1.1. Not Used.

END OF SECTION

1. PART 1 - GENERAL

1.1. Measurement Procedures

1.1.1. See 01 11 00.

1.2. Definitions

1.2.1. See 01 11 00.

1.3. Action and Informational Submittals

1.3.1. Environmental Protection Plan: within 10 Working Days after Contract award and prior to mobilization to Site, Submit a plan detailing protection of the environment. Include:

1.3.1.1. Comprehensive overview of known or potential environmental issues to be addressed during Work.

1.3.1.2. Identify requirements that plan complies with. Includes: permits, certificates, approvals, or any other form of authorizations; other federal, provincial, or municipal requirements; and in accordance with the Contract.

1.3.1.3. Names and qualifications of persons responsible for ensuring adherence to Environmental Protection Plan.

1.3.1.4. Names and qualifications of persons responsible for manifesting material to be removed from Site.

1.3.1.5. Names and qualifications of persons responsible for training Site personnel.

1.3.1.6. Description of Environmental Protection personnel training program.

1.3.1.7. Work Area Plan showing proposed activity in each portion of areas, such as exclusion zone(s), decontamination zone(s) and clean zone(s), and identifying areas of limited use or non-use. Ensure plan includes measures for marking limits of use areas and methods for protection of features to be preserved within authorized Work areas.

1.3.1.8. Drawings showing locations of proposed temporary excavations or embankments for haul roads, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials including methods to control runoff and to contain materials onsite.

1.3.1.9. Historical, Archaeological, Cultural Resources, Biological Resources and Wetlands Plan that defines procedures for identifying and protecting historical, archaeological, cultural resources, biological resources and wetlands. Include procedures if previously unknown historical, archaeological, cultural, and biological resources are discovered during Work.

1.3.1.10. Noise Control Plan identifying methods and procedures for preventing, monitoring, and controlling noise for compliance with: applicable permits, certificates, approvals, or any other form of authorizations; other federal, provincial, or municipal requirements; and in accordance with the Contract. Include thresholds and procedures if: noise does not comply with appropriate levels, or if there are public complaints.

1.3.1.11. Vibration Control Plan identifying methods and procedures for preventing, monitoring, and controlling vibration for compliance with: applicable permits, certificates, approvals, or any other form of authorizations; other federal, provincial, or municipal requirements; and in accordance with the Contract. Include thresholds and procedures if: vibration does not comply with appropriate levels, there are public complaints, or if onsite or offsite damage occurs

1.3.1.12. Traffic Control Plans including measures to reduce erosion of temporary roadbeds by construction traffic, especially during wet weather. Ensure plans include measures to prevent mud transported onto public roads by vehicles or runoff, and mitigation measures if mud is transported onto public roads by vehicles or runoff. Vehicles and vehicle traffic must comply with all federal, provincial, and municipal laws and regulations.

1.3.1.13. Contamination Prevention Plan identifying hazardous, deleterious or regulated substances to be used onsite; intended actions to prevent introduction of such materials into air, water, or ground; and detailing provisions for compliance with federal, provincial, and municipal laws and regulations for storage and handling of these materials.

1.3.1.14. Spill Control Plan including procedures, instructions, and reports to be used in event of spill of hazardous, deleterious or regulated substances. Identify locations and contents of spill kits.

1.3.1.15. Communications Plan identifying emergency contact list and conditions for implementing emergency contact. Emergency contact to include: Contractor emergency response team including Superintendent; Departmental Representative and alternate, and other contractor(s) and individuals as instructed by the Departmental Representative; and federal, provincial, and municipal emergency contacts.

1.3.1.16. Air Pollution Control Plan detailing provisions to assure that contaminants, dust, debris, materials, and trash, are contained onsite. Include procedures, in accordance with the Contract, if air pollution does not comply with appropriate levels, there are public complaints, or if onsite or offsite damage occurs.

1.3.1.17. Non-Contaminated Material Disposal Plan identifying methods and locations for solid waste disposal including clearing waste. Include name, location, provincial or territorial authorizations, and evidence of compliance with municipal zoning and bylaws of Landfill.

1.3.1.18. Wastewater Management Plan identifying methods and procedures for management and discharge of Contaminated and Non-Contaminated Water including surface waters and wastewater which are directly derived from construction activities, such as concrete curing water, clean-up water, dewatering of groundwater, disinfection water, hydrostatic test water, and water used in flushing of lines. Include method of treatment and disposal.

1.3.1.19. Wastewater Disposal Plan identifying methods and locations for solid waste disposal including clearing waste. Include name, location, provincial or territorial authorizations, and evidence of compliance with Municipal zoning and bylaws of Disposal Facility and/or copy of municipal permit to discharge to sewer system

1.3.1.20. Erosion and Sediment Control Plan identifying type and location of erosion and sediment controls to be provided including monitoring and reporting requirements to assure that control measures are in compliance with erosion and sediment control plan, federal, provincial, and municipal laws and regulations.

1.3.2. Pollution Control Procedures Modification: immediately when pollution control procedures are inadequate, as instructed by the Departmental Representative, Submit modified procedures to resolve problem.

1.3.3. Pollution Control Remediation: immediately when soil, sediment or water contaminated by Contractor's activities are inadequate as instructed by the Departmental Representative, Submit remediation procedures.

1.3.4. Dust and Particulate Control Procedures Modification: immediately when dust and particulate control measures are inadequate as instructed by the Departmental Representative, Submit modified procedures to resolve problem.

1.4. Fires

1.4.1. Fires and burning of rubbish onsite not permitted.

1.5. Cleaning

1.5.1. Maintain cleanliness of Work and surrounding Site to comply with federal, provincial, and municipal fire and safety laws, ordinances, codes, and regulations applicable to the performance of the Work.

1.5.2. Coordinate cleaning operations with disposal operations to prevent accumulation of dust, dirt, debris, rubbish, and waste materials.

1.5.3. Ensure cleanup of the Work areas each day after Final Completion of Work.

1.6. Site Clearing and Plant Protection

1.6.1. Minimize stripping of Topsoil and vegetation.

1.6.2. Restrict tree and plant removal to areas in accordance with the Contract or as instructed by the Departmental Representative. Protect all other trees and plants onsite and offsite.

1.6.3. Salvage all trees and plants to be removed in accordance with the Contract or as instructed by the Departmental Representative.

1.6.4. Wrap in burlap, trees and shrubs adjacent to construction Work, storage areas and trucking lanes, and encase with protective wood framework from grade level to height of 2 m minimum.

1.6.5. Protect roots of designated trees to dripline during excavation and site grading to prevent disturbance or damage. Avoid unnecessary traffic, dumping and storage of materials over root zones.

1.7. Vibration

1.7.1. Maintain acceptable vibration levels as to not damage structures adjacent to the Site as a result of the Work.

1.8. Maintenance of Public Roads

1.8.1. Prevent tracking or spilling of debris or material onto public roads.
1.8.2. Immediately sweep or scrape up debris or material on public roads.
1.8.3. Clean public roads within a 200 m radius of the Site entrance at least once per shift.

1.9. Pollution Control

1.9.1. Pollution includes spills or other releases from Contractor's activities that could potentially contaminate soil, sediment, water, and atmosphere from discharge of hazardous, deleterious or regulated substances, including from equipment and material handling.
1.9.2. Provide sequence, methods and means, and facilities to prevent spills or releases.
1.9.2.1. Maintain temporary erosion and pollution control features.
1.9.2.2. Do not store fuel onsite other than tanks forming part of the equipment.
1.9.2.3. Control emissions from equipment and plant to meet applicable authorities' emission requirements.
1.9.2.4. Contractor to regularly inspect all machinery on the Site to ensure it is in good repair and free of leaks.
1.9.3. Inadequate procedures:
1.9.3.1. Stop relevant Work if procedures are inadequate to prevent spills or other releases, or when monitoring indicates that release equals or exceeds regulated or levels in accordance with the Contract.
1.9.3.2. Submit procedures proposed to resolve problem.
1.9.3.3. Make necessary changes to operations prior to resuming excavation, handling, processing, or other Work that can cause spills or other releases.
1.9.3.4. Departmental Representative can stop relevant Work at any time when Contractor's Work procedures are inadequate to prevent spills or other releases, or when monitoring indicates that release equals or exceeds regulated or levels in accordance with the Contract. Do not proceed with stopped Work until corrections accepted by Departmental Representative.
1.9.4. Be prepared to intercept, cleanup, and dispose of spills or other releases that can occur whether on land or water.
1.9.5. Spill kits and containment are to be maintained onsite and ready for deployment in the event of spills or other releases.
1.9.5.1. Spill kits are to include sufficient quantities of absorbent material, containers, booms, shovels and other tools, and personal protective equipment.
1.9.5.2. Spill response materials must be compatible with type of equipment being used or type of material being handled.
1.9.5.3. Spill kits are to be in close proximity to machinery.

1.9.5.4. During the Work there are to be trained and qualified personnel available that are ready to deploy spill kits when necessary.
1.9.6. Take immediate action using available resources to contain and mitigate effects on environment and persons from spill or release.
1.9.7. Promptly report spills and releases potentially causing damage to environment to:
1.9.7.1. Authority having jurisdiction or interest in spill or other release including conservation authority, water supply authorities, drainage authority, road authority, and fire department.
1.9.7.2. Contractor emergency response team including Superintendent
1.9.7.3. Departmental Representative and other contractor(s) and individuals as instructed by the Departmental Representative.
1.9.8. Departmental Representative can collect samples for chemical analyses prior to, during, and upon Final Completion of Work to monitor potential pollution caused by Contractor's activities. Assist Departmental Representative in collection of samples.
1.9.9. Remediation of soil, sediment or water contaminated by Contractor's activities.
1.9.9.1. Remediate all soil, sediment or water contaminated by Contractor's activities associated with the Work onsite and offsite.
1.9.9.2. Remediation includes excavation, pumping, testing, transport, treatment and disposal as appropriate for the type of contamination incurred, and at a minimum in accordance with the Contract.
1.9.9.3. Submit procedures for remediating soil, sediment or water contaminated by Contractor's activities.
1.9.9.4. Remediate as instructed by the Departmental Representative.
1.9.9.5. Contractor is responsible for any additional investigation, testing, and assessments required as acceptable to the Departmental Representative.

1.10. Dust and Particulate Control

1.10.1. Execute Work by methods to minimize raising dust from construction operations.
1.10.2. Prevent fugitive dust from the Site from interfering with onsite and offsite uses.
1.10.3. Prevent dust from spreading to neighbouring properties.
1.10.4. Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads, excavations, and stockpiles.
1.10.5. Implement and maintain dust and particulate control measures immediately as instructed by the Departmental Representative during Work and in accordance with regulations and in accordance with the Contract.
1.10.6. Provide positive means to prevent airborne dust from dispersing into atmosphere. Use fresh (non-saline) water for dust and particulate control.
1.10.7. As minimum, use appropriate covers on vehicles, including trucks, barges, and trains, hauling fine or dusty material. Use watertight vehicles to haul wet materials.

1.10.8. Inadequate procedures:

1.10.8.1. Stop relevant Work if dust and particulate control is not sufficient for controlling dusts and particulates into atmosphere, or when monitoring indicates that dust or particulate levels equal or exceed regulated or levels in accordance with the Contract.

1.10.8.2. Submit procedures proposed to resolve problem.

1.10.8.3. Make necessary changes to operations prior to resuming excavation, handling, processing, or other Work that can cause release of dusts or particulates.

1.10.8.4. Departmental Representative can stop relevant Work at any time when Contractor's Work procedures are inadequate to prevent release of dusts or particulates, or when monitoring indicates that dust or particulate levels equal or exceed regulated or levels in accordance with the Contract. Do not proceed with stopped Work until corrections accepted by Departmental Representative.

1.11. Non-Contaminated Material Removal

1.11.1. Remove all Non-Contaminated Material within Work areas in accordance with the Contract and as instructed by the Departmental Representative.

1.11.2. Assume ownership of, and be responsible for, Non-Contaminated Material once it is loaded on a vehicle, barge, or other vessel for transport offsite.

1.11.3. Remove surplus materials and temporary facilities from Site.

1.11.4. Dispose waste offsite.

1.11.5. Do not burn or bury any waste onsite.

1.11.6. Do not discharge wastes into streams or waterways.

1.11.7. Do not dispose of volatile or hazardous materials such as mineral spirits, oil, or paint thinner in storm or sanitary drains.

1.11.8. Dispose of following materials at appropriate Landfill provided by Contractor and accepted by Departmental Representative:

1.11.8.1. Non-Contaminated Material.

1.11.8.2. Disposable PPE.

1.12. Sewage Wastewater

1.12.1. Store Sewage Wastewater from toilet facilities with wastewater from handbasins, and/or showers, for ultimate disposal.

1.12.2. Provide, operate, and maintain Sewage Wastewater storage tanks to store Sewage Wastewater.

1.12.3. Transport and dispose of Sewage Wastewater at a Disposal Facility, or discharge to municipal sanitary sewer system in compliance with Municipal requirements, as accepted by Departmental Representative.

1.12.4. Discharges: comply with applicable discharge limitations and requirements; do not discharge Sewage Wastewater to Site sewer systems that do not conform to or are in violation of such limitations or requirements; and obtain approval prior to discharge of Sewage Wastewater.

1.13. Wastewater Control

1.13.1. Dewater various parts of Work including, without limitation, excavations, structures, foundations, and Work areas.

1.13.2. Employ construction methods, plant procedures, and precautions that ensure Work, including excavations, are stable, free from disturbance, and dry.

1.13.3. Direct surface waters that have not contacted potentially Contaminated Materials to surface drainage systems.

1.13.4. Control surface drainage including ensuring that gutters are kept open, wastewater is not allowed across or over pavements or sidewalks except through accepted pipes or properly constructed troughs, and runoff from unstabilized areas is intercepted and diverted to suitable outlet.

1.14. Non-Contaminated Water Disposal

1.14.1. Dispose of Non-Contaminated Water in manner not injurious to public health or safety, to property, or to any part of Work completed or under construction.

1.14.2. Control disposal or runoff of Non-Contaminated Water containing suspended materials or other harmful substances in accordance with local authority requirements.

1.14.3. Ensure pumped Non-Contaminated Water into waterways, sewer or drainage systems is free of suspended materials. Provide flocculation tanks, settling basins, or other treatment facilities to remove suspended solids or other materials before discharging to storm sewers, watercourses or drainage areas

1.14.4. Obtain permits to discharge Non-Contaminated Water to environment or Municipal sewers.

1.14.5. Do not discharge water which may have come in contact with potentially Contaminated Material or otherwise be Contaminated directly offsite to the environment or to municipal sewers.

1.15. Erosion and Sediment Control

1.15.1. Plan and execute construction by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas, from stockpiles, staging areas, and other Work areas. Prevent erosion and sedimentation.

1.15.2. Minimize amount of bare soil or sediment exposed at one time. Stabilize disturbed soil or sediment as quickly as practical. Strip vegetation, regrade, or otherwise develop to minimize erosion. Remove accumulated sediment resulting from construction activity from adjoining surfaces, drainage systems, and water courses, and repair damage caused by soil erosion and sedimentation as instructed by the Departmental Representative.

1.15.3. Provide and maintain temporary erosion and sediment control measures.

1.15.3.1. Temporary erosion and sediment control measures are required to prevent erosion and migration of silt, mud, sediment, and other debris offsite or to other areas of Site where damage might result, or that might otherwise be required by laws and regulations.

1.15.3.2. Temporary erosion and sediment control measures include: silt fences, hay or straw bales, ditches, geotextiles, drains, berms, terracing, riprap, temporary drainage piping, vegetative cover, dikes, mulching, sediment traps, detention and retention basins, grading, planting, retaining walls, culverts, pipes, guardrails, temporary roads, and other measures appropriate to specific condition.

1.15.3.3. Temporary improvements must remain in place and in operation as necessary or until otherwise instructed by the Departmental Representative

1.15.3.4. Place silt fences and/or hay or straw bales in ditches to prevent sediment from escaping from ditch terminations.

1.15.3.5. Do not construct bale barriers and silt fence in flowing streams or in swales.

1.15.3.6. Check erosion and sediment control measures weekly after each rainfall; during prolonged rainfall check daily.

1.15.3.7. Bales and/or silt fence can be removed at beginning of Working Day, replace at end of Working Day.

1.15.3.8. Repair damaged bales, end runs, and undercutting beneath bales.

1.15.3.9. Unless instructed by the Departmental Representative, remove temporary erosion and sediment control devices upon Final Completion of Work. Temporary erosion and sediment control devices once removed become property of Contractor.

1.15.4. Whenever sedimentation is caused by stripping vegetation, regrading, or other development, remove it from adjoining surfaces, drainage systems, and watercourses, and repair damage as quickly as possible.

1.15.5. Construct fill areas to prevent erosion.

1.15.6. Do not disturb existing embankments or embankment protection in accordance with the Contract.

1.15.7. Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.

1.15.8. If soil, sediment and debris from Site accumulate in low areas, storm sewers, roadways, gutters, ditches, or other areas where it is undesirable, remove accumulation and restore area to original condition, as instructed by the Departmental Representative.

1.16. Work In or Adjacent to Waterways

1.16.1. Approvals and Practices:

1.16.1.1. Obtain Discharge Approval prior to commencing work which may impact waterways.

1.16.1.2. Comply with Fisheries Act Authorization and other relevant authorizations and in accordance with the Contract.

1.16.1.3. Follow practices described in Fisheries and Oceans Canada (September 1993) *Land Development Guidelines for the Protection of Aquatic Habitat.*

1.16.1.4. Follow practices described in BC Ministry of Environment (March 2004) *Standards and Best Practices for Instream Works.*

1.16.2. Timing

1.16.2.1. Time work in water to respect timing windows to protect fish, including their eggs, juveniles, spawning adults and/or the organisms upon which they feed.

1.16.2.2. Minimize duration of in-water work.

1.16.2.3. Conduct instream work during periods of low flow, or at low tide, to further reduce the risk to fish and their habitat or to allow work in water to be isolated from flows.

1.16.2.4. Schedule work to avoid wet, windy and rainy periods that may increase erosion and sedimentation.

1.16.3. Site Selection

1.16.3.1. Design and plan activities and works in waterbody such that loss or disturbance to aquatic habitat is minimized and sensitive spawning habitats are avoided.

1.16.3.2. Design and construct approaches to the waterbody such that they are perpendicular to the watercourse to minimize loss or disturbance to riparian vegetation.

1.16.3.3. Avoid building structures on meander bends, braided streams, alluvial fans, active floodplains or any other area that is inherently unstable and may result in erosion and scouring of the stream bed or the built structures.

1.16.3.4. Undertake all instream activities in isolation of open or flowing water to maintain the natural flow of water downstream and avoid introducing sediment into the watercourse.

1.16.4. Contaminant and Spill Management

1.16.4.1. Plan activities near water such that materials such as paint, primers, blasting abrasives, rust solvents, degreasers, grout, poured concrete or other chemicals do not enter the watercourse.

1.16.4.2. Develop a response plan that is to be implemented immediately in the event of a sediment release or spill of a deleterious substance and keep an emergency spill kit on site.

1.16.4.3. Ensure that building material used in a watercourse has been handled and treated in a manner to prevent the release or leaching of substances into the water that may be deleterious to fish.

1.16.5. Erosion and Sediment Control

1.16.5.1. Develop and implement an Erosion and Sediment Control Plan for the site that minimizes risk of sedimentation of the waterbody during all phases of the project. Maintain erosion and sediment control measures until all disturbed ground has been permanently stabilized, suspended sediment has resettled to the bed of the waterbody or settling basin and runoff water is clear.

1.16.6. Erosion and Sediment Control Plan includes:

1.16.6.1. Installation of effective erosion and sediment control measures before starting work to prevent sediment from entering the water body.

1.16.6.2. Measures for managing water flowing onto the site, as well as water being pumped/diverted from the site such that sediment is filtered out prior to the water entering a waterbody. This includes pumping/diversion of water to a vegetated area, construction of a settling basin or other filtration system.

1.16.6.3. Site isolation measures (e.g., silt boom or silt curtain) for containing suspended sediment where in-water work is required (e.g., dredging, underwater cable installation).

1.16.6.4. Measures for containing and stabilizing waste material (e.g., dredging spoils, construction waste and materials, commercial logging waste, uprooted or cut aquatic plants, accumulated debris) above the high water mark of nearby waterbodies to prevent re-entry.

1.16.6.5. Regular inspection and maintenance of erosion and sediment control measures and structures during the course of construction.

1.16.6.6. Repairs to erosion and sediment control measures and structures if damage occurs.

1.16.6.7. Removal of non-biodegradable erosion and sediment control materials once site is stabilized.

1.16.7. Shoreline/Bank Re-vegetation and Stabilization

1.16.7.1. Clearing of riparian vegetation should be kept to a minimum: use existing trails, roads or cut lines wherever possible to avoid disturbance to the riparian vegetation and prevent soil compaction.

1.16.7.2. When practicable, prune or top the vegetation instead of grubbing/uprooting.

1.16.7.3. Minimize the removal of natural woody debris, rocks, sand or other materials from the banks, the shoreline or the bed of the waterbody below the ordinary high water mark. If material is removed from the waterbody, set it aside and return it to the original location once construction activities are completed.

1.16.7.4. Immediately stabilize shoreline or banks disturbed by any activity associated with the project to prevent erosion and/or sedimentation, preferably through re-vegetation with native species suitable for the site.

1.16.7.5. Restore bed and banks of the waterbody to their original contour and gradient; if the original gradient cannot be restored due to instability, a stable gradient that does not obstruct fish passage should be restored.

1.16.7.6. If replacement rock reinforcement/armouring is required to stabilize eroding or exposed areas, then ensure that appropriately-sized, clean rock is used; and that rock is installed at a similar slope to maintain a uniform bank/shoreline and natural stream/shoreline alignment.

1.16.7.7. Remove all construction materials from site upon project completion.

1.16.8. Fish Protection

1.16.8.1. Ensure that all in-water activities, or associated in-water structures, do not interfere with fish passage, constrict the channel width, or reduce flows.

1.16.8.2. Retain a qualified environmental professional to ensure applicable permits for relocating fish are obtained and to capture any fish trapped within an isolated/enclosed area at the work site and safely relocate them to an appropriate location in the same waters. Fish may need to be relocated again, should flooding occur on the site.

1.16.8.3. Screen any water intakes or outlet pipes to prevent entrainment or impingement of fish. Entrainment occurs when a fish is drawn into a water intake and cannot escape. Impingement occurs when an entrapped fish is held in contact with the intake screen and is unable to free itself.

1.16.8.4. Avoid using explosives in or near water. Use of explosives in or near water produces shock waves that can damage a fish swim bladder and rupture internal organs. Blasting vibrations may also kill or damage fish eggs or larvae.

1.16.9. Operation of Machinery

1.16.9.1. Ensure that machinery arrives on site in a clean condition and is maintained free of fluid leaks, invasive species and noxious weeds.

1.16.9.2. Whenever possible, operate machinery on land above the high water mark, on ice, or from a floating barge in a manner that minimizes disturbance to the banks and bed of the waterbody.

1.16.9.3. Limit machinery fording of the watercourse to a one-time event (i.e., over and back), and only if no alternative crossing method is available. If repeated crossings of the watercourse are required, construct a temporary crossing structure.

1.16.9.4. Use temporary crossing structures or other practices to cross streams or waterbodies with steep and highly erodible (e.g., dominated by organic materials and silts) banks and beds. For fording equipment without a temporary crossing structure, use stream bank and bed protection methods (e.g., swamp mats, pads) if minor rutting is likely to occur during fording.

1.16.9.5. Wash, refuel and service machinery and store fuel and other materials for the machinery in such a way as to prevent any deleterious substances from entering the water

1.17. Noncompliance

1.17.1. Departmental Representative will inform Contractor in writing of observed noncompliance with federal, provincial or municipal environmental laws, regulations, permits, or other environmental procedure violations.

1.17.2. After receipt of notice, inform the Departmental Representative of the proposed corrective action. Corrective action will be subject to acceptance of Departmental Representative.

1.17.2.1. Do not take action until after receipt of written acceptance.

1.17.3. Departmental Representative will issue stop order of Work until satisfactory corrective action has been taken.

2. PART 2 - PRODUCTS

2.1. Not Used

2.1.1. Not Used.

3. PART 3 - EXECUTION

3.1. Not Used

3.1.1. Not Used.

END OF SECTION

1. PART 1 - GENERAL

1.1. Measurement Procedures

1.1.1. See 01 11 00.

1.2. Definitions

1.2.1. See 01 11 00.

1.3. Action and Informational Submittals

1.3.1. Not Used.

1.4. Laws, Regulations, Permits

1.4.1. Generally, provincial and municipal laws, regulations, bylaws and other requirements do not apply on federal lands, activities or undertakings. Soil and other materials that are removed from federal lands may become subject to provincial or municipal laws and regulations.

1.4.2. Provincial or municipal standards may be used in relation to federal lands only as guidelines for the purpose of establishing remediation goals and objectives. The term "standards" is used in this part in order to maintain consistency in terminology throughout this document, and does not imply that standards contained in provincial or municipal laws and regulations apply on Federal lands, activities or undertakings.

1.4.3. Comply with certificates, licenses and other permits enforced at the location concerned required by regulatory federal, provincial or municipal authorities to complete the Work that have already been obtained.

1.4.4. Obtain and pay for certificates, licenses and other permits enforced at the location concerned required by regulatory federal, provincial or municipal authorities to complete the Work that have not already been obtained or that are required to be amended.

1.4.5. Provide applicable authorities with plans and information required for issue of acceptance certificates.

1.4.6. Furnish inspection certificates in evidence that the Work installed conforms with the requirements of the authority having jurisdiction.

1.5. Codes, Bylaws, Standards

1.5.1. Meet or exceed requirements of Contract, standards, and codes applicable to the performance of the Work and referenced documents.

1.5.2. In any case of conflict or discrepancy, the most stringent requirements will apply.

1.5.3. Perform Work in accordance with the *National Building Code* of Canada (NBC), and other requirements or codes in accordance with the Contract, construction standards and/or any other code or bylaw applicable to the performance of the Work.

1.5.4. Certificates, licenses and other permits enforced at the location concerned required by regulatory federal, provincial or municipal authorities to complete the Work: see 01 11 00.
1.5.5. Comply with all attachments, references, and reports relevant to Work, including environmental protection.

1.6. Smoking Environment
1.6.1. Smoking on the Site is not permitted.

2. PART 2 - PRODUCTS

2.1. Not Used
2.1.1. Not Used.

3. PART 3 - EXECUTION

3.1. Not Used
3.1.1. Not Used.

END OF SECTION

1. PART 1 - GENERAL

1.1. Measurement Procedures

1.1.1. See 01 11 00.

1.2. Definitions

1.2.1. See 01 11 00.

1.3. Action and Informational Submittals

1.3.1. Not Used.

1.4. Quality of Work

1.4.1. Ensure that quality workmanship is performed through use of skilled tradesmen, under supervision of qualified journeyman, or Qualified Professional.

1.4.2. Meet or exceed standards set out in the National Building Code of Canada as applicable for workmanship, erection methods and procedures.

1.4.3. In cases of dispute, perform Work to standard or quality in accordance with any decisions by the Departmental Representative.

1.4.4. Follow Departmental Representative's instructions to meet the Quality of Work in accordance with the Contract at no increase to the Contract Amount and no increase to Extension of Time for completion of the Work. Quality of Work includes addressing comments on Submittals, modifying environmental procedures, and preventing or remediating contaminated material spills.

1.5. Quality Management

1.5.1. Be responsible for all Quality Assurance and Quality Control during the performance of the Work.

1.5.2. Quality Assurance and Quality Control includes monitoring, inspecting, testing, documenting and reporting the means, methods, materials, workmanship, processes, and products of all aspects of the Work, including design, construction, and management as necessary to ensure conformance with the Contract.

1.5.3. Assist Departmental Representative in quality audit inspections and submit all indicated information within 5 Working Days of collection or as instructed.

1.6. Inspection

1.6.1. Allow Departmental Representative access to Work. If part of Work is in preparation at locations other than Site, allow access to such Work whenever it is in progress. Work at locations other than Site includes offsite Transportation (eg transfer stations), Treatment, and Disposal Facilities.

1.6.2. Give timely notice requesting inspection if Work is designated for special tests, inspections or approvals by Departmental Representative instructions, or law of Site.

1.6.3. If Contractor covers or permits to be covered Work that has been designated for special tests, inspections or approvals before such is made, uncover such Work, have inspections or tests satisfactorily completed and make good such Work.

1.6.4. Departmental Representative will order part of Work to be examined if Work is suspected to be not in accordance with Contract Documents. If, upon examination such work is found not in accordance with Contract Documents, correct such Work and pay cost of examination and correction.

1.7. Independent Inspection Agencies

1.7.1. Independent Inspection/Testing Agencies will be engaged by Departmental Representative for purpose of inspecting and/or testing portions of Work. Cost of such services will be borne by Departmental Representative.

1.7.2. Provide equipment required for executing inspection and testing by appointed agencies.

1.7.3. Employment of inspection/testing agencies does not relax responsibility to perform Work in accordance with Contract Documents.

1.7.4. If defects are revealed during inspection and/or testing, appointed agency will request additional inspection and/or testing to ascertain full degree of defect. Correct defect and irregularities as advised by Departmental Representative at no cost to Departmental Representative. Pay costs for retesting and reinspection.

1.8. Access to Work

1.8.1. Allow inspection/testing agencies access to Work, off site manufacturing and fabrication plants.

1.8.2. Co-operate to provide reasonable facilities for such access.

1.9. Procedures

1.9.1. Notify appropriate agency and Departmental Representative in advance of requirement for tests, in order that attendance arrangements can be made.

1.9.2. Submit samples and/or materials required for testing, as specifically requested in specifications. Submit with reasonable promptness and in orderly sequence to not cause delays in Work.

1.9.3. Provide labour and facilities to obtain and handle samples and materials on site. Provide sufficient space to store and cure test samples.

1.10. Rejected Work

1.10.1. Remove defective Work, whether result of poor workmanship, use of defective products or damage and whether incorporated in Work or not, which has been rejected by Departmental Representative as failing to conform to Contract Documents. Replace or re-execute in accordance with Contract Documents.

1.10.2. Make good other Contractor's work damaged by such removals or replacements promptly.

1.10.3. If in opinion of Departmental Representative it is not expedient to correct defective Work or Work not performed in accordance with Contract Documents, PWGSC will deduct from Contract Price difference in value between Work performed and that called for by Contract Documents, amount of which will be determined by Departmental Representative.

1.11. Reports

1.11.1. Submit 2 copies of inspection and test reports to [Departmental Representative.

1.11.2. Provide copies to subcontractor of work being inspected or tested.

1.12. Tests and Mix Designs

1.12.1. Furnish test results and mix designs as requested.

1.12.2. Test results must be signed by Qualified Professional.

1.12.3. The Departmental Representative may require, and pay for, additional inspection and testing services not included above.

2. PART 2 - PRODUCTS

2.1. Not Used

2.1.1. Not Used.

3. PART 3 - EXECUTION

3.1. Not Used

3.1.1. Not Used.

END OF SECTION

1. PART 1 - GENERAL

1.1. Measurement Procedures

1.1.1. See 01 11 00.

1.2. Definitions

1.2.1. See 01 11 00.

1.3. Action and Informational Submittals

1.3.1. Site Layout: within 10 Working Days after Contract award and prior to mobilization to Site, Submit Site Layout drawings showing existing conditions and facilities, construction facilities and temporary controls provided by Contractor. Include:

1.3.1.1. Equipment and personnel decontamination areas.

1.3.1.2. Means of ingress, egress and temporary traffic control.

1.3.1.3. Equipment and material staging areas.

1.3.1.4. Stockpile areas and construction details, including base preparation and water control features.

1.3.1.5. Exclusion areas, contaminant handling areas, and other areas identified in Contractor's site-specific Health and Safety Plan and Environmental Protection Plan.

1.3.1.6. Grading, including contours, required to construct temporary facilities.

1.3.1.7. Location of all temporary facilities including: Contaminated Water Treatment Plant, truck wash and decontamination units, office trailers, modular camp structures, parking, storage, environmental monitoring stations, above ground and underground utilities, and temporary facilities and roads.

1.3.2. Signs: at least 5 Working Days prior to posting, Submit any signs viewable by public.

1.4. Utilities

1.4.1. Power is not available at existing Site and must be supplied at the Contractor’s expense.

1.4.2. Water supply is not available at existing Site and must be supplied at the Contractor’s expense.

1.5. Fire Protection

1.5.1. Provide and maintain temporary fire protection equipment during performance of Work required by governing codes, regulations and bylaws.

1.6. Access and Delivery

1.6.1. Only the designated entrance in accordance with the Contract can be used for access to Site.

1.6.1.1. Maintain for duration of Contract.

1.6.1.2. Make good damage resulting from Contractor's use.

1.6.2. Use of the Site will be granted to the Contractor through the Departmental Representative.

1.7. Installation and Removal

1.7.1. Prepare site plan indicating proposed location and dimensions of area to be fenced and used by Contractor, number of trailers to be used, avenues of ingress/egress to fenced area and details of fence installation.

1.7.2. Identify areas which have to be gravelled to prevent tracking of mud.

1.7.3. Indicate use of supplemental or other staging area.

1.7.4. Provide construction facilities in order to execute work expeditiously.

1.7.5. Provide temporary utilities in order to execute Work expeditiously.

1.7.6. Remove from Site all such Work after use.

1.8. Site Storage/Loading

1.8.1. Confine work and operations of employees in accordance with the Contract. Do not unreasonably encumber premises with products.

1.8.2. Storage space must be limited to the Site.

1.8.3. Do not load or permit to load any part of Work with weight or force that will endanger Work.

1.9. Construction Parking

1.9.1. Parking of private vehicles will not be permitted on Site.

1.9.2. Provide and maintain adequate access to project site.

1.10. Security

1.10.1. Provide and pay for responsible security personnel to guard site and contents of site after working hours and during holidays.

1.10.2. Control access to Site and maintain a log of all personnel onsite. No non-Work visitors allowed without prior written consent of Departmental Representative

1.11. Departmental Representative and Consultant Offices

1.11.1. Provide office facilities for the exclusive use of the Departmental Representative and their consultants with the following:

1.11.1.1. Two work stations within the Factory fabricated modular double wide units in accordance with the Contract.

1.11.1.2. Work stations must include; 1 desk (minimum size 120 cm x 50 cm, minimum height 70 cm), 1 swivel desk chair (minimum load requirement 100 kg), 1 bookshelf (minimum 3 shelves with a minimum shelf height of 32 cm), 1 locking filing cabinet (minimum dimensions 50 cm x 39 cm x 60 cm), 1 garbage can, and 1 recycling bin.
1.11.1.3. Building envelope: watertight construction.
1.11.1.4. Completed building: exterior to interior minimum sound attenuation of STC 30.
1.11.1.5. Building interior environment: heated and cooled to maintain temperature of 20 degrees C minimum to 25 degrees C maximum with relative humidity of 35% to 60%.
1.11.1.6. Provide ventilation and outdoor air as per ASHRAE 62.1 – 2010 Standard.
1.11.1.7. Building lighting: maintain measured lighting level of 200 lx at 1500 mm above finished floor, after building finishes and painting complete.
1.11.1.8. Thermal performance of window units: Maximum heat transfer rate (U-value) not to exceed 2.0 W/m2K.
1.11.1.9. Regularly collect refuse and recyclables and keep the office clean and properly maintained with heat and light.
1.11.1.10. Provide private washroom facilities in offices in accordance with the Contract, complete with flush or chemical type toilet, lavatory and mirror and maintain supply of paper towels and toilet tissue.
1.11.1.11. Furnish offices in accordance with the Contract.
1.11.1.12. Work stations must include; 1 desk (minimum size 120 cm x 50 cm, minimum height 70 cm), 1 swivel desk chair (minimum load requirement 100 kg), 1 bookshelf (minimum 3 shelves with a minimum shelf height of 32 cm), 1 locking filing cabinet (minimum dimensions 50 cm x 39 cm x 60 cm), 1 garbage can, and 1 recycling bin.
1.11.1.13. The work stations and contents must be for the sole use of the Departmental Representative and their consultant(s) for the duration of the Work and may, if necessary, be used concurrently with other inspection agencies.
1.11.2. Installation:
1.11.2.1. Install stable timber foundation as shown on Contractor’s Site Layout.
1.11.2.2. Install level and plumb.
1.11.2.3. Install skirting and stairs.
1.11.2.4. Adjust doors and windows for smooth operation.
1.11.2.5. Install personnel decontamination facility immediately adjacent to stairs.
1.11.3. Provide a minimum of 2 parking spaces for Departmental Representatives and their consultants adjacent to offices.

1.12. Equipment, Tools and Materials Storage

1.12.1. Provide and maintain, in clean and orderly condition, lockable weatherproof sheds for storage of tools, equipment and materials.

1.12.2. Locate materials not required to be stored in weatherproof sheds on site in manner to cause least interference with work activities.

1.13. Sanitary Facilities

1.13.1. Provide sanitary facilities for work force in accordance with governing regulations and ordinances.

1.13.2. Post notices and take precautions as required by local health authorities. Keep area and premises in sanitary condition.

1.14. Construction Signage

1.14.1. Provide and erect project signs within 10 Working Days of mobilization in a location designated by Departmental Representative.

1.14.2. Provide project identification site sign comprising foundation, framing, and one 1200 x 2400 mm signboard as detailed and as described below.

1.14.2.1. Foundations: 15 MPa concrete to CSA-A23.1 minimum 200 mm x 900 mm deep.

1.14.2.2. Framework and battens: SPF, pressure treated minimum 89 x 89 mm.

1.14.2.3. Signboard: 19 mm Medium Density Overlaid Douglas Fir Plywood to CSA O121.

1.14.2.4. Paint: alkyd enamel to CAN/CGSB-1.59 over exterior alkyd primer to CAN/CGSB 1.189.

1.14.2.5. Fasteners: hot-dip galvanized steel nails and carriage bolts.

1.14.2.6. Vinyl sign face: printed project identification, self adhesive, vinyl film overlay, supplied by Departmental Representative.

1.14.3. Locate project identification sign as directed by Departmental Representative and construct as follows:

1.14.3.1. Build concrete foundation, erect framework, and attach signboard to framing.

1.14.3.2. Paint surfaces of signboard and framing with one coat primer and two coats enamel. Colour white on signboard face, black on other surfaces.

1.14.3.3. Apply vinyl sign face overlay to painted signboard face in accordance with installation instruction supplied.

1.14.4. Direct requests for approval to erect Contractor signboard to Departmental Representative. For consideration general appearance of Contractor signboard must conform to project identification site sign. Wording in both official languages.

1.14.5. Signs and notices for safety and instruction in both official languages Graphic symbols to CAN/CSA-Z321.

1.14.6. Maintain approved signs and notices in good condition for duration of project, and dispose of off site on completion of project or earlier if directed by Departmental Representative.

1.15. Protection and Maintenance of Traffic

1.15.1. Provide access and temporary relocated roads as necessary to maintain traffic.

1.15.2. Maintain and protect traffic on affected roads during construction period except as otherwise specifically directed by Departmental Representative.

1.15.3. Provide measures for protection and diversion of traffic, including provision of watch-persons and flag-persons, erection of barricades, placing of lights around and in front of equipment and work, and erection and maintenance of adequate warning, danger, and direction signs.

1.15.4. Protect travelling public from damage to person and property.

1.15.5. Contractor's traffic on roads selected for hauling material to and from site to interfere as little as possible with public traffic.

1.15.6. Verify adequacy of existing roads and allowable load limit on these roads. Contractor: responsible for repair of damage to roads caused by construction operations.

1.15.7. Construct access and haul roads necessary.

1.15.8. Haul roads: constructed with suitable grades and widths; sharp curves, blind corners, and dangerous cross traffic shall be avoided.

1.15.9. Provide necessary lighting, signs, barricades, and distinctive markings for safe movement of traffic.

1.15.10. Dust control: adequate to ensure safe operation at all times.

1.15.11. Location, grade, width, and alignment of construction and hauling roads: subject to approval by Departmental Representative.

1.15.12. Lighting: to assure full and clear visibility for full width of haul road and work areas during night work operations.

1.15.13. Provide snow removal during period of Work.

1.15.14. Remove, upon completion of work, haul roads designated by Departmental Representative.

1.16. Truck Wash and Decontamination Units

1.16.1. Supply, install and operate the truck wash, including the installation of a water supply.

1.16.1.1. No vehicles which have come in contact with Contaminated Material must leave the Site without passing through the truck wash.

1.16.1.2. The truck wash must provide, at a minimum, the ability to wash truck tires and load boxes to a minimum height of 1.7 m.

1.16.1.3. Truck wash must have a solid separation tank and all solids collected must be classified as Contaminated Material and disposed of at a Disposal Facility.

1.16.1.4. Recycle or treated as Contaminated Water used in the truck wash.

1.16.2. Supply personnel decontamination units (minimum of 2) for use by hazardous material, testing and inspection personnel working in areas of hazardous materials and for general clean-up of personal protective equipment to remove Contaminated Material.

1.16.2.1. At least one personnel decontamination unit must have overhead shower capability.

1.16.2.2. The personnel decontamination units to be available to Departmental Representative and their consultants.
1.16.2.3. The personnel decontamination units are subject to acceptance of Departmental Representative.
1.16.3. The truck wash and personnel decontamination units must be maintained in good working order during onsite Work.
1.16.4. The truck wash and personnel decontamination units must be removed from the Site during Site Decommissioning.

1.17. Clean-Up

1.17.1. Remove construction debris, waste materials, packaging material from work site daily.
1.17.2. Clean dirt or mud tracked onto paved or surfaced roadways.
1.17.3. Store materials resulting from demolition activities that are salvageable.
1.17.4. Stack stored new or salvaged material not in construction facilities.

2. PART 2 - PRODUCTS

2.1. Not Used

2.1.1. Not Used.

3. PART 3 - EXECUTION

3.1. Not Used

3.1.1. Not Used.

END OF SECTION

1. PART 1 - GENERAL

1.1. Measurement Procedures

1.1.1. See 01 11 00.

1.2. Definitions

1.2.1. See 01 11 00.

1.3. Action and Informational Submittals

1.3.1. Product Data: at least 5 Working Days prior to use, Submit data on products to be used in Work. Include:

1.3.1.1. Manufacturers' catalogue sheets, MSDS sheets, brochures, literature, performance charts and diagrams, used to illustrate standard manufactured products or any other information in accordance with the Contract.

1.3.1.2. Delete information not applicable to project.

1.3.1.3. Supplement standard information to provide details applicable to project.

1.3.1.4. Cross-reference product data information to applicable portions of Contract.

1.3.2. Substitution: at least 5 Working Days prior to use and after Contract award, Submit proposals for substituting products, if required. Include statements of respective costs of items originally in accordance with the Contract and the proposed substitution.

1.3.3. Quality of Work: at least 5 Working Days prior to Work, Submit alternate means to meet or correct quality of work, if required.

1.4. Products, Material and Equipment

1.4.1. Use new products, material and equipment in accordance with the Contract. The term "products" is referred to throughout the specifications.

1.4.2. Use products of one manufacturer for material and equipment of the same type or classification in accordance with the Contract.

1.4.3. Unless otherwise specified, comply with manufacturer's latest printed instructions for materials and installation method in accordance with the Contract s.

1.4.4. Notify Departmental Representative in writing of any conflict between Contract and manufacturer's instructions. Departmental Representative will instruct which document is to be followed.

1.4.5. Deliver, store and maintain packaged material and equipment with manufacturer's seals and labels intact.

1.4.6. Prevent damage, adulteration and soiling of products during delivery, handling and storage. Immediately remove rejected products from Site.

1.4.7. Store products in accordance with Suppliers' instructions.

1.5. Quality of Products

1.5.1. Products, materials and equipment (referred to as products) incorporated into Work must be new, not damaged or defective, and of the best quality (compatible with the specifications) for the purpose intended. As instructed by the Departmental Representative, furnish evidence as to type, source, and quality of the products provided.

1.5.2. Defective products will be rejected regardless of previous inspections.

1.5.2.1. Inspection does not relieve responsibility, but is precaution against oversight or error.

1.5.2.2. Remove and replace defective products.

1.5.3. Retain purchase orders, invoices and other documents to prove that all products utilized in the Work meet the requirements of the Contract. Produce documents as instructed by the Departmental Representative.

1.5.4. Should any dispute arise as to quality or fitness of products, the decision rests strictly with the Departmental Representative in accordance with the Contract.

1.5.5. Permanent labels, trademarks and nameplates on products are not acceptable in prominent locations, except where required for operating instructions, or when located in mechanical or electrical rooms.

1.6. Availability of Products

1.6.1. Immediately upon signing the Contract, review product delivery requirements and anticipate foreseeable supply delays for any items.

1.6.2. If delays in supply of products are foreseeable, Notify Departmental Representative of such in order that substitutions or other remedial action may be authorized in ample time to prevent delay in performance of the Work.

1.6.3. In event of failure to Notify Departmental Representative at the start of Work and should it subsequently appear that the Work may be delayed for such reason, the Departmental Representative reserves the right to substitute more readily available products of similar character.

1.7. Manufacturer’s Instructions

1.7.1. Install or erect products in accordance with the manufacturer’s instructions in accordance with the Contract.

1.7.1.1. Do not rely on labels or enclosures provided with products.

1.7.1.2. Obtain written instructions directly from the manufacturer.

1.7.2. Notify Departmental Representative in writing of any conflict between Contract and manufacturer’s instructions. Departmental Representative will instruct which document is to be followed.

1.7.3. Improper installation or erection of products, due to failure in complying with these requirements, authorizes the Departmental Representative to instruct the removal and re-installation.

1.8. Contractor's Options for Selection of Products for Tendering

1.8.1. Products specified by "Prescriptive" specifications: select any product meeting or exceeding requirements in accordance with the Contract.

1.8.2. Products specified by performance and referenced standard: select any product meeting or exceeding the referenced standard.

1.8.3. Products specified to meet particular design requirements or to match existing materials: use only material in accordance with the Contract.

1.8.4. When products are specified by a referenced standard or by performance specifications, as instructed by the Departmental Representative obtain from manufacturer and independent laboratory report showing that the product meets or exceeds the requirements in accordance with the Contract.

1.9. Storage, Handling and Protection

1.9.1. Handle and store products in manner to prevent damage, adulteration, deterioration and soiling and in accordance with manufacturer's instructions.

1.9.2. Store packaged or bundled products in original and undamaged condition with manufacturer's seals and labels intact. Do not remove from packaging or bundling until required in Work.

1.9.3. Store products subject to damage from weather in weatherproof enclosures.

1.9.4. Remove and replace damaged products as instructed by the Departmental Representative.

1.10. Transportation

1.10.1. Pay costs of transportation of products required in performance of Work.

1.10.2. Transport products in manner to prevent damage, adulteration, deterioration and soiling and in accordance with manufacturer's instructions when applicable.

1.10.3. Transport products subject to damage from weather in weatherproof enclosures.

1.10.4. Transport in an efficient manner that does not cause delays to the Work schedule.

1.11. Quality of Work

1.11.1. Ensure quality of Work is of highest standard, executed by workers experienced and skilled in respective duties for which they are employed. Immediately Notify Departmental Representative if required Work is such as to make it impractical to produce results in accordance with the Contract. Provide alternate means to meet or correct quality of work, as accepted by the Departmental Representative.

1.11.2. Do not employ anyone unskilled in their required duties.

1.11.3. Perform Work to standard of fitness of Quality of Work in accordance with any decision by the Departmental Representative.

1.12. Coordination

1.12.1. Ensure cooperation of workers in laying out Work. Maintain efficient and continuous supervision.

1.13. Remedial Work

1.13.1. Perform remedial Work required to repair or replace parts or portions of Work as instructed by the Departmental Representative as defective or unacceptable. Coordinate adjacent affected Work as required.

1.13.2. Perform remedial Work by specialists familiar with materials affected. Perform in a manner to neither damage nor put at risk any portion of Work.

1.14. Storage Tanks

1.14.1. Abide by the *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations* for stored petroleum products and allied petroleum products tank system located on federal or Aboriginal land, or within federal jurisdiction as described in the regulations.

1.14.2. Temporary storage tanks subject to the regulations must be registered with Environment Canada.

1.14.3. Mobile tanks subject to the regulations must be certified to be mobile.

1.14.4. Storage tanks to meet the following minimum requirements:

1.14.4.1. Corrosion protection.

1.14.4.2. Secondary containment.

1.14.4.3. Containment sumps, if applicable.

1.14.4.4. Overfill protection.

1.14.5. All components of tank system must bear certification marks indicating that they conform to the standards set out in the regulations.

1.14.6. Product transfer area must be designed to contain spills.

1.14.7. Prepare an emergency plan.

1.14.8. Prior to first filling, storage tanks must:

1.14.8.1. Be registered.

1.14.8.2. Be certified and marked.

1.14.8.3. Transfer area be constructed.

1.14.8.4. Emergency plan in place.

2. PART 2 - PRODUCTS

2.1. Asbestos Containing Materials Prohibition

2.1.1. Any material containing any degree of asbestos is banned from use in any and all sites, designs and projects.

3. PART 3 - EXECUTION

3.1. Not Used

3.1.1. Not Used.

END OF SECTION

1. PART 1 - GENERAL

1.1. Measurement Procedures

1.1.1. See 01 11 00.

1.2. Definitions

1.2.1. See 01 11 00.

1.3. Action and Informational Submittals

1.3.1. Preconstruction Condition Survey: within 10 Working Days prior to mobilization to Site, Submit Preconstruction Condition Survey of existing structures, utilities and surface features.

1.3.2. Preconstruction As-Built Documents: at least 5 Working Days prior to mobilization to Site, Submit preconstruction as-built documents prepared by a Land Surveyor.

1.4. Qualifications of Surveyor

1.4.1. A Land Surveyor, acceptable to Departmental Representative.

1.5. Survey Reference Points

1.5.1. Locate, confirm and protect control points prior to starting site work. Preserve permanent reference points during construction.

1.5.2. Make no changes or relocations without prior written notice to Departmental Representative.

1.5.3. Report to Departmental Representative when reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.

1.5.4. Require surveyor to replace control points in accordance with original survey control.

1.6. Survey Requirements

1.6.1. Establish permanent bench marks on site, referenced to established bench marks by survey control points. Record locations, with horizontal and vertical data in Project Record Documents.

1.6.2. Establish lines and levels, locate and lay out, by instrumentation.

1.6.3. Stake for grading, fill.

1.7. Existing Services

1.7.1. Size, depth and location of existing utilities and structures as specified are for guidance only. Completeness and accuracy are not guaranteed.

1.7.2. Before commencing work, establish location and extent of service lines in area of Work and notify Departmental Representative. All utilities entering Site must be confirmed prior to subsurface disturbance (i.e., do not rely on as-built documents). As appropriate, confirm locations of buried utilities by independent utility locator and using hand test excavations or hydrovac methods.

1.7.3. Remove abandoned service lines within 2m of structures. Cap or otherwise seal lines at cut-off points as directed by Departmental Representative.
1.7.4. Maintain and protect from damage all utilities and structures encountered, unless Work involves temporarily breaking, rerouting, or connecting into existing utilities.
1.7.5. Where Work involves temporarily breaking, rerouting, or connecting into existing utilities, obtain permission from utility companies of intended interruption of services, and carry out Work at times determined by the authorities having jurisdiction.
1.7.6. Submit schedule to and obtain approval for any shutdown or closure of active service. Adhere to schedule accepted by Departmental Representative and provide notice to affected parties.
1.7.7. Provide temporary services as required to maintain critical building and tenant systems.
1.7.8. Where unknown utilities are encountered, immediately verbally notify Departmental Representative and confirm findings in writing.

1.8. Examination

1.8.1. Examine Site and Contract and be familiar and conversant with existing conditions likely to affect Work, including Contaminated Material.

1.9. Records

1.9.1. Land Surveyor to prepare preconstruction as-built drawings of all utilities.
1.9.2. Land Surveyor to prepare postconstruction as-built drawings of all utilities, including existing, reinstated, rerouted, and abandoned.
1.9.3. Maintain a complete, accurate log of control and survey work as it progresses.
1.9.4. Preconstruction Condition Survey:
1.9.4.1. Conduct Preconstruction Condition Survey of existing structures and other features which can be affected by Work, both onsite and offsite. Includes: buildings, trees and other plants, lawns, fencing, service poles, wires, rail tracks, pavement, roads, survey bench marks, monuments and other features.
1.9.4.2. Survey to include detailed photographic documentation of any preconstruction damage, and measurements where appropriate, including crack width and length, angles out of true. Record written notices to owners of features that have existing damage.
1.9.4.3. Record written notices of offsite owners which refused entry to conduct Preconstruction Condition Survey.

2. PART 2 - PRODUCTS

2.1. Not Used
2.1.1. Not Used.

3. PART 3 - EXECUTION

3.1. Not Used
3.1.1. Not Used.

END OF SECTION

1. PART 1 - GENERAL

1.1. Measurement Procedures

1.1.1. See 01 11 00.

1.2. Definitions

1.2.1. See 01 11 00.

1.3. Action and Informational Submittals

1.3.1. Waste Reduction Plan: within 10 Working Days after Contract award and prior to mobilization to Site, Submit a plan detailing material separation. Include:

1.3.1.1. List of materials to be reused or recycled.

1.3.1.2. Sequence, methods and means to dispose Waste offsite. Include name, location, provincial or territorial authorizations, and evidence of compliance with municipal zoning and bylaws of Disposal Facilities.

1.3.2. Landfill Receipts: within 5 Working Days of transport offsite, Submit receiving facility receipts indicating quantity and type of material delivered to Landfill.

1.3.3. Recycling Receipts: within 5 Working Days of transport offsite, Submit receiving facility receipts indicating quantity and type of materials sent for recycling.

1.4. Waste Disposition

1.4.1. Waste and Non-Contaminated Material Disposal:

1.4.1.1. Dispose all soil and sediment in Landfill Facility.

1.4.1.2. Divert materials other than soil or sediment which can be practically reused or recycled from Landfill as approved by Departmental Representative.

1.4.1.3. All Waste not reused or recycled must be disposed in Landfill Facility.

1.5. Waste Transport

1.5.1. Assume ownership of, and be responsible for, Waste once it is loaded on a vehicle, barge, or other vessel for transport.

1.5.2. Transport material as soon as practical. Do not unreasonably stockpile material onsite.

1.5.3. Cover material while being transported to prevent release of airborne dust, vapours, or odours, and to prevent saturation and leachate generation from material.

1.5.4. Excess water in material must not be allowed to flow out of vehicle or vessel during transport.

1.5.5. Stabilize material as necessary.

1.5.6. All vehicles, vessels and operators must be appropriately licensed and equipped to transport Waste.

1.5.7. Barges must be inspected by an independent Marine Surveyor and Submit a copy of the Certificate of Seaworthiness to Departmental Representative.

1.5.8. Manifest and correlate quantities of all material transported from Site documenting quantity removed from Site, movement, transfer stations, interim storage and treatment, and weight of material at final Disposal Facility. Submit all manifests, as directed by the Departmental Representative.

1.5.9. Material transported with discrepancies in manifests must be resolved as required by regulations and as acceptable to the Departmental Representative. Discrepancies include:

1.5.9.1. No manifest or an incomplete manifest.

1.5.9.2. The material transported does not match the description in the manifest.

1.5.9.3. The amount transported differs by more than 5% in the manifest.

1.5.9.4. The material transported is in a hazardous condition.

1.5.10. Transfer/Interim Storage Facility must:

1.5.10.1. Be an existing offsite facility located in Canada or the United States.

1.5.10.2. Be designed, constructed and operated for the transfer or interim storage of Contaminated Material.

1.5.10.3. Hold a valid and subsisting permit, certificate, approval, or other required form of authorization issued by a Facility Regulator for the transfer or interim storage of relevant Contaminated Material.

1.5.10.4. Comply with applicable municipal zoning, bylaws, and other applicable requirements.

1.5.11. Facility Regulator:

1.5.11.1. For facilities within provincial or territorial jurisdiction: the relevant provincial or territorial ministry.

1.5.11.2. For facilities on First Nations reserve land in Canada not subject to the First Nation Land Management regime: Indigenous and Northern Affairs Canada.

1.5.11.3. For facilities on First Nations reserve land in Canada subject to the First Nation Land Management regime: the relevant First Nation Council. In addition, a Qualified Professional must certify that the facility is appropriate for the relevant Contaminated Material.

1.5.11.4. For facilities in the United States of America: either or both of the Environmental Protection Agency and the relevant State, as appropriate.

1.6. Waste Disposal

1.6.1. Assume ownership of, and be responsible for, Waste disposed.

1.6.2. Waste Disposal: dispose Waste at Landfill Facility provided by Contractor and accepted by the Departmental Representative.

1.6.3. Disposal Facility must:

1.6.3.1. Be an existing offsite facility located in Canada or the United States.

1.6.3.2. Be designed, constructed and operated to prevent any pollution from being caused by the facility outside the area of the facility from waste placed in or on land within the facility. Must conform with the BC Ministry of Environment *Landfill Criteria for Municipal Solid Waste* or equivalent requirements of authorities having jurisdiction.

1.6.3.3. Hold a valid and subsisting permit, certificate, approval, or other required form of authorization issued by a Facility Regulator for the disposal of relevant Contaminated Material.
1.6.3.4. Comply with applicable municipal zoning, bylaws, and other applicable requirements.
1.6.4. Facility Regulator:
1.6.4.1. For facilities within provincial or territorial jurisdiction: the relevant provincial or territorial ministry.
1.6.4.2. For facilities on First Nations reserve land in Canada not subject to the First Nation Land Management regime: Indigenous and Northern Affairs Canada.
1.6.4.3. For facilities on First Nations reserve land in Canada subject to the First Nation Land Management regime: the relevant First Nation Council. In addition, a Qualified Professional must certify that the facility is appropriate for the relevant Contaminated Material.
1.6.4.4. For facilities in the United States of America: either or both of the Environmental Protection Agency and the relevant State, as appropriate.
1.6.5. Dispose material as soon as practical and within 60 Working Days of leaving Site or as required by Contract unless otherwise accepted by Departmental Representative.
1.6.6. Material sent to a Landfill Facility must be permanently stored at that facility.
1.6.7. If proposed Landfill Facility is not acceptable to Departmental Representative, provide an alternate Landfill Facility that is acceptable.
1.6.8.
Submit Landfill Receipts for all Waste material disposed offsite.

1.7. Materials Source Separation

1.7.1. Provide separate containers for reusable and/or recyclable materials of the following:
1.7.1.1. Metals.
1.7.1.2. Wood.
1.7.1.3. Plastics.
1.7.1.4. Paper.
1.7.1.5. Glass.
1.7.1.6. Concrete.
1.7.1.7. Other materials in accordance with the Contract.
1.7.2. Implement Materials Source Separation Program for waste generated on project in compliance with methods accepted by the Departmental Representative.
1.7.3. Locate containers in locations, to facilitate deposit of materials without hindering daily operations.
1.7.4. Locate separated materials in areas which minimize material damage.

1.8. Diversion of Materials

1.8.1. Create a list of materials to be separated from the general waste stream and stockpiled in separate containers, as accepted by the Departmental Representative and consistent with applicable fire regulations.

1.8.1.1. Mark containers.

1.8.1.2. Provide instruction on disposal practices.

1.9. Storage, Handling and Application

1.9.1. Do Work in compliance with Waste Reduction Plan.

1.9.2. Handle waste materials not reused, salvaged, or recycled in accordance with appropriate regulations and codes, and dispose at Landfill weekly.

1.9.3. Materials in separated condition: collect, handle, store onsite, and transport offsite to an authorized recycling facility accepted by the Departmental Representative, and remove from Site weekly.

1.9.4. Materials must be immediately separated into specified categories for reuse or recycling.

1.9.5. Unless otherwise in accordance with the Contract, materials for removal become the Contractor's property.

1.9.6. Onsite sale of salvaged/recyclable material is not permitted.

1.9.7. Submit as instructed by the Departmental Representative receiving facility weigh scale receipts indicating quantity of material delivered to Landfill.

1.9.8. Submit as instructed by the Departmental Representative receiving facility weigh scale receipts indicating quantity and type of materials sent for recycling.

2. PART 2 - PRODUCTS

2.1. Not Used

2.1.1. Not Used.

3. PART 3 - EXECUTION

3.1. Not Used

3.1.1. Not Used.

END OF SECTION

1. PART 1 - GENERAL

1.1. Measurement Procedures

1.1.1. See 01 11 00.

1.2. Definitions

1.2.1. See 01 11 00.

1.3. Action and Informational Submittals

1.3.1. Product Instructions: at least 10 Working Days before Substantial Performance of the Work is completed, Submit instructions and data by personnel experienced in maintenance and operation of products and equipment constructed and remaining onsite, if required.

1.3.2. Closeout Documents: within 20 Working Days of Final Completion of Site Restoration, Submit completion documents and as-built documents.

1.4. As-Built Documents

1.4.1. The Departmental Representative will provide 2 sets of Drawings, 2 sets of Specifications, and 2 copies of the original AutoCAD files for “as-built” purposes.

1.4.2. As Work progresses, maintain accurate records to show all deviations from the Contract. Note changes as they occur on as-built Specifications, Drawings and shop drawings.

1.4.3. Drawings and shop drawings: legibly mark each item to record actual construction, including:

1.4.3.1. Measured locations of internal utilities and appurtenances, referenced to visible and accessible features of construction.

1.4.3.2. Field changes of dimension and detail.

1.4.3.3. Changes made by change orders.

1.4.3.4. Details not on original Drawings.

1.4.3.5. References to related shop drawings and modifications.

1.4.4. Contract Specifications: legibly mark each item to record actual workmanship of construction, including:

1.4.4.1. Manufacturer, trade name, and catalogue number of each product actually installed, particularly optional items and substitute items.

1.4.4.2. Changes made by addenda and change orders.

1.4.5. As-built information:

1.4.5.1. Record changes in red ink.

1.4.5.2. Mark on 1 set of Drawings, Specifications and shop drawings at Final Completion of project and, before final inspection, neatly transfer notations to second set.

1.4.5.3. Submit 1 set in editable AutoCAD 14 file format with all as-built information.

1.4.5.4. Submit all sets as instructed by the Departmental Representative.

1.4.6. As required, surveying to be completed by a Land Surveyor for as-built documents.

1.5. Completion Documents

1.5.1. Submit as instructed by the Departmental Representative, a written certificate that the following have been performed:

1.5.1.1. Work has been completed and inspected by the Departmental Representative in accordance with the Contract.

1.5.1.2. Treatment and disposal of treatable soils have been completed and disposal of all other soils has been completed.

1.5.1.3. Damage has been repaired, deficiencies have been completed, missing items have been provided, and non-conformance has been corrected, in the opinion of the Departmental Representative.

1.5.1.4. Equipment and systems have been tested, adjusted and balanced, and are fully operational, as applicable.

1.5.1.5. Certificates required by the Fire Commissioner of Canada, and utility companies have been submitted, as applicable.

1.5.1.6. Operation of systems has been demonstrated to the personnel as instructed by the Departmental Representative, as applicable.

1.5.1.7. Qualified Professional report documenting backfilling has met all requirements of the Contract.

1.5.1.8. Work is complete and ready for Final Site Inspection.

1.5.2. Defective products will be rejected, regardless of previous inspections. Replace defective products.

1.5.3. Prepare all documentation required as part of any permits or other authorizations obtained or otherwise the responsibility of the Contractor.

2. PART 2 - PRODUCTS

2.1. Not Used

2.1.1. Not Used.

3. PART 3 - EXECUTION

3.1. Not Used

3.1.1. Not Used.

END OF SECTION

1. PART 1 - GENERAL

1.1. Measurement Procedures

1.1.1. See 01 11 00.

1.2. Definitions

1.2.1. See 01 11 00.

1.3. Action and Informational Submittals

1.3.1. Permits: at least 10 Working Days prior to mobilization to Site, Submit copies of all permits, certificates, approvals, or any other form of authorizations and all reporting required.

1.3.2. Import Fill Material Quality: at least 5 Working Days prior to bringing material onsite, Submit documentation signed and sealed by a Qualified Professional verifying that material is acceptable for import and intended use. Include:

1.3.2.1. Grain-size distribution information.

1.3.2.2. Chemical analyses for Potential Contaminants of Concern, including metals.

1.3.2.3. Testing to be performed by a Qualified Professional at sufficient frequency to characterize all material imported to Site. Test using appropriate guidelines and practices.

1.3.3. Import Fill Material Samples: at least 5 Working Days prior to bringing material to Site, Submit samples of imported fill.

1.3.3.1. Submit samples representative of all material to be imported. Sample frequency subject to acceptance by Departmental Representative.

1.3.3.2. Submit sufficient sample size to allow geotechnical and environmental quality testing.

1.4. Sequencing for Free Phase Products

1.4.1. When floating free phase substance is present, remove free phase from saturated soil or sediment without further contaminating soil, sediment or groundwater prior to commencing other construction Work.

1.4.2. Collect free phase product, load, and transport to a Treatment Facility.

1.5. Onsite Access Roads

1.5.1. Maintain onsite access roads as follows:

1.5.1.1. Obtain permission to use existing onsite access roads.

1.5.1.2. Maintain and clean roads for duration of Work.

1.5.1.3. Control mud and dust from road.

1.5.1.4. Repair damage incurred from use of roads.

1.5.1.5. Provide photographic documentation of roads used by construction vehicles before, during and after Work.

1.5.1.6. The Departmental Representative can instruct cleaning of the onsite access roads.

2. PART 2 - PRODUCTS

2.1. Materials

2.1.1. Erosion and sediment control materials to meet the following minimum requirements:

2.1.1.1. Hay or Straw Bale: wire bound or string tied; securely anchored by at least 2 stakes or rebars driven through bale 300 mm to 450 mm into ground; chinked (filled by wedging) with hay or straw to prevent water from escaping between bales; and entrenched minimum of 100 mm into ground.

2.1.1.2. Silt Fence: assembled, ready to install unit consisting of geotextile attached to driveable posts. Geotextile: uniform in texture and appearance, having no defects, flaws, or tears that would affect its physical properties; and contain sufficient ultraviolet ray inhibitor and stabilizers to provide minimum 2-year service life from outdoor exposure.

2.1.1.3. Net Backing: industrial polypropylene mesh joined to geotextile at both top and bottom with double stitching of heavy-duty cord, with minimum width of 750 mm.

2.1.1.4. Posts: sharpened wood, approximately 50 mm square, protruding below bottom of geotextile to allow minimum 450 mm embedment; post spacing 2.4 m maximum. Securely fasten each post to geotextile and net backing using suitable staples.

2.1.2. Gradations to be within limits specified when tested to ASTM C117-13 (*Standard Test Method for Materials Finer than 0.075 mm (No. 200) Sieve in Mineral Aggregates by Washing*) and ASTM C136-06 (*Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates*). Sieve sizes to SCC CAN/CGSB-8.1-88 (*Sieves, Testing, Woven Wire, Inch Series*) and CAN/CGSB-8.2-M88 (*Sieves, Testing, Woven Wire, Metric Series*).

2.1.3. Import fill materials to meet the following minimum requirements

2.1.3.1. Import fill materials must be granular aggregate composed of inert, clean, tough, durable particles of crushed rock, gravel and sand capable of withstanding the deleterious effects of exposure to water, freeze-thaw, handling, spreading and compacting. The aggregate particles must be uniform in quality and free from clay lumps, wood and free from an excess of flat or elongated pieces.

2.1.3.2. Import fill materials must originate from a clean source, and be the lesser of the Canadian Council of Ministers of the Environment *Soil Quality Guidelines for Commercial and Industrial Land Uses*, and the British Columbia *Contaminated Sites Regulation Schedule 7- Standards Triggering Contaminated Soil Relocation Agreements, Soil Relocation to Non-agricultural Land*.

2.1.3.3. Import fill material that is cobble sized or larger (> 64mm) brought onsite must be tested by the Contractor for Acid Rock Drainage (ARD) and Metals Leaching (ML) potential using acid base accounting (ABA) for assessment of ARD potential and more specifically using the Modified Sobek Test Method. The potential for metals leaching must use Shake Flask Extraction (SFE) Method for analysis of metals leaching. See guidance document Price 2009, *Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials* MEND Report 1.20.1, Natural Resources Canada.

2.1.3.4. Any import fill material which has a discrete sample exceeding the standards or guidelines specified must be removed from the Site and replaced, including relevant placed material, as instructed by the Departmental Representative, and an alternate source of backfill must be provided, with no increases to Contract Amount or Extension of Time for completion of the Work.

2.1.4. Import fill material additional testing:

2.1.4.1. Perform additional testing as instructed by the Departmental Representative.

2.1.4.2. Facilitate testing by the Departmental Representative.

2.1.5. Asphalt, as required, must, at minimum, meet the specifications for: Upper Course #1 mix-type as specified in Section 32 12 16, Hot Mix Asphalt Concrete Paving; of the *BC Master Municipal Construction Document (2009) Platinum Edition*.

3. PART 3 - EXECUTION

3.1. Examination

3.1.1. Site Verification of Conditions:

3.1.1.1. Contractor to determine condition of existing Site and requirements to make the Site suitable for Work.

3.2. Mobilization Requirements

3.2.1. Do not mobilize until instructed by Departmental Representative.

3.2.2. Mobilize all necessary equipment, materials and personnel to the Site in an orderly and efficient manner.

3.3. Site Preparation and Operation

3.3.1. Site Preparation and operation includes construction, operation and maintenance for the duration of the Work,

3.3.2. Remove and dispose all surficial Non-Contaminated Material at a Landfill to allow access for Work.

3.3.3. Clearing and grubbing of the Site to allow access for Work.

3.3.3.1. Clearing consists of removing Non-Contaminated Material vegetation above existing ground surface to facilitate Work. Includes: cutting off trees and brush vegetative growth, felled trees, previously uprooted trees and stumps. Dispose of Non-Contaminated Material at a Landfill.

3.3.3.2. Grubbing consists of excavation of Non-Contaminated Material below existing ground surface to facilitate Work. Includes: stumps, roots, boulders and rock fragments. Dispose of Non-Contaminated Material at a Landfill.
3.3.4. Remove obstructions, ice and snow, from surfaces to be worked.
3.3.5. Protection:
3.3.5.1. Protect existing features with temporary barriers and enclosures as required by applicable local regulations.
3.3.5.2. Keep excavations clean, free of standing water, and loose soil or sediment.
3.3.5.3. Protect natural and man-made features required to remain undisturbed. Unless otherwise required or located in an area to be occupied by new construction, protect existing trees from damage.
3.3.5.4. Protect buried utilities that are required to remain undisturbed.
3.3.5.5. Provide temporary structures to divert flow of surface water from excavation.
3.3.6. Security and Safety:
3.3.6.1. Provide safety measures to ensure worker and public safety.
3.3.6.2. Ensure Site is secure during onsite Work, provide, install, and remove fencing, temporary hoarding, and other security measures as required and specified.
3.3.7. Site including all restoration and excavation areas should be secured with locked fencing, temporary hoarding and security personnel.

3.4. Import Fill Material

3.4.1. Do not import fill material until Departmental Representative has completed and analysed testing. Testing and analysis will depend on parameters. Testing will be performed at industry regular (standard) turnaround times (i.e. not priority, emergency, same day or other rush turnaround times).
3.4.2. Departmental Representative will inspect import fill material, and will not allow import of fill material that varies from Submittal samples.

3.5. Site Restoration

3.5.1. Final site grades must be within 5 cm of pre-existing grades before Work commenced, unless otherwise specified.
3.5.2. Clean permanent access roads of contamination resulting from project activity as required or as instructed of Departmental Representative, with no increases to Contract Amount or Extension of Time for completion of the Work.
3.5.3. Decontaminate equipment used in construction processes and remove from Site at end of construction activities.
3.5.4. Remove all temporary structures including subsurface structures for shoring support.
3.5.5. Upon Final Completion of Work, remove Non-Contaminated Material materials and debris, trim slopes, and correct defects as instructed by the Departmental Representative.

3.5.6. Protect newly graded areas from traffic and erosion and maintain free of trash or debris until demobilization is completed and accepted by the Departmental Representative.

3.5.7. Reinstate pre-existing utilities and other infrastructure to original location and condition, meting current standards, codes, and other requirements, unless otherwise indicated or as instructed by the Departmental Representative.

3.6. Demobilization

3.6.1. Do not demobilize until instructed by Departmental Representative.

3.6.2. Demobilize all necessary equipment, materials, and personnel from Site in an orderly and efficient manner.

END OF SECTION

1. PART 1 - GENERAL

1.1. Measurement Procedures

1.1.1. See 01 11 00.

1.2. Definitions

1.2.1. See 01 11 00.

1.3. Action and Informational Submittals

1.3.1. STF Design: within 10 Working Days after Contract award and prior to construction of Soil Treatment Facility, Submit documentation describing design. Include:

1.3.1.1. Base Preparation

1.3.1.2. Gradients and sump location.

1.3.1.3. Granular and synthetic materials to be used.

1.3.1.4. Procedures for construction.

1.3.1.5. Monitoring and inspection requirements, including frequency or milestones when a Qualified Professional must inspect Works.

1.3.1.6. STF Design must be signed and sealed by a Qualified Professional.

2. PART 2 - PRODUCTS

2.1. Synthetic Material

2.1.1. Liner material to be selected by Qualified Professional. Liner material to meet following minimum requirements:

2.1.1.1. 10 year lifespan.

2.1.1.2. Ultraviolet resistant.

2.1.1.3. Other requirements according to Drawings.

3. PART 3 - EXECUTION

3.1. Design Requirements

3.1.1. Construct Owner Soil Treatment Facility in location shown on Drawings.

3.1.2. Site of construction to be cleared and grubbed, with no sharp protusions.

3.1.3. Compact base material to a minimum of 100% Standard Proctor Maximum Dry Density.

3.1.4. Grade bottom of soil treatment facility to allow collection of water in corner.

3.1.5. Construct sump in corner of drainage.

3.1.6. Place a minimum of 0.5m of granular material above synthetic liner to protect liner during loading operations.

3.1.7. Berms to be a minimum of 0.5m high and to be wrapped in liner material. Place granular material over liner on berms to protect from damage from loading/unloading and weather.

3.2. Owner Soil Treatment Facility Preparation

3.2.1. Prior to transport and placement of material to Owner Soil Treatment Facility:

3.2.1.1. Remove vegetation that could potentially damage Soil Treatment Facility liner, including roots.

3.2.1.2. Inspect base protective layer of liner. Notify Departmental Representative if less than 0.5m thick.

3.2.1.3. Inspect and repair any minor damage to Soil Treatment Facility berm or liner. Notify Departmental Representative of any significant damage.

3.3. Owner Soil Treatment Facility Closure

3.3.1. At completion of transport and placement of material to Owner Soil Treatment Facility:

3.3.1.1. Grade soil for drainage to prevent ponding within soil treatment facility.

3.3.1.2. Place seamless 25 mil oil resistant reinforced polyethylene (OR RPE) ultraviolet resistant cover. Cover to have a minimum 5 year lifespan.

3.3.1.3. Cover to extend a minimum of 0.5m past berm.

Secure cover along perimeter and interior with easily removable weights (eg tires, lumber).

END OF SECTION

1. PART 1 - GENERAL

1.1. Measurement Procedures

1.1.1. See 01 11 00.

1.2. Definitions

1.2.1. See 01 11 00.

1.3. Action and Informational Submittals

1.3.1. Temporary Hoarding: at least 5 Working Days prior to installation, Submit a description of temporary hoarding.

1.3.2. Excavation and Backfilling Plan: within 10 Working Days after Contract award and prior to mobilization to Site, Submit documentation describing excavation Work. Include:

1.3.2.1. Excavation slopes design.

1.3.2.2. Temporary support design.

1.3.2.3. Support of structures design.

1.3.2.4. Sequence, methods and means for excavation dewatering and heave protection.

1.3.2.5. Backfilling requirements. Meet or exceed requirements in accordance with the Contract and any other codes, bylaws, rules and regulations applicable to the performance of the Work.

1.3.2.6. Procedures for excavations adjacent to utilities or other structures if the excavation has the potential to impact utilities or other structures.

1.3.2.7. Monitoring and inspection requirements, including frequency or milestones when a Qualified Professional must inspect Works.

1.3.2.8. Excavation and Backfilling Plan must be signed and sealed by a Qualified Professional, as required by ground conditions, excavation depth, shoring type, or support type.

1.3.3. Monitoring and Testing Results: within 5 Working Days of sampling, Submit all monitoring and testing results. Include procedures, frequency of sampling, Quality Assurance and Quality Control testing and documentation to be provided. Provide monitoring and testing results, including any assessments performed by a Qualified Professional. Include:

1.3.3.1. Noise monitoring.

1.3.3.2. Vibration monitoring.

1.3.3.3. Imported fill material, including geotechnical and environmental quality.

1.3.3.4. Compaction testing results.

1.3.3.5. Contaminated Water Treatment Plant water testing.

1.3.3.6. Environmental analytical results for spill or other environmental testing.

1.3.4. Weigh Scale Certification: at least 5 Working Days prior to use, Submit a copy of the Measurement Canada, Weigh Scale Certification for any onsite or offsite weigh scale used during transportation, treatment or disposal.

1.3.5. Weigh Scale Slips: within 10 Working Days of measurement. Submit all onsite and offsite weigh scale slips for material.

2. PART 2 - PRODUCTS

2.1. Backfill Material

2.1.1. Meet backfill requirements as shown on Drawings.

2.1.2. Meet appropriate grain size distribution from Aggregate Gradations; of the BC Ministry of Transportation and Infrastructure, 2012 *Standard Specifications for Highway Construction (Nov. 1, 2011), Volume 1*.

3. PART 3 - EXECUTION

3.1. Site Review

3.1.1. Ensure that all Works comply with the final sealed design documents as prepared by a Qualified Professional.

3.1.2. Qualified Professional to visit Site regularly.

3.2. Install Temporary Hoarding

3.2.1. Place temporary hoarding in accordance with the Contract so as to provide a visual, environmental, and safety barrier between the Site and neighbouring properties.

3.2.2. Temporary hoarding to be a minimum of 2.4 m in height.

3.2.3. Temporary hoarding not to extend beyond the project Site boundary in accordance with the Contract.

3.2.4. Remove and replace temporary hoarding during excavation activities where excavation along the project Site boundary cannot be accomplished while the temporary hoarding is in place.

3.2.5. The type of temporary hoarding used will be as selected by the Contractor, but will be subject to approval. The temporary hoarding must not have visible holes and must be a neutral color subject to acceptance by Departmental Representative. Only signage accepted by the Departmental Representative will be allowed. No advertising, company identifications, or other markings permitted.

3.2.6. Remove temporary hoarding from the Site during the Site Restoration.

3.3. Design, Construction and Operation of Onsite Access Road(s)

3.3.1. Construct, operate and maintain the onsite access road(s) as required.

3.3.2. Design of temporary onsite access roads to be signed and sealed by a Qualified Professional.

3.3.3. Qualified Professional to confirm that the temporary onsite access roads allow for the safe transport of materials and equipment.

3.3.4. Construction of the onsite access road(s) may require the removal of historic piles or dock facilities along the proposed access alignment, as well as abandoned drainage pipes.

3.3.5. Any temporary access, detour and haul roads associated with the project must be constructed to accommodate all required uses and be maintained throughout the course of construction operations in a safe, environmentally sound manner.
3.3.6. Location, alignment, design and construction of all detour, access and haul road(s) subject to the acceptance of the Departmental Representative.
3.3.7. Employ suitable measures to maintain quality, visibility, and safe conditions in the use of access, detour and haul road(s) associated with the Work.

3.4. Temporary Sloping and Shoring

3.4.1. Determine appropriate sloping or shoring to allow excavation of Contaminated Material to limits identified in Drawings. Contaminated Material Extents may increase based on field observations.
3.4.2. Overburden material immediately above Contaminated Material Extents is considered part of Excavation and will be re-used as Owner Supplied Backfill.
3.4.3. Design Requirements:
3.4.3.1. Act as sloping or shoring structures for excavations as well as for stability of nearby buildings during remediation/construction excavation procedures.
3.4.3.2. Allow excavation of all Contaminated Material laterally and vertically on the Site to Contaminated Material Extents in accordance with the Contract in order to result in no residual contamination at the Site.
3.4.3.3. Provide a safe working environment for personnel and equipment within the dewatered excavation area.
3.4.3.4. Additional sloping or shoring may be required and are considered part of the Temporary Sloping and Shoring design.
3.4.3.5. Temporary shoring cannot have any tiebacks or supports which extend beyond the project Site boundary.
3.4.3.6. Temporary shoring must not flex or bend when exposed while excavations are occurring on the Site.
3.4.3.7. Seismic Resistance of Temporary Sloping and Shoring:
3.4.3.7.1. Sloping and shoring structures are temporary structures only. Resistance to seismic loads will be at the discretion of the Qualified Professional.
3.4.3.7.2. Be responsible for any failures and resultant costs should the temporary sloping or shoring fail due to a seismic event during the construction period.
3.4.3.8. All drawings to be signed and sealed by a Qualified Professional.
3.4.3.9. Temporary sloping and shoring designs to be completed in accordance with methods in current version of *Canadian Foundation Engineering Manual*.
3.4.4. Installation:
3.4.4.1. All installation activities must take place on the Site. No staging or construction activities are to take place on adjacent properties.
3.4.4.2. Installation must be regularly inspected by a Qualified Professional.
3.4.5. Maintain side slopes of excavations in safe condition by appropriate methods and in accordance with relevant regulations.

3.4.6. Construct temporary Works to depths, heights and locations to meet project requirements.
3.4.7. During backfill operation:
3.4.7.1. Unless otherwise indicated or as instructed by the Departmental Representative, remove temporary shoring from excavations.
3.4.7.2. Do not remove support until backfilling has reached respective levels of such bracing.
3.4.7.3. Remove support in increments that ensure compacted backfill is maintained at elevation at least 500 mm above toe of support.
3.4.8. Temporary sloping and shoring excavated material:
3.4.8.1. Material excavated for sloping or shoring may be re-used as backfill to replace material removed if accepted by Qualified Professional and Departmental Representative.
3.4.8.2. Material excavated for sloping or shoring that is accepted for backfilling must follow procedures identified by Qualified Professional and meet Contract requirements.
3.4.8.3. Material excavated for sloping or shoring not accepted must be removed from Site at Contractor's expense.

3.5. **Dewatering and Heave Protection**
3.5.1. Keep excavations free of water while Work is in progress.
3.5.2. Provide to Departmental Representative details of proposed dewatering or heave prevention methods, including dikes, well points, and sheet pile cut-offs.
3.5.3. Plan for excavation below groundwater table to avoid quick conditions or heave.
3.5.4. Prevent piping or bottom heave of excavations by groundwater lowering, sheet pile cut-offs, or other means.
3.5.5. Provide and maintain temporary drainage ditches and other diversions outside of excavation limits.
3.5.6. Keep excavations, staging pads, and other Work areas free from water including standby equipment necessary to ensure continuous operation of dewatering system.
3.5.7. Dewatering Methods: includes sheeting and shoring; groundwater control systems; surface or free water control systems employing ditches, diversions, drains, pipes and/or pumps; and other measures necessary to enable Work to be carried out in dry conditions.
3.5.8. Separate Contaminated Water from Non-Contaminated Water and collect and divert to Contaminated Water Treatment Plant as required.

3.6. Excavation
3.6.1. Notify Departmental Representative at least 5 Working Days in advance of excavation operations.
3.6.2. Excavate to lines, grades, elevations and dimensions in accordance with the Contract or as instructed by Departmental Representative.

3.6.3. Excavation of Contaminated Material to extend to extents shown on Drawings with zero percent residual contamination or instructed by the Department Representative at Final Completion.
3.6.4. Elevations shown on Drawings, are approximate and final excavation elevations to be determined based on field conditions as instructed by the Departmental Representative.
3.6.5. Excavation must not interfere with bearing capacity of adjacent foundations.
3.6.6. Machine cut banks and slopes.
3.6.7. Protect bottom of excavations from excessive traffic.
3.6.8. Grade excavation top perimeter to prevent surface water run-off into excavation.
3.6.9. Keep excavated and stockpiled materials safe distance away from edge of excavation.
3.6.10. Restrict vehicle operations directly adjacent to open excavations.
3.6.11. Segregate and handle to minimize the amount of Hazardous Waste materials wherever possible, while complying with Hazardous Waste disposal regulations. Segregation of Hazardous Waste during excavation will be by visual and olfactory characteristics and available in-situ characterization.
3.6.12. Contaminated Material onsite classification will be based on available in-situ characterization or ex-situ characterization as instructed by Departmental Representative.
3.6.13. Non-Contaminated Material onsite classification will be based on available in-situ characterization or ex-situ characterization as instructed by Departmental Representative.
3.6.14. Remove Waste Oversize Debris. Break or cut oversize debris into manageable size.
3.6.14.1. Piles encountered during excavation must be cut off at base of excavation. Piles are not to be extracted.
3.6.14.2. Debris that impinges on infrastructure or neighbouring properties is not to be removed unless instructed by Departmental Representative.
3.6.15. Remove Non-Contaminated Material to Landfill or re-use as Backfill-Owner Supplied as shown on Drawings.
3.6.16. Remove Contaminated Material to onsite Treatment Facility or offsite Treatment Facility or offsite Disposal Facility.
3.6.17. Earth bottoms of excavations to be undisturbed soil or sediment, level, free from loose, soft or organic material.
3.6.18. Notify Departmental Representative when bottom of excavation is reached.
3.6.19. Provide assistance for collection of Confirmation Samples as instructed to the Departmental Representative.
3.6.20. Obtain acceptance by Departmental Representative of completed excavation.

3.7. Excavated Material Screening

3.7.1. Screen only material removed from excavation as shown on Drawings or as instructed by Departmental Representative.

3.7.2. Screen using a 75mm (3") screen size. Screener to have sufficient capacity to not restrict the Work.

3.7.3. Undersized screened material to be stockpiled and transported as per the Contract.

3.7.4. Oversized screened material to be stockpiled within work area at a location determined by Departmental Representative.

3.8. Backfill Types and Compaction

3.8.1. Use only owner supplied backfill or imported backfill material in accordance with the Contract, which has been recommended by a Qualified Professional, and has previously accepted as a Submittal.

3.8.2. Compact material in accordance with the Contract to ensure no long term settlement and is suitable for planned post-remediation use:

3.8.2.1. Compact each layer of material to the more stringent of Excavation Plan or Drawings.

3.8.2.2. Machine compact all fill materials unless otherwise shown on Drawings.

3.9. Backfilling

3.9.1. Do not proceed with backfilling operations until completion of following:

3.9.1.1. Confirmation Sampling, analysis, and assessment has been completed by the Departmental Representative. Confirmation Sampling, analysis, and assessment may take up to 5 Working Days. No Standby Time charges or increases to Contract Amount or Extension of Time for completion of the Work can be incurred for Confirmation Sampling results provided within 5 Working Days, not including day of sample collection.

3.9.1.2. Surveying has been completed by a Land Surveyor for as-built documents

3.9.1.3. Departmental Representative has inspected and excavation limits accepted by the Departmental Representative based on survey data and Confirmation Samples results.

3.9.1.4. Departmental Representative has inspected and accepted backfill material.

3.9.1.5. Proposed backfill material can be sampled and tested for geotechnical and environmental quality. Backfill material testing may take up to 5 Working Days not including day of sample collection.

3.9.1.6. Departmental Representative has inspected and accepted compaction results for previous lift.

3.9.1.7. Removal of shoring and bracing; backfilling of voids with satisfactory backfill material.

3.9.2. Areas to be backfilled to be free from debris, snow, ice, water and frozen ground.

3.9.3. Do not use backfill material which is frozen or contains ice, snow or debris.

3.9.4. Place backfill material in uniform layers not exceeding 300 mm compacted thickness, or in accordance with the Contract. Compact each layer to the satisfaction of the Qualified Professional and in accordance with the Contract before placing succeeding layer.
3.9.5. Backfill compaction to be tested by a Qualified Professional in accordance with Excavation Plan.
3.9.6. Notify Departmental Representative when final backfill grade is reached.
3.9.7. Do not begin subsequent Work until surveying has been completed by the Departmental Representative for documentation.

3.10. Backfill - Owner Supplied

3.10.1. Place in locations as instructed by Departmental Representative.
3.10.2. Be responsible for compacting to the satisfaction of the Qualified Professional and in accordance with the Contract.
3.10.2.1. Collect and test samples as required by the Qualified Professional of owner supplied backfill prior to placement.
3.10.2.2. Identify any geotechnical concerns with owner supplied backfill prior to placement.

3.11. Owner Soil Treatment Facility Preparation

3.11.1. Prior to transport and placement of material to Owner Soil Treatment Facility:
3.11.1.1. Remove vegetation that could potentially damage Soil Treatment Facility liner, including roots.
3.11.1.2. Inspect base protective layer of liner. Notify Departmental Representative if less than 0.5m thick.
3.11.1.3. Inspect and repair any minor damage to Soil Treatment Facility berm or liner. Notify Departmental Representative of any significant damage.

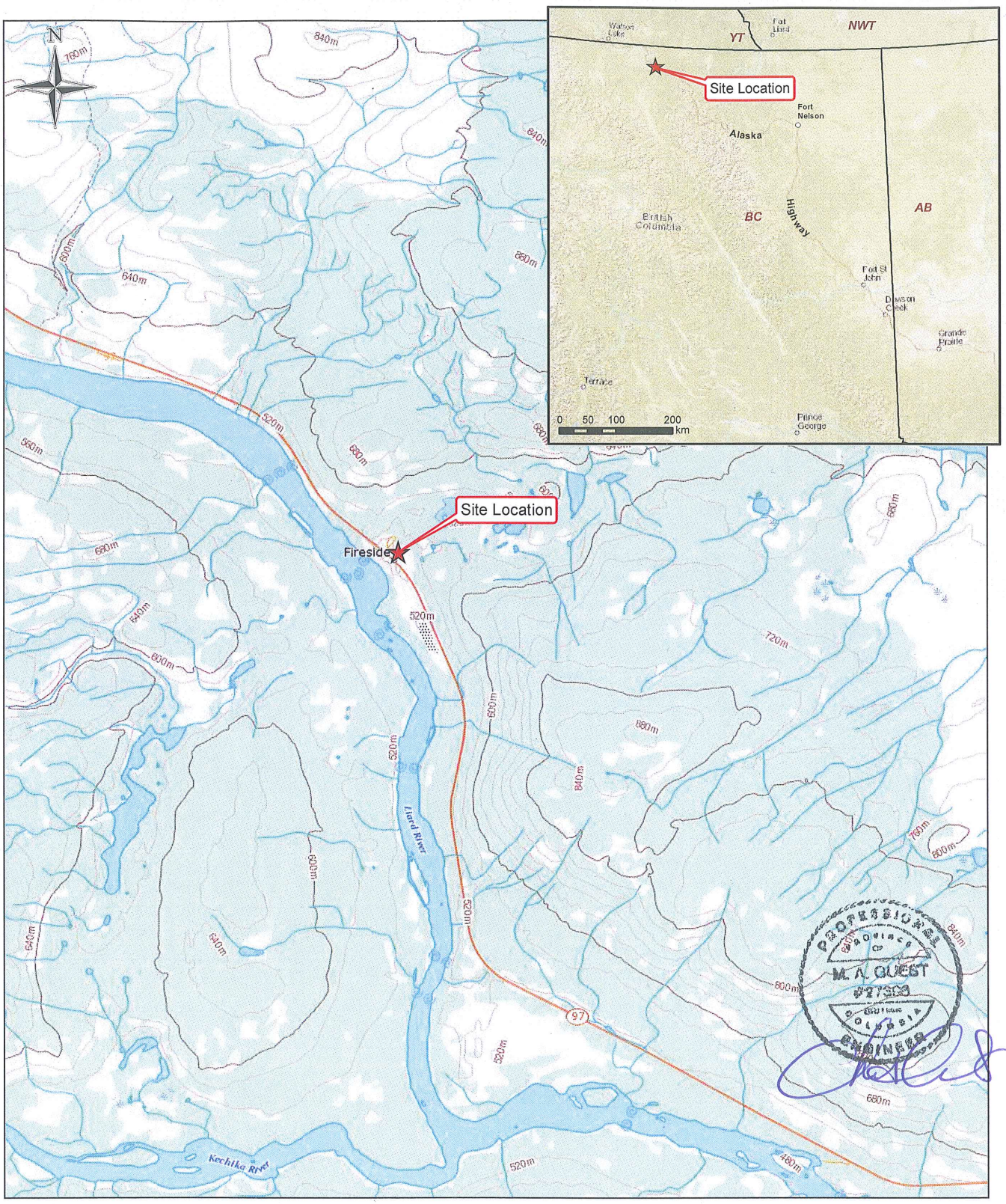
3.12. Owner Soil Treatment Facility Closure

3.12.1. At completion of transport and placement of material to Owner Soil Treatment Facility:
3.12.1.1. Grade soil for drainage to prevent ponding within soil treatment facility.
3.12.1.2. Place seamless 25 mil oil resistant reinforced polyethylene (OR RPE) ultraviolet resistant cover. Cover to have a minimum 5 year lifespan.
3.12.1.3. Cover to extend a minimum of 0.5m past berm.
3.12.1.4. Secure cover along perimeter and interior with easily removable weights (eg tires, lumber).

END OF SECTION

APPENDICES

DRAWINGS



LEGEND

★ Site Location

NOTES

1. Original in colour.
2. Numerical scale reflects full-size print. Print scaling will distort this scale, however scale bar will remain accurate.
3. Intended for illustration purposes, accuracy has not been verified for construction or navigation purposes.

SNC·LAVALIN

CLIENT NAME:	PROJECT LOCATION:
Public Works and Government Services Canada	Fireside Alaska Highway, BC

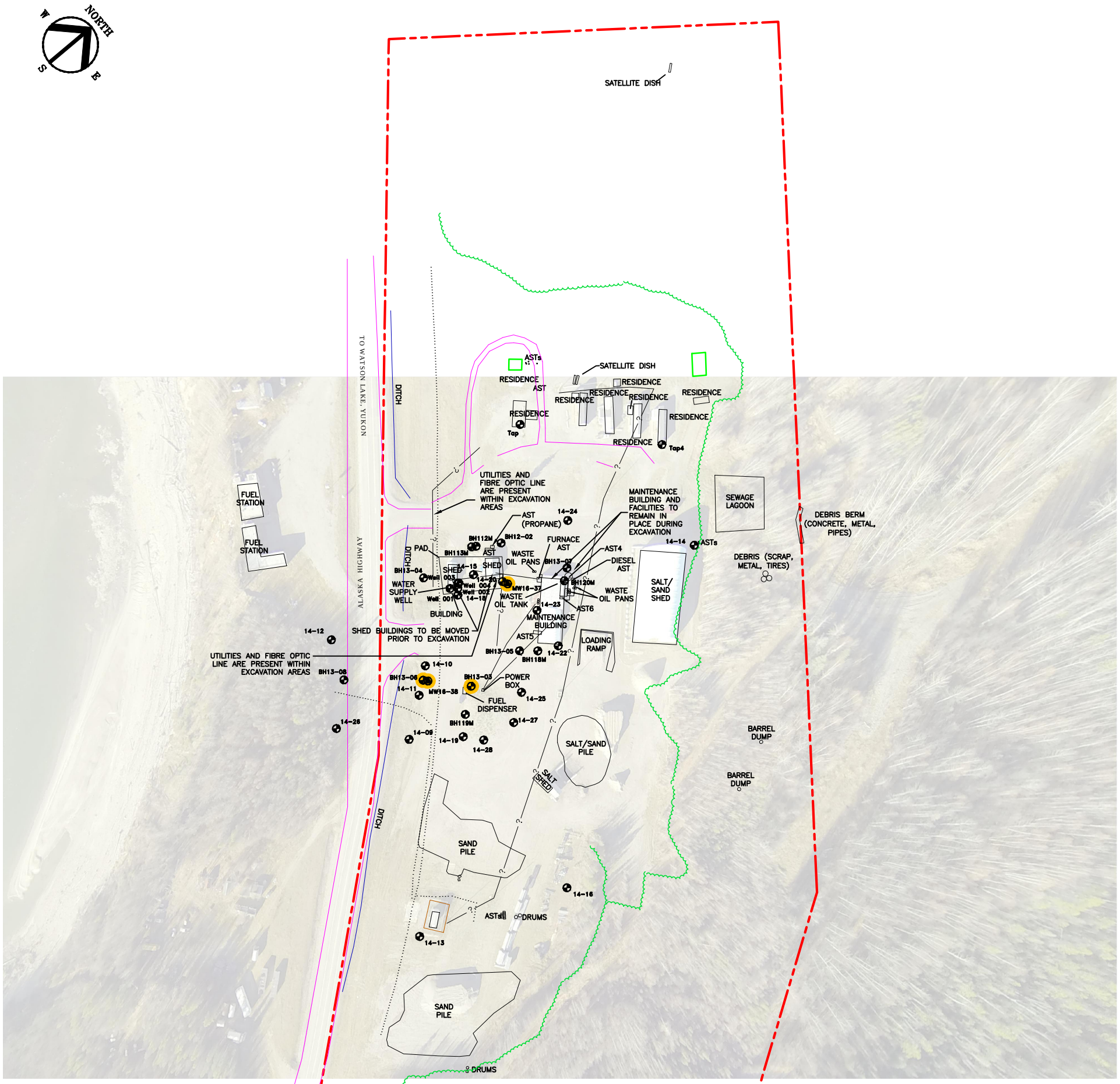
Site Location

0 0.5 1 2 3 4 Kilometers

BY: PB	DATE: 2016-07-18	REF No: 636200-201 REV: 0
CHK'D: MR	SCALE: 1:50,000	

Project Path: "P:\Current Projects\Public Works and Gov't Services Canada\623385 Fireside"

MXD Path: P:\Current Projects\PWGSC\636200 Fireside\4.0 Execution\4.5 GIS and Drawings\GIS\636200-201 Location Plan.mxd



NOTES

1. ORIGINAL DRAWING IN COLOUR.
2. LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED PRIOR TO INTRUSIVE WORK. NOT ALL UTILITIES MAY BE SHOWN.

LEGEND

- MONITORING WELL LOCATION
- INJECTION WELL
- MONITORING WELLS/INJECTION WELL THAT MUST REMAIN INTACT DURING EXCAVATION ACTIVITIES
- SUBJECT PROPERTY LIMITS
- LOT BOUNDARY
- FIBER OPTIC LINE
- UNKNOWN UTILITY
- TREE LINE
- FENCE
- SITE FEATURE
- GARDEN

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — M. A. GUEST — 27396

REFERENCE DRAWINGS

DWG. NO.	DATE	DESCRIPTION
–	–	–

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHK
0	2016-07-14	INTERNAL REVIEW	DRB	MG

SNC·LAVALIN

CLIENT NAME: PUBLIC WORKS AND GOVERMENT SERVICES CANADA

PROJECT LOCATION: FIRESIDE, ALASKA HIGHWAY, BC

TITLE: SITE PLAN, INFRASTRUCTURE AND RESTRICTIONS

DWN BY: PB	SCALE: 1:2,500	DATE: 2015-01-15	DWG No:	REV.: 0
CHK'D: MR	PLOT: 20160825.1039	CADFILE: 636200R7	623385-202	

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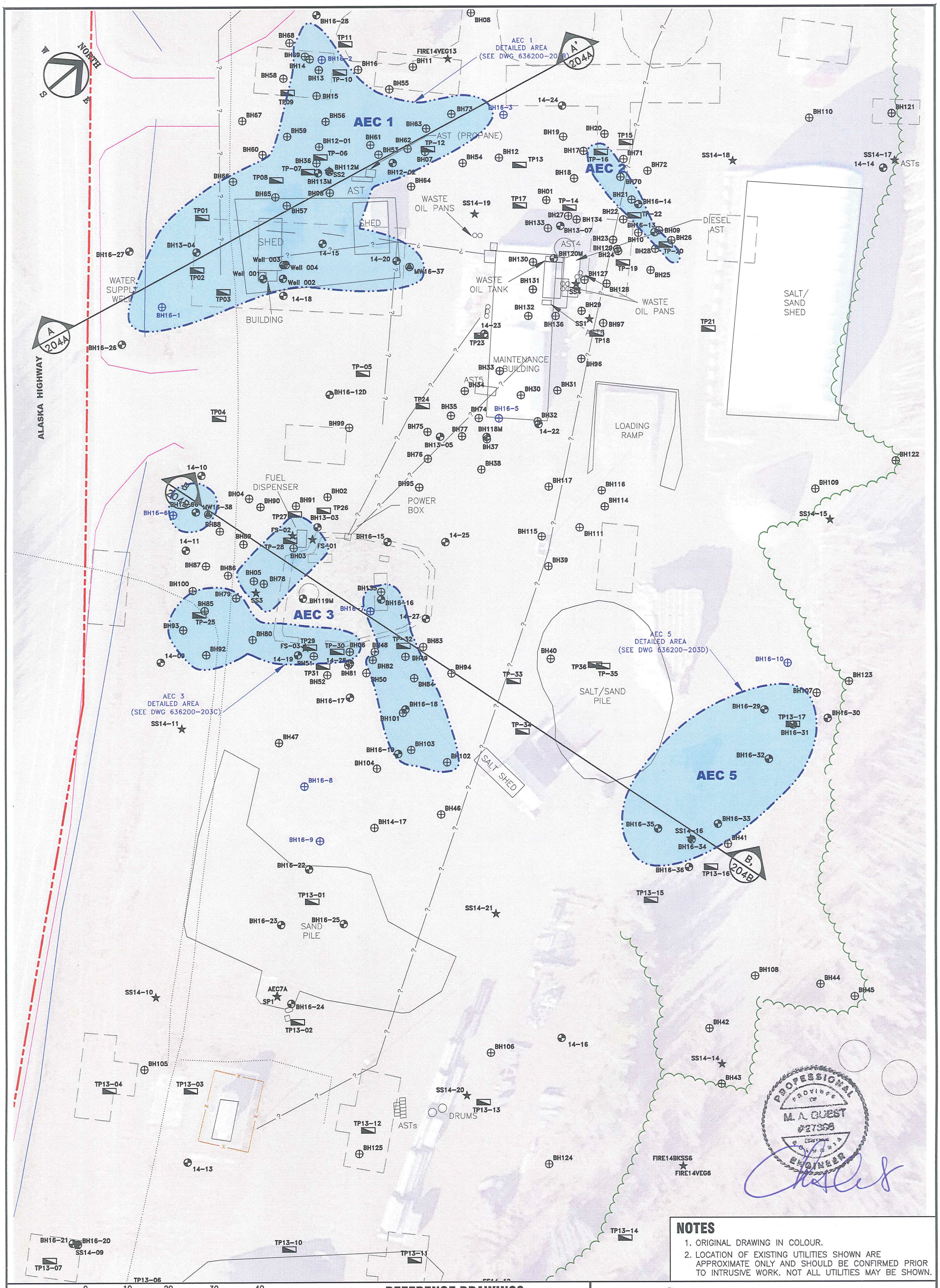

NOTES

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LEGEND

0 10 20 30 40 METRES

- SUBJECT PROPERTY LIMITS
- LOT BOUNDARY
- FIBER OPTIC LINE
- UNKNOWN UTILITY
- TREELINE
- FENCE
- CONTAMINATION BOUNDAY
- FORMER SITE CONFIGURATION
- SITE FEATURE
- AEC CONTAMINATION AREA
- MONITORING WELL
- SOIL VAPOUR WELL
- BOREHOLE
- TESTPIT
- SURFACE SAMPLE
- SECTION LINE

REFERENCE DRAWINGS

DWG. NO.	DATE	DESCRIPTION
–	–	–

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHK
0	2016-07-15	INTERNAL REVIEW	DRB	MG

SNC·LAVALIN

CLIENT NAME: PUBLIC WORKS AND GOVERMENT SERVICES CANADA

PROJECT LOCATION: FIRESIDE, ALASKA HIGHWAY, BC

TITLE: **CONTAMINATED MATERIALS EXTENTS - SITE PLAN**

DWN BY: PES/DRB	SCALE: 1:800	DATE: 2016-07-11	DWG No:	REV.: 0
CHK'D: MG	PLOT: 20160809.1118	CADFILE: 636200R7	636200-203A	

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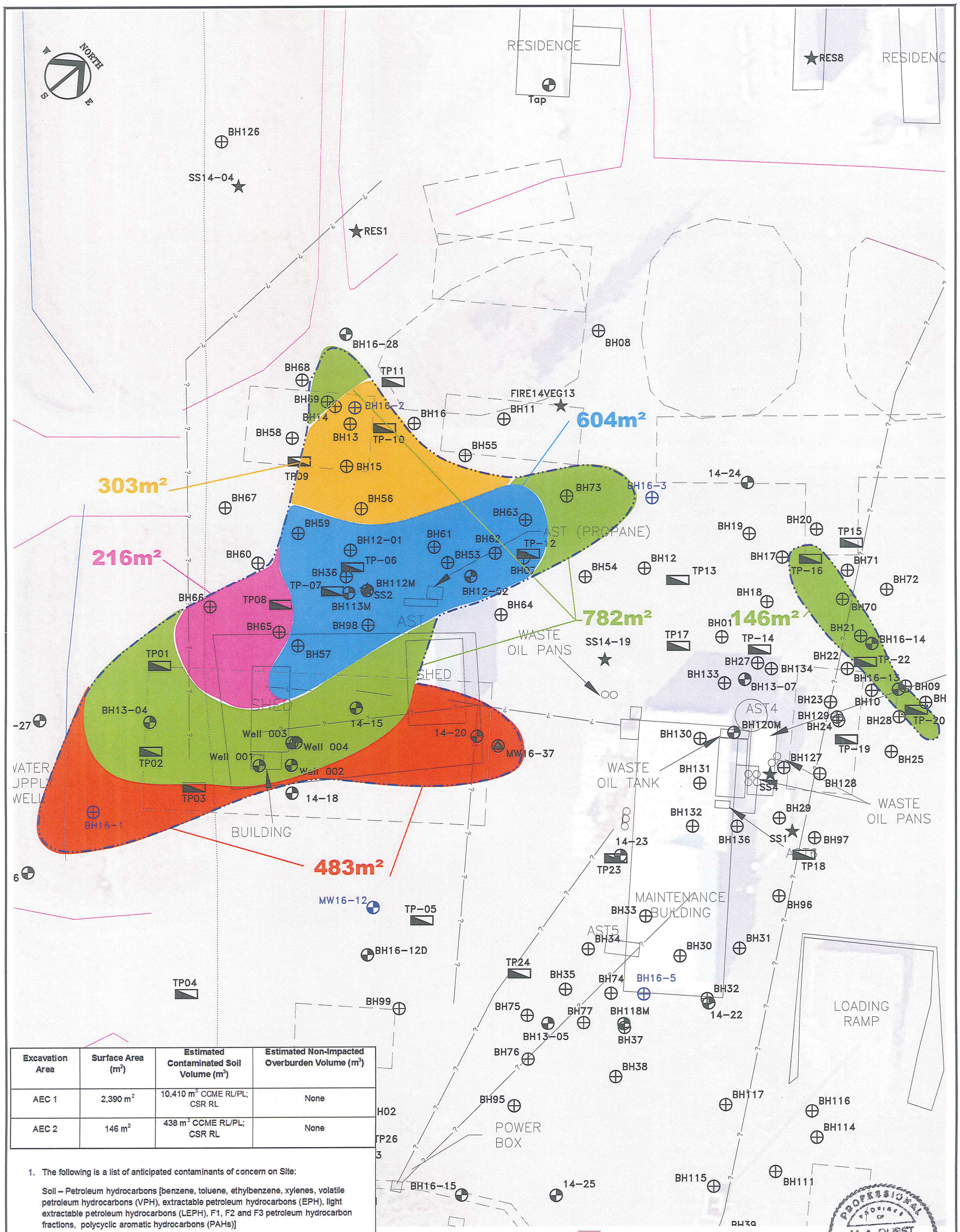

Excavation Area	Surface Area (m^2)	Estimated Contaminated Soil Volume (m^3)	Estimated Non-Impacted Overburden Volume (m^3)
AEC 1	2,390 m^2	10,410 m^3 CCME RL/PL; CSR RL	None
AEC 2	146 m^2	438 m^3 CCME RL/PL; CSR RL	None

1. The following is a list of anticipated contaminants of concern on Site:

   Soil – Petroleum hydrocarbons [benzene, toluene, ethylbenzene, xylenes, volatile petroleum hydrocarbons (VPH), extractable petroleum hydrocarbons (EPH), light extractable petroleum hydrocarbons (LEPH), F1, F2 and F3 petroleum hydrocarbon fractions, polycyclic aromatic hydrocarbons (PAHs)]

NOTES

1. ORIGINAL DRAWING IN COLOUR.
2. LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED PRIOR TO INTRUSIVE WORK. NOT ALL UTILITIES MAY BE SHOWN.

LEGEND

0 5 25 METRES

- SUBJECT PROPERTY LIMITS
- LOT BOUNDARY
- FIBER OPTIC LINE
- UNKNOWN UTILITY
- TREELINE
- FENCE
- FORMER SITE CONFIGURATION
- SITE FEATURE
- CONTAMINATION BOUNDAY
- MONITORING WELL
- SOIL VAPOUR WELL
- BOREHOLE
- TESTPIT
- SURFACE SAMPLE

REFERENCE DRAWINGS

DWG. NO.	DATE	DESCRIPTION
–	–	–

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHK
0	2016-07-15	INTERNAL REVIEW	DRB	MG

SNC·LAVALIN

CLIENT NAME: PUBLIC WORKS AND GOVERMENT SERVICES CANADA

PROJECT LOCATION: FIRESIDE ALASKA HIGHWAY, BC

TITLE: **CONTAMINATED MATERIALS EXTENTS - AEC 1 AND AEC 2**

DWN BY: PES/DRB	SCALE: 1:500	DATE: 2016-07-11	DWG No:	REV.: 0
CHK'D: MG	PLOT: 20160809.1118	CADFILE: 636200R7	636200-203B	

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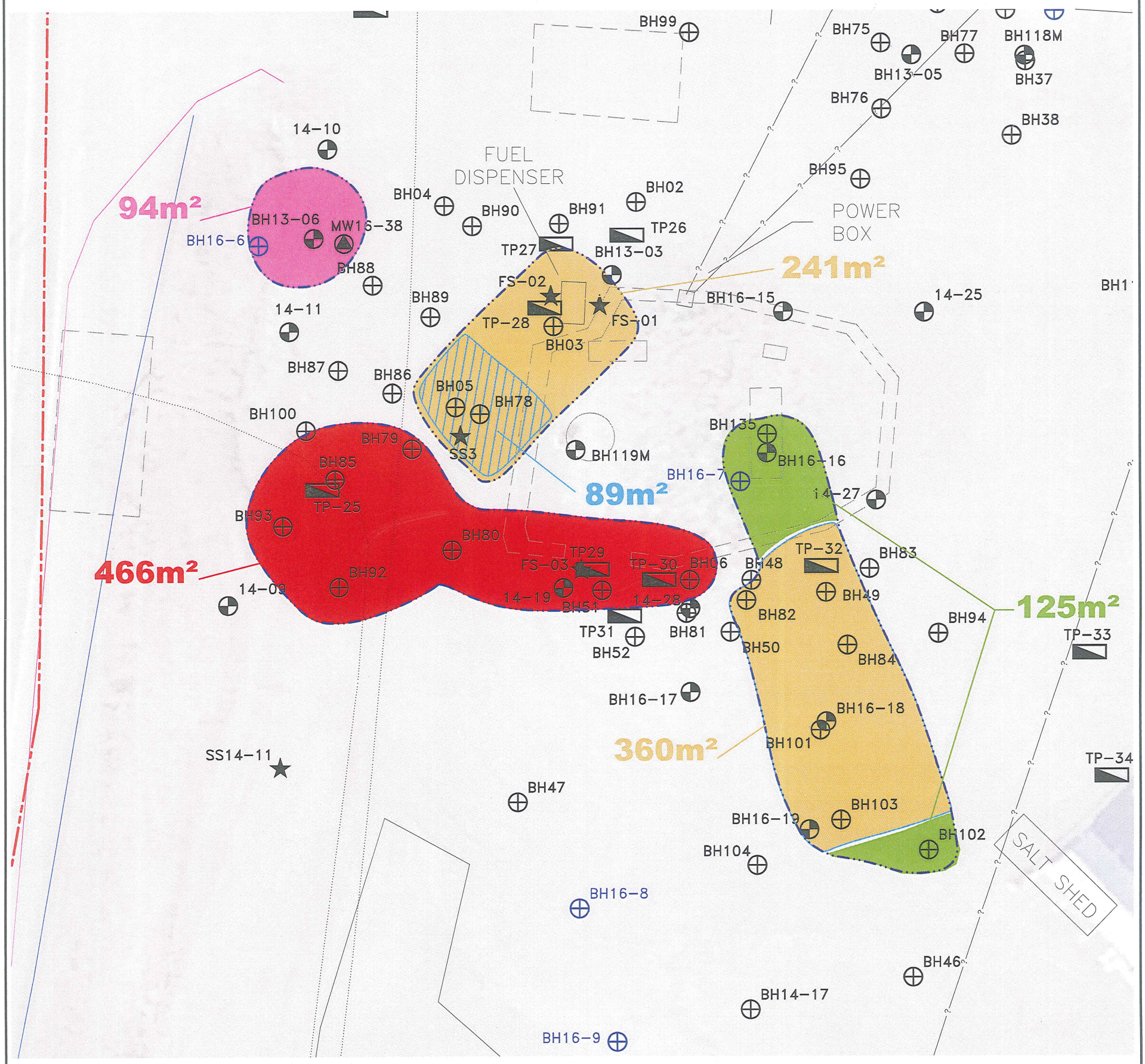

Excavation Area	Surface Area (m^2)	Estimated Contaminated Soil Volume (m^3)	Estimated Non-Impacted Overburden Volume (m^3)
AEC 3	1,286 m^2	5,157 m^3 CCME RL/PL; CSR RL	400 m^3

1. The following is a list of anticipated contaminants of concern on Site:

   Soil – Petroleum hydrocarbons (benzene, ethylbenzene, xylenes, volatile petroleum hydrocarbons (VPH), extractable petroleum hydrocarbons (EPH), light extractable petroleum hydrocarbons (LEPH) polycyclic aromatic hydrocarbon.

APPROXIMATE DEPTH 0.5m
APPROXIMATE DEPTH 1.5m
APPROXIMATE DEPTH 3.0m
APPROXIMATE DEPTH 8.0m
OVERBURDEN 4.5m

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
M. A. QUEST
#27309

NOTES

1. ORIGINAL DRAWING IN COLOUR.
2. LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED PRIOR TO INTRUSIVE WORK. NOT ALL UTILITIES MAY BE SHOWN.

LEGEND

0 5 20 METRES

- SUBJECT PROPERTY LIMITS
- LOT BOUNDARY
- FIBER OPTIC LINE
- UNKNOWN UTILITY
- TREELINE
- FENCE
- FORMER SITE CONFIGURATION
- SITE FEATURE
- CONTAMINATION BOUNDAY
- MONITORING WELL
- SOIL VAPOUR WELL
- BOREHOLE
- TESTPIT
- SURFACE SAMPLE

REFERENCE DRAWINGS

DWG. NO.	DATE	DESCRIPTION
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REVISIONS

REV.	DATE	DESCRIPTION	BY	CHK
0	2016-07-15	INTERNAL REVIEW	DRB	MG

SNC·LAVALIN

CLIENT NAME: PUBLIC WORKS AND GOVERMENT SERVICES CANADA

PROJECT LOCATION: FIRESIDE ALASKA HIGHWAY, BC

TITLE: **CONTAMINATED MATERIALS EXTENTS - AEC 3**

DWN BY: PES/DRB	SCALE: 1:400	DATE: 2016-07-11	DWG No: 636200-203C REV.: 0
CHK'D: MG	PLOT: 20160809.1118	CADFILE: 636200R7	

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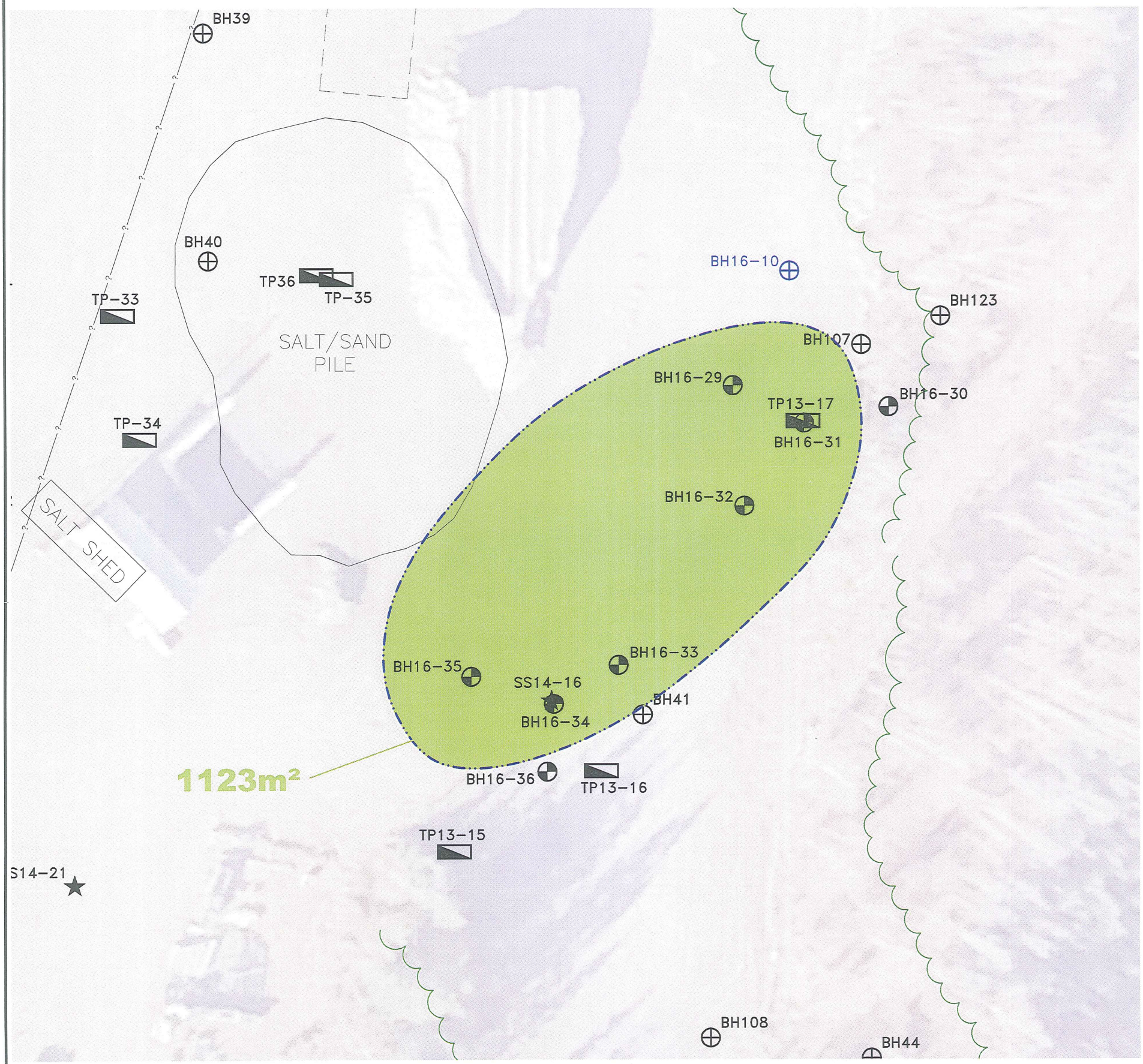

Excavation Area	Surface Area (m^2)	Estimated Contaminated Soil Volume (m^3)	Estimated Non-Impacted Overburden Volume (m^3)
AEC 5	1,123 m^2	3,369 m^3 CCME RL/PL; CSR RL	None

1. The following is a list of anticipated contaminants of concern on Site:

   Soil – Petroleum hydrocarbons (benzene, ethylbenzene, xylenes, volatile petroleum hydrocarbons (VPH), extractable petroleum hydrocarbons (EPH), light extractable petroleum hydrocarbons (LEPH), polycyclic aromatic hydrocarbons (PAH)

NOTES

1. ORIGINAL DRAWING IN COLOUR.
2. LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED PRIOR TO INTRUSIVE WORK. NOT ALL UTILITIES MAY BE SHOWN.

APPROXIMATE DEPTH 3.0m

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — M. A. GUEST #27356

LEGEND

0 5 METRES 20

- SUBJECT PROPERTY LIMITS
- LOT BOUNDARY
- FIBER OPTIC LINE
- ? UNKNOWN UTILITY
- TREELINE
- x FENCE
- FORMER SITE CONFIGURATION
- SITE FEATURE
- CONTAMINATION BOUNDAY
- MONITORING WELL
- SOIL VAPOUR WELL
- BOREHOLE
- TESTPIT
- SURFACE SAMPLE

REFERENCE DRAWINGS

DWG. NO.	DATE	DESCRIPTION
–	–	–

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHK
0	2016-07-15	INTERNAL REVIEW	DRB	MG

SNC·LAVALIN

CLIENT NAME: PUBLIC WORKS AND GOVERMENT SERVICES CANADA

PROJECT LOCATION: FIRESIDE, ALASKA HIGHWAY, BC

TITLE: **CONTAMINATED MATERIALS EXTENTS - AEC 5**

DWN BY: PES/DRB	SCALE: 1:400	DATE: 2016-07-11	DWG No: 636200-203D REV.: 0
CHK'D: MG	PLOT: 20160809.1119	CADFILE: 636200R7	

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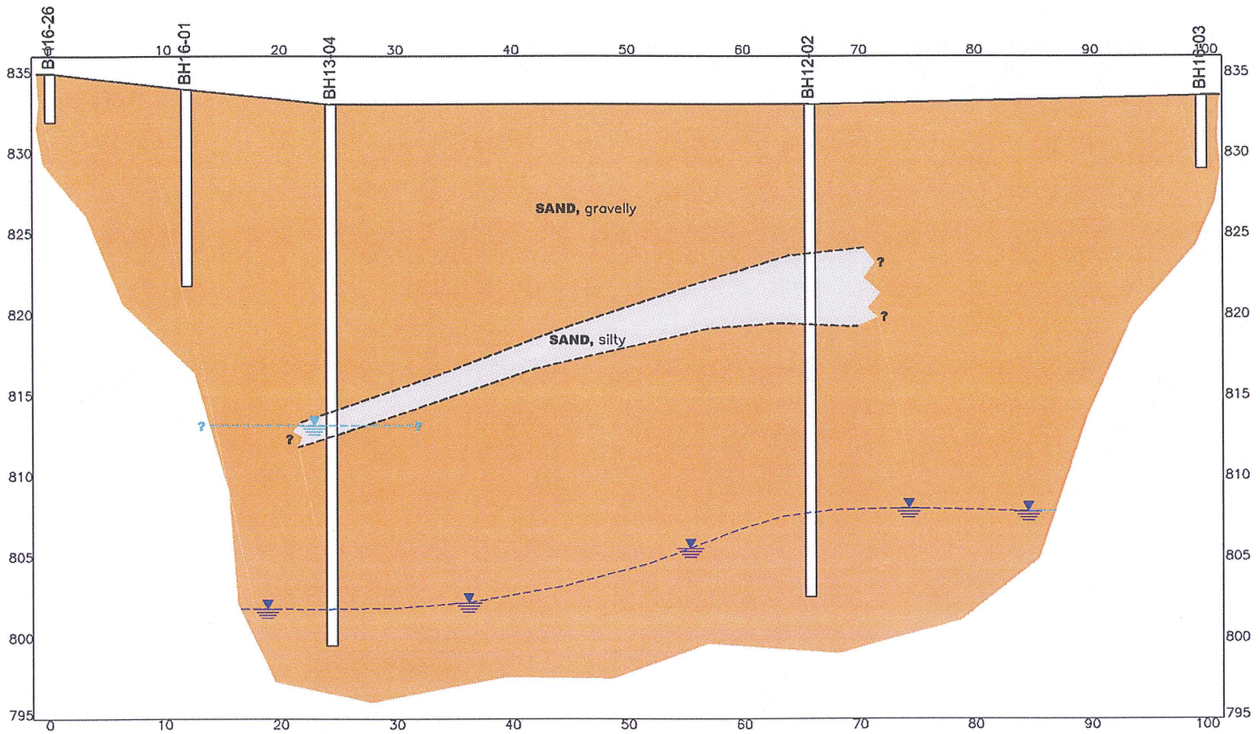

A-A' / 203A **SECTION**

HORIZONTAL SCALE
1:500 (m)

NOTES

1. THE CROSS SECTION DEPICTED IS BASED ON INTERPRETATION OF LIMITED GEOLOGICAL DATA. ACTUAL GEOLOGICAL CONDITIONS MAY BE DIFFERENT FROM THOSE INTERPRETED.
2. REFER TO PLAN MAP 636200-203A FOR LOCATION OF CROSS SECTION LINE.
3. INFORMATION PRESENTED IS WITHIN 10m OF SECTION LINE UNLESS INDICATED OTHERWISE ON DRAWING.
4. ORIGINAL DRAWING IN COLOUR.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
M. A. QUEST
#27366

LEGEND

- **SAND,** gravelly
- **SAND,** silty
- INFERRED STRATIGRAPHIC BOUNDARY
- APPROXIMATE DEPTH OF LOWER PERCHED WATER TABLE
- APPROXIMATE DEPTH OF REGIONAL WATER TABLE

BOREHOLE LEGEND

00-1
END OF BOREHOLE

REFERENCE DRAWINGS

DWG. NO.	DATE	DESCRIPTION
–	–	–

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHK
0	2016-07-21	ISSUED TO CLIENT	PES	MG

SNC·LAVALIN

CLIENT NAME: PUBLIC WORKS AND GOVERMENT SERVICES CANADA

PROJECT LOCATION: FIRESIDE ALASKA HIGHWAY, BC

TITLE: **GEOLOGICAL CROSS SECTION A-A'**

DWN BY: PES	SCALE: AS NOTED	DATE: 2016-07-14	DWG No: 636200-204A REV.: 0
CHK'D: CT	PLOT: 20160727.0954	CADFILE: 636200X01	

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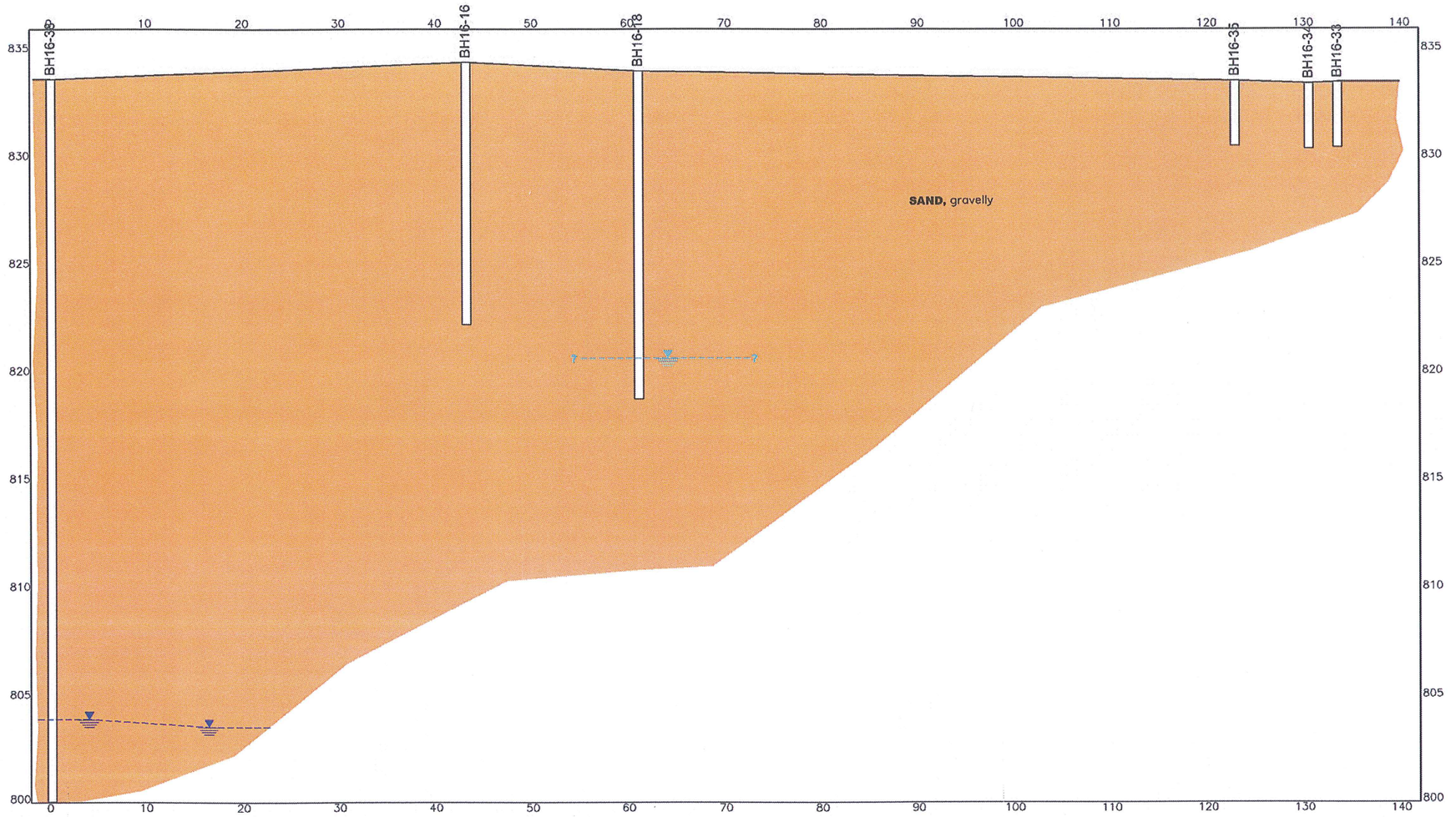

B-B'
203A

SECTION

HORIZONTAL SCALE
1:500 (m)

NOTES

1. THE CROSS SECTION DEPICTED IS BASED ON INTERPRETATION OF LIMITED GEOLOGICAL DATA. ACTUAL GEOLOGICAL CONDITIONS MAY BE DIFFERENT FROM THOSE INTERPRETED.
2. REFER TO PLAN MAP 636200-203A FOR LOCATION OF CROSS SECTION LINE.
3. INFORMATION PRESENTED IS WITHIN 10m OF SECTION LINE UNLESS INDICATED OTHERWISE ON DRAWING.
4. ORIGINAL DRAWING IN COLOUR.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
M. A. QUEST
#27306

LEGEND

SAND, gravelly

APPROXIMATE DEPTH OF SHALLOW PERCHED WATER TABLE

APPROXIMATE DEPTH OF REGIONAL WATER TABLE

BOREHOLE LEGEND

00-1

END OF BOREHOLE

REFERENCE DRAWINGS

DWG. NO.	DATE	DESCRIPTION
–	–	–

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHK
0	2016-07-21	ISSUED TO CLIENT	PES	MG

SNC·LAVALIN

CLIENT NAME: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

PROJECT LOCATION: FIRESIDE ALASKA HIGHWAY, BC

TITLE: **GEOLOGICAL CROSS SECTION B-B'**

DWN BY: PES	SCALE: AS NOTED	DATE: 2016-07-14	DWG No: REV.: 0
CHK'D: CT	PLOT: 20160727.0952	CADFILE: 636200X01	**636200-204B**

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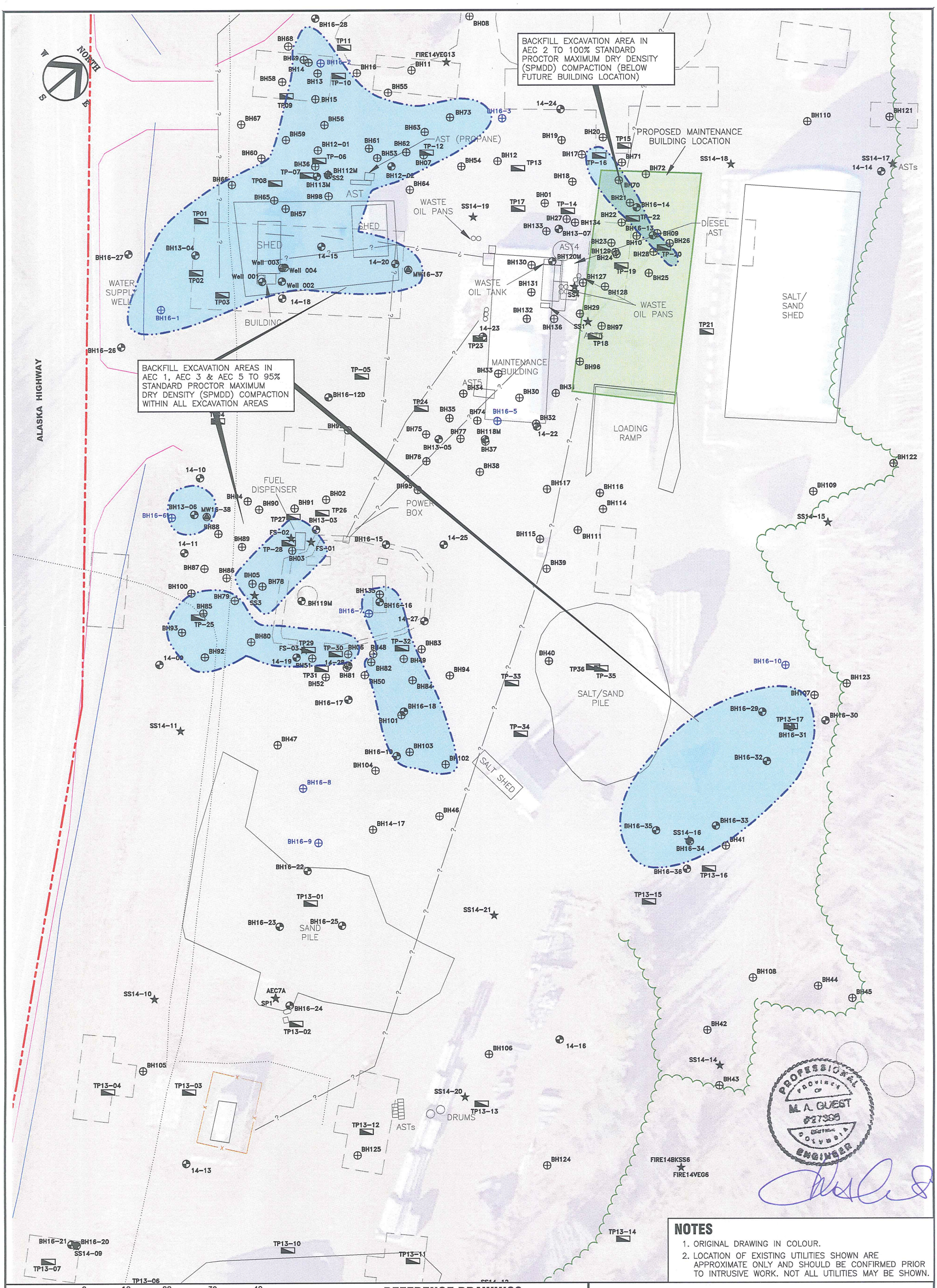

NOTES

1. ORIGINAL DRAWING IN COLOUR.
2. LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED PRIOR TO INTRUSIVE WORK. NOT ALL UTILITIES MAY BE SHOWN.

LEGEND

0 10 20 30 40 METRES

- SUBJECT PROPERTY LIMITS
- LOT BOUNDARY
- FIBER OPTIC LINE
- ? UNKNOWN UTILITY
- TREELINE
- FENCE
- CONTAMINATION BOUNDAY
- FORMER SITE CONFIGURATION
- SITE FEATURE
- AEC CONTAMINATION AREA
- MONITORING WELL
- SOIL VAPOUR WELL
- BOREHOLE
- TESTPIT
- SURFACE SAMPLE

REFERENCE DRAWINGS

DWG. NO.	DATE	DESCRIPTION
–	–	–

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHK
0				

SNC·LAVALIN

CLIENT NAME: PUBLIC WORKS AND GOVERMENT SERVICES CANADA

PROJECT LOCATION: FIRESIDE ALASKA HIGHWAY, BC

TITLE: **SITE RESTORATIONS**

DWN BY: PES	SCALE: 1:800	DATE: 2016-07-25	DWG No: 636200-205 REV.: 0
CHK'D: MG	PLOT: 20160809.1119	CADFILE: 636200R7	

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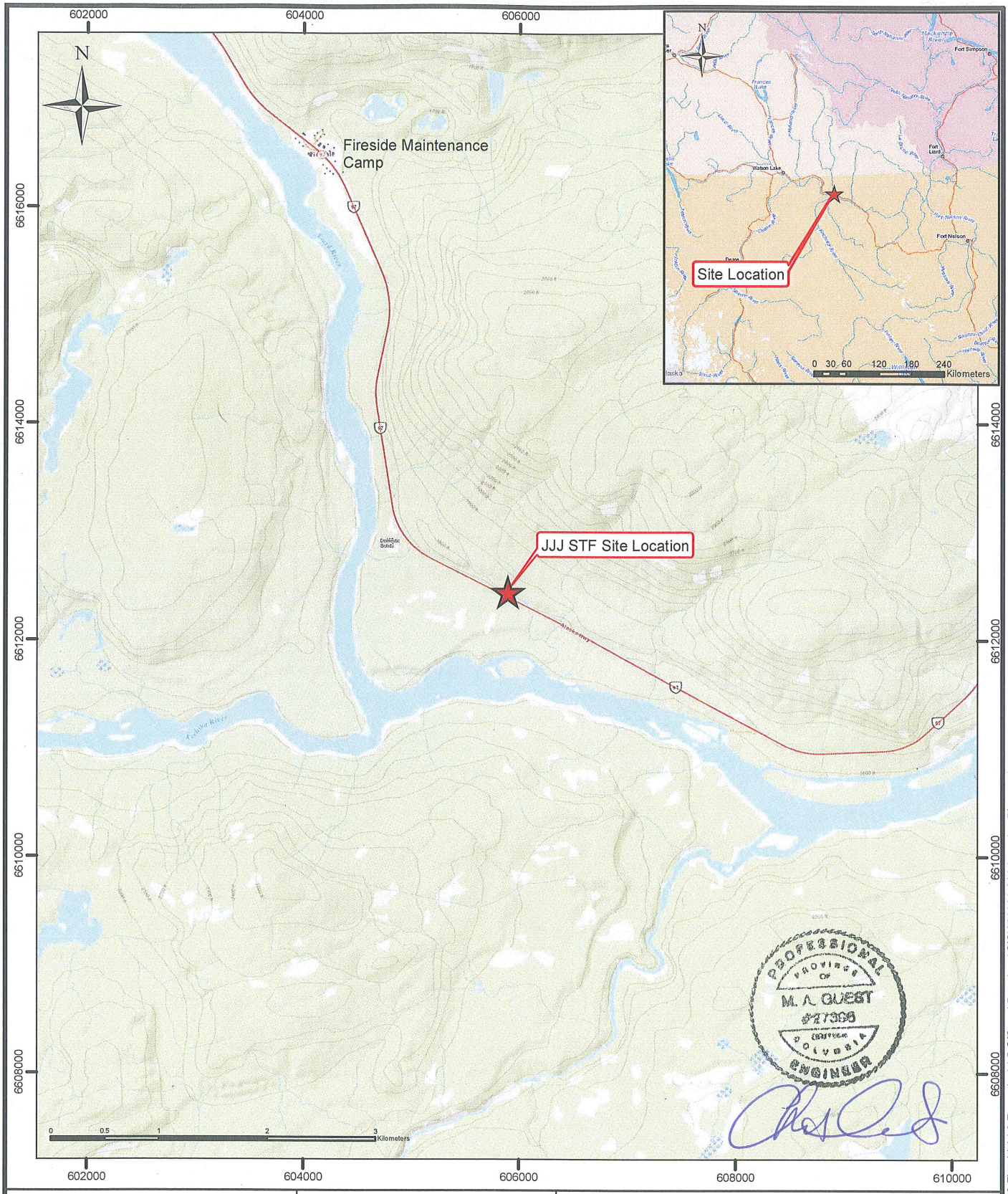

LEGEND

★ Site Location

<BOL>Notes:</BOL>
1. Intended for Illustration purposes only.
2. Original in colour.

<BOL>References:</BOL>

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri

SNC·LAVALIN

CLIENT NAME:	PROJECT LOCATION:
Public Works and Government Services Canada	Triple J Gravel Pit Soil Treatment Facility, Km 839 Alaska Highway, Fireside, B.C.

Location Plan

BY: DRB	DATE: 2016/08/03	SCALE: 1:50,000	REF No: 636200-300 REV: 0
CHK'D: MG	PROJ COORD SYS: NAD 1983 UTM Zone 9N		

MXD Path: P:\Current Projects\PWGSC\636200 Fireside\4.0 Execution\4.5 GIS and Drawings\GIS\636200-300-Location Plan.mxd

Project Path: \\Sli2606\projects\Current Projects\PWGSC\636200 Fireside\4.0 Execution\4.5 GIS and Drawings\Exports\PDF

LEGEND

0 50 100 200 METRES

- TOE SLOPE/EDGE OF CLEARING (APPROX.)
- GRAVEL PILE (w/ HEIGHT)
- TREELINE (APPROX.)

NOTES

1. ORIGINAL DRAWING IN COLOUR.
2. LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED PRIOR TO INTRUSIVE WORK. NOT ALL UTILITIES MAY BE SHOWN.
3. GRAVEL PILE LOCATIONS AND SIZE ARE APPROXIMATE ONLY.

REFERENCE DRAWINGS

IMAGERY	1969	GOOGLE EARTH
DWG. NO.	DATE	DESCRIPTION

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHK
0	2016-07-07	INTERNAL REVIEW	DRB	TM

SNC·LAVALIN

CLIENT NAME: PUBLIC WORKS AND GOVERMENT SERVICES CANADA

PROJECT LOCATION: TRIPLE J GRAVEL PIT SOIL TREATMENT FACILITY, KM 839 ALASKA HIGHWAY, FIRESIDE, B.C.

TITLE: **SITE PLAN**

DWN BY: DRB	SCALE: 1:4,000	DATE: 2016-07-05	DWG No: REV.: 0
CHK'D: TM	PLOT: 20160809.1119	CADFILE: 636200R7	636200-301

PATH: P:\CURRENT PROJECTS\PWGSC\636200 FIRESIDE\4.0 EXECUTION\4.5 GIS AND DRAWINGS\CAD\636200R7.DWG

LEGEND

5 25 METRES 100

- TOE SLOPE/EDGE OF CLEARING (APPROX.)
- GRAVEL PILE (w/ HEIGHT)
- TREE LINE (APPROX.)
- PROPOSED SOIL TREATMENT FACILITY (STF) LOCATION

NOTES

1. ORIGINAL DRAWING IN COLOUR.
2. LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED PRIOR TO INTRUSIVE WORK. NOT ALL UTILITIES MAY BE SHOWN.
3. GRAVEL PILE LOCATIONS AND SIZE ARE APPROXIMATE ONLY.

REFERENCE DRAWINGS

IMAGERY	1969	GOOGLE EARTH
DWG. NO.	DATE	DESCRIPTION

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHK
0	2016-07-21	ISSUED TO CLIENT	PES	MG

SNC·LAVALIN

CLIENT NAME: PUBLIC WORKS AND GOVERMENT SERVICES CANADA

PROJECT LOCATION: TRIPLE J GRAVEL PIT SOIL TREATMENT FACILITY, KM 839 ALASKA HIGHWAY, FIRESIDE, B.C.

TITLE:

PROPOSED SOIL TREATMENT FACILITY LOCATIONS

DWN BY: DRB	SCALE: 1:2,500	DATE: 2016-07-05	DWG No: 636200-302 REV.: 0
CHK'D: TM	PLOT: 20160810.1358	CADFILE: 636200X01	

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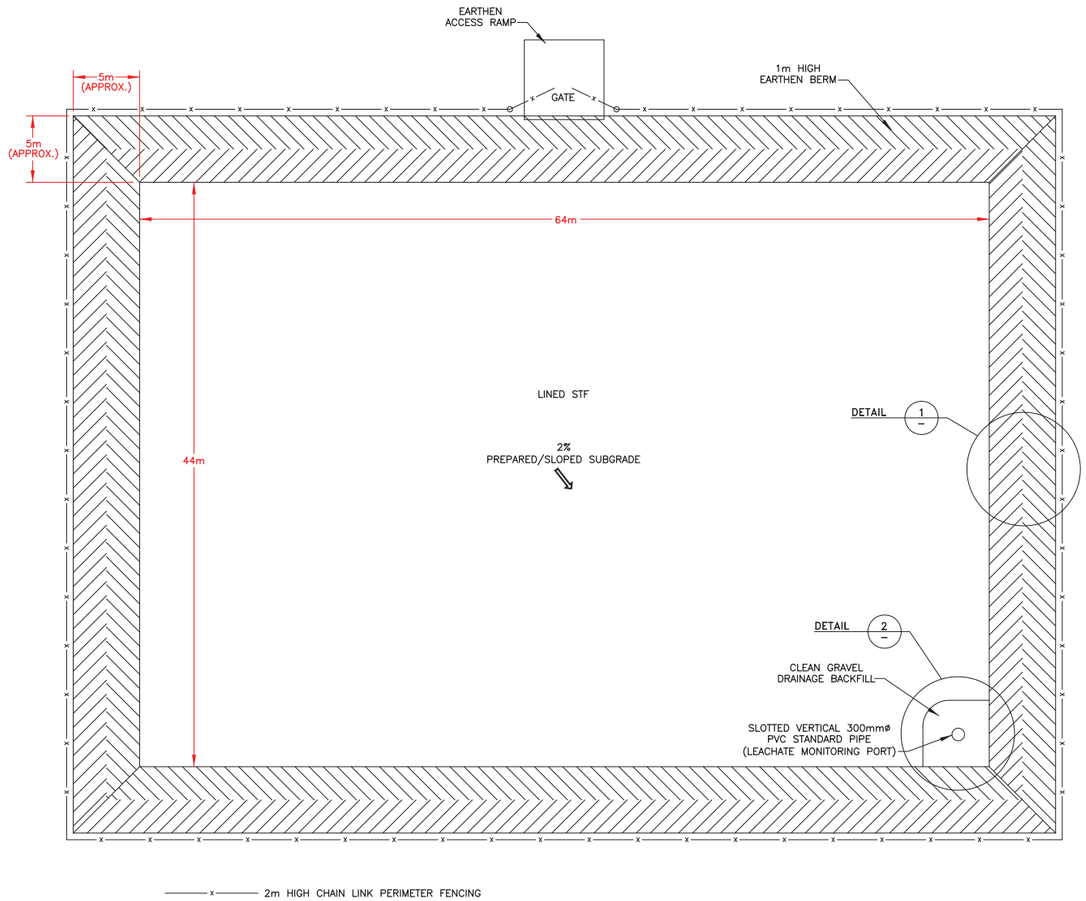
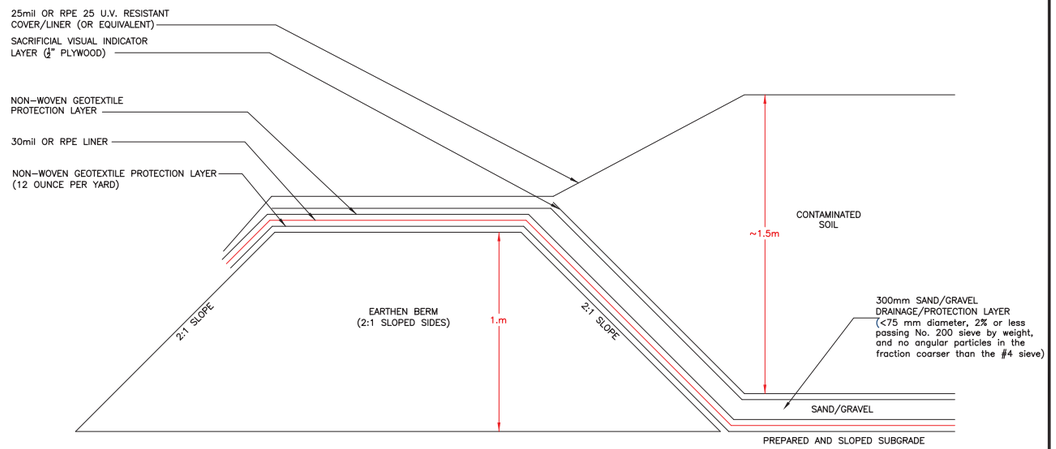


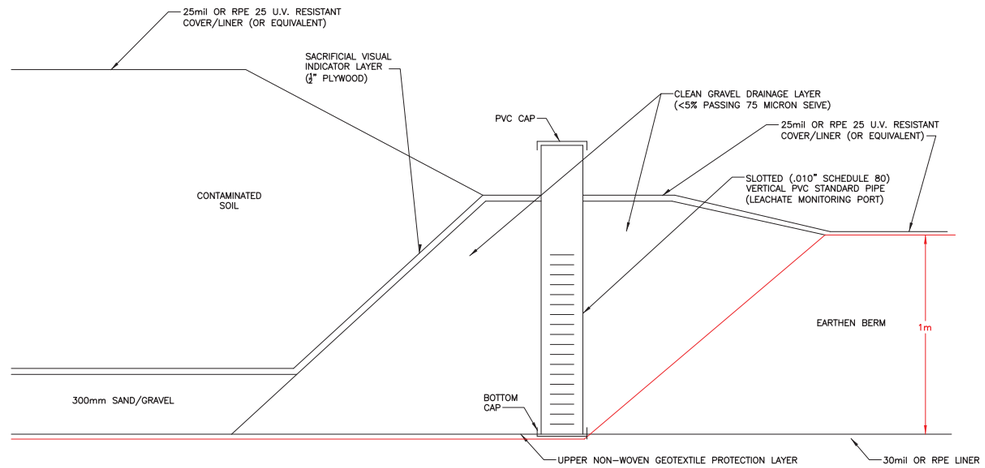
NOTES:

1) PREPARED SUBGRADE TO BE FREE OF PROTRUSIONS (ANGULAR COARSE FRAGMENTS, DEBRIS, ETC.) PRIOR TO CONTRUCTION OF STF.

2) DESIGN SPECIFICATIONS APPLY TO ALL THREE PROPOSED STFS. ORIENTATION OF STFS TO REFLECT SITING CONSIDERATIONS. LEACHATE COLLECTION SYSTEM LOCATION TO BE CONSTRUCTED IN MOST SUITABLE CORNER IN CONSIDERATION OF SITE PREPARATION AND TOPOGRAPHY. SECOND NOTE: EARTHEN ACCESS RAMP AND GATE LOCATIONS TO BE CONSTRUCTED TO PROVIDE EASE OF ACCESS AND TO MINIMIZE INTERFERENCE WITH EXISTING ROADWAYS AND IF NECESSARY, RE-LOCATED ROADWAYS.



DETAIL 1
N.T.S.



NOTE: IT IS CRITICAL THAT THE BOTTOM LINER HAVE NO TENSILE FORCE IN CORNER OF LEACHATE MONITORING SUMP FOLLOWING INSTALLATION.

DETAIL 2
N.T.S.

LEGEND

NOTES

1. ORIGINAL DRAWING IN COLOUR.
2. LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED ON SITE. NOT ALL UTILITIES MAY BE SHOWN.

REFERENCE DRAWINGS

DWG. NO.	DATE	DESCRIPTION
–	–	–

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHK
0	–	–	–	–

SNC·LAVALIN

CLIENT NAME: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

PROJECT LOCATION: TRIPLE J GRAVEL PIT SOIL TREATMENT FACILITY, km839 ALASKA HIGHWAY, FIRESIDE, B.C.

TITLE:

SOIL TREATMENT FACILITY DESIGN SPECIFICATIONS

DWN BY: PRT	SCALE: AS SHOWN	DATE: 2016-07-05	DWG No: 635031-303 REV.: 0
CHK'D: TM	PLOT: 20160803.1423	CADFILE: 636200R6	

PATH: P:\CURRENT PROJECTS\PWGSC\636200 FIRESIDE\4.0 EXECUTION\4.5 GIS AND DRAWINGS\CAD\636200R6.DWG

APPENDIX A

Environmental Investigations

SNC-Lavalin Inc.
#202 – 3440 Douglas Street
Victoria, British Columbia, Canada, V8Z 3L5
250.385.5028 250.385.5038

March 31, 2016 Project: 636200

Public Works and Government Services Canada
401 - 1230 Government Street
Victoria, BC
V8W 3X4

ATTENTION: Mr. Jordan Stones, Environmental Specialist

REFERENCE: **FY 2015/2016 Feasibility Study Data Report**
Fireside Maintenance Camp, KM 839, Alaska Highway, BC
PWGSC Project No. R.018388.003

Introduction

At the request of Public Works and Government Services Canada (PWGSC), SNC-Lavalin Inc. (SNC-Lavalin) has prepared the following feasibility study data report for the Fireside Maintenance Camp, kilometre 839, Alaska Highway, BC (the "Site").

All proposed work was conducted under the Remediation Consultants Contract No. EZ897-160027/003/PWY and PWGSC Project No. R.018388.003.

Location

The Fireside Maintenance Camp is located approximately 240 km northwest of Fort Nelson, BC, and 150 km southeast of Watson Lake, YT, on the west side of the Alaska Highway.

Objectives

A remedial soil excavation program is anticipated for FY 2016/2017 to address the remediation of petroleum hydrocarbon impacted soil and groundwater at the Site. The feasibility study was intended to provide additional data to facilitate the preparation of a remediation plan and tender specifications.

Activities Performed

A drilling program was conducted at the Site on March 7 to 16, 2016. Figure 1 in Attachment 1 shows the locations of boreholes advanced on the Site. Boreholes were completed using a combination of solid stem auger and ODEX equipped drill rigs. One borehole was completed as a monitoring well. Analytical results for soil and groundwater samples collected from the boreholes and monitoring well

are tabulated in Attachment 2 and laboratory Certificates of Analysis are included in Attachment 3. Borehole logs are included in Attachment 4.

Closure

We trust this provides you with the information you currently require. If you have any questions or require any additional information, please do not hesitate to contact us.

William CullochDasson, M.Sc., P.Geo.
Senior Project Geoscientist

Environment & Geoscience
Infrastructure

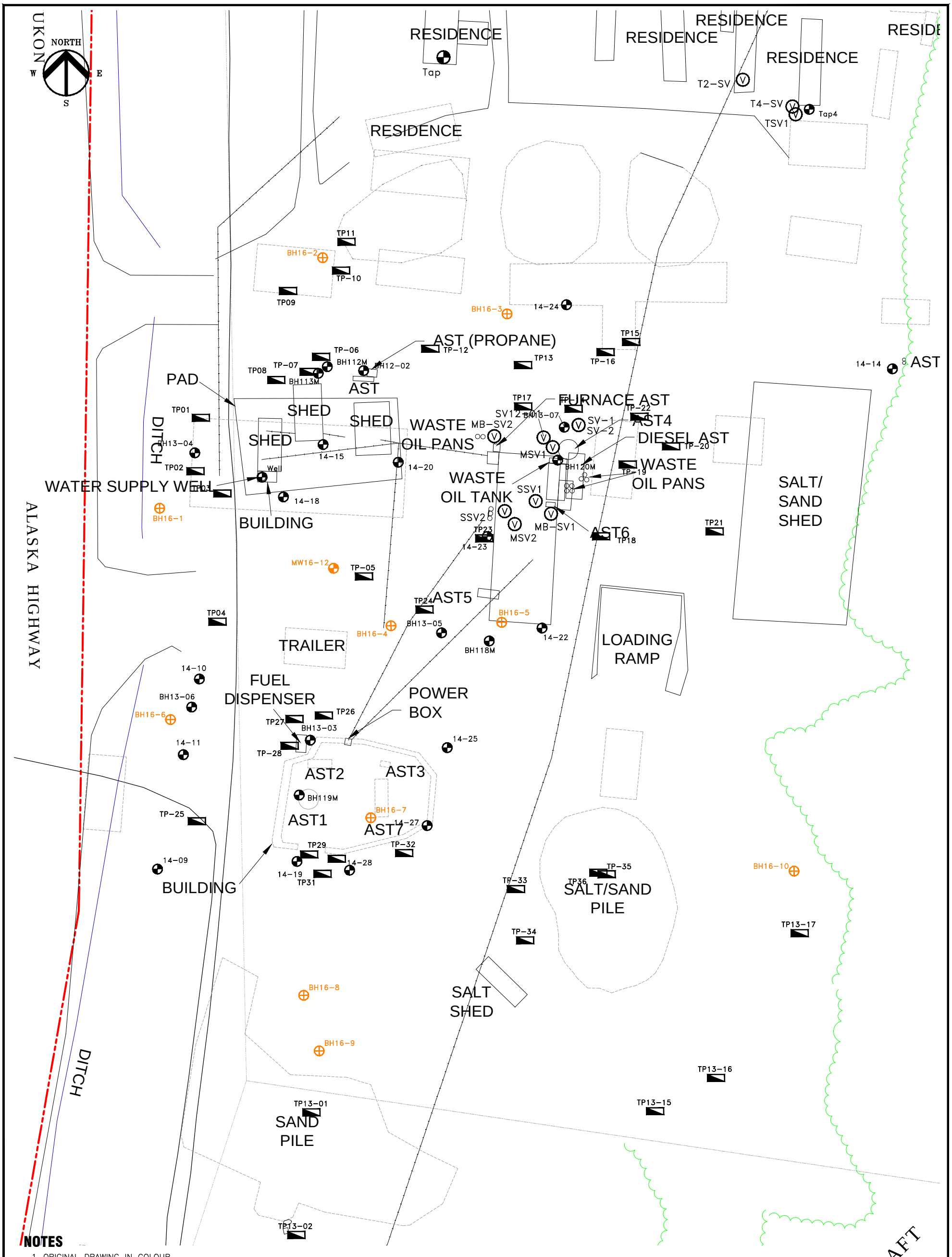
David Kettlewell, M.Sc., P.Geo., CSAP
Senior Project Manager

Environment & Geoscience
Infrastructure

Attachments:
1: Figure 1
2: Tabulated Analytical Results
3: Laboratory Certificates of Analysis
4: Borehole Logs

ATTACHMENT 1

Figure 1



NOTES

1. ORIGINAL DRAWING IN COLOUR.
2. LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED PRIOR TO INTRUSIVE WORK. NOT ALL UTILITIES MAY BE SHOWN.

LEGEND

0 10 20 30 40 METRES

- SUBJECT PROPERTY LIMITS
- LOT BOUNDARY
- FIBER OPTIC LINE
- UNKNOWN UTILITY
- TREELINE
- FENCE
- FORMER SITE CONFIGURATION (PRIOR FIRE)
- BOREHOLE INSTALLED FY2015/2016
- MONITORING WELL INSTALLED FY2015/2016
- MONITORING WELL
- SOIL VAPOUR WELL
- SITE FEATURE
- GARDEN

REFERENCE DRAWINGS

–	–	–
DWG. NO.	DATE	DESCRIPTION

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHK
0	2016-03-31	ISSUED AS DRAFT	PRT	WC

SNC·LAVALIN

CLIENT NAME: PUBLIC WORKS AND GOVERMENT SERVICES CANADA

PROJECT LOCATION: FIRESIDE, ALASKA HIGHWAY, BC

TITLE: FIGURE 1 - SITE PLAN

DWN BY: PB	SCALE: 1:800	DATE: 2016-03-30	DWG No: 623385-102 REV.: 0
CHK'D: MR	PLOT: 20160330.1637	CADFILE: 636200R1	

PATH: P:\CURRENT PROJECTS\PWGSC\636200 FIRESIDE\4.0 EXECUTION\4.5 GIS AND DRAWINGS\CAD\636200R1.DWG

ATTACHMENT 2

Tabulated Analytical Results

TABLE 1: Summary of Analytical Results for Hydrocarbons in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Field Screen[a] (ppm)	Field Conductivit uS/cm	Monocyclic Aromatic Hydrocarbons				Gross Parameters			Petroleum Hydrocarbon Fractions				MTBE
						Benzene µg/g	Ethyl-benzene µg/g	Toluen µg/g	Xylenes µg/g	VPH (C6-C10) µg/g	LEPH (C10-C19) µg/g	HEPH (C19-C32) µg/g	F1-BTEX µg/g	F2 (>C10-C16) µg/g	F3 (>C16-C34) µg/g	F4 (>C34-C50) µg/g	MTBE µg/g
BH16-01	BH16-01-1	2016 03 14	0.3 - 0.6	100	61	***0.013***	0.022	0.064	0.075	< 10	< 100	**1,240**	< 10	17	***1,100***	730	< 0.10
	BH16-01-2	2016 03 14	0.9 - 1.2	25	132.3	< 0.0050	< 0.010	< 0.020	< 0.040	< 10	< 100	< 100	< 10	< 10	16	16	< 0.10
	BH16-01-3	Duplicate	0.9 - 1.2	25	132.3	< 0.0050	< 0.010	< 0.020	< 0.040	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.10
	QA/QC RPD%				*	*	*	*	*	*	*	*	*	*	*	*	*
	BH16-01-5	2016 03 14	11.6 - 11.9	25	57.4	< 0.0050	< 0.010	0.024	< 0.040	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.10
BH16-02	BH16-02-1	2016 03 07	0.5 - 0.8	250	254	< 0.0050	< 0.010	< 0.020	< 0.040	69	**10,900**	**4,090**	***72***	***4,700***	***9,400***	< 50	< 0.10
	BH16-02-2	2016 03 07	2.0 - 2.3	150	143	< 0.0050	< 0.010	< 0.020	< 0.040	16	**2,410**	954	18	***1,200***	***2,600***	160	< 0.10
BH16-03	BH16-03-1	2016 03 07	0.5 - 0.6	25	404	< 0.0050	< 0.010	< 0.020	< 0.040	< 10	107	< 100	< 10	59	68	< 10	< 0.10
	BH16-03-2	2016 03 07	1.5 - 1.8	25	45	< 0.0050	< 0.010	< 0.020	< 0.040	< 10	< 100	< 100	< 10	73	190	160	< 0.10
	BH16-03-3	Duplicate	1.5 - 1.8	25	45	< 0.0050	< 0.010	< 0.020	< 0.040	< 10	< 100	< 100	< 10	68	180	160	< 0.10
	QA/QC RPD%				*	*	*	*	*	*	*	*	*	7	5	0	*
BH16-04	BH16-04-2	2016 03 14	0.6 - 0.9	25	487	< 0.0050	< 0.010	< 0.020	< 0.040	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.10
	BH16-04-3	2016 03 14	1.5 - 2.1	25	107.8	< 0.0050	< 0.010	< 0.020	< 0.040	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.10
	BH16-04-4	2016 03 14	4.3 - 4.6	5	7.8	< 0.0050	< 0.010	< 0.020	< 0.040	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.10
BH16-05	BH16-05-1	2016 03 15	0.2 - 0.5	200	110	***0.032***	0.082	0.15	0.56	**220**	**1,710**	232	***230***	***1,400***	***730***	54	< 0.10
	BH16-05-3	2016 03 15	1.5 - 2.0	125	132	0.0075	< 0.010	0.029	0.045	< 10	425	< 100	< 10	***350***	190	22	< 0.10
	BH16-05-4	2016 03 15	4.1 - 4.6	25	84	0.0078	0.011	0.032	0.05	< 10	422	149	< 10	***330***	300	80	< 0.10
	BH16-05-7	2016 03 15	15.8 - 16.2	-	-	< 0.0050	< 0.010	< 0.020	< 0.040	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.10
BH16-06	BH16-06-1	2016 03 07	0.5 - 0.6	75	168	< 0.0050	< 0.010	< 0.020	< 0.040	< 10	< 100	106	< 10	16	150	98	< 0.10
BH16-07	BH16-07-1	2016 03 07	1.2 - 1.5	11,000	46	< 0.0050	< 0.010	0.024	0.27	**1,200**	**17,900**	480	***1,200***	***15,000***	***1,600***	280	< 0.10
	BH16-07-2	2016 03 07	2.0 - 2.3	425	200	< 0.0050	< 0.010	< 0.020	< 0.040	90	**2,650**	< 100	***93***	***2,400***	260	32	< 0.10
BH16-08	BH16-08-1	2016 03 07	1.5 - 1.8	25	1,798	< 0.0050	< 0.010	< 0.020	< 0.040	< 10	< 100	< 100	< 10	54	170	160	< 0.10
BH16-09	BH16-09-1	2016 03 07	1.5 - 1.8	150	6,670	< 0.0050	< 0.010	< 0.020	< 0.040	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.10
BH16-10	BH16-10-1	2016 03 07	1.5 - 1.8	5	1,010	< 0.0050	< 0.010	< 0.020	< 0.040	< 10	< 100	< 100	< 10	52	170	160	< 0.10
	BH16-10-2	2016 03 07	3.0 - 3.4	25	1,600	< 0.0050	< 0.010	< 0.020	< 0.040	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.10
Federal Standard/Guideline																	
CCME CEQG/CWS Residential/Parkland Coarse-Grained Surface (sample depth < 1.5m						0.0095	0.082	0.37	11	n/a	n/a	n/a	30	150	300	2,800	n/a
CCME CEQG/CWS Residential/Parkland Coarse-Grained Subsoil (sample depth > 1.5m)						0.011	0.082	0.37	11	n/a	n/a	n/a	30	150	2,500	10,000	n/a
BC Standard																	
CSR Residential Land Use (RL)[c]						0.04	1	1.5	5	200	1,000	1,000	n/a	n/a	n/a	n/a	320

Associated Maxxam file(s): B619419, B620873.

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

NOTE: Due to shipping error, BETX and VPH samples collected on March 7 were analyzed one day past hold time (vials leaked). Due to lab error, select F2-F4 samples collected on March 7 were analyzed past hold time.

BOLD Concentration greater than CCME CEQG/CWS Residential/Parkland Land Use (RL/PL) standard.

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard

[a] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.

[b] Pathways Included: Direct Contact, Eco Soil Contact, Management Limit, Protection of Groundwater for Aquatic Life, Tier 1 - General, Vapour Inhalation (indoor, basement), Vapour Inhalation (indoor, slab-on-grade), Protection of Potable Groundwater.

[c] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

[d] F4 value did not return to baseline; F4 Gravimetric (Gravimetric Heavy Hydrocarbons) not analyzed.

[e] F4 value did not return to baseline and as such F4 Gravimetric (Gravimetric Heavy Hydrocarbons) was completed and reported.

TABLE 1 (Cont'd): Summary of Analytical Results for Hydrocarbons in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Field Screen[a] (ppm)	Field Conductivit uS/cm	Monocyclic Aromatic Hydrocarbons				Gross Parameters			Petroleum Hydrocarbon Fractions				MTBE
						Benzene µg/g	Ethyl-benzene µg/g	Toluen µg/g	Xylenes µg/g	VPH (C6-C10) µg/g	LEPH (C10-C19) µg/g	HEPH (C19-C32) µg/g	F1-BTEX µg/g	F2 (>C10-C16) µg/g	F3 (>C16-C34) µg/g	F4 (>C34-C50) µg/g	MTBE µg/g
BH16-12	BH16-12-1	2016 03 11	0.9 - 1.2	75	75	< 0.0050	< 0.010	< 0.020	< 0.040	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.10
	BH16-12-2	2016 03 11	5.5 - 5.8	5	15	< 0.0050	< 0.010	< 0.020	< 0.040	< 10	< 100	100	< 10	< 10	120	66[d]	< 0.10
	BH16-12-3	2016 03 11	10.1 - 10.4	-	12.3	< 0.0050	< 0.010	< 0.020	< 0.040	< 10	< 100	< 100	< 10	< 10	110	15[d]	< 0.10
	BH16-12-9	2016 03 12	20.7 - 21.0	-	5.8	< 0.0050	< 0.010	< 0.020	< 0.040	95	**2,120**	271	***99***	***1,800***	730	31[d]	< 0.10
	BH16-12-10	Duplicate	20.7 - 21.0	-	5.8	< 0.0050	0.017	0.035	0.056	100	**1,940**	239	***110***	***1,700***	680	38[d]	< 0.10
	QA/QC RPD%				*	*	*	*	*	5	9	*	11	6	7	*	*
	BH16-12-13	2016 03 13	30.0 - 30.3	-	-	< 0.0050	< 0.010	< 0.020	< 0.040	< 10	< 100	< 100	< 10	12	45	600[e]	< 0.10
Federal Standard/Guideline																	
CCME CEQG/CWS Residential/Parkland Coarse-Grained Surface (sample depth < 1.5m						0.0095	0.082	0.37	11	n/a	n/a	n/a	30	150	300	2,800	n/a
CCME CEQG/CWS Residential/Parkland Coarse-Grained Subsoil (sample depth > 1.5m)						0.011	0.082	0.37	11	n/a	n/a	n/a	30	150	2,500	10,000	n/a
BC Standard																	
CSR Residential Land Use (RL)[c]						0.04	1	1.5	5	200	1,000	1,000	n/a	n/a	n/a	n/a	320

Associated Maxxam file(s): B619419, B620873.

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- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

NOTE: Due to shipping error, BETX and VPH samples collected on March 7 were analyzed one day past hold time (vials leaked). Due to lab error, select F2-F4 samples collected on March 7 were analyzed past hold time.

BOLD Concentration greater than CCME CEQG/CWS Residential/Parkland Land Use (RL/PL) standard.

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard

[a] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.

[b] Pathways Included: Direct Contact, Eco Soil Contact, Management Limit, Protection of Groundwater for Aquatic Life, Tier 1 - General, Vapour Inhalation (indoor, basement), Vapour Inhalation (indoor, slab-on-grade), Protection of Potable Groundwater.

[c] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

[d] F4 value did not return to baseline; F4 Gravimetric (Gravimetric Heavy Hydrocarbons) not analyzed.

[e] F4 value did not return to baseline and as such F4 Gravimetric (Gravimetric Heavy Hydrocarbons) was completed and reported.

TABLE 2: Summary of Analytical Results for PAHs in Soil

Sample Location		BH16-01					BH16-02		BH16-03				Federal Guideline	BC Standard
Sample ID		BH16-01-1	BH16-01-2	BH16-01-3	QA/QC	BH16-01-5	BH16-02-1	BH16-02-2	BH16-03-1	BH16-03-2	BH16-03-3	QA/QC	CCME CEQG	CSR
Sample Date (yyyy mm dd)		2016 03 14	2016 03 14	Duplicate	RPD %	2016 03 14	2016 03 07	2016 03 07	2016 03 07	2016 03 07	Duplicate	RPD %	Residential/	Residential
Depth Interval (m)		0.3 - 0.6	0.9 - 1.2	0.9 - 1.2		11.6 - 11.9	0.5 - 0.8	2.0 - 2.3	0.5 - 0.6	1.5 - 1.8	1.5 - 1.8		Parkland	Land Use
Field Screen (ppm)[b]		100	25	25		25	250	150	25	25	25		Land Use	(RL)[d]
Parameter	**Units**	**Analytical Results**											(RL/PL)[c]	
Polycyclic Aromatic Hydrocarbons														
Naphthalene	µg/g	***0.05***	< 0.010	< 0.010	*	< 0.010	< 0.033[a]	< 0.010	< 0.010	< 0.010	< 0.010	*	0.013	5
2-Methylnaphthalene	µg/g	0.093	< 0.020	< 0.020	*	< 0.020	< 0.067	< 0.072	< 0.020	< 0.020	< 0.020	*	n/a	n/a
Acenaphthylene	µg/g	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	320	n/a
Acenaphthene	µg/g	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.082	0.058	< 0.0050	< 0.0050	< 0.0050	*	0.28	n/a
Fluorene	µg/g	< 0.020	< 0.020	< 0.020	*	< 0.020	< 0.15	***0.31***	< 0.020	< 0.020	< 0.020	*	0.25	n/a
Phenanthrene	µg/g	0.029	< 0.010	< 0.010	*	< 0.010	***0.5***	***0.44***	< 0.010	< 0.010	< 0.010	*	0.046	5
Anthracene	µg/g	< 0.0040	< 0.0040	< 0.0040	*	< 0.0040	< 0.0040	< 0.049	< 0.0040	< 0.0040	< 0.0040	*	2.5	n/a
Fluoranthene	µg/g	< 0.020	< 0.020	< 0.020	*	< 0.020	0.39	0.053	< 0.020	< 0.020	< 0.020	*	15.4	n/a
Pyrene	µg/g	< 0.020	< 0.020	< 0.020	*	< 0.020	0.81	0.11	< 0.020	< 0.020	< 0.020	*	7.7	10
Benzo(a)anthracene	µg/g	< 0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	*	1	1
Chrysene	µg/g	< 0.020	< 0.020	< 0.020	*	< 0.020	0.022	< 0.020	< 0.020	< 0.020	< 0.020	*	6.2	n/a
Benzo(b+j)fluoranthene	µg/g	< 0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	*	6.2	1
Benzo(k)fluoranthene	µg/g	< 0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	*	1	1
Benzo(a)pyrene	µg/g	< 0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	*	0.6	1
Indeno(1,2,3-cd)pyrene	µg/g	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	1	1
Dibenz(a,h)anthracene	µg/g	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	1	1
Benzo(g,h,i)perylene	µg/g	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	n/a	n/a
B(a)P Equivalency	None	< 0.10	< 0.10	< 0.10	*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	*	5.3	n/a
Index of Additive Cancer Risk	None	0.31	0.31	0.31	*	0.31	0.31	0.31	0.31	0.31	0.31	*	1	n/a

Associated Maxxam file(s): B619419, B620873.

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n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

BOLD Concentration greater than CCME CEQG Residential/Parkland Land Use (RL/PL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard

[a] Laboratory detection limit exceeds regulatory standard/guideline.

[b] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.

[c] Pathways Included: EH - Soil contact, Freshwater Aquatic Life, HH - Soil Dermal Contact, HH-Off-site migration check, Soil General (whichever is most stringent).

[d] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

TABLE 2 (Cont'd): Summary of Analytical Results for PAHs in Soil

Sample Location		BH16-04			BH16-05				BH16-06	BH16-07		BH16-08	BH16-09	Federal Guideline	BC Standard
Sample ID		BH16-04-2	BH16-04-3	BH16-04-4	BH16-05-1	BH16-05-3	BH16-05-4	BH16-05-7	BH16-06-1	BH16-07-1	BH16-07-2	BH16-08-1	BH16-09-1	CCME CEQG	CSR
Sample Date (yyyy mm dd)		2016 03 14	2016 03 14	2016 03 14	2016 03 15	2016 03 15	2016 03 15	2016 03 15	2016 03 07	2016 03 07	2016 03 07	2016 03 07	2016 03 07	Residential/	Residential
Depth Interval (m)		0.6 - 0.9	1.5 - 2.1	4.3 - 4.6	0.2 - 0.5	1.5 - 2.0	4.1 - 4.6	15.8 - 16.2	0.5 - 0.6	1.2 - 1.5	2.0 - 2.3	1.5 - 1.8	1.5 - 1.8	Parkland	Land Use
Field Screen (ppm)[b]		25	25	5	200	125	25	-	75	11,000	425	25	150	Land Use	(RL)[d]
Parameter	**Units**	**Analytical Results**												(RL/PL)[c]	
Polycyclic Aromatic Hydrocarbons															
Naphthalene	µg/g	< 0.010	< 0.010	< 0.010	***0.53***	***0.18***	***0.19***	< 0.010	< 0.010	< 0.019[a]	< 0.010	< 0.010	***0.045***	0.013	5
2-Methylnaphthalene	µg/g	< 0.020	< 0.020	< 0.020	1.6	0.57	0.63	< 0.020	< 0.020	< 0.086	< 0.069	< 0.020	0.032	n/a	n/a
Acenaphthylene	µg/g	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.032	< 0.0050	< 0.0050	320	n/a
Acenaphthene	µg/g	< 0.0050	< 0.0050	< 0.0050	0.036	0.0079	< 0.0082	< 0.0050	< 0.0050	< 0.88[a]	0.14	< 0.0050	< 0.0050	0.28	n/a
Fluorene	µg/g	< 0.020	< 0.020	< 0.020	0.16	0.059	0.06	< 0.020	< 0.020	***1.8***	***0.37***	< 0.020	< 0.020	0.25	n/a
Phenanthrene	µg/g	< 0.010	< 0.010	< 0.010	***0.11***	***0.05***	***0.051***	< 0.010	< 0.010	***1.2***	***0.18***	< 0.010	< 0.010	0.046	5
Anthracene	µg/g	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0067	< 0.0040	< 0.0040	< 0.0040	2.5	n/a
Fluoranthene	µg/g	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	15.4	n/a
Pyrene	µg/g	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	7.7	10
Benzo(a)anthracene	µg/g	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	1	1
Chrysene	µg/g	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	6.2	n/a
Benzo(b+j)fluoranthene	µg/g	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	6.2	1
Benzo(k)fluoranthene	µg/g	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	1	1
Benzo(a)pyrene	µg/g	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.6	1
Indeno(1,2,3-cd)pyrene	µg/g	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	1	1
Dibenz(a,h)anthracene	µg/g	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	1	1
Benzo(g,h,i)perylene	µg/g	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	n/a	n/a
B(a)P Equivalency	None	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	5.3	n/a
Index of Additive Cancer Risk	None	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	1	n/a

Associated Maxxam file(s): B619419, B620873.

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* RPDs are not calculated where one or more concentrations are less than five times RDL.

BOLD Concentration greater than CCME CEQG Residential/Parkland Land Use (RL/PL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard

[a] Laboratory detection limit exceeds regulatory standard/guideline.

[b] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.

[c] Pathways Included: EH - Soil contact, Freshwater Aquatic Life, HH - Soil Dermal Contact, HH-Off-site migration check, Soil General (whichever is most stringent).

[d] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

TABLE 2 (Cont'd): Summary of Analytical Results for PAHs in Soil

Sample Location		BH16-10		BH16-12							Federal Guideline	BC Standard
Sample ID		BH16-10-1	BH16-10-2	BH16-12-1	BH16-12-2	BH16-12-3	BH16-12-9	BH16-12-10	QA/QC	BH16-12-13	CCME CEQG	CSR
Sample Date (yyyy mm dd)		2016 03 07	2016 03 07	2016 03 11	2016 03 11	2016 03 11	2016 03 12	Duplicate	RPD %	2016 03 13	Residential/	Residential
Depth Interval (m)		1.5 - 1.8	3.0 - 3.4	0.9 - 1.2	5.5 - 5.8	10.1 - 10.4	20.7 - 21.0	20.7 - 21.0		30.0 - 30.3	Parkland	Land Use
Field Screen (ppm)[b]		5	25	75	5	-	-	-		-	Land Use	(RL)[d]
Parameter	**Units**	**Analytical Results**									(RL/PL)[c]	
Polycyclic Aromatic Hydrocarbons												
Naphthalene	µg/g	< 0.010	< 0.010	< 0.010	0.013	< 0.010	< 0.23[a]	< 0.21[a]	*	< 0.010	0.013	5
2-Methylnaphthalene	µg/g	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	1.5	1.4	7	< 0.020	n/a	n/a
Acenaphthylene	µg/g	< 0.0050	< 0.0050	< 0.0050	0.014	< 0.0050	< 0.29	< 0.043	*	< 0.0050	320	n/a
Acenaphthene	µg/g	< 0.0050	< 0.0050	< 0.0050	0.016	< 0.0050	< 0.11	< 0.096	*	< 0.0050	0.28	n/a
Fluorene	µg/g	< 0.020	< 0.020	< 0.020	0.022	< 0.020	< 0.59[a]	***0.55***	*	< 0.020	0.25	n/a
Phenanthrene	µg/g	< 0.010	< 0.010	< 0.010	***0.11***	< 0.010	***0.89***	***0.81***	9	< 0.010	0.046	5
Anthracene	µg/g	< 0.0040	< 0.0040	< 0.0040	0.076	< 0.0040	< 0.072	< 0.063	*	< 0.0040	2.5	n/a
Fluoranthene	µg/g	< 0.020	< 0.020	< 0.020	0.89	< 0.020	< 0.020	< 0.020	*	< 0.020	15.4	n/a
Pyrene	µg/g	< 0.020	< 0.020	< 0.020	0.54	< 0.020	0.028	0.025	*	< 0.020	7.7	10
Benzo(a)anthracene	µg/g	< 0.020	< 0.020	< 0.020	0.37	< 0.020	< 0.020	< 0.020	*	< 0.020	1	1
Chrysene	µg/g	< 0.020	< 0.020	< 0.020	0.49	< 0.020	< 0.020	< 0.020	*	< 0.020	6.2	n/a
Benzo(b+j)fluoranthene	µg/g	< 0.020	< 0.020	< 0.020	0.6	< 0.020	< 0.020	< 0.020	*	< 0.020	6.2	1
Benzo(k)fluoranthene	µg/g	< 0.020	< 0.020	< 0.020	0.18	< 0.020	< 0.020	< 0.020	*	< 0.020	1	1
Benzo(a)pyrene	µg/g	< 0.020	< 0.020	< 0.020	0.29	< 0.020	< 0.020	< 0.020	*	< 0.020	0.6	1
Indeno(1,2,3-cd)pyrene	µg/g	< 0.050	< 0.050	< 0.050	0.1	< 0.050	< 0.050	< 0.050	*	< 0.050	1	1
Dibenz(a,h)anthracene	µg/g	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	1	1
Benzo(g,h,i)perylene	µg/g	< 0.050	< 0.050	< 0.050	0.1	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a
B(a)P Equivalency	None	< 0.10	< 0.10	< 0.10	0.44	< 0.10	< 0.10	< 0.10	*	< 0.10	5.3	n/a
Index of Additive Cancer Risk	None	0.31	0.31	0.31	***7.2***	0.31	0.31	0.31	*	0.31	1	n/a

Associated Maxxam file(s): B619419, B620873.

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* RPDs are not calculated where one or more concentrations are less than five times RDL.

BOLD Concentration greater than CCME CEQG Residential/Parkland Land Use (RL/PL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard

[a] Laboratory detection limit exceeds regulatory standard/guideline.

[b] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.

[c] Pathways Included: EH - Soil contact, Freshwater Aquatic Life, HH - Soil Dermal Contact, HH-Off-site migration check, Soil General (whichever is most stringent).

[d] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

TABLE 3: Summary of Analytical Results for Hydrocarbons in Groundwater

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Monocyclic Aromatic Hydrocarbons				Gross Parameters					Petroleum Hydrocarbon Fractions				MTBE
			Benzene µg/L	Ethyl-benzene µg/L	Toluene µg/L	Xylenes µg/L	VH (C6- µg/L	VPH (C6- µg/L	EPH (C10- µg/L	LEPH (C10- µg/L	EPH (C19- µg/L	F1- µg/L	F2 (>C10- µg/L	F3 (>C16- µg/L	F4 (>C34- µg/L	MTBE µg/L
MW16-12D	MW16-12-160315	2016 03 15	< 0.40	< 0.40	< 0.40	< 0.40	< 300	< 300	200	200	< 200	< 300	250	< 200	< 200	< 4.0
	MW16-A-160315	Duplicate	< 0.40	< 0.40	< 0.40	< 0.40	< 300	< 300	200	200	< 200	< 300	260	< 200	< 200	< 4.0
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	*	*	*	*
Federal Guideline																
Canadian Drinking Water Quality Guidelines (CDWQG)			5	1.6	24	20	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	15
FGQG Tier 2 Residential/Parkland Land Use (RL/PL)[a]			140	16,000	83	3,900	n/a	n/a	n/a	n/a	n/a	810	1,300	n/a	n/a	340
BC Standard																
CSR Drinking Water (DW)			5	2.4	24	300	15,000[c]	n/a	5,000[c]	n/a	n/a	n/a	n/a	n/a	n/a	15
CSR Aquatic Life (AW)[b]			4,000	2,000	390	n/a	15,000[c]	1,500	5,000[c]	500	n/a	n/a	n/a	n/a	n/a	34,000

Associated Maxxam file(s): B619945.

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- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

SHADED Concentration greater than Canadian Drinking Water Quality Guidelines (CDWQG) Guideline

BOLD Concentration greater than FGQG Tier 2 Residential/Parkland Land Use (RL/PL) Guideline

OUTLINE Concentration greater than CSR Drinking Water (DW) standard

SHADOW Concentration greater than CSR Aquatic Life (AW) standard

[a] Pathways Included: Freshwater Aquatic Life - Coarse, Inhalation - Coarse, Soil Organisms Direct Contact - Coarse (whichever is most stringent).

[b] Standard to protect freshwater aquatic life.

[c] Applicable at all sites irrespective of water use.

TABLE 4: Summary of Analytical Results for PAHs in Groundwater

Sample Location		MW16-12D			Federal Guideline		BC Standard	
Sample ID		MW16-12-160315	MW16-A-160315	QA/QC	Canadian Drinking Water Quality	FGQG Tier 2 Residential/Parkland	CSR Drinking Water	CSR Aquatic Life
Sample Date (yyyy mm dd)		2016 03 15	Duplicate	RPD %	Guidelines (CDWQG)	Land Use (RL/PL)[a]	(DW)	(AW)[b]
Parameter	**Units**	**Analytical Results**						
Polycyclic Aromatic Hydrocarbons								
Naphthalene	µg/L	< 0.10	< 0.10	*	n/a	1.1	n/a	10
2-Methylnaphthalene	µg/L	< 0.10	< 0.10	*	n/a	n/a	n/a	n/a
Acenaphthylene	µg/L	< 0.050	< 0.050	*	n/a	46	n/a	n/a
Acenaphthene	µg/L	< 0.050	< 0.050	*	n/a	5.8	n/a	60
Fluorene	µg/L	< 0.050	< 0.050	*	n/a	3	n/a	120
Phenanthrene	µg/L	< 0.050	< 0.050	*	n/a	0.4	n/a	3
Anthracene	µg/L	< 0.010	< 0.010	*	n/a	0.012	n/a	1
Acridine	µg/L	< 0.050	< 0.050	*	n/a	0.05	n/a	0.5
Fluoranthene	µg/L	< 0.020	< 0.020	*	n/a	0.04	n/a	2
Pyrene	µg/L	< 0.020	< 0.020	*	n/a	0.025	n/a	0.2
Benzo(a)anthracene	µg/L	< 0.010	< 0.010	*	n/a	0.018	n/a	1
Chrysene	µg/L	< 0.050	< 0.050	*	n/a	1.4	n/a	1
Benzo(b+j)fluoranthene	µg/L	< 0.050	< 0.050	*	n/a	0.48	n/a	n/a
Benzo(k)fluoranthene	µg/L	< 0.050	< 0.050	*	n/a	0.48	n/a	n/a
Benzo(a)pyrene	µg/L	< 0.0090	< 0.0090	*	0.01	0.015	0.01	0.1
Indeno(1,2,3-cd)pyrene	µg/L	< 0.050	< 0.050	*	n/a	0.21	n/a	n/a
Dibenz(a,h)anthracene	µg/L	< 0.050	< 0.050	*	n/a	0.26	n/a	n/a
Benzo(g,h,i)perylene	µg/L	< 0.050	< 0.050	*	n/a	0.17	n/a	n/a
Quinoline	µg/L	< 0.24	< 0.24	*	n/a	3.4	n/a	34

Associated Maxxam file(s): B619945.

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

SHADED Concentration greater than Canadian Drinking Water Quality Guidelines (CDWQG) Guideline

BOLD Concentration greater than FGQG Tier 2 Residential/Parkland Land Use (RL/PL) Guideline

OUTLINE Concentration greater than CSR Drinking Water (DW) standard

SHADOW Concentration greater than CSR Aquatic Life (AW) standard

[a] Pathways Included: Freshwater Aquatic Life - Coarse, Inhalation - Coarse, Soil Organisms Direct Contact - Coarse (whichever is most stringent).

[b] Standard to protect freshwater aquatic life.

TABLE 1: Summary of Analytical Results for Hydrocarbons in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Field Screen[b] (ppm)	Monocyclic Aromatic Hydrocarbons					Gross Parameters			Petroleum Hydrocarbon Fractions				MTBE
					Benzene µg/g	Ethylbenzene µg/g	Toluene µg/g	Xylenes µg/g	Styrene µg/g	VPH (C6-C10) µg/g	LEPH (C10-C19)[e] µg/g	HEPH (C19-C32)[e] µg/g	F1-BTEX µg/g	F2 (>C10-C16) µg/g	F3 (>C16-C34) µg/g	F4 (>C34-C50) µg/g	MTBE µg/g
FS-01	FS-01	2001 08 10	0.0 - 0.0	-	< 0.04[a]	***2.3***	< 0.1	***13.9***	-	-	-	-	***550***	***5,400***	***8,600***	77	-
FS-02	FS-02	2001 08 10	0.0 - 0.0	-	< 0.04[a]	***11***	***0.25***	***19.2***	-	-	-	-	***320***	***5,000***	***6,300***	< 10	-
FS-03	FS-03	2001 08 10	0.0 - 0.0	-	< 0.04[a]	< 0.1[a]	< 0.1	< 0.2	-	-	-	-	***160***	***2,400***	***3,500***	200	-
TP-06	FS-06-1.0	2002 10 05	1.0 - 1.0	-	< 0.04[a]	< 0.05	< 0.05	< 0.1	< 0.05	**599**	**10,700**	658	***613***	***10,100***	***2,700***	< 50	-
	FS-06-4.6	2002 10 05	4.6 - 4.6	-	< 0.04[a]	< 0.05	< 0.05	0.2	< 0.05	< 100	**3,230**	384	***59***	***2,310***	***1,650***	< 50	-
TP-07	FS-07-2.0	2002 10 05	2.0 - 2.0	-	< 0.04[a]	***1.48***	***0.33***	**10.7**	< 0.05	**488**	**9,270**	816	***504***	***7,950***	2,390	< 50	-
TP-10	FS-10-0.5	2002 10 05	0.5 - 0.5	-	< 0.04[a]	< 0.05	< 0.05	< 0.1	< 0.05	< 100	**3,680**	< 200	***81***	***3,180***	***721***	< 50	-
TP-12	FS-12-0.5	2002 10 05	0.5 - 0.5	-	***0.69***	***2.94***	0.06	**5.2**	< 0.05	**1,130**	**19,100**	**2,960**	***1,130***	***13,500***	***8,090***	< 50	-
	FS-12-1.2	2002 10 05	1.2 - 1.2	-	***0.24***	***1.79***	< 0.05	**5.8**	< 0.05	**1,110**	**13,400**	**1,490**	***1,120***	***10,300***	***4,400***	< 50	-
TP-14	FS-14-0.5	2002 10 05	0.5 - 0.5	-	< 0.04[a]	< 0.05	< 0.05	0.2	< 0.05	< 100	< 200	< 200	< 30	78	168	67	-
TP-16	FS-16-0.5	2002 10 05	0.5 - 0.5	-	< 0.04[a]	< 0.05	< 0.05	< 0.1	< 0.05	**116**	**3,540**	**1,440**	***115***	***3,170***	***1,900***	640	-
TP-19	FS-19-0.5	2002 10 05	0.5 - 0.5	-	< 0.04[a]	0.07	< 0.05	< 0.1	< 0.05	< 100	< 200	< 200	< 30	90	< 50	< 50	-
	FS-19-2.4	2002 10 05	2.4 - 2.4	-	< 0.04[a]	0.07	< 0.05	< 0.1	< 0.05	< 100	< 200	< 200	< 30	< 50	< 50	< 50	-
	FS-19A-2.4	Duplicate	2.4 - 2.4	-	< 0.04[a]	< 0.05	< 0.05	< 0.1	< 0.05	< 100	< 200	< 200	< 30	< 50	< 50	< 50	-
	QA/QC RPD%				*	*	*	*	*	*	*	*	*	*	*	*	-
TP-20	FS-20-0.5	2002 10 05	0.5 - 0.5	-	< 0.04[a]	< 0.05	< 0.05	< 0.1	< 0.05	< 100	**13,300**	**5,190**	***97***	***7,960***	***11,400***	108	-
TP-22	FS-22-0.5	2002 10 05	0.5 - 0.5	-	< 0.04[a]	***0.34***	0.1	0.7	< 0.05	**136**	**3,000**	**1,080**	***155***	***2,190***	***2,180***	446	-
	FS-22A-0.5	Duplicate	0.5 - 0.5	-	< 0.04[a]	***1.09***	***0.15***	**5.5**	< 0.05	**715**	**8,510**	**2,440**	***722***	***6,270***	***5,100***	804	-
	QA/QC RPD%				*	105	40	155	*	136	96	77	129	96	80	57	-
TP-25	FS-25-0.3	2002 10 05	0.3 - 0.3	-	< 0.04[a]	< 0.05	< 0.05	< 0.1	< 0.05	< 100	**2,400**	647	< 30	***1,620***	***1,400***	218	-
TP-28	FS-28-0.2	2002 10 05	0.2 - 0.2	-	< 0.04[a]	***0.32***	***0.18***	4.4	< 0.05	**531**	**17,400**	**4,800**	***541***	***12,800***	***11,500***	555	-
TP-30	FS-30-0.25	2002 10 05	0.3 - 0.3	-	***0.33***	< 0.05	< 0.05	< 0.1	< 0.05	< 100	< 200	< 200	< 30	52	174	66	-
TP-32	FS-32-0.25	2002 10 05	0.3 - 0.3	-	< 0.04[a]	***0.12***	***0.21***	1.6	< 0.05	**741**	**15,100**	627	***777***	***14,400***	***2,110***	95	-
TP-35	FS-35-1.0	2002 10 05	1.0 - 1.0	-	< 0.04[a]	< 0.05	< 0.05	< 0.02	0.04	-	< 200	< 200	< 30	< 50	< 50	< 50	-
BH01	BH01-01	2003 01 01	1.2 - 1.2	-	-	-	-	-	-	-	< 200	< 200	-	42	58	< 50	-
BH02	BH02-01	2003 01 01	1.2 - 1.2	-	-	-	-	-	-	-	< 200	< 200	-	35	< 50	< 50	-
	BH02-08	2003 01 01	6.6 - 6.6	-	< 0.04[a]	< 0.05	< 0.05	< 0.1	< 0.05	< 100	< 200	< 200	-	44	< 50	< 50	-
BH03	BH03-02	2003 01 01	2.7 - 2.7	-	-	-	-	-	-	-	**17,900**	**6,270**	-	***8,660***	***13,400***	1,660	-
	BH03-06	2003 01 01	7.3 - 7.3	-	-	-	-	-	-	-	1,280	306	-	***851***	***681***	204	-
	BH03-08	2003 01 01	10.1 - 10.1	-	-	-	-	-	-	-	267	< 200	-	148	148	< 50	-
BH04	BH04-03	2003 01 01	4.3 - 4.3	-	-	-	-	-	-	-	< 200	< 200	-	< 30	< 50	< 50	-
	BH04-05	2003 01 01	7.3 - 7.3	-	-	-	-	-	-	-	< 200	< 200	-	31	< 50	< 50	-
	BH04-06	2003 01 01	8.8 - 8.8	-	-	-	-	-	-	-	< 200	< 200	-	< 30	< 50	< 50	-
BH05	BH05-04	2003 01 01	5.5 - 5.5	-	-	-	-	-	-	-	< 200	< 200	-	31	< 50	52	-
	BH05-07	2003 01 01	8.5 - 8.5	-	-	-	-	-	-	-	780	< 200	-	***562***	***320***	< 50	-
BH06	BH06-01	2003 01 01	1.2 - 1.2	-	-	-	-	-	-	-	< 200	< 200	-	< 30	121	< 50	-
	BH06-05	2003 01 01	7.3 - 7.3	-	-	-	-	-	-	-	< 200	< 200	-	< 30	< 50	< 50	-
BH07	BH07-02	2003 01 01	2.7 - 2.7	-	< 0.04[a]	0.06	< 0.05	4.8	< 0.05	**289**	**8,340**	**1,360**	-	***5,250***	***4,200***	< 50	-
	BH07-06	2003 01 01	8.8 - 8.8	-	-	-	-	-	-	-	**2,760**	416	-	***1,600***	***1,230***	< 50	-
BH08	BH08-04	2003 01 01	5.8 - 5.8	-	-	-	-	-	-	-	< 200	< 200	-	< 30	< 50	< 50	-
	BH08-08	2003 01 01	11.9 - 11.9	-	-	-	-	-	-	-	< 200	< 200	-	< 30	< 50	< 50	-
BH09	BH09-03	2003 01 01	4.3 - 4.3	-	-	-	-	-	-	-	< 200	< 200	-	< 30	< 50	< 50	-
	BH09-07	2003 01 01	10.1 - 10.1	-	-	-	-	-	-	-	< 200	< 200	-	< 30	< 50	< 50	-
BH10	BH10-05	2003 01 01	7.3 - 7.3	-	-	-	-	-	-	-	< 200	< 200	-	< 30	< 50	< 50	-
	BH10-08	2003 01 01	11.9 - 11.9	-	-	-	-	-	-	-	< 200	< 200	-	< 30	< 50	< 50	-
BH11	BH11-01	2003 01 01	1.2 - 1.2	-	-	-	-	-	-	-	< 200	< 200	-	< 30	< 50	< 50	-
	BHQAQC-01	Duplicate	1.2 - 1.2	-	-	-	-	-	-	-	< 200	< 200	-	< 30	< 50	< 50	-
	QA/QC RPD%				-	-	-	-	-	-	*	*	-	*	*	*	-
	BH11-07	2003 01 01	10.4 - 10.4	-	-	-	-	-	-	-	< 200	< 200	-	34	< 50	< 50	-
BH12	BH12-01	2003 01 01	1.2 - 1.2	-	< 0.04[a]	< 0.05	< 0.05	< 0.1	< 0.05	< 100	< 200	< 200	-	< 30	< 50	< 50	-
	BHQAQC-02	Duplicate	1.2 - 1.2	-	-	-	-	-	-	-	< 200	< 200	-	< 30	< 50	< 50	-
	QA/QC RPD%				-	-	-	-	-	-	*	*	-	*	*	*	-
	BH12-05	2003 01 01	7.3 - 7.3	-	-	-	-	-	-	-	< 200	< 200	-	< 30	< 50	< 50	-
	BH12-08	2003 01 01	11.9 - 11.9	-	-	-	-	-	-	-	< 200	< 200	-	32	< 50	< 50	-
BH13	BH13-2	2004 11 23	2.0 - 2.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH14	BH14-1	2004 11 23	0.5 - 0.5	-	-	-	-	-	-	-	**15,000**	**5,900**	-	-	-	-	-
	BH14-2	2004 11 23	2.0 - 2.0	-	-	-	-	-	-	-	**4,100**	**2,200**	-	-	-	-	-
	BH14-4	2004 11 23	4.6 - 4.6	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH15	BH15-1	2004 11 23	0.5 - 0.5	-	-	-	-	-	-	-	**3,100**	**360**	-	-	-	-	-
	BH15-2	2004 11 23	2.8 - 2.8	-	-	-	-	-	-	-	**2,600**	< 250	-	-	-	-	-
BH16	BH16-1	2004 11 23	0.5 - 0.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH16-2	2004 11 23	2.6 - 2.6	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH17	BH17-1	2004 11 23	2.4 - 2.4	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH18	BH18-1	2004 11 23	0.5 - 0.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH19	BH19-1	2004 11 26	0.5 - 0.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH20	BH20-1	2004 11 26	0.5 - 0.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH20-2	2004 11 26	2.4 - 2.4	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH21	BH21-1	2004 11 26	0.5 - 0.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	< 100	< 250	< 250	-	-	-	-	-
	BH21-2	2004 11 26	2.4 - 2.4	-	-	-	-	-	-	-	**2,100**	< 250	-	-	-	-	-
BH22	BH22-1	2004 11 26	2.5 - 2.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	< 100	< 250	< 250	-	-	-	-	-
BH23	BH23-1	2004 11 26	0.5 - 0.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	< 100	< 250	< 250	-	-	-	-	-
	BH23-2	2004 11 26	2.2 - 2.2	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH24	BH24-1	2004 11 26	0.5 - 0.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	< 100	**1,600**	300	-	-	-	-	-
	BH24-2	2004 11 26	2.4 - 2.4	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	< 100	**280**	< 250	-	-	-	-	-
	GR1	Duplicate	2.4 - 2.4	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	< 100	< 250	< 250	-	-	-	-	-
	QA/QC RPD%				*	*	*	*	*	*	*	*	-	-	-	-	-
BH25	BH25-1	2004 11 26	0.5 - 0.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH26	BH26-1	2004 11 26	0.5 - 0.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH26-2	2004 11 26	2.0 - 2.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	GR2	Duplicate	2.0 - 2.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	QA/QC RPD%				-	-	-	-	-	-	*	*	-	-	-	-	-
BH27	BH27-2	2004 11 26	3.1 - 3.1	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH28	BH28-2	2004 11 27	3.1 - 3.1	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	GR3	Duplicate	3.1 - 3.1	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	QA/QC RPD%				-	-	-	-	-	-	*	*	-	-	-	-	-
BH29	BH29-1	2004 11 27	0.5 - 0.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH29-2	2004 11 27	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH30	BH30-2	2004 11 27	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	**310**	**6,900**	280	-	-	-	-	-
	BH30-3	2004 11 27	3.1 - 3.1	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH31	BH31-1	2004 11 27	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH32	BH32-1	2004 11 27	1.4 - 1.4	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH32-2	2004 11 27	3.1 - 3.1	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH33	BH33-1	2004 11 27	1.5 - 1.5	-	-	-	-	-	-	-	< 250	500	-	-	-	-	-
BH34	BH34-1	2004 11 28	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH34-2	2004 11 28	3.1 - 3.1	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH35	BH35-1	2004 11 28	1.5 - 1.5	-	-	-	-	-	-	-	**2,000**	480	-	-	-	-	-
	BH35-2	2004 11 28	3.1 - 3.1	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH36	BH36-1	2004 11 28	3.1 - 3.1	-	-	-	-	-	-	-	**2,700**	< 250	-	-	-	-	-
	BH36-2	2004 11 28	6.1 - 6.1	-	-	-	-	-	-	-	**1,500**	< 250	-	-	-	-	-
	GR4	Duplicate	6.1 - 6.1	-	-	-	-	-	-	-	**2,600**	< 250	-	-	-	-	-
	QA/QC RPD%				-	-	-	-	-	-	54	*	-	-	-	-	-
	BH36-3	2004 11 28	9.1 - 9.1	-	-	-	-	-	-	-	**2,300**	< 250	-	-	-	-	-
	BH36-4	2004 11 28	12.0 - 12.0	-	-	-	-	-	-	-	**1,700**	300	-	-	-	-	-
	BH36-5	2004 11 28	15.0 - 15.0	-	-	-	-	-	-	-	**370**	< 250	-	-	-	-	-
BH37	BH37-1	2004 11 29	0.6 - 0.6	-	-	-	-	-	-	-	**12,000**	**2,200**	-	-	-	-	-
BH38	BH38-1	2004 11 29	1.2 - 1.2	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH38-2	2004 11 29	2.4 - 2.4	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH42	BH42-1	2004 11 29	0.9 - 0.9	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH48	BH48-1	2004 11 29	2.1 - 2.1	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	< 100	< 250	< 250	-	-	-	-	-
BH49	BH49-1	2004 11 29	0.3 - 0.3	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	< 100	**880**	**1,800**	-	-	-	-	-
	BH49-2	2004 11 29	2.4 - 2.4	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	< 100	**3,500**	250	-	-	-	-	-
Federal Guideline/Standard																	
CCME CEQG/CWS Residential Coarse-Grained Surface (sample depth < 1.5m)[c]					0.03	0.082	0.1	11	5	n/a	n/a	n/a	30	150	300	2,800	n/a
CCME CEQG/CWS Residential Coarse-Grained Subsoil (sample depth > 1.5m)[c]					0.03	0.082	0.1	11	5	n/a	n/a	n/a	30	150	2,500	10,000	n/a
BC Standard																	
CSR Residential Land Use (RL) (sample depth < 3.0m)[d]					0.04	1	1.5	5	5	200	1,000	1,000	n/a	n/a	n/a	n/a	320
CSR Commercial Land Use (CL) (sample depth > 3.0m)[d]					0.04	7	2.5	20	50	200	2,000	5,000	n/a	n/a	n/a	n/a	700

Associated Maxxam file(s): B645259.

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

\- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.

[b] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.

[c] Pathways: Contact (Direct/Eco), Management Limit, Protection of Groundwater for Aquatic Life, Vapour Inhalation, Protection of Potable Groundwater.

[d] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

[e] Where available, values corrected for the presence of individual PAH are shown. Otherwise, uncorrected values are shown.

[f] F4 value did not return to baseline; F4 Gravimetric (Gravimetric Heavy Hydrocarbons) not analyzed.

[g] F4 value did not return to baseline and as such F4 Gravimetric (Gravimetric Heavy Hydrocarbons) was completed; the greater of the two is reported.

BOLD Concentration greater than CCME CEQG/CWS Residential Land Use (RL) standard.

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

SHADED VPH, LEPH or HEPH concentration greater than CCME CWS Residential F1, F2 or F3 standard (potential CCME exceedance), only applied where no F1, F2 or F3 concentration is available.

TABLE 1 (Cont'd): Summary of Analytical Results for Hydrocarbons in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Field Screen[b] (ppm)	Monocyclic Aromatic Hydrocarbons					Gross Parameters			Petroleum Hydrocarbon Fractions				MTBE
					Benzene µg/g	Ethylbenzene µg/g	Toluene µg/g	Xylenes µg/g	Styrene µg/g	VPH (C6-C10) µg/g	LEPH (C10-C19)[e] µg/g	HEPH (C19-C32)[e] µg/g	F1-BTEX µg/g	F2 (>C10-C16) µg/g	F3 (>C16-C34) µg/g	F4 (>C34-C50) µg/g	MTBE µg/g
BH50	BH50-1	2004 11 29	0.3 - 0.3	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	< 100	< 250	< 250	-	-	-	-	-
BH51	BH51-1	2004 11 29	2.4 - 2.4	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	< 100	< 250	< 250	-	-	-	-	-
BH52	BH52-1	2004 11 29	0.3 - 0.3	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	< 100	< 250	< 250	-	-	-	-	-
	GR6	Duplicate	0.3 - 0.3	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
		QA/QC RPD%			-	-	-	-	-	-	*	*	-	-	-	-	-
	BH52-2	2004 11 29	2.4 - 2.4	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH53	BH53-1	2004 11 30	1.5 - 1.5	-	< 0.04[a]	***3.2***	< 0.5[a]	***23***	< 0.5	**1,800**	**27,000**	**2,400**	-	-	-	-	-
	GR7	Duplicate	1.5 - 1.5	-	-	-	-	-	-	-	**34,000**	**4,000**	-	-	-	-	-
		QA/QC RPD%			-	-	-	-	-	-	23	50	-	-	-	-	-
	BH53-2	2004 11 30	3.1 - 3.1	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	**140**	**4,000**	380	-	-	-	-	-
	BH53-3	2004 11 30	6.1 - 6.1	-	-	-	-	-	-	-	**4,000**	520	-	-	-	-	-
	BH53-5	2004 11 30	9.1 - 9.1	-	-	-	-	-	-	-	**2,900**	410	-	-	-	-	-
	BH53-6	2004 11 30	10.7 - 10.7	-	-	-	-	-	-	-	**4,700**	680	-	-	-	-	-
BH54	BH54-1	2004 11 30	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	< 100	< 250	< 250	-	-	-	-	-
	BH54-2	2004 11 30	3.1 - 3.1	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	< 100	< 250	< 250	-	-	-	-	-
	BH54-3	2004 11 30	6.1 - 6.1	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH54-5	2004 11 30	10.7 - 10.7	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH55	BH55-1	2004 12 01	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH55-3	2004 12 01	4.6 - 4.6	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH55-4	2004 12 01	7.6 - 7.6	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH55-5	2004 12 01	9.1 - 9.1	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH55-6	2004 12 01	10.7 - 10.7	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH56	BH56-1	2004 12 01	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	**640**	**24,000**	**2,100**	-	-	-	-	-
	BH56-3	2004 12 01	4.6 - 4.6	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH56-5	2004 12 01	7.6 - 7.6	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH56-6	2004 12 01	9.1 - 9.1	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH57	BH57-1	2004 12 07	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	< 100	**11,000**	**20,000**	-	-	-	-	-
	GR9	Duplicate	1.5 - 1.5	-	-	-	-	-	-	-	**9,400**	**22,000**	-	-	-	-	-
		QA/QC RPD%			-	-	-	-	-	-	16	10	-	-	-	-	-
	BH57-3	2004 12 07	7.6 - 7.6	-	-	-	-	-	-	-	**2,000**	400	-	-	-	-	-
	BH57-5	2004 12 07	12.2 - 12.2	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH58	BH58-1	2004 12 08	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	< 100	< 250	< 250	-	-	-	-	-
	BH58-2	2004 12 08	4.6 - 4.6	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH58-3	2004 12 08	7.6 - 7.6	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH59	BH59-1	2004 12 11	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	**5.8**	< 0.5	**1,800**	**29,000**	980	-	-	-	-	-
	GR10	Duplicate	1.5 - 1.5	-	-	-	-	-	-	-	**30,000**	**1,200**	-	-	-	-	-
		QA/QC RPD%			-	-	-	-	-	-	3	20	-	-	-	-	-
	BH59-2	2004 12 11	4.6 - 4.6	-	-	-	-	-	-	-	**530**	< 250	-	-	-	-	-
	BH59-3	2004 12 11	7.6 - 7.6	-	-	-	-	-	-	-	**1,900**	< 250	-	-	-	-	-
	BH59-4	2004 12 11	10.7 - 10.7	-	-	-	-	-	-	-	**1,100**	< 250	-	-	-	-	-
BH60	BH60-1	2004 12 11	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	< 100	< 250	< 250	-	-	-	-	-
	BH60-2	2004 12 11	4.6 - 4.6	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH60-3	2004 12 11	7.6 - 7.6	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH61	BH61-1	2005 03 12	10.8 - 10.8	-	-	-	-	-	-	-	**870**	< 250	-	-	-	-	-
	BH61-2	2005 03 12	12.3 - 12.3	-	-	-	-	-	-	-	**1,700**	250	-	-	-	-	-
	BH61-3	2005 03 12	13.5 - 13.5	-	-	-	-	-	-	-	**620**	< 250	-	-	-	-	-
	BH61-4	2005 03 12	16.5 - 16.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH62	BH62-1	2005 03 12	9.0 - 9.0	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	4.4	-	**240**	**3,400**	580	-	-	-	-	-
	GR11	Duplicate	9.0 - 9.0	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	**11**	-	**330**	**4,000**	830	-	-	-	-	-
		QA/QC RPD%			*	*	*	86	-	32	16	35	-	-	-	-	-
	BH62-2	2005 03 12	10.5 - 10.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	**6.6**	-	**470**	**6,000**	1,200	-	-	-	-	-
	BH62-3	2005 03 12	13.5 - 13.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	**7,400**	1,400	-	-	-	-	-
	BH62-4	2005 03 12	16.5 - 16.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
BH63	BH63-1	2005 03 12	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
	BH63-2	2005 03 12	3.0 - 3.0	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	0.8	-	**290**	**3,800**	540	-	-	-	-	-
	BH63-3	2005 03 12	6.0 - 6.0	-	-	-	-	-	-	-	**3,900**	410	-	-	-	-	-
	BH63-4	2005 03 12	9.0 - 9.0	-	-	-	-	-	-	-	**3,300**	310	-	-	-	-	-
	BH63-5	2005 03 12	12.0 - 12.0	-	-	-	-	-	-	-	**2,700**	< 250	-	-	-	-	-
	BH63-6	2005 03 12	15.0 - 15.0	-	-	-	-	-	-	-	**260**	< 250	-	-	-	-	-
BH64	BH64-1	2005 03 13	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
	GR12a	Duplicate	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
		QA/QC RPD%			*	*	*	*	-	*	*	*	-	-	-	-	-
	BH64-2	2005 03 13	3.0 - 3.0	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
	BH64-3	2005 03 13	4.5 - 4.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH64-4	2005 03 13	6.0 - 6.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH64-5	2005 03 13	7.5 - 7.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH64-6	2005 03 13	9.0 - 9.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH65	BH65-1	2005 03 13	1.5 - 1.5	-	-	-	-	-	-	-	< 250	350	-	-	-	-	-
	BH65-2	2005 03 13	4.5 - 4.5	-	-	-	-	-	-	-	**1,000**	290	-	-	-	-	-
	BH65-3	2005 03 13	7.5 - 7.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH66	BH66-1	2005 03 13	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH66-2	2005 03 13	4.5 - 4.5	-	-	-	-	-	-	-	**330**	< 250	-	-	-	-	-
	BH66-3	2005 03 13	6.0 - 6.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH66-4	2005 03 13	7.5 - 7.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH67	BH67-1	2005 03 13	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
	BH67-2	2005 03 13	3.0 - 3.0	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
BH68	BH68-1	2005 03 13	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	GR14	Duplicate	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
		QA/QC RPD%			-	-	-	-	-	-	*	*	-	-	-	-	-
	BH68-2	2005 03 13	3.0 - 3.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH69	BH69-1	2005 03 13	1.5 - 1.5	-	-	-	-	-	-	-	**4,700**	**3,500**	-	-	-	-	-
	BH69-2	2005 03 13	3.0 - 3.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH70	BH70-1	2005 03 13	3.0 - 3.0	-	-	-	-	-	-	-	**1,200**	< 250	-	-	-	-	-
	GR15	Duplicate	3.0 - 3.0	-	-	-	-	-	-	-	**1,100**	< 250	-	-	-	-	-
		QA/QC RPD%			-	-	-	-	-	-	9	*	-	-	-	-	-
	BH70-2	2005 03 13	4.5 - 4.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH71	BH71-1	2005 03 13	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH71-2	2005 03 13	3.0 - 3.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	GR16	Duplicate	3.0 - 3.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
		QA/QC RPD%			-	-	-	-	-	-	*	*	-	-	-	-	-
	BH71-3	2005 03 13	4.5 - 4.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH72	BH72-1	2005 03 13	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH72-2	2005 03 13	3.0 - 3.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH73	BH73-1	2005 03 14	1.5 - 1.5	-	-	-	-	-	-	-	**5,700**	< 250	-	-	-	-	-
	BH73-2	2005 03 14	3.0 - 3.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH73-3	2005 03 14	6.0 - 6.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH74	BH74-1	2005 03 14	1.5 - 1.5	-	-	-	-	-	-	-	**1,600**	390	-	-	-	-	-
	BH74-2	2005 03 14	3.0 - 3.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH75	BH75-1	2005 03 14	1.5 - 1.5	-	-	-	-	-	-	-	**7,700**	**1,700**	-	-	-	-	-
	GR17	Duplicate	1.5 - 1.5	-	-	-	-	-	-	-	**8,100**	**1,700**	-	-	-	-	-
		QA/QC RPD%			-	-	-	-	-	-	5	0	-	-	-	-	-
	BH75-10	2005 03 14	16.5 - 16.5	-	-	-	-	-	-	-	**1,900**	< 250	-	-	-	-	-
	BH75-11	2005 03 14	19.5 - 19.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	GR18	Duplicate	19.5 - 19.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
		QA/QC RPD%			-	-	-	-	-	-	*	*	-	-	-	-	-
	BH75-12	2005 03 14	21.0 - 21.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH75-2	2005 03 14	3.0 - 3.0	-	-	-	-	-	-	-	**4,800**	**1,200**	-	-	-	-	-
	BH75-3	2005 03 14	4.5 - 4.5	-	-	-	-	-	-	-	**21,000**	**3,100**	-	-	-	-	-
	BH75-5	2005 03 14	6.0 - 6.0	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	**160**	**2,000**	260	-	-	-	-	-
	BH75-7	2005 03 14	9.0 - 9.0	-	-	-	-	-	-	-	**7,700**	1,800	-	-	-	-	-
Federal Guideline/Standard																	
CCME CEQG/CWS Residential Coarse-Grained Surface (sample depth < 1.5m)[c]					0.03	0.082	0.1	11	5	n/a	n/a	n/a	30	150	300	2,800	n/a
CCME CEQG/CWS Residential Coarse-Grained Subsoil (sample depth > 1.5m)[c]					0.03	0.082	0.1	11	5	n/a	n/a	n/a	30	150	2,500	10,000	n/a
BC Standard																	
CSR Residential Land Use (RL) (sample depth < 3.0m)[d]					0.04	1	1.5	5	5	200	1,000	1,000	n/a	n/a	n/a	n/a	320
CSR Commercial Land Use (CL) (sample depth > 3.0m)[d]					0.04	7	2.5	20	50	200	2,000	5,000	n/a	n/a	n/a	n/a	700

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All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.
[c] Pathways: Contact (Direct/Eco), Management Limit, Protection of Groundwater for Aquatic Life, Vapour Inhalation, Protection of Potable Groundwater.
[d] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).
[e] Where available, values corrected for the presence of individual PAH are shown. Otherwise, uncorrected values are shown.
[f] F4 value did not return to baseline; F4 Gravimetric (Gravimetric Heavy Hydrocarbons) not analyzed.
[g] F4 value did not return to baseline and as such F4 Gravimetric (Gravimetric Heavy Hydrocarbons) was completed; the greater of the two is reported.

BOLD Concentration greater than CCME CEQG/CWS Residential Land Use (RL) standard.
SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).
SHADED VPH, LEPH or HEPH concentration greater than CCME CWS Residential F1, F2 or F3 standard (potential CCME exceedance), only applied where no F1, F2 or F3 concentration is available.

TABLE 1 (Cont'd): Summary of Analytical Results for Hydrocarbons in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Field Screen[b] (ppm)	Monocyclic Aromatic Hydrocarbons					Gross Parameters			Petroleum Hydrocarbon Fractions				MTBE
					Benzene µg/g	Ethylbenzene µg/g	Toluene µg/g	Xylenes µg/g	Styrene µg/g	VPH (C6-C10) µg/g	LEPH (C10-C19)[e] µg/g	HEPH (C19-C32)[e] µg/g	F1-BTEX µg/g	F2 (>C10-C16) µg/g	F3 (>C16-C34) µg/g	F4 (>C34-C50) µg/g	MTBE µg/g
BH75	BH75-8	2005 03 14	12.0 - 12.0	-	-	-	-	-	-	-	2,300	530	-	-	-	-	-
(Cont'd)	BH75-9	2005 03 14	13.5 - 13.5	-	-	-	-	-	-	-	2,300	< 250	-	-	-	-	-
BH76	BH76-1	2005 03 14	1.5 - 1.5	-	-	-	-	-	-	-	3,600	< 250	-	-	-	-	-
	BH76-2	2005 03 14	3.0 - 3.0	-	-	-	-	-	-	-	1,400	< 250	-	-	-	-	-
	BH76-3	2005 03 14	4.5 - 4.5	-	-	-	-	-	-	-	280	< 250	-	-	-	-	-
	BH76-4	2005 03 14	7.5 - 7.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH76-5	2005 03 14	10.5 - 10.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH76-6	2005 03 14	12.0 - 12.0	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
BH77	BH77-1	2005 03 14	1.5 - 1.5	-	-	-	-	-	-	-	< 250	710	-	-	-	-	-
	BH77-2	2005 03 14	3.0 - 3.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH77-3	2005 03 14	6.0 - 6.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH77-4	2005 03 14	7.5 - 7.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH77-5	2005 03 14	10.5 - 10.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH78	BH78-1	2005 03 15	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
	BH78-2	2005 03 15	3.0 - 3.0	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
	BH78-3	2005 03 15	4.5 - 4.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	3,200	< 250	-	-	-	-	-
	BH78-4	2005 03 15	6.0 - 6.0	-	-	-	-	-	-	-	2,200	< 250	-	-	-	-	-
	GR19	Duplicate	6.0 - 6.0	-	-	-	-	-	-	-	1,900	< 250	-	-	-	-	-
	QA/QC RPD%				-	-	-	-	-	-	15	*	-	-	-	-	-
	BH78-5	2005 03 15	7.5 - 7.5	-	-	-	-	-	-	-	2,100	< 250	-	-	-	-	-
	BH78-6	2005 03 15	9.0 - 9.0	-	-	-	-	-	-	-	4,200	710	-	-	-	-	-
	BH78-7	2005 03 15	10.5 - 10.5	-	-	-	-	-	-	-	650	< 250	-	-	-	-	-
	BH78-8	2005 03 15	12.0 - 12.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH78-9	2005 03 15	13.5 - 13.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH79	BH79-1	2005 03 15	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
	BH79-2	2005 03 15	3.0 - 3.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH79-3	2005 03 15	4.5 - 4.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH79-4	2005 03 15	6.0 - 6.0	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
	BH79-5	2005 03 15	7.5 - 7.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH79-6	2005 03 15	9.0 - 9.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH79-7	2005 03 15	10.5 - 10.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH80	BH80-1	2005 03 15	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
	BH80-2	2005 03 15	3.0 - 3.0	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
	BH80-3	2005 03 15	4.5 - 4.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH80-4	2005 03 15	6.0 - 6.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH80-5	2005 03 15	9.0 - 9.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH81	BH81-1	2005 03 15	3.0 - 3.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH81-2	2005 03 15	4.5 - 4.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH82	BH82-1	2005 03 15	0.3 - 0.3	-	-	-	-	-	-	-	12,000	350	-	-	-	-	-
	BH82-2	2005 03 15	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH82-3	2005 03 15	3.0 - 3.0	-	-	-	-	-	-	-	860	< 250	-	-	-	-	-
	BH82-4	2005 03 15	6.0 - 6.0	-	< 0.01	< 0.01	0.02	0.03	-	-	1,100	< 250	-	-	-	-	-
	BH82-5	2005 03 15	9.0 - 9.0	-	-	-	-	-	-	-	3,300	< 250	-	-	-	-	-
	BH82-6	2005 03 15	13.5 - 13.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH82-7	2005 03 15	15.0 - 15.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH83	BH83-1	2005 03 15	0.3 - 0.3	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH83-2	2005 03 15	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH83-3	2005 03 15	3.0 - 3.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH83-4	2005 03 15	6.0 - 6.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH83-5	2005 03 15	7.5 - 7.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH84	BH84-1	2005 03 16	0.3 - 0.3	-	-	-	-	-	-	-	690	< 250	-	-	-	-	-
	BH84-2	2005 03 16	1.5 - 1.5	-	-	-	-	-	-	-	2,700	< 250	-	-	-	-	-
	BH84-3	2005 03 16	3.0 - 3.0	-	-	-	-	-	-	-	1,600	< 250	-	-	-	-	-
	BH84-4	2005 03 16	6.0 - 6.0	-	< 0.01	< 0.01	0.01	0.01	-	-	310	< 250	-	-	-	-	-
	BH84-5	2005 03 16	7.5 - 7.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH85	BH85-1	2005 03 16	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
	BH85-2	2005 03 16	3.0 - 3.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH85-3	2005 03 16	6.0 - 6.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	GR20	Duplicate	6.0 - 6.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	QA/QC RPD%				-	-	-	-	-	-	*	*	-	-	-	-	-
	BH85-4	2005 03 16	7.5 - 7.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH85-5	2005 03 16	9.0 - 9.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH85-6	2005 03 16	10.5 - 10.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH86	BH86-1	2005 03 16	0.3 - 0.3	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH86-2	2005 03 16	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH86-3	2005 03 16	4.5 - 4.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH86-4	2005 03 16	6.0 - 6.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH86-5	2005 03 16	7.5 - 7.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH86-6	2005 03 16	9.0 - 9.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	GR21	Duplicate	9.0 - 9.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	QA/QC RPD%				-	-	-	-	-	-	*	*	-	-	-	-	-
	BH86-7	2005 03 16	10.5 - 10.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH87	BH87-1	2005 03 16	0.3 - 0.3	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH87-2	2005 03 16	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH87-4	2005 03 16	4.5 - 4.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH87-5	2005 03 16	7.5 - 7.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH88	BH88-1	2005 03 16	0.3 - 0.3	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH88-2	2005 03 16	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH88-3	2005 03 16	3.0 - 3.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH88-4	2005 03 16	4.5 - 4.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH88-5	2005 03 16	7.5 - 7.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH89	BH89-1	2005 03 16	0.3 - 0.3	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH89-2	2005 03 16	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH89-3	2005 03 16	4.5 - 4.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH89-4	2005 03 16	7.5 - 7.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH90	BH90-1	2005 03 16	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
	BH90-2	2005 03 16	3.0 - 3.0	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
	BH90-3	2005 03 16	6.0 - 6.0	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
	BH90-4	2005 03 16	7.5 - 7.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH91	BH91-1	2005 03 17	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
	BH91-2	2005 03 17	4.5 - 4.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
	BH91-3	2005 03 17	7.5 - 7.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
BH92	BH92-1	2005 03 17	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH92-2	2005 03 17	4.5 - 4.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH92-3	2005 03 17	7.5 - 7.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH93	BH93-1	2005 03 17	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH93-2	2005 03 17	4.5 - 4.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH93-3	2005 03 17	7.5 - 7.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH94	BH94-1	2005 03 17	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH94-2	2005 03 17	3.0 - 3.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH94-3	2005 03 17	4.5 - 4.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH94-4	2005 03 17	6.0 - 6.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH95	BH95-1	2005 03 17	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH95-2	2005 03 17	3.0 - 3.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH95-3	2005 03 17	4.5 - 4.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH96	BH96-1	2005 03 17	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	-	-	-	-	-	-	-
BH98	BH98-1	2005 03 17	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH98-2	2005 03 17	3.0 - 3.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH98-3	2005 03 17	4.5 - 4.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH98-4	2005 03 17	6.0 - 6.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH98-5	2005 03 17	9.0 - 9.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
Federal Guideline/Standard																	
CCME CEQG/CWS Residential Coarse-Grained Surface (sample depth < 1.5m)[c]					0.03	0.082	0.1	11	5	n/a	n/a	n/a	30	150	300	2,800	n/a
CCME CEQG/CWS Residential Coarse-Grained Subsoil (sample depth > 1.5m)[c]					0.03	0.082	0.1	11	5	n/a	n/a	n/a	30	150	2,500	10,000	n/a
BC Standard																	
CSR Residential Land Use (RL) (sample depth < 3.0m)[d]					0.04	1	1.5	5	5	200	1,000	1,000	n/a	n/a	n/a	n/a	320
CSR Commercial Land Use (CL) (sample depth > 3.0m)[d]					0.04	7	2.5	20	50	200	2,000	5,000	n/a	n/a	n/a	n/a	700

Associated Maxxam file(s): B645259.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.
[c] Pathways: Contact (Direct/Eco), Management Limit, Protection of Groundwater for Aquatic Life, Vapour Inhalation, Protection of Potable Groundwater.
[d] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).
[e] Where available, values corrected for the presence of individual PAH are shown. Otherwise, uncorrected values are shown.
[f] F4 value did not return to baseline; F4 Gravimetric (Gravimetric Heavy Hydrocarbons) not analyzed.
[g] F4 value did not return to baseline and as such F4 Gravimetric (Gravimetric Heavy Hydrocarbons) was completed; the greater of the two is reported.

BOLD Concentration greater than CCME CEQG/CWS Residential Land Use (RL) standard.

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

SHADED VPH, LEPH or HEPH concentration greater than CCME CWS Residential F1, F2 or F3 standard (potential CCME exceedance), only applied where no F1, F2 or F3 concentration is available.

TABLE 1 (Cont'd): Summary of Analytical Results for Hydrocarbons in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Field Screen[b] (ppm)	Monocyclic Aromatic Hydrocarbons					Gross Parameters			Petroleum Hydrocarbon Fractions				MTBE
					Benzene µg/g	Ethylbenzene µg/g	Toluene µg/g	Xylenes µg/g	Styrene µg/g	VPH (C6-C10) µg/g	LEPH (C10-C19)[e] µg/g	HEPH (C19-C32)[e] µg/g	F1-BTEX µg/g	F2 (>C10-C16) µg/g	F3 (>C16-C34) µg/g	F4 (>C34-C50) µg/g	MTBE µg/g
BH99	BH99-1	2005 03 17	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH99-2	2005 03 17	4.5 - 4.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH99-3	2005 03 17	7.5 - 7.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH99-4	2005 03 17	10.5 - 10.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH99-5	2005 03 17	13.5 - 13.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH100	BH100-1	2005 03 17	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH100-2	2005 03 17	3.0 - 3.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH100-3	2005 03 17	4.5 - 4.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	GR22	Duplicate	4.5 - 4.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	QA/QC RPD%				-	-	-	-	-	-	*	*	-	-	-	-	-
	BH100-4	2005 03 17	7.5 - 7.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	< 250	< 250	-	-	-	-	-
	BH100-5	2005 03 17	9.0 - 9.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH100-6	2005 03 17	10.2 - 10.2	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH101	BH101-1	2005 03 17	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	**260**	**4,500**	< 250	-	-	-	-	-
	BH101-2	2005 03 17	3.0 - 3.0	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	**1,300**	< 250	-	-	-	-	-
	BH101-3	2005 03 17	4.5 - 4.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	**480**	< 250	-	-	-	-	-
	BH101-4	2005 03 17	6.0 - 6.0	-	-	-	-	-	-	-	**650**	< 250	-	-	-	-	-
	BH101-6	2005 03 17	7.5 - 7.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	**370**	< 250	-	-	-	-	-
BH102	BH102-1	2005 03 18	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	**330**	< 250	-	-	-	-	-
	BH102-2	2005 03 18	3.0 - 3.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH102-3	2005 03 18	4.5 - 4.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH102-4	2005 03 18	7.5 - 7.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH103	BH103-1	2005 03 18	1.5 - 1.5	-	< 0.04[a]	< 0.5[a]	< 0.5[a]	< 0.5	-	< 100	**260**	< 250	-	-	-	-	-
	BH103-2	2005 03 18	3.0 - 3.0	-	-	-	-	-	-	-	**830**	< 250	-	-	-	-	-
	BH103-3	2005 03 18	4.5 - 4.5	-	-	-	-	-	-	-	**330**	< 250	-	-	-	-	-
	BH103-4	2005 03 18	7.5 - 7.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
BH104	BH104-1	2005 03 18	1.5 - 1.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH104-2	2005 03 18	3.0 - 3.0	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH104-3	2005 03 18	4.5 - 4.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
	BH104-4	2005 03 18	7.5 - 7.5	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
SS4	SS4	2005 11 08	0.0 - 0.1	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 100	**1,900**	**29,000**	-	-	-	-	-
MR1	MR-1	2006 07 29	0.0 - 0.2	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
MR2	MR-2	2006 07 29	0.0 - 0.2	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
MR3	MR-3	2006 07 29	0.0 - 0.2	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
MR4	MR-4	2006 07 29	0.0 - 0.2	-	-	-	-	-	-	-	< 250	**860**	-	-	-	-	-
	GR2	Duplicate	0.0 - 0.2	-	-	-	-	-	-	-	< 250	**920**	-	-	-	-	-
	QA/QC RPD%				-	-	-	-	-	-	*	7	-	-	-	-	-
MR5	MR-5	2006 07 29	0.0 - 0.2	-	-	-	-	-	-	-	< 250	< 250	-	-	-	-	-
RES1	125-66.02-JLM-RES1-2	2006 07 29	0.6 - 0.6	-	< 0.005	< 0.018	< 0.02	< 0.02	-	< 100	< 250	< 250	< 25	< 80	< 250	< 250	-
RES2	125-66.02-JLM-RES2-1	2006 07 29	0.0 - 0.1	-	< 0.005	< 0.018	< 0.02	< 0.02	-	< 100	< 250	< 250	< 25	< 80	< 250	< 250	-
RES3	125-66.02-JLM-RES3-1	2006 07 29	0.0 - 0.1	-	< 0.005	< 0.018	< 0.02	< 0.02	-	< 100	< 250	< 250	< 25	< 80	< 250	< 250	-
RES4	125-66.02-JLM-RES4-1	2006 07 29	0.0 - 0.1	-	< 0.005	< 0.018	< 0.02	< 0.02	-	< 100	< 250	< 250	< 25	< 80	< 250	< 250	-
RES5	125-66.02-JLM-RES5-2	2006 07 29	0.0 - 0.2	-	< 0.005	< 0.018	< 0.02	< 0.02	-	< 100	< 250	< 250	< 25	< 80	< 250	< 250	-
	125-66.02-JLM-GR1	Duplicate	0.0 - 0.2	-	< 0.005	< 0.018	< 0.02	< 0.02	-	< 100	< 250	< 250	< 25	< 80	< 250	< 250	-
	QA/QC RPD%				*	*	*	*	-	*	*	*	*	*	*	*	-
RES6	125-66.02-JLM-RES6-1	2006 07 29	0.0 - 0.1	-	< 0.005	< 0.018	< 0.02	< 0.02	-	< 100	< 250	< 250	< 25	< 80	< 250	< 250	-
RES7	125-66.02-JLM-RES7-2	2006 07 29	0.0 - 0.2	-	< 0.005	< 0.018	< 0.02	< 0.02	-	< 100	< 250	< 250	< 25	< 80	< 250	< 250	-
RES8	125-66.02-JLM-RES8-1	2006 07 29	0.0 - 0.1	-	< 0.005	< 0.018	< 0.02	< 0.02	-	< 100	< 250	< 250	< 25	< 80	< 250	< 250	-
BH113M	BH113M-2	2006 08 14	22.8 - 22.8	-	< 0.005	< 0.018	< 0.02	0.02	< 0.5	< 100	< 250	< 250	-	< 80	< 250	-	-
BH115	BH115-1	2006 08 14	1.2 - 1.8	-	< 0.005	< 0.018	0.09	0.03	< 0.5	< 100	< 250	< 250	-	< 80	< 250	-	-
BH116	BH116-1	2006 08 14	1.2 - 1.8	-	< 0.005	< 0.018	< 0.02	0.02	< 0.5	< 100	< 250	< 250	-	< 80	< 250	-	-
BH117	BH117-1	2006 08 14	1.2 - 1.8	-	< 0.005	< 0.018	0.04	0.03	< 0.5	< 100	< 250	< 250	-	< 80	< 250	-	-
SP1	SP1	2006 08 14	0.0 - 0.1	-	0.005	< 0.018	< 0.02	0.04	< 0.5	< 100	450	530	-	95	***550***	-	-
	GR58	Duplicate	0.0 - 0.1	-	< 0.005	< 0.018	0.02	0.04	< 0.5	< 100	380	480	-	84	***540***	-	-
	QA/QC RPD%				*	*	*	*	*	*	17	10	-	*	2	-	-
GARDEN1	Garden 1	2006 08 19	0.0 - 0.1	-	0.005	< 0.018	< 0.02	0.02	-	< 100	< 250	< 250	< 25	< 80	< 250	< 250	-
	Garden 1A	2009 10 18	0.0 - 0.1	-	< 0.005	< 0.018	< 0.02	< 0.02	-	< 100	-	-	< 10	< 70	< 100	< 500	< 0.05
	FSGR3	Duplicate	0.0 - 0.1	-	< 0.005	< 0.018	< 0.02	< 0.02	-	< 100	-	-	< 10	< 70	< 100	< 500	< 0.05
	QA/QC RPD%				*	*	*	*	-	*	-	-	*	*	*	*	*
	Garden 1B	2009 10 18	0.0 - 0.1	-	< 0.005	< 0.018	< 0.02	< 0.02	-	< 100	-	-	< 10	< 70	160	< 500	< 0.05
GARDEN2	Garden 2	2006 08 19	0.0 - 0.1	-	< 0.005	< 0.018	< 0.02	< 0.02	-	< 100	< 250	< 250	< 25	< 80	< 250	< 250	-
MSV1	MSV1-1	2009 10 14		-	< 0.005	0.026	< 0.02	1.7	-	**250**	-	-	***250***	***2,100***	***3,000***	850	< 0.05
	MSV1-3	2009 10 14		-	< 0.005	***1.4***	0.06	**10**	-	**540**	-	-	***540***	***4,900***	***3,300***	< 500	< 0.05
BH120M	BH120M-1	2009 10 16	0.0 - 0.6	-	< 0.005	< 0.018	< 0.02	< 0.02	-	< 100	-	-	< 10	***560***	***1,200***	< 500	< 0.05
	BH120M-3	2009 10 16	3.7 - 4.3	-	< 0.005	< 0.018	< 0.02	< 0.02	-	< 100	-	-	< 10	< 70	< 100	< 500	< 0.05
	FSGR	Duplicate	3.7 - 4.3	-	< 0.005	< 0.018	< 0.02	< 0.02	-	< 100	-	-	< 10	70	100	< 500	< 0.05
	QA/QC RPD%				*	*	*	*	-	*	-	-	*	*	*	*	*
AEC7A	AEC7A	2009 10 19	0.0 - 0.1	-	< 0.005	< 0.018	< 0.02	< 0.02	-	< 100	-	-	< 10	< 70	< 100	< 500	< 0.05
	FSGR4	Duplicate	0.0 - 0.1	-	< 0.005	< 0.018	< 0.02	< 0.02	-	< 100	-	-	< 10	< 70	< 100	< 500	< 0.05
	QA/QC RPD%				*	*	*	*	-	*	-	-	*	*	*	*	*
BH127	BH127-1	2010 08 26	0.5 - 0.8	-	< 0.005	***0.253***	< 0.05	**6.05**	< 0.05	**590**	**7,100**	670	***590***	***4,650***	***2,090***	34	< 0.2
	BH127-2	2010 08 26	1.1 - 1.4	-	0.0082	***0.09***	< 0.05	0.675	< 0.05	< 100	**8,300**	690	< 10	***4,260***	***1,590***	42	< 0.2
	GR2	Duplicate	1.1 - 1.4	-	< 0.005	***0.098***	< 0.05	0.768	< 0.05	< 100	**7,650**	520	15	***3,170***	***1,250***	41	< 0.2
	QA/QC RPD%				*	9	*	13	*	*	8	28	*	29	24	*	*
	BH127-3	2010 08 26	2.0 - 2.1	-	< 0.005	< 0.015	< 0.05	< 0.071	< 0.05	< 100	< 200	< 200	< 10	< 20	< 20	< 20	< 0.2
	BH127-6	2010 08 26	4.9 - 5.2	-	< 0.005	< 0.015	< 0.05	< 0.071	< 0.05	< 100	< 200	< 200	< 10	< 20	< 20	< 20	< 0.2
BH128	BH128-1	2010 08 26	0.3 - 0.6	-	< 0.005	< 0.015	< 0.05	< 0.071	< 0.05	< 100	< 200	270	< 10	< 20	280	308	< 0.2
	BH128-3	2010 08 26	1.8 - 2.1	-	< 0.005	< 0.015	< 0.05	< 0.071	< 0.05	< 100	< 200	< 200	-	-	-	-	< 0.2
BH129	BH129-1	2010 08 26	0.5 - 0.8	-	< 0.005	< 0.015	< 0.05	< 0.071	< 0.05	< 100	< 200	< 200	-	-	-	-	< 0.2
	BH129-3	2010 08 26	1.8 - 2.1	-	< 0.005	< 0.015	< 0.05	< 0.071	< 0.05	< 100	< 200	< 200	-	-	-	-	< 0.2
BH130	BH130-1	2010 08 27	0.3 - 0.6	-	< 0.005	< 0.015	< 0.05	< 0.071	< 0.05	< 100	< 200	< 200	-	-	-	-	< 0.2
	BH130-2	2010 08 27	2.7 - 3.1	-	< 0.005	< 0.015	< 0.05	< 0.071	< 0.05	< 100	< 200	< 200	-	-	-	-	< 0.2
BH131	BH131-2	2010 08 27	0.9 - 1.2	-	< 0.005	< 0.015	< 0.05	< 0.071	< 0.05	< 100	< 200	< 200	-	-	-	-	< 0.2
	BH131-3	2010 08 27	1.4 - 1.5	-	< 0.005	< 0.015	< 0.05	< 0.071	< 0.05	< 100	< 200	< 200	-	-	-	-	< 0.2
BH132	BH132-2	2010 08 27	0.9 - 1.2	-	< 0.005	< 0.015	< 0.05	< 0.071	< 0.05	< 100	< 200	< 200	< 10	< 20	< 20	< 20	< 0.2
	BH132-3	2010 08 27	1.2 - 1.5	-	< 0.005	< 0.015	< 0.05	< 0.071	< 0.05	< 100	< 200	< 200	< 10	< 20	< 20	< 20	< 0.2
	GR3	Duplicate	1.2 - 1.5	-	< 0.005	< 0.015	< 0.05	< 0.071	< 0.05	< 100	< 200	< 200	< 10	< 20	< 20	< 20	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	*	*	*	*	*	*	*
	BH132-5	2010 08 27	2.7 - 3.1	-	< 0.005	< 0.015	< 0.05	< 0.071	< 0.05	< 100	< 200	< 200	-	-	-	-	< 0.2
BH133	BH133-2	2010 08 27	0.9 - 1.1	-	< 0.005	***0.098***	< 0.05	< 0.071	< 0.05	< 100	< 200	< 200	-	-	-	-	< 0.2
	BH133-3	2010 08 27	2.7 - 3.1	-	< 0.005	< 0.015	< 0.05	< 0.071	< 0.05	< 100	< 200	< 200	-	-	-	-	< 0.2
BH134	BH134-1	2010 08 27	1.5 - 1.8	-	< 0.005	< 0.015	< 0.05	< 0.071	< 0.05	< 100	< 200	340	-	-	-	-	< 0.2
BH135	BH135-2	2010 08 27	1.5 - 1.8	-	< 0.005	< 0.015	< 0.05	< 0.071	< 0.05	< 100	< 200	200	-	-	-	-	< 0.2
	GR4	Duplicate	1.5 - 1.8	-	< 0.005	< 0.015	< 0.05	0.154	< 0.05	< 100	**450**	**1,480**	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	*	152	-	-	-	-	*
	BH135-3	2010 08 27	2.7 - 3.1	-	< 0.005	< 0.015	< 0.05	< 0.071	< 0.05	< 100	< 200	< 200	-	-	-	-	< 0.2
BH136	BH136-1	2010 08 26	0.3 - 0.5	-	< 0.005	< 0.015	< 0.05	< 0.071	< 0.05	< 100	< 200	**1,610**	-	-	-	-	< 0.2
BH12-01	BH12-01-1-AD05	2012 10 14	0.3 - 0.6	-	< 0.02	***0.15***	0.09	***23.5***	< 0.05	**1,310**	**26,900**	**5,310**	-	-	-	-	< 0.1
	BH12-01-2-AD05	2012 10 14	0.9 - 1.2	-	0.02	***2.73***	0.07	**7.2**	< 0.05	**708**	**8,220**	**878**	-	-	-	-	< 0.1
	BH12-01-15-AD05	2012 10 14	12.7 - 13.0	-	< 0.02	< 0.05	< 0.05	< 0.1	< 0.05	14	**878**	< 20	-	-	-	-	< 0.1
	BH12-01-32-AD05	2012 10 14	25.5 - 25.8	-	< 0.02	< 0.05	< 0.05	< 0.1	< 0.05	< 10	< 20	< 20	-	-	-	-	< 0.1
	BH12-01-36-AD05	2012 10 14	28.5 - 28.8	-	< 0.02	< 0.05	< 0.05	< 0.1	< 0.05	< 10	< 20	< 20	-	-	-	-	< 0.1
BH12-02	BH12-02-2-AD05	2012 10 14	0.5 - 0.8	-	***0.13***	***5.32***	***0.25***	***18.9***	< 0.05	**254**	**18,500**	**3,070**	-	-	-	-	< 0.1
	BH12-02-3-AD05	2012 10 14	1.2 - 1.5	-	< 0.02	***2.17***	0.05	**6.1**	< 0.05	**348**	**4,920**	164	-	-	-	-	< 0.1
	BH12-02-8-AD05	2012 10 15	5.0 - 5.3	-	< 0.02	< 0.05	< 0.05	< 0.1	< 0.05	16	**1,480**	< 20	-	-	-	-	< 0.1
	BH12-02-26-AD05	2012 10 15	18.8 - 19.1	-	-	-	-	-	-	-	34	27	-	-	-	-	-
	BH12-02-27-AD05	2012 10 15	19.5 - 19.8	-	< 0.02	< 0.05	< 0.05	< 0.1	< 0.05	**38**	**1,700**	189	-	-	-	-	< 0.1
	BH12-02-28-AD05	Duplicate	19.5 - 19.8	-	< 0.02	< 0.05	< 0.05	< 0.1	< 0.05	**36**	**1,740**	186	-	-	-	-	< 0.1
	QA/QC RPD%				*	*	*	*	*	*	2	2	-	-	-	-	*
	BH12-02-30-AD05	2012 10 15	26.4 - 26.7	-	< 0.02	< 0.05	< 0.05	< 0.1	< 0.05	**34**	74	213	-	-	-	-	< 0.1
	BH12-02-31-AD05	Duplicate	26.4 - 26.7	-	< 0.02	< 0.05	< 0.05	< 0.1	< 0.05	< 10	106	125	-	-	-	-	< 0.1
	QA/QC RPD%				*	*	*	*	*	*	36	52	-	-	-	-	*
	BH12-02-32-AD05	2012 10 15	27.9 - 28.2	-	< 0.02	< 0.05	< 0.05	< 0.1	< 0.05	< 10	< 20	< 20	-	-	-	-	< 0.1
SS12-09	SS12-09-AD05	2012 10 20	0.2 - 0.5	-	-	-	-	-	-	-	48	**481**	-	-	-	-	-
Federal Guideline/Standard																	
CCME CEQG/CWS Residential Coarse-Grained Surface (sample depth < 1.5m)[c]					0.03	0.082	0.1	11	5	n/a	n/a	n/a	30	150	300	2,800	n/a
CCME CEQG/CWS Residential Coarse-Grained Subsoil (sample depth > 1.5m)[c]					0.03	0.082	0.1	11	5	n/a	n/a	n/a	30	150	2,500	10,000	n/a
BC Standard																	
CSR Residential Land Use (RL) (sample depth < 3.0m)[d]					0.04	1	1.5	5	5	200	1,000	1,000	n/a	n/a	n/a	n/a	320
CSR Commercial Land Use (CL) (sample depth > 3.0m)[d]					0.04	7	2.5	20	50	200	2,000	5,000	n/a	n/a	n/a	n/a	700

Associated Maxxam file(s): B645259.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.
[c] Pathways: Contact (Direct/Eco), Management Limit, Protection of Groundwater for Aquatic Life, Vapour Inhalation, Protection of Potable Groundwater.
[d] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).
[e] Where available, values corrected for the presence of individual PAH are shown. Otherwise, uncorrected values are shown.
[f] F4 value did not return to baseline; F4 Gravimetric (Gravimetric Heavy Hydrocarbons) not analyzed.
[g] F4 value did not return to baseline and as such F4 Gravimetric (Gravimetric Heavy Hydrocarbons) was completed; the greater of the two is reported.

BOLD Concentration greater than CCME CEQG/CWS Residential Land Use (RL) standard.

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

SHADED VPH, LEPH or HEPH concentration greater than CCME CWS Residential F1, F2 or F3 standard (potential CCME exceedance), only applied where no F1, F2 or F3 concentration is available.

TABLE 1 (Cont'd): Summary of Analytical Results for Hydrocarbons in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Field Screen[b] (ppm)	Monocyclic Aromatic Hydrocarbons					Gross Parameters			Petroleum Hydrocarbon Fractions				MTBE
					Benzene µg/g	Ethylbenzene µg/g	Toluene µg/g	Xylenes µg/g	Styrene µg/g	VPH (C6-C10) µg/g	LEPH (C10-C19)[e] µg/g	HEPH (C19-C32)[e] µg/g	F1-BTEX µg/g	F2 (>C10-C16) µg/g	F3 (>C16-C34) µg/g	F4 (>C34-C50) µg/g	MTBE µg/g
SS12-10	SS12-10-AD05	2012 10 20	0.2 - 0.5	-	-	-	-	-	-	-	< 20	26	-	-	-	-	-
BH13-03	BH13-03-23-AD05	2013 03 17	17.9 - 18.1	-	< 0.005	< 0.01	< 0.05	< 0.05	< 0.05	< 10	< 10	< 10	-	-	-	-	-
	BH13-03-25-AD05	2013 03 17	19.5 - 19.8	-	< 0.005	< 0.01	< 0.05	< 0.05	< 0.05	< 10	< 10	< 10	-	-	-	-	-
	BH13-03-33-AD05	2013 03 17	25.7 - 25.9	-	< 0.005	< 0.01	< 0.05	< 0.05	< 0.05	**50**	**3,620**	370	-	-	-	-	-
	BH13-03-A-AD05	Duplicate	25.7 - 25.9	-	< 0.005	< 0.01	< 0.05	< 0.05	< 0.05	**50**	**4,460**	450	-	-	-	-	-
	QA/QC RPD%				*	*	*	*	*	0	21	20	-	-	-	-	-
	BH13-03-34-AD05	2013 03 17	26.2 - 26.5	-	< 0.005	< 0.01	< 0.05	< 0.05	< 0.05	**60**	**3,200**	310	-	-	-	-	-
	BH13-03-35-AD05	2013 03 17	26.8 - 27.0	-	< 0.005	< 0.01	< 0.05	< 0.05	< 0.05	20	**1,800**	180	-	-	-	-	-
	BH13-03-36-AD05	2013 03 17	28.1 - 28.4	-	< 0.005	< 0.01	< 0.05	< 0.05	< 0.05	30	**2,770**	260	-	-	-	-	-
TP13-01	TP13-01-1	2013 08 22	0.7 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	**2,350**	**1,440**	-	-	-	-	< 0.2
	TP13-01-2	2013 08 22	1.7 - 2.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
TP13-02	TP13-02-1	2013 08 22	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	TP13-02-2	2013 08 22	1.7 - 2.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
TP13-03	TP13-03-1	2013 08 22	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	TP13-03-2	2013 08 22	1.0 - 2.2	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
TP13-04	TP13-04-1	2013 08 22	0.5 - 0.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	TP13-04-2	2013 08 22	1.5 - 1.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
TP13-05	TP13-05-1	2013 08 22	0.5 - 0.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	TP13-05-2	2013 08 22	1.5 - 1.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
TP13-06	TP13-06-1	2013 08 22	0.3 - 0.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	TP13-06-2	2013 08 22	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	10	**698**	< 200	-	-	-	-	< 0.2
TP13-07	TP13-07-1	2013 08 22	0.1 - 0.4	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	TP13-07-2	2013 08 22	0.7 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
TP13-08	TP13-08-1	2013 08 22	0.5 - 0.9	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	TP13-08-2	2013 08 22	1.0 - 1.3	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
TP13-09	TP13-09-1	2013 08 22	0.5 - 0.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	TP13-09-101	Duplicate	0.5 - 0.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	*	*	-	-	-	-	*
	TP13-09-2	2013 08 22	1.0 - 1.3	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
TP13-10	TP13-10-1	2013 08 22	0.5 - 0.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	TP13-10-2	2013 08 22	1.0 - 1.3	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
TP13-11	TP13-11-1	2013 08 22	0.0 - 0.4	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	TP13-11-102	Duplicate	0.0 - 0.4	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	*	*	-	-	-	-	*
	TP13-11-2	2013 08 22	1.0 - 1.3	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
TP13-12	TP13-12-1	2013 08 22	0.3 - 0.6	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	TP13-12-2	2013 08 22	1.0 - 1.3	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
TP13-13	TP13-13-1	2013 08 22	0.4 - 0.7	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	TP13-13-2	2013 08 22	1.6 - 1.9	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
TP13-14	TP13-14-1	2013 08 22	0.3 - 0.6	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	TP13-14-2	2013 08 22	1.0 - 1.3	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	115	-	-	-	-	< 0.2
TP13-15	TP13-15-1	2013 08 22	0.0 - 0.3	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	TP13-15-2	2013 08 22	0.4 - 0.7	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
TP13-16	TP13-16-1	2013 08 22	0.2 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	**210**	**795**	-	-	-	-	< 0.2
	TP13-16-2	2013 08 22	1.0 - 1.3	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
TP13-17	TP13-17-1	2013 08 22	0.9 - 1.2	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	21	**1,700**	**1,330**	-	-	-	-	< 0.2
	TP13-17-103	Duplicate	0.9 - 1.2	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	28	**2,290**	**2,490**	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	30	61	-	-	-	-	*
	TP13-17-2	2013 08 22	1.5 - 2.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	**42**	**2,510**	**2,400**	-	-	-	-	< 0.2
TP13-18	TP13-18-1	2013 08 23	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	TP13-18-2	2013 08 23	1.4 - 1.7	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
TP13-19	TP13-19-1	2013 08 23	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	TP13-19-2	2013 08 23	1.8 - 2.1	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
TP13-20	TP13-20-1	2013 08 23	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	TP13-20-2	2013 08 23	2.4 - 2.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
TP13-21	TP13-21-1	2013 08 23	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	TP13-21-2	2013 08 23	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
TP13-22	TP13-22-1	2013 08 23	0.1 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	TP13-22-2	2013 08 23	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
TP13-23	TP13-23-1	2013 08 23	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	TP13-23-104	Duplicate	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	*	*	-	-	-	-	*
	TP13-23-2	2013 08 23	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
BH13-04	BH13-04-1-AD05	2013 09 22	0.3 - 0.6	-	< 0.01	< 0.02	< 0.04	0.17	< 0.06	**640**	**17,700**	**7,800**	-	-	-	-	< 0.2
	BH13-04-21-AD05	2013 09 22	21.8 - 22.1	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH13-04-22-AD05	2013 09 22	22.6 - 22.9	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH13-04-2-AD05	2013 09 22	0.8 - 1.1	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	**824**	**1,130**	-	-	-	-	< 0.2
	BH13-04-30-AD05	2013 09 23	31.5 - 31.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
BH13-05	BH13-05-02-AD05	2013 09 23	1.1 - 1.4	-	< 0.01	< 0.02	< 0.04	0.28	< 0.06	**380**	**4,790**	< 200	-	-	-	-	< 0.2
	BH13-05-A	Duplicate	1.1 - 1.4	-	< 0.01	< 0.02	< 0.04	0.3	< 0.06	**460**	**5,400**	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	7	*	19	12	*	-	-	-	-	*
	BH13-05-14-AD05	2013 09 23	11.6 - 11.9	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	**1,690**	431	-	-	-	-	< 0.2
	BH13-05-27-AD05	2013 09 24	21.9 - 22.2	-	< 0.01	< 0.134[a]	< 0.04	< 0.194	< 0.06	**500**	**11,700**	374	-	-	-	-	< 0.2
	BH13-05-28-AD05	2013 09 24	22.6 - 22.9	-	< 0.01	< 0.116[a]	< 0.04	< 0.18	< 0.06	**290**	**8,530**	465	-	-	-	-	< 0.2
	BH13-05-29-AD05	2013 09 24	23.0 - 23.3	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH13-05-30-AD05	2013 09 24	23.7 - 24.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH13-05-31-AD05	2013 09 24	24.9 - 25.2	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
BH13-06	BH13-06-01-AD05	2013 09 24	0.3 - 0.6	-	< 0.01	0.01	< 0.04	< 0.08	< 0.06	< 20	**308**	**1,440**	-	-	-	-	< 0.2
	BH13-06-02-AD05	2013 09 24	1.0 - 1.3	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH13-06-31-AD05	2013 09 25	31.7 - 32.0	-	< 0.01	0.016	< 0.04	< 0.08	< 0.06	**81**	**1,860**	150	-	-	-	-	< 0.2
	BH13-06-B	Duplicate	31.7 - 32.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	**120**	**2,530**	208	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	39	31	32	-	-	-	-	*
	BH13-06-32-AD05	2013 09 25	32.3 - 32.6	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	**120**	**2,540**	182	-	-	-	-	< 0.2
	BH13-06-33-AD05	2013 09 25	33.1 - 33.4	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH13-06-34-AD05	2013 09 25	33.9 - 34.2	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	21	116	< 200	-	-	-	-	< 0.2
	BH13-06-35-AD05	2013 09 25	34.6 - 34.9	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
BH13-07	BH13-07-01-AD05	2013 09 25	0.3 - 0.6	-	< 0.01	***2.1***	< 0.04	3.6	< 0.06	**820**	**5,330**	**426**	***850***	-	-	-	< 0.2
	BH13-07-02-AD05	2013 09 25	1.3 - 1.6	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	< 10	-	-	-	< 0.2
	BH13-07-21-AD05	2013 09 26	17.6 - 17.9	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	< 10	-	-	-	< 0.2
	BH13-07-22-AD05	2013 09 26	18.7 - 19.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
BH13-08	BH13-08-01	2013 11 30	0.3 - 0.3	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH13-08-02	2013 11 30	0.9 - 0.9	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH13-08-16	2013 11 30	12.6 - 12.6	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH13-08-42	2013 12 03	30.9 - 30.9	-	< 0.01	0.029	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH13-08-44	2013 12 03	33.5 - 33.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
BH14-09	BH14-09-02-AD05	2014 02 15	1.4 - 1.4	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-09-41-AD05	2014 02 17	31.2 - 31.2	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-09-40-AD05	2014 02 17	32.3 - 32.3	-	0.0076	< 0.02	0.03	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
BH14-10	BH14-10-02-AD05	2014 02 19	1.4 - 1.4	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-10-25-AD05	2014 02 19	16.6 - 16.6	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-10-35-AD05	2014 02 19	20.6 - 20.6	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-10-42-AD05	2014 02 20	31.9 - 31.9	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	**580**	< 200	-	-	-	-	< 0.2
	BH14-10-44-AD05	2014 02 20	33.1 - 33.1	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	**46**	**877**	< 200	-	-	-	-	< 0.2
BH14-11	BH14-11-02-AD05	2014 02 21	1.4 - 1.4	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-11-02A-AD05	Duplicate	1.4 - 1.4	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	*	*	-	-	-	-	*
	BH14-11-33-AD05	2014 02 22	21.3 - 21.3	-	0.0072	0.013	0.074	0.28	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-11-47-AD05	2014 02 23	30.5 - 30.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
Federal Guideline/Standard																	
CCME CEQG/CWS Residential Coarse-Grained Surface (sample depth < 1.5m)[c]					0.03	0.082	0.1	11	5	n/a	n/a	n/a	30	150	300	2,800	n/a
CCME CEQG/CWS Residential Coarse-Grained Subsoil (sample depth > 1.5m)[c]					0.03	0.082	0.1	11	5	n/a	n/a	n/a	30	150	2,500	10,000	n/a
BC Standard																	
CSR Residential Land Use (RL) (sample depth < 3.0m)[d]					0.04	1	1.5	5	5	200	1,000	1,000	n/a	n/a	n/a	n/a	320
CSR Commercial Land Use (CL) (sample depth > 3.0m)[d]					0.04	7	2.5	20	50	200	2,000	5,000	n/a	n/a	n/a	n/a	700

Associated Maxxam file(s): B645259.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.
[c] Pathways: Contact (Direct/Eco), Management Limit, Protection of Groundwater for Aquatic Life, Vapour Inhalation, Protection of Potable Groundwater.
[d] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).
[e] Where available, values corrected for the presence of individual PAH are shown. Otherwise, uncorrected values are shown.
[f] F4 value did not return to baseline; F4 Gravimetric (Gravimetric Heavy Hydrocarbons) not analyzed.
[g] F4 value did not return to baseline and as such F4 Gravimetric (Gravimetric Heavy Hydrocarbons) was completed; the greater of the two is reported.

BOLD Concentration greater than CCME CEQG/CWS Residential Land Use (RL) standard.
SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).
SHADED VPH, LEPH or HEPH concentration greater than CCME CWS Residential F1, F2 or F3 standard (potential CCME exceedance), only applied where no F1, F2 or F3 concentration is available.

TABLE 1 (Cont'd): Summary of Analytical Results for Hydrocarbons in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Field Screen[b] (ppm)	Monocyclic Aromatic Hydrocarbons					Gross Parameters			Petroleum Hydrocarbon Fractions				MTBE
					Benzene µg/g	Ethylbenzene µg/g	Toluene µg/g	Xylenes µg/g	Styrene µg/g	VPH (C6-C10) µg/g	LEPH (C10-C19)[e] µg/g	HEPH (C19-C32)[e] µg/g	F1-BTEX µg/g	F2 (>C10-C16) µg/g	F3 (>C16-C34) µg/g	F4 (>C34-C50) µg/g	MTBE µg/g
BH14-13	BH14-13-01-AD05	2014 02 27	1.1 - 1.1	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	**253**	274	-	-	-	-	< 0.2
	BH14-13-16-AD05	2014 02 27	3.4 - 3.4	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-13-17-AD05	2014 02 27	11.6 - 11.6	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-13-25-AD05	2014 02 27	18.1 - 18.1	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-13-25A-AD05	Duplicate	18.1 - 18.1	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	*	*	-	-	-	-	*
	BH14-13-30-AD05	2014 02 28	22.1 - 22.1	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-13-30A-AD05	Duplicate	22.1 - 22.1	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	*	*	-	-	-	-	*
BH14-14	BH14-14-01-AD05	2014 02 27	0.2 - 0.2	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	147	121	-	-	-	-	< 0.2
	BH14-14-03-AD05	2014 02 27	1.1 - 1.1	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-14-05-AD05	2014 02 27	2.0 - 2.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-14-19-AD05	2014 02 28	11.4 - 11.4	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
BH14-15	BH14-15-01-AD05	2014 02 28	0.3 - 0.3	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	**303**	**738**	-	-	-	-	< 0.2
	BH14-15-02-AD05	2014 02 28	0.9 - 0.9	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	**160**	**8,140**	**943**	-	-	-	-	< 0.2
	BH14-15-03-AD05	2014 02 28	1.5 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	**401**	115	-	-	-	-	< 0.2
	BH14-15-07-AD05	2014 02 28	4.0 - 4.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-15-11-AD05	2014 03 01	8.4 - 8.4	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-15-13-AD05	2014 03 01	10.5 - 10.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	**3,030**	1,230	-	-	-	-	< 0.2
	BH14-15-15-AD05	2014 03 01	12.8 - 12.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	**653**	335	-	-	-	-	< 0.2
	BH14-15-18-AD05	2014 03 01	15.4 - 15.4	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	126	137	-	-	-	-	< 0.2
	BH14-15-26-AD05	2014 03 01	22.4 - 22.4	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	**40**	**2,020**	138	-	-	-	-	< 0.2
	BH14-15-27-AD05	2014 03 01	23.8 - 23.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-15-27A-AD05	Duplicate	23.8 - 23.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	116	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	*	*	-	-	-	-	*
	BH14-15-30-AD05	2014 03 01	27.0 - 27.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	132	< 200	-	-	-	-	< 0.2
BH14-17	BH14-17-17-AD05	2014 03 01	10.7 - 10.7	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-17-2-AD05	2014 03 01	1.1 - 1.1	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	146	229	-	-	-	-	< 0.2
	BH14-17-6-AD05	2014 03 01	3.2 - 3.2	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
BH14-18	BH14-18-01-AD05	2014 03 02	0.3 - 0.3	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-18-19-AD05	2014 03 02	20.6 - 20.6	-	< 0.01	0.014	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-18-20-AD05	2014 03 02	22.4 - 22.4	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	**171**	< 200	-	-	-	-	< 0.2
	BH14-18-25-AD05	2014 03 02	27.0 - 27.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	**521**	< 200	-	-	-	-	< 0.2
	BH14-18-25A-AD05	Duplicate	27.0 - 27.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	**259**	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	67	*	-	-	-	-	*
	BH14-18-27-AD05	2014 03 02	29.0 - 29.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	17	**1,130**	< 200	-	-	-	-	< 0.2
BH14-19	BH14-19-02-AD05	2014 03 02	1.7 - 1.7	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-19-24-AD05	2014 03 04	18.9 - 18.9	-	-	-	-	-	-	-	< 200	< 200	-	-	-	-	-
	BH14-19-37-AD05	2014 03 05	31.2 - 31.2	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-19-41A-AD05	2014 03 05	32.8 - 32.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-19-41-AD05	2014 03 05	32.8 - 32.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
BH14-20	BH14-20-01-AD05	2014 03 03	1.8 - 1.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-20-06-AD05	2014 03 03	6.9 - 6.9	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-20-21-AD05	2014 03 03	22.0 - 22.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	**43**	**1,320**	105	-	-	-	-	< 0.2
	BH14-20-23-AD05	2014 03 03	23.9 - 23.9	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-20-23A-AD05	Duplicate	23.9 - 23.9	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	*	*	-	-	-	-	*
BH14-21	BH14-21-02-AD05	2014 03 03	1.2 - 1.4	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-21-12-AD05	2014 03 03	8.7 - 8.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
BH14-22	BH14-22-01-AD05	2014 03 04	1.2 - 1.2	-	0.022	0.013	0.097	0.076	< 0.06	< 20	< 200	234	-	-	-	-	< 0.2
	BH14-22-19-AD05	2014 03 04	26.8 - 26.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-22-19A-AD05	Duplicate	26.8 - 26.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	*	*	-	-	-	-	*
	BH14-22-30-AD05	2014 03 04	29.1 - 29.1	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
BH14-23	BH14-23-01-AD05	2014 03 04	0.6 - 0.6	-	< 0.01	< 0.02	0.02	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-23-02-AD05	2014 03 04	1.2 - 1.2	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-23-15-AD05	2014 03 04	16.3 - 16.3	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-23-16-AD05	2014 03 04	17.5 - 17.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-23-17-AD05	2014 03 04	19.7 - 19.7	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-23-23-AD05	2014 03 04	27.0 - 27.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-23-23A-AD05	Duplicate	27.0 - 27.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	*	*	-	-	-	-	*
BH14-24	BH14-24-01-AD05	2014 03 05	0.8 - 0.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	**208**	169	-	-	-	-	< 0.2
	BH14-24-02-AD05	2014 03 05	1.1 - 1.1	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-24-03-AD05	2014 03 05	1.5 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-24-12-AD05	2014 03 05	20.1 - 20.1	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-24-14-AD05	2014 03 05	20.7 - 20.7	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-24-15-AD05	2014 03 05	20.9 - 20.9	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-24-18-AD05	2014 03 05	24.7 - 24.7	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
BH14-25	BH14-25-01-AD05	2014 03 06	2.0 - 2.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-25-06-AD05	2014 03 06	9.9 - 9.9	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-25-09-AD05	2014 03 06	12.8 - 12.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	16	**561**	< 200	-	-	-	-	< 0.2
	BH14-25-09A-AD05	Duplicate	12.8 - 12.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	**415**	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	30	*	-	-	-	-	*
BH14-26	BH14-26-23-AD05	2014 03 07	32.8 - 32.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
BH14-27	BH14-27-01-AD05	2014 03 06	1.5 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-27-06-AD05	2014 03 06	7.8 - 7.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-27-10-AD05	2014 03 07	12.7 - 12.7	-	< 0.01	< 0.02	< 0.06	< 0.08	< 0.06	**540**	**1,830**	< 200	-	-	-	-	< 0.2
	BH14-27-10A-AD05	Duplicate	12.7 - 12.7	-	< 0.01	< 0.072	< 0.078	< 0.08	< 0.06	**1,600**	**3,200**	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	99	54	*	-	-	-	-	*
	BH14-27-11-AD05	2014 03 07	13.1 - 13.1	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
BH14-28	BH14-28-01-AD05	2014 03 07	0.9 - 0.9	-	0.0061	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-28-07-AD05	2014 03 07	12.8 - 12.8	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	BH14-28-10-AD05	2014 03 07	15.9 - 15.9	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
SS14-01	SS14-01-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-01-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-01-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
SS14-02	SS14-02-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-02-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-02-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
SS14-03	SS14-03-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-D1-01-AD05	Duplicate	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	*	*	-	-	-	-	*
	SS14-03-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-03-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
SS14-04	SS14-04-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-04-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-04-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
SS14-05	SS14-05-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-05-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-05-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
SS14-06	SS14-06-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-06-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-06-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
SS14-07	SS14-07-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-07-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-07-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
SS14-08	SS14-08-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-08-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-08-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-D2-01-AD05	Duplicate	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	*	*	-	-	-	-	*
Federal Guideline/Standard																	
CCME CEQG/CWS Residential Coarse-Grained Surface (sample depth < 1.5m)[c]					0.03	0.082	0.1	11	5	n/a	n/a	n/a	30	150	300	2,800	n/a
CCME CEQG/CWS Residential Coarse-Grained Subsoil (sample depth > 1.5m)[c]					0.03	0.082	0.1	11	5	n/a	n/a	n/a	30	150	2,500	10,000	n/a
BC Standard																	
CSR Residential Land Use (RL) (sample depth < 3.0m)[d]					0.04	1	1.5	5	5	200	1,000	1,000	n/a	n/a	n/a	n/a	320
CSR Commercial Land Use (CL) (sample depth > 3.0m)[d]					0.04	7	2.5	20	50	200	2,000	5,000	n/a	n/a	n/a	n/a	700

Associated Maxxam file(s): B645259.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.
[c] Pathways: Contact (Direct/Eco), Management Limit, Protection of Groundwater for Aquatic Life, Vapour Inhalation, Protection of Potable Groundwater.
[d] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).
[e] Where available, values corrected for the presence of individual PAH are shown. Otherwise, uncorrected values are shown.
[f] F4 value did not return to baseline; F4 Gravimetric (Gravimetric Heavy Hydrocarbons) not analyzed.
[g] F4 value did not return to baseline and as such F4 Gravimetric (Gravimetric Heavy Hydrocarbons) was completed; the greater of the two is reported.

BOLD Concentration greater than CCME CEQG/CWS Residential Land Use (RL) standard.

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

SHADED VPH, LEPH or HEPH concentration greater than CCME CWS Residential F1, F2 or F3 standard (potential CCME exceedance), only applied where no F1, F2 or F3 concentration is available.

TABLE 1 (Cont'd): Summary of Analytical Results for Hydrocarbons in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Field Screen[b] (ppm)	Monocyclic Aromatic Hydrocarbons					Gross Parameters			Petroleum Hydrocarbon Fractions				MTBE
					Benzene µg/g	Ethylbenzene µg/g	Toluene µg/g	Xylenes µg/g	Styrene µg/g	VPH (C6-C10) µg/g	LEPH (C10-C19)[e] µg/g	HEPH (C19-C32)[e] µg/g	F1-BTEX µg/g	F2 (>C10-C16) µg/g	F3 (>C16-C34) µg/g	F4 (>C34-C50) µg/g	MTBE µg/g
SS14-09	SS14-09-01-AD05	2014 02 20	0.0 - 0.5	-	0.027	0.016	***0.13***	0.11	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-09-02-AD05	2014 02 20	0.5 - 1.0	-	0.029	0.016	***0.15***	0.12	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-D3-01-AD05	Duplicate	0.5 - 1.0	-	0.011	< 0.02	0.053	0.046	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	96	*	*	*	*	*	-	-	-	-	*
	SS14-09-03-AD05	2014 02 20	1.0 - 1.5	-	***0.054***	0.031	***0.3***	0.29	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
SS14-10	SS14-10-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-10-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-10-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
SS14-11	SS14-11-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-11-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-11-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
SS14-12	SS14-12-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-12-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-D4-01-AD05	Duplicate	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	*	*	-	-	-	-	*
	SS14-12-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
SS14-13	SS14-13-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-13-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-13-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
SS14-14	SS14-14-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-14-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-14-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-D5-01-AD05	Duplicate	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	*	*	-	-	-	-	*
SS14-15	SS14-15-01-AD05	2014 02 21	0.0 - 0.5	-	0.03	< 0.02	0.098	0.049	< 0.06	< 20	**190**	**407**	-	-	-	-	< 0.2
	SS14-15-02-AD05	2014 02 21	0.5 - 1.0	-	< 0.0154	< 0.02	0.021	< 0.08	< 0.06	< 20	< 200	134	-	-	-	-	< 0.2
	SS14-15-03-AD05	2014 02 21	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-D6-01-AD05	Duplicate	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	*	*	-	-	-	-	*
SS14-16	SS14-16-01-AD05	2014 02 21	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	**253**	**1,890**	-	-	-	-	< 0.2
	SS14-16-02-AD05	2014 02 21	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	**230**	**1,680**	-	-	-	-	< 0.2
	SS14-16-03-AD05	2014 02 21	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	**152**	**1,190**	-	-	-	-	< 0.2
	SS14-D7-01-AD05	Duplicate	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	148	**1,100**	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	3	8	-	-	-	-	*
SS14-17	SS14-17-01-AD05	2014 02 21	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-17-02-AD05	2014 02 21	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-17-03-AD05	2014 02 21	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
SS14-18	SS14-18-01-AD05	2014 02 21	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-18-02-AD05	2014 02 21	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-18-03-AD05	2014 02 21	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
SS14-19	SS14-19-01-AD05	2014 02 21	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-19-02-AD05	2014 02 21	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-19-03-AD05	2014 02 21	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
SS14-20	SS14-20-01-AD05	2014 02 21	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-20-02-AD05	2014 02 21	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-20-03-AD05	2014 02 21	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
SS14-21	SS14-21-01-AD05	2014 02 21	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-21-02-AD05	2014 02 21	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-21-03-AD05	2014 02 21	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
SS14-22	SS14-22-01-AD05	2014 02 21	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-D8-01-AD05	Duplicate	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	QA/QC RPD%				*	*	*	*	*	*	*	*	-	-	-	-	*
	SS14-22-02-AD05	2014 02 21	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-22-03-AD05	2014 02 21	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
SS14-23	SS14-23-01-AD05	2014 02 21	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-23-02-AD05	2014 02 21	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-23-03-AD05	2014 02 21	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
SS14-24	SS14-24-01-AD05	2014 02 21	0.0 - 0.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-24-02-AD05	2014 02 21	0.5 - 1.0	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
	SS14-24-03-AD05	2014 02 21	1.0 - 1.5	-	< 0.01	< 0.02	< 0.04	< 0.08	< 0.06	< 20	< 200	< 200	-	-	-	-	< 0.2
BH16-01	BH16-01-1	2016 03 14	0.3 - 0.6	100	0.013	0.022	0.064	0.075	< 0.030	< 10	< 100	**1,240**	< 10	17	***1,100***	730	< 0.10
	BH16-01-2	2016 03 14	0.9 - 1.2	25	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	< 10	< 100	< 100	< 10	< 10	16	16	< 0.10
	BH16-01-3	Duplicate	0.9 - 1.2	25	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.10
	QA/QC RPD%				*	*	*	*	*	*	*	*	*	*	*	*	*
	BH16-01-5	2016 03 14	11.6 - 11.9	25	< 0.0050	< 0.010	0.024	< 0.040	< 0.030	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.10
BH16-02	BH16-02-1	2016 03 07	0.5 - 0.8	250	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	**69**	**10,900**	**4,090**	***72***	***4,700***	***9,400***	< 50	< 0.10
	BH16-02-2	2016 03 07	2.0 - 2.3	150	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	16	**2,410**	954	18	***1,200***	***2,600***	160	< 0.10
BH16-03	BH16-03-1	2016 03 07	0.5 - 0.6	25	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	< 10	107	< 100	< 10	59	68	< 10	< 0.10
	BH16-03-2	2016 03 07	1.5 - 1.8	25	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	< 10	< 100	< 100	< 10	73	190	160	< 0.10
	BH16-03-3	Duplicate	1.5 - 1.8	25	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	< 10	< 100	< 100	< 10	68	180	160	< 0.10
	QA/QC RPD%				*	*	*	*	*	*	*	*	*	7	5	0	*
BH16-04	BH16-04-2	2016 03 14	0.6 - 0.9	25	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.10
	BH16-04-3	2016 03 14	1.5 - 2.1	25	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.10
	BH16-04-4	2016 03 14	4.3 - 4.6	5	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.10
BH16-05	BH16-05-1	2016 03 15	0.2 - 0.5	200	***0.032***	0.082	***0.15***	0.56	< 0.030	**220**	**1,710**	232	***230***	***1,400***	***730***	54	< 0.10
	BH16-05-3	2016 03 15	1.5 - 2.0	125	0.0075	< 0.010	0.029	0.045	< 0.030	< 10	425	< 100	< 10	***350***	190	22	< 0.10
	BH16-05-4	2016 03 15	4.1 - 4.6	25	0.0078	0.011	0.032	0.05	< 0.030	< 10	422	149	< 10	***330***	300	80	< 0.10
	BH16-05-7	2016 03 15	15.8 - 16.2	-	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.10
BH16-06	BH16-06-1	2016 03 07	0.5 - 0.6	75	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	< 10	< 100	106	< 10	16	150	98	< 0.10
BH16-07	BH16-07-1	2016 03 07	1.2 - 1.5	11,000	< 0.0050	< 0.010	0.024	0.27	< 0.030	**1,200**	**17,900**	480	***1,200***	***15,000***	***1,600***	280	< 0.10
	BH16-07-2	2016 03 07	2.0 - 2.3	425	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	**90**	**2,650**	< 100	***93***	***2,400***	260	32	< 0.10
BH16-08	BH16-08-1	2016 03 07	1.5 - 1.8	25	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	< 10	< 100	< 100	< 10	54	170	160	< 0.10
BH16-09	BH16-09-1	2016 03 07	1.5 - 1.8	150	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.10
BH16-10	BH16-10-1	2016 03 07	1.5 - 1.8	5	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	< 10	< 100	< 100	< 10	52	170	160	< 0.10
	BH16-10-2	2016 03 07	3.0 - 3.4	25	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.10
BH16-12	BH16-12-1	2016 03 11	0.9 - 1.2	75	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.10
	BH16-12-2	2016 03 11	5.5 - 5.8	5	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	< 10	< 100	102	< 10	< 10	120	66[f]	< 0.10
	BH16-12-3	2016 03 11	10.1 - 10.4	-	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	< 10	< 100	< 100	< 10	< 10	110	15[f]	< 0.10
	BH16-12-9	2016 03 12	20.7 - 21.0	-	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	**95**	**2,120**	271	***99***	***1,800***	***730***	31[f]	< 0.10
	BH16-12-10	Duplicate	20.7 - 21.0	-	< 0.0050	0.017	0.035	0.056	< 0.030	**100**	1,940	239	***110***	***1,700***	***680***	38[f]	< 0.10
	QA/QC RPD%				*	*	*	*	*	5	9	*	11	6	7	*	*
	BH16-12-13	2016 03 13	30.0 - 30.3	-	< 0.0050	< 0.010	< 0.020	< 0.040	< 0.030	< 10	< 100	< 100	< 10	12	45	600[g]	< 0.10
BH16-13	BH16-13-03	2016 06 01	3.0 - 3.2	220	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	73	21	< 0.1
	BH16-13-04	Duplicate	3.0 - 3.2	330	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	69	18	< 0.1
	QA/QC RPD%				*	*	*	*	*	*	*	*	*	*	6	*	*
	BH16-13-06	2016 06 01	7.9 - 8.1	40	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
BH16-14	BH16-14-01	2016 06 01	2.0 - 2.1	40	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	330	< 100	< 10	***230***	170	< 10	< 0.1
	BH16-14-03	2016 06 01	7.9 - 8.1	30	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	140	< 100	< 10	110	94	< 10	< 0.1
BH16-15	BH16-15-01	2016 06 01	1.5 - 1.7	130	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
	BH16-15-02	2016 06 01	3.0 - 3.2	55	< 0.005	< 0.01	0.023	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
	BH16-15-03	2016 06 01	7.9 - 8.1	75	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
	BH16-15-04	Duplicate	7.9 - 8.1	75	< 0.005	< 0.01	0.022	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
	QA/QC RPD%				*	*	*	*	*	*	*	*	*	*	*	*	*
BH16-16	BH16-16-01	2016 06 01	1.8 - 2.0	90	0.0064	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
	BH16-16-03	2016 06 02	8.1 - 8.2	250	0.01	0.023	0.055	0.15	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
BH16-17	BH16-17-01	2016 06 02	2.0 - 2.1	0	< 0.005	< 0.01	0.028	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
	BH16-17-04	2016 06 02	7.9 - 8.1	0	0.011	0.015	0.061	0.13	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
BH16-18	BH16-18-01	2016 06 02	2.0 - 2.1	200	0.0073	< 0.01	0.028	< 0.04	< 0.03	34	**2,600**	180	***38***	***2,900***	530	23	< 0.1
	BH16-18-03	2016 06 02	8.1 - 8.2	15	< 0.005	< 0.01	0.025	< 0.04	< 0.03	< 10	220	< 100	< 10	***180***	26	< 10	< 0.1
	BH16-18-04	Duplicate	8.1 - 8.2	15	< 0.005	< 0.01	0.021	< 0.04	< 0.03	< 10	210	< 100	< 10	***170***	24	< 10	< 0.1
	QA/QC RPD%				*	*	*	*	*	*	*	*	*	6	*	*	*
	BH16-18-05	2016 06 02	10.1 - 10.2	410	< 0.005	< 0.01	0.024	0.048	< 0.03	150	**2,700**	160	***170***	***2,700***	400	72	< 0.1
	BH16-18-06	2016 06 02	14.0 - 14.2	0	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
Federal Guideline/Standard																	
CCME CEQG/CWS Residential Coarse-Grained Surface (sample depth < 1.5m)[c]					0.03	0.082	0.1	11	5	n/a	n/a	n/a	30	150	300	2,800	n/a
CCME CEQG/CWS Residential Coarse-Grained Subsoil (sample depth > 1.5m)[c]					0.03	0.082	0.1	11	5	n/a	n/a	n/a	30	150	2,500	10,000	n/a
BC Standard																	
CSR Residential Land Use (RL) (sample depth < 3.0m)[d]					0.04	1	1.5	5	5	200	1,000	1,000	n/a	n/a	n/a	n/a	320
CSR Commercial Land Use (CL) (sample depth > 3.0m)[d]					0.04	7	2.5	20	50	200	2,000	5,000	n/a	n/a	n/a	n/a	700

Associated Maxxam file(s): B645259.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.
[c] Pathways: Contact (Direct/Eco), Management Limit, Protection of Groundwater for Aquatic Life, Vapour Inhalation, Protection of Potable Groundwater.
[d] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).
[e] Where available, values corrected for the presence of individual PAH are shown. Otherwise, uncorrected values are shown.
[f] F4 value did not return to baseline; F4 Gravimetric (Gravimetric Heavy Hydrocarbons) not analyzed.
[g] F4 value did not return to baseline and as such F4 Gravimetric (Gravimetric Heavy Hydrocarbons) was completed; the greater of the two is reported.

BOLD Concentration greater than CCME CEQG/CWS Residential Land Use (RL) standard.
SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).
SHADED VPH, LEPH or HEPH concentration greater than CCME CWS Residential F1, F2 or F3 standard (potential CCME exceedance), only applied where no F1, F2 or F3 concentration is available.

TABLE 1 (Cont'd): Summary of Analytical Results for Hydrocarbons in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Field Screen[b] (ppm)	Monocyclic Aromatic Hydrocarbons					Gross Parameters			Petroleum Hydrocarbon Fractions				MTBE
					Benzene µg/g	Ethylbenzene µg/g	Toluene µg/g	Xylenes µg/g	Styrene µg/g	VPH (C6-C10) µg/g	LEPH (C10-C19)[e] µg/g	HEPH (C19-C32)[e] µg/g	F1-BTEX µg/g	F2 (>C10-C16) µg/g	F3 (>C16-C34) µg/g	F4 (>C34-C50) µg/g	MTBE µg/g
BH16-19	BH16-19-01	2016 06 02	2.0 - 2.1	35	0.0066	< 0.01	< 0.02	< 0.04	< 0.03	< 10	130	< 100	< 10	110	29	< 10	< 0.1
	BH16-19-03	2016 06 02	7.9 - 8.1	0	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
	BH16-19-04	2016 06 02	9.3 - 9.4	15	< 0.005	< 0.01	0.021	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
BH16-20	BH16-20-01	2016 06 03	1.2 - 1.4	170	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
	BH16-20-02	2016 06 03	2.7 - 2.9	15	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
BH16-21	BH16-21-01	2016 06 03	1.2 - 1.4	20	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
	BH16-21-02	2016 06 03	2.7 - 2.9	20	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
BH16-22	BH16-22-01	2016 06 03	1.2 - 1.4	85	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	**1,600**	**4,300**	< 10	***270***	***3,200***	1,100	< 0.1
BH16-23	BH16-23-01	2016 06 03	0.9 - 1.1	25	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	55	27	< 0.1
BH16-24	BH16-24-01	2016 06 03	0.6 - 0.8	15	< 0.005	< 0.01	0.028	< 0.04	< 0.03	< 10	300	250	12	120	***410***	< 10	< 0.1
BH16-25	BH16-25-01	2016 06 03	1.1 - 1.2	35	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	850	410	< 10	***570***	***1,100***	80	< 0.1
BH16-26	BH16-26-01	2016 06 03	0.5 - 0.6	-	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
BH16-27	BH16-27-01	2016 06 03	0.5 - 0.6	-	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
BH16-28	BH16-28-01	2016 06 03	0.5 - 0.6	-	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	32	< 10	< 0.1
	BH16-28-02	2016 06 03	3.0 - 3.2	-	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
BH16-29	BH16-29-01	2016 06 03	1.2 - 1.4	-	0.014	< 0.01	0.032	0.17	< 0.03	13	140	330	15	39	***430***	190	< 0.1
	BH16-29-02	2016 06 03	2.9 - 3.0	-	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	24	< 10	< 0.1
BH16-30	BH16-30-01	2016 06 03	1.1 - 1.2	20	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
	BH16-30-02	2016 06 03	2.7 - 2.9	10	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
BH16-31	BH16-31-01	2016 06 03	0.5 - 0.6	-	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	44	17	< 0.1
	BH16-31-02	2016 06 03	2.7 - 2.9	-	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
	BH16-31-03	Duplicate	2.7 - 2.9	-	< 0.005	< 0.01	0.032	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
	QA/QC RPD%				*	*	*	*	*	*	*	*	*	*	*	*	*
BH16-32	BH16-32-01	2016 06 03	0.8 - 0.9	450	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	370	890	< 10	***170***	***1,200***	***15,000***[g]	< 0.1
	BH16-32-02	2016 06 03	2.7 - 2.9	30	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
BH16-33	BH16-33-01	2016 06 03	0.5 - 0.6	-	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	**7,300**	**11,000**	< 10	***2,300***	***16,000***	***6,300***	< 0.1
	BH16-33-02	Duplicate	0.5 - 0.6	-	< 0.005	< 0.01	0.024	< 0.04	< 0.03	< 10	**7,400**	**11,000**	< 10	***2,600***	***19,000***	***7,200***	< 0.1
	QA/QC RPD%				*	*	*	*	*	*	1	0	*	12	17	13	*
	BH16-33-03	2016 06 03	2.7 - 2.9	-	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
BH16-34	BH16-34-01	2016 06 03	0.5 - 0.6	320	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	10	< 10	< 0.1
	BH16-34-02	Duplicate	0.5 - 0.6	320	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	70	20	< 0.1
	QA/QC RPD%				*	*	*	*	*	*	*	*	*	*	*	*	*
	BH16-34-03	2016 06 03	2.7 - 2.9	10	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
BH16-35	BH16-35-01	2016 06 03	0.5 - 0.6	-	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	**2,300**	**3,400**	< 10	***470***	***4,400***	2,100	< 0.1
	BH16-35-03	2016 06 03	2.7 - 2.9	-	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
BH16-36	BH16-36-01	2016 06 03	0.5 - 0.6	480	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
	BH16-36-03	2016 06 03	2.7 - 3.0	10	0.0075	< 0.01	0.036	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
BH16-37	BH16-37-01	2016 06 04	0.6 - 0.8	620	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	18	650	< 100	20	***650***	180	11	< 0.1
	BH16-37-06	2016 06 04	7.9 - 8.1	10	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
	BH16-37-07	2016 06 04	11.0 - 11.1	590	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
	BH16-37-10	2016 06 04	20.1 - 20.3	190	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	480	< 100	10	***460***	170	< 10	< 0.1
	BH16-37-11	Duplicate	20.1 - 20.3	190	< 0.005	< 0.01	0.025	< 0.04	< 0.03	12	290	< 100	13	***250***	100	< 10	< 0.1
	QA/QC RPD%				*	*	*	*	*	*	*	*	*	59	52	*	*
	BH16-37-12	2016 06 04	21.9 - 22.1	295	0.0061	< 0.01	0.022	< 0.04	< 0.03	< 10	< 100	< 100	< 10	40	34	< 10	< 0.1
	BH16-37-13	2016 06 04	23.9 - 24.1	35	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
BH16-38	BH16-38-01	2016 06 05	1.1 - 1.2	240	< 0.005	0.023	0.025	0.093	< 0.03	< 10	< 100	530	< 10	26	***710***	330	< 0.1
	BH16-38-04	2016 06 05	7.5 - 7.6	150	0.0053	0.011	0.023	< 0.04	< 0.03	< 10	< 100	< 100	< 10	< 10	< 10	< 10	< 0.1
	BH16-38-10	2016 06 05	32.6 - 32.8	560	< 0.005	< 0.01	< 0.02	< 0.04	< 0.03	180	**3,300**	290	***190***	***2,400***	1,100	< 20	< 0.1
	BH16-38-11	2016 06 05	32.6 - 32.8	560	0.008	0.02	0.033	< 0.04	< 0.03	**210**	**2,800**	230	***230***	***2,500***	1,100	110	< 0.1
Federal Guideline/Standard																	
CCME CEQG/CWS Residential Coarse-Grained Surface (sample depth < 1.5m)[c]					0.03	0.082	0.1	11	5	n/a	n/a	n/a	30	150	300	2,800	n/a
CCME CEQG/CWS Residential Coarse-Grained Subsoil (sample depth > 1.5m)[c]					0.03	0.082	0.1	11	5	n/a	n/a	n/a	30	150	2,500	10,000	n/a
BC Standard																	
CSR Residential Land Use (RL) (sample depth < 3.0m)[d]					0.04	1	1.5	5	5	200	1,000	1,000	n/a	n/a	n/a	n/a	320
CSR Commercial Land Use (CL) (sample depth > 3.0m)[d]					0.04	7	2.5	20	50	200	2,000	5,000	n/a	n/a	n/a	n/a	700

Associated Maxxam file(s): B645259.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.
[c] Pathways: Contact (Direct/Eco), Management Limit, Protection of Groundwater for Aquatic Life, Vapour Inhalation, Protection of Potable Groundwater.
[d] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).
[e] Where available, values corrected for the presence of individual PAH are shown. Otherwise, uncorrected values are shown.
[f] F4 value did not return to baseline; F4 Gravimetric (Gravimetric Heavy Hydrocarbons) not analyzed.
[g] F4 value did not return to baseline and as such F4 Gravimetric (Gravimetric Heavy Hydrocarbons) was completed; the greater of the two is reported.

BOLD Concentration greater than CCME CEQG/CWS Residential Land Use (RL) standard.

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

SHADED VPH, LEPH or HEPH concentration greater than CCME CWS Residential F1, F2 or F3 standard (potential CCME exceedance), only applied where no F1, F2 or F3 concentration is available.

TABLE 2: Summary of Analytical Results for PAHs in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Field Screen[b] (ppm)	Polycyclic Aromatic Hydrocarbons																				
					Naphthalene µg/g	1-Methylnaphthalene µg/g	2-Methylnaphthalene µg/g	Acenaphthylene µg/g	Acenaphthene µg/g	Fluorene µg/g	Phenanthrene µg/g	Anthracene µg/g	Fluoranthene µg/g	Pyrene µg/g	Benzo(a) anthracene µg/g	Chrysene µg/g	Benzo(b) fluoranthene µg/g	Benzo(b+j) fluoranthene µg/g	Benzo(k) fluoranthene µg/g	Benzo(a) pyrene µg/g	Indeno(1,2,3-cd) pyrene µg/g	Dibenz(a,h) anthracene µg/g	Benzo(g,h,i) perylene µg/g	B(a)P TPE µg/g	Index of Additive Cancer Risk µg/g
TP-05	FS-05-1.0	2002 10 05	1.0 - 1.0	-	< 0.05[a]	-	-	< 0.05	< 0.04	< 0.05	< 0.05[a]	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
TP-35	FS-35-1.0	2002 10 05	1.0 - 1.0	-	< 0.05[a]	-	-	< 0.05	< 0.04	< 0.05	< 0.05[a]	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
BH01	BH01-01	2003 01 01	1.2 - 1.2	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
BH02	BH02-01	2003 01 01	1.2 - 1.2	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH02-08	2003 01 01	6.6 - 6.6	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
BH03	BH03-02	2003 01 01	2.7 - 2.7	-	< 2[a]	-	-	-	-	-	***3.5***	-	-	1.4	< 0.2	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH03-06	2003 01 01	7.3 - 7.3	-	< 0.8[a]	-	-	-	-	-	***0.34***	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH03-08	2003 01 01	10.1 - 10.1	-	< 0.06[a]	-	-	-	-	-	***0.08***	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
BH04	BH04-03	2003 01 01	4.3 - 4.3	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH04-05	2003 01 01	7.3 - 7.3	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH04-06	2003 01 01	8.8 - 8.8	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
BH05	BH05-04	2003 01 01	5.5 - 5.5	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH05-07	2003 01 01	8.5 - 8.5	-	< 0.05[a]	-	-	-	-	-	***0.2***	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
BH06	BH06-01	2003 01 01	1.2 - 1.2	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH06-05	2003 01 01	7.3 - 7.3	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
BH07	BH07-02	2003 01 01	2.7 - 2.7	-	***3.99***	-	-	-	-	-	***6.74***	-	-	0.18	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH07-06	2003 01 01	8.8 - 8.8	-	< 0.5[a]	-	-	-	-	-	***0.5***	-	-	0.07	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
BH08	BH08-04	2003 01 01	5.8 - 5.8	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH08-08	2003 01 01	11.9 - 11.9	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
BH09	BH09-03	2003 01 01	4.3 - 4.3	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH09-07	2003 01 01	10.1 - 10.1	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
BH10	BH10-05	2003 01 01	7.3 - 7.3	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH10-08	2003 01 01	11.9 - 11.9	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
BH11	BH11-01	2003 01 01	1.2 - 1.2	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BHQAQC-01	Duplicate	1.2 - 1.2	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	QA/QC RPD%				*	-	-	-	-	-	*	-	-	*	*	-	*	-	*	*	*	*	-	-	-
	BH11-07	2003 01 01	10.4 - 10.4	-	***0.21***	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
BH12	BH12-01	2003 01 01	1.2 - 1.2	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BHQAQC-02	Duplicate	1.2 - 1.2	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	QA/QC RPD%				*	-	-	-	-	-	*	-	-	*	*	-	*	-	*	*	*	*	-	-	-
	BH12-05	2003 01 01	7.3 - 7.3	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH12-08	2003 01 01	11.9 - 11.9	-	< 0.06[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
BH16	BH16-2	2001 11 23	2.6	-	< 0.5[a]	-	< 0.5	< 0.5	< 0.5[a]	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.605	< 5.6[a]
BH24	BH24-1	2004 11 26	0.5 - 0.5	-	***1.3***	-	2	< 0.05	< 0.05	< 0.05	< 0.05[a]	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
BH36	BH36-2	2004 11 28	6.1 - 6.1	-	***0.8***	-	-	-	-	-	< 0.5[a]	-	-	< 0.5	< 0.5	-	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-
BH53	BH53-1	2004 11 30	1.5 - 1.5	-	***13***	-	-	-	-	-	< 5[a]	-	-	< 5	< 5[a]	-	< 5[a]	-	< 5[a]	< 5[a]	< 5[a]	< 5[a]	-	-	-
BH54	BH54-1	2004 11 30	1.5 - 1.5	-	< 0.5[a]	-	-	-	-	-	< 0.5[a]	-	-	< 0.5	< 0.5	-	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-
	BH54-2	2004 11 30	3.1 - 3.1	-	< 0.5[a]	-	-	-	-	-	< 0.5[a]	-	-	< 0.5	< 0.5	-	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-
BH59	BH59-1	2004 12 11	1.5 - 1.5	-	***14***	-	-	-	-	-	***2.7***	-	-	< 0.5	< 0.5	-	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-
	GR10	Duplicate	1.5 - 1.5	-	***16***	-	-	-	-	-	***3.1***	-	-	< 0.5	< 0.5	-	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-
	QA/QC RPD%				13	-	-	-	-	-	14	-	-	*	*	-	*	-	*	*	*	*	-	-	-
BH63	BH63-1	2005 03 12	1.5 - 1.5	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH63-2	2005 03 12	3.0 - 3.0	-	***2.2***	-	-	-	-	-	***1.7***	-	-	< 0.5	< 0.5	-	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-
BH64	BH64-1	2005 03 13	1.5 - 1.5	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH64-2	2005 03 13	3.0 - 3.0	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	GR12b	Duplicate	3.0 - 3.0	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	QA/QC RPD%				*	-	-	-	-	-	*	-	-	*	*	-	*	-	*	*	*	*	-	-	-
BH67	BH67-1	2005 03 13	1.5 - 1.5	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH67-2	2005 03 13	3.0 - 3.0	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
BH78	BH78-1	2005 03 15	1.5 - 1.5	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH78-2	2005 03 15	3.0 - 3.0	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH78-3	2005 03 15	4.5 - 4.5	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH78-5	2005 03 15	7.5 - 7.5	-	< 0.5[a]	-	-	-	-	-	< 0.5[a]	-	-	< 0.5	< 0.5	-	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-
BH79	BH79-1	2005 03 15	1.5 - 1.5	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH79-4	2005 03 15	6.0 - 6.0	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
BH85	BH85-1	2005 03 16	1.5 - 1.5	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
BH87	BH87-5	2005 03 16	7.5 - 7.5	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
BH90	BH90-1	2005 03 16	1.5 - 1.5	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH90-2	2005 03 16	3.0 - 3.0	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
BH91	BH91-1	2005 03 17	1.5 - 1.5	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH91-2	2005 03 17	4.5 - 4.5	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
	BH91-3	2005 03 17	7.5 - 7.5	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
BH98	BH98-1	2005 03 17	1.5 - 1.5	-	< 0.05[a]	-	-	-	-	-	< 0.05[a]	-	-	< 0.05	< 0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
SS4	SS4	2005 11 08	0.0 - 0.1	-	***0.7***	-	< 0.5	< 0.5	-	< 0.5[a]	< 0.5[a]	< 0.5	< 0.5	0.6	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.605	< 5.6[a]
MR1	MR-1	2006 07 29	0.0 - 0.2	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
Federal Guideline																									
CCME CEQG Residential Land Use (RL)					0.013	n/a	n/a	320	0.28	0.25	0.046	2.5	15.4	7.7	1	6.2	1	1	1	0.6	1	1	n/a	5.3	1
BC Standard																									
CSR Residential Land Use (RL) (sample depth < 3.0m)[c]					5	n/a	n/a	n/a	n/a	n/a	5	n/a	n/a	10	1	n/a	1	1	1	1	1	1	n/a	n/a	n/a
CSR Commercial Land Use (CL) (sample depth > 3.0m)[c]					50	n/a	n/a	n/a	n/a	n/a	50	n/a	n/a	100	10	n/a	10	10	10	10	10	10	n/a	n/a	n/a

Associated Maxxam file(s): B645259.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.
[c] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

TABLE 2 (Cont'd): Summary of Analytical Results for PAHs in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Field Screen[b] (ppm)	Polycyclic Aromatic Hydrocarbons																				
					Naphthalene µg/g	1-Methylnaphthalene µg/g	2-Methylnaphthalene µg/g	Acenaphthylene µg/g	Acenaphthene µg/g	Fluorene µg/g	Phenanthrene µg/g	Anthracene µg/g	Fluoranthene µg/g	Pyrene µg/g	Benzo(a) anthracene µg/g	Chrysene µg/g	Benzo(b) fluoranthene µg/g	Benzo(b+j) fluoranthene µg/g	Benzo(k) fluoranthene µg/g	Benzo(a) pyrene µg/g	Indeno(1,2,3-cd) pyrene µg/g	Dibenz(a,h) anthracene µg/g	Benzo(g,h,i) perylene µg/g	B(a)P TPE µg/g	Index of Additive Cancer Risk µg/g
MR2	MR-2	2006 07 29	0.0 - 0.2	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
MR3	MR-3	2006 07 29	0.0 - 0.2	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
MR4	MR-4	2006 07 29	0.0 - 0.2	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
	GR2	Duplicate	0.0 - 0.2	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*
MR5	MR-5	2006 07 29	0.0 - 0.2	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
RES1	125-66.02-JLM-RES1-2	2006 07 29	0.6 - 0.6	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
RES2	125-66.02-JLM-RES2-1	2006 07 29	0.0 - 0.1	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
RES3	125-66.02-JLM-RES3-1	2006 07 29	0.0 - 0.1	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
RES4	125-66.02-JLM-RES4-1	2006 07 29	0.0 - 0.1	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
RES5	125-66.02-JLM-RES5-2	2006 07 29	0.0 - 0.2	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	0.01	0.01	0.01	0.01	0.02	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	0.012	0.22
	125-66.02-JLM-GR1	Duplicate	0.0 - 0.2	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	0.02	0.01	< 0.01	0.01	0.2	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	0.029	***1.3***
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*
RES6	125-66.02-JLM-RES6-1	2006 07 29	0.0 - 0.1	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
RES7	125-66.02-JLM-RES7-2	2006 07 29	0.0 - 0.2	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
RES8	125-66.02-JLM-RES8-1	2006 07 29	0.0 - 0.1	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
BH113M	BH113M-2	2006 08 14	22.8 - 22.8	-	< 0.05[a]	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05[a]	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
SP1	SP1	2006 08 14	0.0 - 0.1	-	< 0.05[a]	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05[a]	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
	GR58	Duplicate	0.0 - 0.1	-	< 0.05[a]	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05[a]	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*
GARDEN1	Garden 1	2006 08 19	0.0 - 0.1	-	< 0.01	-	< 0.05	< 0.005	< 0.005	0.01	***0.07***	0.02	0.17	0.13	0.04	0.09	0.11	-	< 0.01	0.03	0.02	< 0.005	0.02	0.05	0.99
	Garden 1A	2009 10 18	0.0 - 0.1	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
	FSGR3	Duplicate	0.0 - 0.1	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*
	Garden 1B	2009 10 18	0.0 - 0.1	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
GARDEN2	Garden 2	2006 08 19	0.0 - 0.1	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
MSV1	MSV1-1	2009 10 14		-	***0.36***	-	0.83	< 0.005	0.089	0.12	***0.12***	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
	MSV1-3	2009 10 14		-	***6.3***	-	17	< 0.005	***0.73***	***1.4***	***2.3***	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
AEC7A	AEC7A	2009 10 19	0.0 - 0.1	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
	FSGR4	Duplicate	0.0 - 0.1	-	< 0.01	-	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*
BH120M	BH120M-1	2009 10 16	0.0 - 0.6	-	***0.03***	-	0.06	< 0.005	0.01	0.02	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
	BH120M-3	2009 10 16	3.7 - 4.3	-	***0.02***	-	0.09	< 0.005	< 0.005	0.01	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
	FSGR	Duplicate	3.7 - 4.3	-	***0.02***	-	0.08	< 0.005	< 0.005	0.01	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.11
	QA/QC RPD%				*	-	12	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*
BH127	BH127-1	2010 08 26	0.5 - 0.8	-	< 1.7[a]	-	2.85	< 0.08	< 0.3[a]	***0.531***	***0.559***	< 0.3	< 0.05	< 0.25	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
	BH127-2	2010 08 26	1.1 - 1.4	-	***8.63***	-	22.5	< 0.2	< 0.75[a]	***1.28***	***2.71***	< 0.3	< 0.075	0.259	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
	GR2	Duplicate	1.1 - 1.4	-	***8.98***	-	20.9	< 0.26	< 0.7[a]	***1.16***	***2.47***	< 0.27	< 0.07	0.171	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
	QA/QC RPD%				4	-	7	*	*	10	9	*	*	41	*	*	*	-	*	*	*	*	*	*	*
	BH127-3	2010 08 26	2.0 - 2.1	-	< 0.017[a]	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
	BH127-6	2010 08 26	4.9 - 5.2	-	< 0.013	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
BH128	BH128-1	2010 08 26	0.3 - 0.6	-	< 0.013	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
	BH128-3	2010 08 26	1.8 - 2.1	-	< 0.013	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
BH129	BH129-1	2010 08 26	0.5 - 0.8	-	< 0.013	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
	BH129-3	2010 08 26	1.8 - 2.1	-	< 0.02[a]	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
BH130	BH130-1	2010 08 27	0.3 - 0.6	-	< 0.013	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
	BH130-2	2010 08 27	2.7 - 3.1	-	< 0.013	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
BH131	BH131-2	2010 08 27	0.9 - 1.2	-	< 0.015[a]	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
	BH131-3	2010 08 27	1.4 - 1.5	-	< 0.015[a]	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
BH132	BH132-2	2010 08 27	0.9 - 1.2	-	< 0.013	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
	BH132-3	2010 08 27	1.2 - 1.5	-	***0.015***	-	< 0.05	< 0.05	< 0.05	0.075	***0.322***	0.066	0.101	0.069	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
	GR3	Duplicate	1.2 - 1.5	-	< 0.015[a]	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*
	BH132-5	2010 08 27	2.7 - 3.1	-	***0.06***	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
BH133	BH133-2	2010 08 27	0.9 - 1.1	-	***0.051***	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
	BH133-3	2010 08 27	2.7 - 3.1	-	< 0.013	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
BH134	BH134-1	2010 08 27	1.5 - 1.8	-	< 0.013	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
BH135	BH135-2	2010 08 27	1.5 - 1.8	-	< 0.013	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
	GR4	Duplicate	1.5 - 1.8	-	***0.096***	-	0.258	< 0.05	< 0.05	0.068	***0.179***	< 0.05	< 0.05	< 0.05	< 0.05	< 0.07	< 0.06	-	< 0.05	< 0.06	< 0.05	< 0.05	< 0.05	< 0.066	< 0.64
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*
	BH135-3	2010 08 27	2.7 - 3.1	-	< 0.013	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
BH136	BH136-1	2010 08 26	0.3 - 0.5	-	< 0.013	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.061	< 0.59
BH12-01	BH12-01-1-AD05	2012 10 14	0.3 - 0.6	-	***7***	26	40	< 0.01	< 0.01	***5***	***8***	< 0.02	< 0.05	0.9	< 0.02	< 0.05	< 0.02	-	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.040	< 0.29
	BH12-01-2-AD05	2012 10 14	0.9 - 1.2	-	***5.8***	14.5	27.4	< 0.01	< 0.01	***2.3***	***3.3***	< 0.02	0.05	0.15	< 0.02	< 0.05	< 0.02	-	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.040	< 0.29
	BH12-01-15-AD05	2012 10 14	12.7 - 13.0	-	***0.4***	2.5	0.8	< 0.01	< 0.01	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.02	-	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.040	< 0.29
	BH12-01-32-AD05	2012 10 14	25.5 - 25.8	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.02	-	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.040	< 0.29
	BH12-01-36-AD05	2012 10 14	28.5 - 28.8	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.02	-	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.040	< 0.29
Federal Guideline																									
CCME CEQG Residential Land Use (RL)					0.013	n/a	n/a	320	0.28	0.25	0.046	2.5	15.4	7.7	1	6.2	1	1	1	0.6	1	1	n/a	5.3	1
BC Standard																									
CSR Residential Land Use (RL) (sample depth < 3.0m)[c]					5	n/a	n/a	n/a	n/a	n/a	5	n/a	n/a	10	1	n/a	1	1	1	1	1	1	n/a	n/a	n/a
CSR Commercial Land Use (CL) (sample depth > 3.0m)[c]					50	n/a	n/a	n/a	n/a	n/a	50	n/a	n/a	100	10	n/a	10	10	10	10	10	10	n/a	n/a	n/a

Associated Maxxam file(s): B645259.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.
[c] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

TABLE 2 (Cont'd): Summary of Analytical Results for PAHs in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Field Screen[b] (ppm)	Polycyclic Aromatic Hydrocarbons																				
					Naphthalene µg/g	1-Methylnaphthalene µg/g	2-Methylnaphthalene µg/g	Acenaphthylene µg/g	Acenaphthene µg/g	Fluorene µg/g	Phenanthrene µg/g	Anthracene µg/g	Fluoranthene µg/g	Pyrene µg/g	Benzo(a) anthracene µg/g	Chrysene µg/g	Benzo(b) fluoranthene µg/g	Benzo(b+j) fluoranthene µg/g	Benzo(k) fluoranthene µg/g	Benzo(a) pyrene µg/g	Indeno(1,2,3-cd) pyrene µg/g	Dibenz(a,h) anthracene µg/g	Benzo(g,h,i) perylene µg/g	B(a)P TPE µg/g	Index of Additive Cancer Risk µg/g
BH12-02	BH12-02-2-AD05	2012 10 14	0.5 - 0.8	-	***15***	33	52	< 0.01	< 0.01	***5***	***14***	< 0.02	0.22	0.62	< 0.02	< 0.05	< 0.02	-	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.040	< 0.29
	BH12-02-3-AD05	2012 10 14	1.2 - 1.5	-	***5***	13	21	< 0.01	< 0.01	< 0.02	< 0.02	< 0.02	< 0.05	0.02	< 0.02	< 0.05	< 0.02	-	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.040	< 0.29
	BH12-02-8-AD05	2012 10 15	5.0 - 5.3	-	***0.14***	0.4	0.14	< 0.01	< 0.01	< 0.02	0.03	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.02	-	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.040	< 0.29
	BH12-02-26-AD05	2012 10 15	18.8 - 19.1	-	< 0.01	0.01	0.05	< 0.01	< 0.01	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.02	-	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.040	< 0.29
	BH12-02-27-AD05	2012 10 15	19.5 - 19.8	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.02	< 0.02	< 0.02	< 0.05	0.04	< 0.02	< 0.05	< 0.02	-	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.040	< 0.29
	BH12-02-28-AD05	Duplicate	19.5 - 19.8	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.02	< 0.02	< 0.02	< 0.05	0.04	< 0.02	< 0.05	< 0.02	-	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.040	< 0.29
	QA/QC RPD%				*	*	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*
	BH12-02-30-AD05	2012 10 15	26.4 - 26.7	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.02	0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.02	-	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.040	< 0.29
	BH12-02-31-AD05	Duplicate	26.4 - 26.7	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.02	-	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.040	< 0.29
	QA/QC RPD%				*	*	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*
	BH12-02-32-AD05	2012 10 15	27.9 - 28.2	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.02	-	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.040	< 0.29
SS12-09	SS12-09-AD05	2012 10 20	0.2 - 0.5	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.02	-	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.040	< 0.29
SS12-10	SS12-10-AD05	2012 10 20	0.2 - 0.5	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.02	< 0.02	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.02	-	< 0.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.040	< 0.29
BH13-03	BH13-03-23-AD05	2013 03 17	17.9 - 18.1	-	< 0.005	-	-	-	-	-	< 0.02	-	-	< 0.01	< 0.03	-	-	< 0.05	< 0.05	< 0.03	< 0.05	< 0.005	-	-	-
	BH13-03-25-AD05	2013 03 17	19.5 - 19.8	-	< 0.005	-	-	-	-	-	< 0.02	-	-	< 0.01	< 0.03	-	-	< 0.05	< 0.05	< 0.03	< 0.05	< 0.005	-	-	-
	BH13-03-33-AD05	2013 03 17	25.7 - 25.9	-	***0.084***	-	-	-	-	-	***1.02***	-	-	0.04	< 0.03	-	-	< 0.05	< 0.05	< 0.03	< 0.05	< 0.005	-	-	-
	BH13-03-A-AD05	Duplicate	25.7 - 25.9	-	***0.112***	-	-	-	-	-	***1.37***	-	-	0.06	< 0.03	-	-	< 0.05	< 0.05	< 0.03	< 0.05	< 0.005	-	-	-
	QA/QC RPD%				29	-	-	-	-	-	29	-	-	*	*	-	-	*	*	*	*	*	-	-	-
	BH13-03-34-AD05	2013 03 17	26.2 - 26.5	-	***0.073***	-	-	-	-	-	***1.38***	-	-	0.03	< 0.03	-	-	< 0.05	< 0.05	< 0.03	< 0.05	< 0.005	-	-	-
	BH13-03-35-AD05	2013 03 17	26.8 - 27.0	-	***0.058***	-	-	-	-	-	***0.82***	-	-	0.02	< 0.03	-	-	< 0.05	< 0.05	< 0.03	< 0.05	< 0.005	-	-	-
	BH13-03-36-AD05	2013 03 17	28.1 - 28.4	-	***0.079***	-	-	-	-	-	***1.33***	-	-	0.02	< 0.03	-	-	< 0.05	< 0.05	< 0.03	< 0.05	< 0.005	-	-	-
TP13-01	TP13-01-1	2013 08 22	0.7 - 1.0	-	< 0.1[a]	-	0.056	< 0.1	< 0.22	< 0.6[a]	***0.65***	< 0.32	< 0.1	0.12	< 0.1	0.056	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.12	***1.2***
	TP13-01-2	2013 08 22	1.7 - 2.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
TP13-02	TP13-02-1	2013 08 22	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	TP13-02-2	2013 08 22	1.7 - 2.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
TP13-03	TP13-03-1	2013 08 22	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	TP13-03-2	2013 08 22	1.0 - 2.2	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
TP13-04	TP13-04-1	2013 08 22	0.5 - 0.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	TP13-04-2	2013 08 22	1.5 - 1.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
TP13-05	TP13-05-1	2013 08 22	0.5 - 0.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	TP13-05-2	2013 08 22	1.5 - 1.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
TP13-06	TP13-06-1	2013 08 22	0.3 - 0.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	TP13-06-2	2013 08 22	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
TP13-07	TP13-07-1	2013 08 22	0.1 - 0.4	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	TP13-07-2	2013 08 22	0.7 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
TP13-08	TP13-08-1	2013 08 22	0.5 - 0.9	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	TP13-08-2	2013 08 22	1.0 - 1.3	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
TP13-09	TP13-09-1	2013 08 22	0.5 - 0.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	TP13-09-101	Duplicate	0.5 - 0.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	TP13-09-2	2013 08 22	1.0 - 1.3	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
TP13-10	TP13-10-1	2013 08 22	0.5 - 0.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	TP13-10-2	2013 08 22	1.0 - 1.3	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
TP13-11	TP13-11-1	2013 08 22	0.0 - 0.4	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	TP13-11-102	Duplicate	0.0 - 0.4	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	TP13-11-2	2013 08 22	1.0 - 1.3	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
TP13-12	TP13-12-1	2013 08 22	0.3 - 0.6	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	TP13-12-2	2013 08 22	1.0 - 1.3	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
TP13-13	TP13-13-1	2013 08 22	0.4 - 0.7	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	TP13-13-2	2013 08 22	1.6 - 1.9	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
TP13-14	TP13-14-1	2013 08 22	0.3 - 0.6	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	TP13-14-2	2013 08 22	1.0 - 1.3	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
TP13-15	TP13-15-1	2013 08 22	0.0 - 0.3	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	TP13-15-2	2013 08 22	0.4 - 0.7	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
TP13-16	TP13-16-1	2013 08 22	0.2 - 0.5	-	< 0.4[a]	-	< 0.4	< 0.4	< 0.4[a]	< 0.4[a]	< 0.4[a]	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	-	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.48	< 4.7[a]
	TP13-16-2	2013 08 22	1.0 - 1.3	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
TP13-17	TP13-17-1	2013 08 22	0.9 - 1.2	-	< 0.4[a]	-	< 0.4	< 0.4	< 0.4[a]	***0.5***	< 0.46[a]	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	-	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.48	< 4.7[a]
	TP13-17-103	Duplicate	0.9 - 1.2	-	< 0.4[a]	-	< 0.4	< 0.4	< 0.4[a]	***0.93***	< 0.56[a]	< 0.4	< 0.4	0.31	< 0.4	< 0.4	-	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.48	< 4.7[a]
	QA/QC RPD%				*	-	*	*	*	60	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	TP13-17-2	2013 08 22	1.5 - 2.0	-	< 0.4[a]	-	< 0.4	< 0.4	< 0.4[a]	***1.5***	< 0.72[a]	< 0.4	< 0.4	0.31	< 0.4	0.21	-	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	0.48	***4.7***
TP13-18	TP13-18-1	2013 08 23	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	TP13-18-2	2013 08 23	1.4 - 1.7	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
TP13-19	TP13-19-1	2013 08 23	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	TP13-19-2	2013 08 23	1.8 - 2.1	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
Federal Guideline																									
CCME CEQG Residential Land Use (RL)					0.013	n/a	n/a	320	0.28	0.25	0.046	2.5	15.4	7.7	1	6.2	1	1	1	0.6	1	1	n/a	5.3	1
BC Standard																									
CSR Residential Land Use (RL) (sample depth < 3.0m)[c]					5	n/a	n/a	n/a	n/a	n/a	5	n/a	n/a	10	1	n/a	1	1	1	1	1	1	n/a	n/a	n/a
CSR Commercial Land Use (CL) (sample depth > 3.0m)[c]					50	n/a	n/a	n/a	n/a	n/a	50	n/a	n/a	100	10	n/a	10	10	10	10	10	10	n/a	n/a	n/a

Associated Maxxam file(s): B645259.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.
[c] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

TABLE 2 (Cont'd): Summary of Analytical Results for PAHs in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Field Screen[b] (ppm)	Polycyclic Aromatic Hydrocarbons																				
					Naphthalene µg/g	1-Methylnaphthalene µg/g	2-Methylnaphthalene µg/g	Acenaphthylene µg/g	Acenaphthene µg/g	Fluorene µg/g	Phenanthrene µg/g	Anthracene µg/g	Fluoranthene µg/g	Pyrene µg/g	Benzo(a) anthracene µg/g	Chrysene µg/g	Benzo(b) fluoranthene µg/g	Benzo(b+j) fluoranthene µg/g	Benzo(k) fluoranthene µg/g	Benzo(a) pyrene µg/g	Indeno(1,2,3-cd) pyrene µg/g	Dibenz(a,h) anthracene µg/g	Benzo(g,h,i) perylene µg/g	B(a)P TPE µg/g	Index of Additive Cancer Risk µg/g
TP13-20	TP13-20-1	2013 08 23	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	TP13-20-2	2013 08 23	2.4 - 2.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
TP13-21	TP13-21-1	2013 08 23	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	TP13-21-2	2013 08 23	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
TP13-22	TP13-22-1	2013 08 23	0.1 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	TP13-22-2	2013 08 23	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
TP13-23	TP13-23-1	2013 08 23	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	TP13-23-104	Duplicate	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	TP13-23-2	2013 08 23	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
BH13-04	BH13-04-1-AD05	2013 09 22	0.3 - 0.6	-	***0.96***	-	3.7	< 0.98	< 4.6[a]	***1.4***	***0.4***	< 0.1	< 0.1	0.062	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-04-2-AD05	2013 09 22	0.8 - 1.1	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-04-21-AD05	2013 09 22	21.8 - 22.1	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-04-22-AD05	2013 09 22	22.6 - 22.9	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-04-30-AD05	2013 09 23	31.5 - 31.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
BH13-05	BH13-05-02-AD05	2013 09 23	1.1 - 1.4	-	***3.2***	-	34	< 2.8	< 3.4[a]	***1***	***0.45***	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-05-A	Duplicate	1.1 - 1.4	-	***3.7***	-	36	< 3	< 3.6[a]	***1.3***	***0.49***	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				14	-	6	*	*	26	9	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	BH13-05-14-AD05	2013 09 23	11.6 - 11.9	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-05-27-AD05	2013 09 24	21.9 - 22.2	-	< 0.28[a]	-	< 0.1	< 3	< 3.8[a]	***1.2***	***4.6***	< 0.34	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-05-28-AD05	2013 09 24	22.6 - 22.9	-	< 0.22[a]	-	< 0.1	< 1.92	< 3.2[a]	***1.2***	***1.6***	< 0.22	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-05-29-AD05	2013 09 24	23.0 - 23.3	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-05-30-AD05	2013 09 24	23.7 - 24.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-05-31-AD05	2013 09 24	24.9 - 25.2	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
BH13-06	BH13-06-01-AD05	2013 09 24	0.3 - 0.6	-	***0.066***	-	0.26	< 0.1	< 0.1	0.063	***0.075***	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-06-02-AD05	2013 09 24	1.0 - 1.3	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-06-31-AD05	2013 09 25	31.7 - 32.0	-	< 0.1[a]	-	0.065	< 0.18	< 0.3[a]	***0.32***	***0.73***	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-06-B	Duplicate	31.7 - 32.0	-	< 0.1[a]	-	< 0.1	< 0.32	< 0.54[a]	***0.41***	***0.93***	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	25	24	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	BH13-06-32-AD05	2013 09 25	32.3 - 32.6	-	< 0.16[a]	-	< 0.1	< 0.16	< 0.56[a]	***0.68***	***1.1***	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-06-33-AD05	2013 09 25	33.1 - 33.4	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-06-34-AD05	2013 09 25	33.9 - 34.2	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	***0.091***	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-06-35-AD05	2013 09 25	34.6 - 34.9	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
BH13-07	BH13-07-01-AD05	2013 09 25	0.3 - 0.6	-	***3.2***	-	15	< 1.28	< 0.96[a]	***0.56***	***0.33***	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-07-02-AD05	2013 09 25	1.3 - 1.6	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-07-21-AD05	2013 09 26	17.6 - 17.9	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-07-22-AD05	2013 09 26	18.7 - 19.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
BH13-08	BH13-08-01	2013 11 30	0.3 - 0.3	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-08-02	2013 11 30	0.9 - 0.9	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-08-16	2013 11 30	12.6 - 12.6	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-08-42	2013 12 03	30.9 - 30.9	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH13-08-44	2013 12 03	33.5 - 33.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
BH14-09	BH14-09-02-AD05	2014 02 15	1.4 - 1.4	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-09-41-AD05	2014 02 17	31.2 - 31.2	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-09-40-AD05	2014 02 17	32.3 - 32.3	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
BH14-10	BH14-10-02-AD05	2014 02 19	1.4 - 1.4	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-10-25-AD05	2014 02 19	16.6 - 16.6	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-10-35-AD05	2014 02 19	20.6 - 20.6	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-10-42-AD05	2014 02 20	31.9 - 31.9	-	< 0.1[a]	-	0.062	< 0.1	0.05	0.1	***0.19***	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-10-44-AD05	2014 02 20	33.1 - 33.1	-	< 0.1[a]	-	0.097	< 0.1	0.086	0.2	***0.35***	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
BH14-11	BH14-11-02-AD05	2014 02 21	1.4 - 1.4	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-11-02A-AD05	Duplicate	1.4 - 1.4	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	BH14-11-33-AD05	2014 02 22	21.3 - 21.3	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-11-47-AD05	2014 02 23	30.5 - 30.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
BH14-13	BH14-13-01-AD05	2014 02 27	1.1 - 1.1	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-13-16-AD05	2014 02 27	3.4 - 3.4	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-13-17-AD05	2014 02 27	11.6 - 11.6	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-13-25-AD05	2014 02 27	18.1 - 18.1	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-13-25A-AD05	Duplicate	18.1 - 18.1	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	BH14-13-30-AD05	2014 02 28	22.1 - 22.1	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-13-30A-AD05	Duplicate	22.1 - 22.1	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
Federal Guideline																									
CCME CEQG Residential Land Use (RL)					0.013	n/a	n/a	320	0.28	0.25	0.046	2.5	15.4	7.7	1	6.2	1	1	1	0.6	1	1	n/a	5.3	1
BC Standard																									
CSR Residential Land Use (RL) (sample depth < 3.0m)[c]					5	n/a	n/a	n/a	n/a	n/a	5	n/a	n/a	10	1	n/a	1	1	1	1	1	1	n/a	n/a	n/a
CSR Commercial Land Use (CL) (sample depth > 3.0m)[c]					50	n/a	n/a	n/a	n/a	n/a	50	n/a	n/a	100	10	n/a	10	10	10	10	10	10	n/a	n/a	n/a

Associated Maxxam file(s): B645259.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.
[c] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

TABLE 2 (Cont'd): Summary of Analytical Results for PAHs in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Field Screen[b] (ppm)	Polycyclic Aromatic Hydrocarbons																				
					Naphthalene µg/g	1-Methylnaphthalene µg/g	2-Methylnaphthalene µg/g	Acenaphthylene µg/g	Acenaphthene µg/g	Fluorene µg/g	Phenanthrene µg/g	Anthracene µg/g	Fluoranthene µg/g	Pyrene µg/g	Benzo(a) anthracene µg/g	Chrysene µg/g	Benzo(b) fluoranthene µg/g	Benzo(b+j) fluoranthene µg/g	Benzo(k) fluoranthene µg/g	Benzo(a) pyrene µg/g	Indeno(1,2,3-cd) pyrene µg/g	Dibenz(a,h) anthracene µg/g	Benzo(g,h,i) perylene µg/g	B(a)P TPE µg/g	Index of Additive Cancer Risk µg/g
BH14-14	BH14-14-01-AD05	2014 02 27	0.2 - 0.2	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-14-03-AD05	2014 02 27	1.1 - 1.1	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-14-05-AD05	2014 02 27	2.0 - 2.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-14-19-AD05	2014 02 28	11.4 - 11.4	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
BH14-15	BH14-15-01-AD05	2014 02 28	0.3 - 0.3	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-15-02-AD05	2014 02 28	0.9 - 0.9	-	***0.87***	-	1.6	< 0.1	***0.52***	***2.2***	***0.79***	0.052	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-15-03-AD05	2014 02 28	1.5 - 1.5	-	< 0.1[a]	-	0.06	< 0.1	< 0.1	0.11	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-15-07-AD05	2014 02 28	4.0 - 4.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-15-11-AD05	2014 03 01	8.4 - 8.4	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-15-13-AD05	2014 03 01	10.5 - 10.5	-	***0.063***	-	1.3	< 0.1	< 0.14	< 0.1	***1.4***	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-15-15-AD05	2014 03 01	12.8 - 12.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-15-18-AD05	2014 03 01	15.4 - 15.4	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-15-26-AD05	2014 03 01	22.4 - 22.4	-	< 0.1[a]	-	< 0.2	< 0.1	< 0.1	< 0.14	< 0.14[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-15-27-AD05	2014 03 01	23.8 - 23.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-15-27A-AD05	Duplicate	23.8 - 23.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	BH14-15-30-AD05	2014 03 01	27.0 - 27.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
BH14-17	BH14-17-17-AD05	2014 03 01	10.7 - 10.7	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-17-2-AD05	2014 03 01	1.1 - 1.1	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-17-6-AD05	2014 03 01	3.2 - 3.2	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
BH14-18	BH14-18-01-AD05	2014 03 02	0.3 - 0.3	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-18-19-AD05	2014 03 02	20.6 - 20.6	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-18-20-AD05	2014 03 02	22.4 - 22.4	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-18-25-AD05	2014 03 02	27.0 - 27.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-18-25A-AD05	Duplicate	27.0 - 27.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	BH14-18-27-AD05	2014 03 02	29.0 - 29.0	-	< 0.1[a]	-	< 0.18	< 0.1	< 0.1	< 0.26[a]	***0.17***	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
BH14-19	BH14-19-02-AD05	2014 03 02	1.7 - 1.7	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-19-24-AD05	2014 03 04	18.9 - 18.9	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-19-37-AD05	2014 03 05	31.2 - 31.2	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-19-41A-AD05	2014 03 05	32.8 - 32.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-19-41-AD05	2014 03 05	32.8 - 32.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
BH14-20	BH14-20-01-AD05	2014 03 03	1.8 - 1.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-20-06-AD05	2014 03 03	6.9 - 6.9	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-20-21-AD05	2014 03 03	22.0 - 22.0	-	< 0.1[a]	-	0.63	< 0.1	< 0.16	***0.41***	***0.58***	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-20-23-AD05	2014 03 03	23.9 - 23.9	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-20-23A-AD05	Duplicate	23.9 - 23.9	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
BH14-21	BH14-21-02-AD05	2014 03 03	1.2 - 1.4	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-21-12-AD05	2014 03 03	8.7 - 8.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
BH14-22	BH14-22-01-AD05	2014 03 04	1.2 - 1.2	-	***0.076***	-	0.13	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-22-19-AD05	2014 03 04	26.8 - 26.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-22-19A-AD05	Duplicate	26.8 - 26.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	BH14-22-30-AD05	2014 03 04	29.1 - 29.1	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
BH14-23	BH14-23-01-AD05	2014 03 04	0.6 - 0.6	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-23-02-AD05	2014 03 04	1.2 - 1.2	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-23-15-AD05	2014 03 04	16.3 - 16.3	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-23-16-AD05	2014 03 04	17.5 - 17.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-23-17-AD05	2014 03 04	19.7 - 19.7	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-23-23-AD05	2014 03 04	27.0 - 27.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-23-23A-AD05	Duplicate	27.0 - 27.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
BH14-24	BH14-24-01-AD05	2014 03 05	0.8 - 0.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-24-02-AD05	2014 03 05	1.1 - 1.1	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-24-03-AD05	2014 03 05	1.5 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-24-12-AD05	2014 03 05	20.1 - 20.1	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-24-14-AD05	2014 03 05	20.7 - 20.7	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-24-15-AD05	2014 03 05	20.9 - 20.9	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-24-18-AD05	2014 03 05	24.7 - 24.7	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
BH14-25	BH14-25-01-AD05	2014 03 06	2.0 - 2.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-25-06-AD05	2014 03 06	9.9 - 9.9	-	< 0.1[a]	-	0.28	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-25-09-AD05	2014 03 06	12.8 - 12.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-25-09A-AD05	Duplicate	12.8 - 12.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
Federal Guideline																									
CCME CEQG Residential Land Use (RL)					0.013	n/a	n/a	320	0.28	0.25	0.046	2.5	15.4	7.7	1	6.2	1	1	1	0.6	1	1	n/a	5.3	1
BC Standard																									
CSR Residential Land Use (RL) (sample depth < 3.0m)[c]					5	n/a	n/a	n/a	n/a	n/a	5	n/a	n/a	10	1	n/a	1	1	1	1	1	1	n/a	n/a	n/a
CSR Commercial Land Use (CL) (sample depth > 3.0m)[c]					50	n/a	n/a	n/a	n/a	n/a	50	n/a	n/a	100	10	n/a	10	10	10	10	10	10	n/a	n/a	n/a

Associated Maxxam file(s): B645259.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.
[c] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

TABLE 2 (Cont'd): Summary of Analytical Results for PAHs in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Field Screen[b] (ppm)	Polycyclic Aromatic Hydrocarbons																				
					Naphthalene µg/g	1-Methylnaphthalene µg/g	2-Methylnaphthalene µg/g	Acenaphthylene µg/g	Acenaphthene µg/g	Fluorene µg/g	Phenanthrene µg/g	Anthracene µg/g	Fluoranthene µg/g	Pyrene µg/g	Benzo(a) anthracene µg/g	Chrysene µg/g	Benzo(b) fluoranthene µg/g	Benzo(b+j) fluoranthene µg/g	Benzo(k) fluoranthene µg/g	Benzo(a) pyrene µg/g	Indeno(1,2,3-cd) pyrene µg/g	Dibenz(a,h) anthracene µg/g	Benzo(g,h,i) perylene µg/g	B(a)P TPE µg/g	Index of Additive Cancer Risk µg/g
BH14-26	BH14-26-23-AD05	2014 03 07	32.8 - 32.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
BH14-27	BH14-27-01-AD05	2014 03 06	1.5 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-27-06-AD05	2014 03 06	7.8 - 7.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-27-10-AD05	2014 03 07	12.7 - 12.7	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.12	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-27-10A-AD05	Duplicate	12.7 - 12.7	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.3[a]	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	BH14-27-11-AD05	2014 03 07	13.1 - 13.1	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
BH14-28	BH14-28-01-AD05	2014 03 07	0.9 - 0.9	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-28-07-AD05	2014 03 07	12.8 - 12.8	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	BH14-28-10-AD05	2014 03 07	15.9 - 15.9	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
SS14-01	SS14-01-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-01-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-01-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
SS14-02	SS14-02-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-02-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-02-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
SS14-03	SS14-03-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-D1-01-AD05	Duplicate	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	SS14-03-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-03-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
SS14-04	SS14-04-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-04-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-04-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
SS14-05	SS14-05-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-05-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-05-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
SS14-06	SS14-06-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-06-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-06-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
SS14-07	SS14-07-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-07-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-07-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
SS14-08	SS14-08-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-08-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-08-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-D2-01-AD05	Duplicate	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
SS14-09	SS14-09-01-AD05	2014 02 20	0.0 - 0.5	-	***0.1***	-	0.2	< 0.1	< 0.1	< 0.1	***0.074***	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-09-02-AD05	2014 02 20	0.5 - 1.0	-	***0.13***	-	0.24	< 0.1	< 0.1	< 0.1	***0.11***	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-D3-01-AD05	Duplicate	0.5 - 1.0	-	***0.067***	-	0.14	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				64	-	53	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	SS14-09-03-AD05	2014 02 20	1.0 - 1.5	-	***0.11***	-	0.21	< 0.1	< 0.1	< 0.1	***0.074***	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
SS14-10	SS14-10-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-10-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-10-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
SS14-11	SS14-11-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-11-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-11-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
SS14-12	SS14-12-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-12-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-D4-01-AD05	Duplicate	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	SS14-12-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
SS14-13	SS14-13-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-13-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-13-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
SS14-14	SS14-14-01-AD05	2014 02 20	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-14-02-AD05	2014 02 20	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-14-03-AD05	2014 02 20	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-D5-01-AD05	Duplicate	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
Federal Guideline																									
CCME CEQG Residential Land Use (RL)					0.013	n/a	n/a	320	0.28	0.25	0.046	2.5	15.4	7.7	1	6.2	1	1	1	0.6	1	1	n/a	5.3	1
BC Standard																									
CSR Residential Land Use (RL) (sample depth < 3.0m)[c]					5	n/a	n/a	n/a	n/a	n/a	5	n/a	n/a	10	1	n/a	1	1	1	1	1	1	n/a	n/a	n/a
CSR Commercial Land Use (CL) (sample depth > 3.0m)[c]					50	n/a	n/a	n/a	n/a	n/a	50	n/a	n/a	100	10	n/a	10	10	10	10	10	10	n/a	n/a	n/a

Associated Maxxam file(s): B645259.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.
[c] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

TABLE 2 (Cont'd): Summary of Analytical Results for PAHs in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Field Screen[b] (ppm)	Polycyclic Aromatic Hydrocarbons																				
					Naphthalene µg/g	1-Methylnaphthalene µg/g	2-Methylnaphthalene µg/g	Acenaphthylene µg/g	Acenaphthene µg/g	Fluorene µg/g	Phenanthrene µg/g	Anthracene µg/g	Fluoranthene µg/g	Pyrene µg/g	Benzo(a) anthracene µg/g	Chrysene µg/g	Benzo(b) fluoranthene µg/g	Benzo(b+j) fluoranthene µg/g	Benzo(k) fluoranthene µg/g	Benzo(a) pyrene µg/g	Indeno(1,2,3-cd) pyrene µg/g	Dibenz(a,h) anthracene µg/g	Benzo(g,h,i) perylene µg/g	B(a)P TPE µg/g	Index of Additive Cancer Risk µg/g
SS14-15	SS14-15-01-AD05	2014 02 21	0.0 - 0.5	-	***0.074***	-	0.13	< 0.1	< 0.1	< 0.1	***0.056***	< 0.1	< 0.1	0.091	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-15-02-AD05	2014 02 21	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-15-03-AD05	2014 02 21	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-D6-01-AD05	Duplicate	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
SS14-16	SS14-16-01-AD05	2014 02 21	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-16-02-AD05	2014 02 21	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-16-03-AD05	2014 02 21	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-D7-01-AD05	Duplicate	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
SS14-17	SS14-17-01-AD05	2014 02 21	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-17-02-AD05	2014 02 21	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-17-03-AD05	2014 02 21	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
SS14-18	SS14-18-01-AD05	2014 02 21	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-18-02-AD05	2014 02 21	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-18-03-AD05	2014 02 21	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
SS14-19	SS14-19-01-AD05	2014 02 21	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-19-02-AD05	2014 02 21	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-19-03-AD05	2014 02 21	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
SS14-20	SS14-20-01-AD05	2014 02 21	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-20-02-AD05	2014 02 21	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-20-03-AD05	2014 02 21	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
SS14-21	SS14-21-01-AD05	2014 02 21	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-21-02-AD05	2014 02 21	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-21-03-AD05	2014 02 21	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
SS14-22	SS14-22-01-AD05	2014 02 21	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-D8-01-AD05	Duplicate	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	SS14-22-02-AD05	2014 02 21	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-22-03-AD05	2014 02 21	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
SS14-23	SS14-23-01-AD05	2014 02 21	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	0.062	0.48	0.41	0.25	0.24	-	0.32	0.11	0.25	0.15	< 0.1	0.17	0.39	***4.5***
	SS14-23-02-AD05	2014 02 21	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-23-03-AD05	2014 02 21	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
SS14-24	SS14-24-01-AD05	2014 02 21	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-24-02-AD05	2014 02 21	0.5 - 1.0	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	SS14-24-03-AD05	2014 02 21	1.0 - 1.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
FIRE14BKSS1	FIRE14BKSS1	2014 03 01	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
FIRE14BKSS2	FIRE14BKSS2	2014 03 02	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.23	< 0.1	< 0.1	< 0.1	0.3	***1.7***
FIRE14BKSS3	FIRE14BKSS3	2014 03 02	0.0 - 0.5	-	***0.051***	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.14	< 0.1	< 0.1	< 0.1	0.21	***1.4***
FIRE14SS4	FIRE14SS4	2014 02 28	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	***0.066***	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.25	< 0.1	< 0.1	< 0.1	0.32	***1.7***
FIRE14SS5	FIRE14SS5	2014 03 01	0.0 - 0.5	-	***0.057***	-	0.1	< 0.1	< 0.1	< 0.1	***0.053***	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
FIRE14SS6	FIRE14SS6	2014 03 01	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
FIRE14SS8	FIRE14SS8	2014 03 01	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	FIRE14-DUP1	Duplicate	0.0 - 0.5	-	< 0.1[a]	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1[a]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 1.2[a]
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
BH16	BH16-2	2004 11 23	2.6 - 2.6	-	< 0.5[a]	-	-	-	-	-	< 0.5[a]	-	-	< 0.5	< 0.5	-	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	-
BH16-01	BH16-01-1	2016 03 14	0.3 - 0.6	100	***0.05***	-	0.093	< 0.0050	< 0.0050	< 0.020	0.029	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
	BH16-01-2	2016 03 14	0.9 - 1.2	25	< 0.010	-	< 0.020	< 0.0050	< 0.0050	< 0.020	< 0.010	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
	BH16-01-3	Duplicate	0.9 - 1.2	25	< 0.010	-	< 0.020	< 0.0050	< 0.0050	< 0.020	< 0.010	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	BH16-01-5	2016 03 14	11.6 - 11.9	25	< 0.010	-	< 0.020	< 0.0050	< 0.0050	< 0.020	< 0.010	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
BH16-02	BH16-02-1	2016 03 07	0.5 - 0.8	250	< 0.033[a]	-	< 0.067	< 0.0050	< 0.082	< 0.15	***0.5***	< 0.0040	0.39	0.81	< 0.020	0.022	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
	BH16-02-2	2016 03 07	2.0 - 2.3	150	< 0.010	-	< 0.072	< 0.0050	0.058	***0.31***	***0.44***	< 0.049	0.053	0.11	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
BH16-03	BH16-03-1	2016 03 07	0.5 - 0.6	25	< 0.010	-	< 0.020	< 0.0050	< 0.0050	< 0.020	< 0.010	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
	BH16-03-2	2016 03 07	1.5 - 1.8	25	< 0.010	-	< 0.020	< 0.0050	< 0.0050	< 0.020	< 0.010	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
	BH16-03-3	Duplicate	1.5 - 1.8	25	< 0.010	-	< 0.020	< 0.0050	< 0.0050	< 0.020	< 0.010	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
BH16-04	BH16-04-2	2016 03 14	0.6 - 0.9	25	< 0.010	-	< 0.020	< 0.0050	< 0.0050	< 0.020	< 0.010	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
	BH16-04-3	2016 03 14	1.5 - 2.1	25	< 0.010	-	< 0.020	< 0.0050	< 0.0050	< 0.020	< 0.010	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
	BH16-04-4	2016 03 14	4.3 - 4.6	5	< 0.010	-	< 0.020	< 0.0050	< 0.0050	< 0.020	< 0.010	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
BH16-05	BH16-05-1	2016 03 15	0.2 - 0.5	200	***0.53***	-	1.6	< 0.0050	0.036	0.16	***0.11***	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
	BH16-05-3	2016 03 15	1.5 - 2.0	125	***0.18***	-	0.57	< 0.0050	0.0079	0.059	***0.05***	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
	BH16-05-4	2016 03 15	4.1 - 4.6	25	***0.19***	-	0.63	< 0.0050	< 0.0082	0.06	***0.051***	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
	BH16-05-7	2016 03 15	15.8 - 16.2	-	< 0.010	-	< 0.020	< 0.0050	< 0.0050	< 0.020	< 0.010	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
BH16-06	BH16-06-1	2016 03 07	0.5 - 0.6	75	< 0.010	-	< 0.020	< 0.0050	< 0.0050	< 0.020	< 0.010	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
Federal Guideline																									
CCME CEQG Residential Land Use (RL)					0.013	n/a	n/a	320	0.28	0.25	0.046	2.5	15.4	7.7	1	6.2	1	1	1	0.6	1	1	n/a	5.3	1
BC Standard																									
CSR Residential Land Use (RL) (sample depth < 3.0m)[c]					5	n/a	n/a	n/a	n/a	n/a	5	n/a	n/a	10	1	n/a	1	1	1	1	1	1	n/a	n/a	n/a
CSR Commercial Land Use (CL) (sample depth > 3.0m)[c]					50	n/a	n/a	n/a	n/a	n/a	50	n/a	n/a	100	10	n/a	10	10	10	10	10	10	n/a	n/a	n/a

Associated Maxxam file(s): B645259.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.
[c] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

TABLE 2 (Cont'd): Summary of Analytical Results for PAHs in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Field Screen[b] (ppm)	Polycyclic Aromatic Hydrocarbons																				
					Naphthalene µg/g	1-Methylnaphthalene µg/g	2-Methylnaphthalene µg/g	Acenaphthylene µg/g	Acenaphthene µg/g	Fluorene µg/g	Phenanthrene µg/g	Anthracene µg/g	Fluoranthene µg/g	Pyrene µg/g	Benzo(a) anthracene µg/g	Chrysene µg/g	Benzo(b) fluoranthene µg/g	Benzo(b+j) fluoranthene µg/g	Benzo(k) fluoranthene µg/g	Benzo(a) pyrene µg/g	Indeno(1,2,3-cd) pyrene µg/g	Dibenz(a,h) anthracene µg/g	Benzo(g,h,i) perylene µg/g	B(a)P TPE µg/g	Index of Additive Cancer Risk µg/g
BH16-07	BH16-07-1	2016 03 07	1.2 - 1.5	11,000	< 0.019[a]	-	< 0.086	< 0.0050	< 0.88[a]	***1.8***	***1.2***	< 0.0067	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
	BH16-07-2	2016 03 07	2.0 - 2.3	425	< 0.010	-	< 0.069	< 0.032	0.14	***0.37***	***0.18***	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
BH16-08	BH16-08-1	2016 03 07	1.5 - 1.8	25	< 0.010	-	< 0.020	< 0.0050	< 0.0050	< 0.020	< 0.010	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
BH16-09	BH16-09-1	2016 03 07	1.5 - 1.8	150	***0.045***	-	0.032	< 0.0050	< 0.0050	< 0.020	< 0.010	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
BH16-10	BH16-10-1	2016 03 07	1.5 - 1.8	5	< 0.010	-	< 0.020	< 0.0050	< 0.0050	< 0.020	< 0.010	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
	BH16-10-2	2016 03 07	3.0 - 3.4	25	< 0.010	-	< 0.020	< 0.0050	< 0.0050	< 0.020	< 0.010	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
BH16-12	BH16-12-1	2016 03 11	0.9 - 1.2	75	< 0.010	-	< 0.020	< 0.0050	< 0.0050	< 0.020	< 0.010	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
	BH16-12-2	2016 03 11	5.5 - 5.8	5	0.013	-	< 0.020	0.014	0.016	0.022	***0.11***	0.076	0.89	0.54	0.37	0.49	-	0.6	0.18	0.29	0.1	< 0.050	0.1	0.44	***7.2***
	BH16-12-3	2016 03 11	10.1 - 10.4	-	< 0.010	-	< 0.020	< 0.0050	< 0.0050	< 0.020	< 0.010	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
	BH16-12-9	2016 03 12	20.7 - 21.0	-	< 0.23[a]	-	1.5	< 0.29	< 0.11	< 0.59[a]	***0.89***	< 0.072	< 0.020	0.028	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
	BH16-12-10	Duplicate	20.7 - 21.0	-	< 0.21[a]	-	1.4	< 0.043	< 0.096	***0.55***	***0.81***	< 0.063	< 0.020	0.025	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
	QA/QC RPD%				*	-	7	*	*	*	9	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	BH16-12-13	2016 03 13	30.0 - 30.3	-	< 0.010	-	< 0.020	< 0.0050	< 0.0050	< 0.020	< 0.010	< 0.0040	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.050	< 0.050	< 0.050	< 0.10	0.31
BH16-13	BH16-13-03	2016 06 01	3.0 - 3.2	220	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-13-04	Duplicate	3.0 - 3.2	330	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	BH16-13-06	2016 06 01	7.9 - 8.1	40	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
BH16-14	BH16-14-01	2016 06 01	2.0 - 2.1	40	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-14-03	2016 06 01	7.9 - 8.1	30	< 0.01	-	0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
BH16-15	BH16-15-01	2016 06 01	1.5 - 1.7	130	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-15-02	2016 06 01	3.0 - 3.2	55	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-15-03	2016 06 01	7.9 - 8.1	75	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-15-04	Duplicate	7.9 - 8.1	75	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
BH16-16	BH16-16-01	2016 06 01	1.8 - 2.0	90	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-16-03	2016 06 02	8.1 - 8.2	250	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
BH16-17	BH16-17-01	2016 06 02	2.0 - 2.1	0	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-17-04	2016 06 02	7.9 - 8.1	0	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
BH16-18	BH16-18-01	2016 06 02	2.0 - 2.1	200	< 0.01	-	0.034	< 0.005	0.043	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-18-03	2016 06 02	8.1 - 8.2	15	< 0.01	-	< 0.02	< 0.005	0.0057	< 0.02	0.024	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-18-04	Duplicate	8.1 - 8.2	15	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	0.024	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	BH16-18-05	2016 06 02	10.1 - 10.2	410	< 0.01	-	0.056	< 0.005	0.08	< 0.02	< 0.01	0.0048	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-18-06	2016 06 02	14.0 - 14.2	0	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
BH16-19	BH16-19-01	2016 06 02	2.0 - 2.1	35	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-19-03	2016 06 02	7.9 - 8.1	0	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-19-04	2016 06 02	9.3 - 9.4	15	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
BH16-20	BH16-20-01	2016 06 03	1.2 - 1.4	170	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-20-02	2016 06 03	2.7 - 2.9	15	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
BH16-21	BH16-21-01	2016 06 03	1.2 - 1.4	20	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-21-02	2016 06 03	2.7 - 2.9	20	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
BH16-22	BH16-22-01	2016 06 03	1.2 - 1.4	85	< 0.01	-	< 0.02	< 0.005	0.0058	< 0.02	< 0.01	0.02	< 0.02	0.2	< 0.02	0.17	-	0.061	< 0.02	0.059	< 0.05	< 0.05	0.054	0.097	0.84
BH16-23	BH16-23-01	2016 06 03	0.9 - 1.1	25	< 0.01	-	< 0.02	0.022	< 0.005	< 0.02	0.024	0.053	0.19	0.23	0.087	0.38	-	0.66	0.21	0.41	0.37	0.066	0.59	0.62	***7.5***
BH16-24	BH16-24-01	2016 06 03	0.6 - 0.8	15	< 0.01	-	0.043	< 0.005	0.0062	< 0.02	0.016	0.0043	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
BH16-25	BH16-25-01	2016 06 03	1.1 - 1.2	35	< 0.01	-	< 0.02	0.027	0.038	< 0.02	0.023	0.016	0.13	0.25	0.061	0.15	-	0.2	0.068	0.13	0.081	< 0.05	0.12	0.2	***2.4***
BH16-26	BH16-26-01	2016 06 03	0.5 - 0.6	-	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
BH16-27	BH16-27-01	2016 06 03	0.5 - 0.6	-	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
BH16-28	BH16-28-01	2016 06 03	0.5 - 0.6	-	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	0.014	< 0.004	< 0.02	0.023	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-28-02	2016 06 03	3.0 - 3.2	-	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
BH16-29	BH16-29-01	2016 06 03	1.2 - 1.4	-	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	0.012	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-29-02	2016 06 03	2.9 - 3.0	-	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
BH16-30	BH16-30-01	2016 06 03	1.1 - 1.2	20	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-30-02	2016 06 03	2.7 - 2.9	10	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
BH16-31	BH16-31-01	2016 06 03	0.5 - 0.6	-	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-31-02	2016 06 03	2.7 - 2.9	-	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-31-03	Duplicate	2.7 - 2.9	-	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
BH16-32	BH16-32-01	2016 06 03	0.8 - 0.9	450	***0.038***	-	< 0.02	< 0.005	0.014	< 0.02	0.045	0.021	0.025	0.16	< 0.02	0.13	-	0.028	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.044	0.48
	BH16-32-02	2016 06 03	2.7 - 2.9	30	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
BH16-33	BH16-33-01	2016 06 03	0.5 - 0.6	-	***0.018***	-	< 0.02	0.0072	0.12	0.2	***0.049***	0.22	0.45	1.7	0.061	0.32	-	0.17	0.032	0.1	0.072	< 0.05	0.12	0.17	***2***
	BH16-33-02	Duplicate	0.5 - 0.6	-	< 0.05[a]	-	< 0.1	0.07	***1.7***	***0.33***	***0.28***	0.25	0.44	2.3	< 0.1	0.38	-	0.15	< 0.1	0.12	< 0.25	< 0.25	< 0.25	0.28	***2.5***
	QA/QC RPD%				*	-	*	*	174	49	*	13	2	30	*	17	-	13	*	18	*	*	*	49	22
	BH16-33-03	2016 06 03	2.7 - 2.9	-	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
BH16-34	BH16-34-01	2016 06 03	0.5 - 0.6	320	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-34-02	Duplicate	0.5 - 0.6	320	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	QA/QC RPD%				*	-	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	BH16-34-03	2016 06 03	2.7 - 2.9	10	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
BH16-35	BH16-35-01	2016 06 03	0.5 - 0.6	-	< 0.01	-	< 0.02	0.011	0.062	0.14	***0.35***	0.17	0.078	0.95	0.061	0.34	-	0.071	< 0.02	0.042	< 0.05	< 0.05	< 0.05	0.087	***1.1***
	BH16-35-03	2016 06 03	2.7 - 2.9	-	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
BH16-36	BH16-36-01	2016 06 03	0.5 - 0.6	480	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-36-03	2016 06 03	2.7 - 3.0	10	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
Federal Guideline																									
CCME CEQG Residential Land Use (RL)					0.013	n/a	n/a	320	0.28	0.25	0.046	2.5	15.4	7.7	1	6.2	1	1	1	0.6	1	1	n/a	5.3	1
BC Standard																									
CSR Residential Land Use (RL) (sample depth < 3.0m)[c]					5	n/a	n/a	n/a	n/a	n/a	5	n/a	n/a	10	1	n/a	1	1	1	1	1	1	n/a	n/a	n/a
CSR Commercial Land Use (CL) (sample depth > 3.0m)[c]					50	n/a	n/a	n/a	n/a	n/a	50	n/a	n/a	100	10	n/a	10	10	10	10	10	10	n/a	n/a	n/a

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- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.
[c] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

TABLE 2 (Cont'd): Summary of Analytical Results for PAHs in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Field Screen[b] (ppm)	Polycyclic Aromatic Hydrocarbons																				
					Naphthalene µg/g	1-Methylnaphthalene µg/g	2-Methylnaphthalene µg/g	Acenaphthylene µg/g	Acenaphthene µg/g	Fluorene µg/g	Phenanthrene µg/g	Anthracene µg/g	Fluoranthene µg/g	Pyrene µg/g	Benzo(a) anthracene µg/g	Chrysene µg/g	Benzo(b) fluoranthene µg/g	Benzo(b+j) fluoranthene µg/g	Benzo(k) fluoranthene µg/g	Benzo(a) pyrene µg/g	Indeno(1,2,3-cd) pyrene µg/g	Dibenz(a,h) anthracene µg/g	Benzo(g,h,i) perylene µg/g	B(a)P TPE µg/g	Index of Additive Cancer Risk µg/g
BH16-37	BH16-37-01	2016 06 04	0.6 - 0.8	620	< 0.01	-	< 0.02	< 0.005	0.029	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-37-06	2016 06 04	7.9 - 8.1	10	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-37-07	2016 06 04	11.0 - 11.1	590	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-37-10	2016 06 04	20.1 - 20.3	190	< 0.01	-	0.048	< 0.005	0.055	0.062	***0.28***	0.0068	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-37-11	Duplicate	20.1 - 20.3	190	< 0.01	-	0.079	0.013	< 0.005	0.03	***0.18***	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	QA/QC RPD%				*	-	*	*	*	*	43	*	*	*	*	*	-	*	*	*	*	*	*	*	*
	BH16-37-12	2016 06 04	21.9 - 22.1	295	< 0.01	-	0.044	< 0.005	< 0.005	0.024	0.027	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-37-13	2016 06 04	23.9 - 24.1	35	< 0.01	-	< 0.02	< 0.005	0.011	0.056	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
BH16-38	BH16-38-01	2016 06 05	1.1 - 1.2	240	***0.066***	-	0.2	< 0.005	< 0.005	< 0.02	0.012	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-38-04	2016 06 05	7.5 - 7.6	150	< 0.01	-	< 0.02	< 0.005	< 0.005	< 0.02	< 0.01	< 0.004	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-38-10	2016 06 05	32.6 - 32.8	560	***0.017***	-	0.1	0.11	0.059	0.25	***0.89***	< 0.004	< 0.02	0.037	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
	BH16-38-11	2016 06 05	32.6 - 32.8	560	***0.15***	-	0.075	0.032	0.061	0.25	***0.91***	0.13	< 0.02	0.035	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	0.041	0.31
Federal Guideline																									
CCME CEQG Residential Land Use (RL)					0.013	n/a	n/a	320	0.28	0.25	0.046	2.5	15.4	7.7	1	6.2	1	1	1	0.6	1	1	n/a	5.3	1
BC Standard																									
CSR Residential Land Use (RL) (sample depth < 3.0m)[c]					5	n/a	n/a	n/a	n/a	n/a	5	n/a	n/a	10	1	n/a	1	1	1	1	1	1	n/a	n/a	n/a
CSR Commercial Land Use (CL) (sample depth > 3.0m)[c]					50	n/a	n/a	n/a	n/a	n/a	50	n/a	n/a	100	10	n/a	10	10	10	10	10	10	n/a	n/a	n/a

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* RPDs are not calculated where one or more concentrations are less than five times RDL.

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.
[c] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

TABLE 3: Summary of Analytical Results for Metals in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Phys	Total Metals																				
				pH pH	Antimony µg/g	Arsenic µg/g	Barium µg/g	Beryllium µg/g	Cadmium µg/g	Chromium µg/g	Cobalt µg/g	Copper µg/g	Lead µg/g	Lithium µg/g	Manganese µg/g	Mercury µg/g	Molybdenum µg/g	Nickel µg/g	Selenium µg/g	Silver µg/g	Strontium µg/g	Thallium µg/g	Tin µg/g	Uranium µg/g	Vanadium µg/g	Zinc µg/g
TP-05	FS-05-1.0	2002 10 05	1.0 - 1.0	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-
TP-06	FS-06-1.0	2002 10 05	1.0 - 1.0	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
TP-12	FS-12-0.5	2002 10 05	0.5 - 0.5	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-
TP-16	FS-16-0.5	2002 10 05	0.5 - 0.5	-	-	-	-	-	-	-	-	-	66	-	-	-	-	-	-	-	-	-	-	-	-
TP-22	FS-22-0.5	2002 10 05	0.5 - 0.5	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-	-	-	-	-	-
	FS-22A-0.5	Duplicate	0.5 - 0.5	-	-	-	-	-	-	-	-	-	17	-	-	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%			-	-	-	-	-	-	-	-	-	*	-	-	-	-	-	-	-	-	-	-	-	-
TP-35	FS-35-1.0	2002 10 05	1.0 - 1.0	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-
BH15	BH15-1	2004 11 23	0.5 - 0.5	-	< 10	< 10	181	< 1	-	33	8	-	-	-	-	0.05	< 4	26	0.3	< 2	-	-	< 5	-	22	-
BH24	BH24-1	2004 11 26	0.5 - 0.5	-	< 10	< 10	161	< 1	-	28	11	-	-	-	-	0.02	< 4	29	0.3	< 2	-	-	< 5	-	29	-
	GR7(BH24-1)	Duplicate	0.5 - 0.5	-	< 10	< 10	124	< 1	-	23	9	-	-	-	-	0.05	< 4	28	0.3	< 2	-	-	< 5	-	24	-
	QA/QC RPD%			-	*	*	26	*	-	20	20	-	-	-	-	*	*	4	*	*	-	-	*	-	19	-
BH29	BH29-1	2004 11 27	0.5 - 0.5	***8.6***	< 2	3.9	146	0.22	< 0.5	14.6	4.6	11	5.1	-	-	0.015	1.6	19.4	< 0.4	< 0.5	-	-	< 2	-	22.4	36.6
BH37	BH37-1	2004 11 29	0.6 - 0.6	-	< 10	< 10	139	< 1	-	31	9	-	-	-	-	0.02	< 4	32	0.3	< 2	-	-	< 5	-	29	-
BH42	BH42-1	2004 11 29	0.9 - 0.9	***8.3***	< 2	4.7	169	0.32	< 0.5	26	6.8	10.6	8.8	-	-	0.03	1.6	23.1	< 0.4	< 0.5	-	-	< 2	-	27.2	45
BH49	BH49-1	2004 11 29	0.3 - 0.3	-	< 10	< 10	139	< 1	-	13	6	-	-	-	-	0.03	< 4	18	0.5	< 2	-	-	< 5	-	19	-
BH53	BH53-1	2004 11 30	1.5 - 1.5	-	< 10	< 10	135	< 1	-	25	10	-	-	-	-	0.07	< 4	34	0.3	< 2	-	-	< 5	-	25	-
BH60	BH60-1	2004 12 11	1.5 - 1.5	-	< 10	< 10	128	< 1	-	21	8	-	-	-	-	0.04	< 4	28	0.3	< 2	-	-	< 5	-	23	-
BH97	BH97-1	2005 03 17	0.3 - 0.3	-	< 10	< 10	188	< 1	-	29	10	-	-	-	-	0.07	< 4	31	0.4	< 2	-	-	< 5	-	29	-
	BH97-2	2005 03 17	1.5 - 1.5	-	< 10	< 10	91	< 1	-	17	6	-	-	-	-	0.03	< 4	23	0.2	< 2	-	-	< 5	-	18	-
SS4	SS4	2005 11 08	0.0 - 0.1	7.6	< 0.1	< 10	144	< 1	< 1	10	5	20	23	-	190	0.022	< 0.01	15	0.3	< 0.2	69	-	< 2	-	16	126
Pile 1	Pile 1	2005 12 09	0.0 - 0.1	***8.6***	< 10	< 30[a]	18.1	-	< 3	< 2	< 1	3	< 4	-	69.9	-	< 2	< 2	-	< 2	19	-	< 5	-	1	7
MR1	MR-1	2006 07 29	0.0 - 0.2	6.4	< 0.1	3.5	140	< 1	< 0.2	31	6	7	5.1	-	197	0.01	0.5	21	< 0.2	< 0.1	13	< 0.1	< 5	-	40	33
MR2	MR-2	2006 07 29	0.0 - 0.2	6.6	< 0.1	4.1	97	< 1	< 0.2	31	7	10	5.3	-	301	0.02	0.5	31	0.2	< 0.1	9	< 0.1	< 5	-	33	33
MR3	MR-3	2006 07 29	0.0 - 0.2	6.7	< 0.1	1.2	128	< 1	< 0.2	25	5	6	11.5	-	110	0.02	0.4	18	0.4	< 0.1	12	0.1	< 5	-	21	47
MR4	MR-4	2006 07 29	0.0 - 0.2	***5.7***	< 0.1	3.6	154	< 1	***23.1***	20	5	9	65.6	-	248	0.03	0.5	16	0.3	< 0.1	14	< 0.1	< 5	-	26	***294***
	GR2	Duplicate	0.0 - 0.2	***5.5***	< 0.1	3.6	169	< 1	***33***	22	6	10	87.5	-	259	0.03	0.6	17	0.3	0.1	16	< 0.1	< 5	-	28	***270***
	QA/QC RPD%			*	*	*	9	*	35	10	18	11	29	-	4	*	18	6	*	*	13	*	*	-	7	9
MR5	MR-5	2006 07 29	0.0 - 0.2	6.5	< 0.1	6.1	81	< 1	< 0.2	24	6	9	9.2	-	151	0.04	0.5	22	0.4	< 0.1	14	< 0.1	< 5	-	28	46
RES1	25-66.02-JLM-RES1-	2006 07 29	0.6 - 0.6	***8.1***	< 0.1	5.5	119	< 1	0.3	23	7	15	10.4	-	329	0.05	0.8	24	0.3	< 0.1	27	< 0.1	< 5	-	26	52
RES2	25-66.02-JLM-RES2-	2006 07 29	0.0 - 0.1	7.9	0.6	5.1	159	< 1	0.5	11	5	16	7	-	262	0.08	1.1	17	0.4	0.1	32	< 0.1	< 5	-	20	57
RES3	25-66.02-JLM-RES3-	2006 07 29	0.0 - 0.1	***8.5***	< 0.1	5.3	139	< 1	0.4	19	7	14	9	-	428	0.06	0.8	24	0.5	< 0.1	77	< 0.1	< 5	-	26	54
RES4	25-66.02-JLM-RES4-	2006 07 29	0.0 - 0.1	***8***	< 0.1	5.2	140	< 1	< 0.2	21	7	12	9.2	-	252	0.04	0.5	22	0.3	< 0.1	30	< 0.1	< 5	-	26	46
RES5	25-66.02-JLM-RES5-	2006 07 29	0.0 - 0.2	***8.2***	< 0.1	5.6	160	< 1	0.3	22	7	15	20.1	-	237	0.05	0.7	21	0.4	< 0.1	27	< 0.1	< 5	-	28	53
	125-66.02-JLM-GR1	Duplicate	0.0 - 0.2	***8.2***	< 0.1	5.6	175	< 1	0.3	23	8	15	21.2	-	257	0.05	0.8	21	0.4	< 0.1	27	< 0.1	< 5	-	29	56
	QA/QC RPD%			*	*	0	9	*	0	4	13	0	5	-	8	0	13	0	*	*	0	*	*	-	4	6
RES6	25-66.02-JLM-RES6-	2006 07 29	0.0 - 0.1	***8.3***	< 0.1	4.5	120	< 1	0.2	18	6	14	15.6	-	448	0.05	0.6	22	0.4	0.1	44	< 0.1	< 5	-	23	70
RES7	25-66.02-JLM-RES7-	2006 07 29	0.0 - 0.2	***8.3***	2.5	4	127	< 1	0.2	17	5	12	***665***	-	247	0.05	0.6	18	0.3	< 0.1	37	< 0.1	< 5	-	22	46
RES8	25-66.02-JLM-RES8-	2006 07 29	0.0 - 0.1	***8.2***	0.7	5.9	200	< 1	0.6	15	6	16	11.4	-	428	0.06	1.3	22	0.7	0.1	113	< 0.1	< 5	-	23	66
GARDEN1	Garden 1	2006 08 19	0.0 - 0.1	7.9	1.3	7.9	***813***	< 1	2	14	5	25	11.7	-	203	0.08	5	40	***3.5***	0.4	55	0.2	< 5	-	30	141
	Garden 1A	2009 10 18	0.0 - 0.1	7.8	< 10	< 10	***869***	< 1	2	16	6	30	13	-	-	0.1	7	***47***	< 2[a]	< 2	-	-	< 5	-	32	155
	FSGR3	Duplicate	0.0 - 0.1	8	< 10	< 10	***805***	< 1	2	16	6	30	14	-	-	0.09	7	***46***	< 2[a]	< 2	-	-	< 5	-	36	151
	QA/QC RPD%			*	*	*	8	*	0	0	0	0	7	-	-	11	0	2	*	*	-	-	*	-	12	3
	Garden 1B	2009 10 18	0.0 - 0.1	8	< 10	< 10	365	< 1	2	12	6	16	12	-	-	0.04	< 4	27	< 2[a]	< 2	-	-	< 5	-	25	121
GARDEN2	Garden 2	2006 08 19	0.0 - 0.1	7.7	< 0.1	3.3	230	< 1	0.8	21	7	11	10.4	-	242	0.02	0.4	21	***1.2***	0.1	35	< 0.1	< 5	-	24	75
RES9	Res 9-1	2009 10 18	0.0 - 0.1	***8.8***	< 0.1	2.9	92	< 1	< 0.2	8	3	9	5.5	-	184	0.02	0.5	11	0.3	< 0.1	59	< 0.1	< 5	-	13	31
RES10	Res 10-1	2009 10 18	0.0 - 0.1	***8.1***	0.6	2.9	104	< 1	0.2	8	3	11	7.4	-	200	0.03	0.5	11	0.4	< 0.1	60	< 0.1	< 5	-	12	42
RES11	Res 11-1	2009 10 18	0.0 - 0.1	***8.6***	< 0.1	2.8	89	< 1	< 0.2	9	3	13	5.2	-	167	0.03	0.4	12	0.3	< 0.1	64	< 0.1	< 5	-	13	33
BH127	BH127-1	2010 08 26	0.5 - 0.8	***8.17***	< 10	5.1	235	< 0.5	< 0.5	18.2	6.3	15.4	< 30	-	-	< 0.05	< 4	20.8	< 2.8[a]	< 2	-	-	< 5	-	21.5	66.8
	BH127-2	2010 08 26	1.1 - 1.4	6.78	< 10	10.7	276	0.71	< 0.5	34.6	11.4	15.1	< 30	-	-	< 0.05	< 4	32.6	< 2[a]	< 2	-	-	< 5	-	38.1	71.2
	GR2	Duplicate	1.1 - 1.4	6.64	< 10	10.7	279	0.74	< 0.5	34.6	11.4	17.3	< 30	-	-	< 0.05	< 4	35.1	< 2[a]	< 2	-	-	< 5	-	36.8	67.2
	QA/QC RPD%			2	*	0	1	4	*	0	0	14	*	-	-	*	*	7	*	*	-	-	*	-	3	6
BH128	BH128-1	2010 08 26	0.3 - 0.6	***8.61***	< 10	< 5	152	< 0.5	< 0.5	16.3	5.2	14.2	< 30	-	-	< 0.05	< 4	17.8	< 2[a]	< 2	-	-	< 5	-	20.1	57.6
Federal Guideline																										
CCME CEQG Residential Land Use (RL)				6.0 - 8.0	20	12	500	4	10	64	50	63	140	n/a	n/a	6.6	10	45	1	20	n/a	1	50	23	130	200
BC Standard																										
CSR Residential Land Use (RL) (sample depth < 3.0m)[b]				n/a	20	15	400	4	2 - 35[c]	60[d]	50	150	400	1,600	1,800	15	10	100	3	20	47,000	n/a	50	16	200	450
CSR Commercial Land Use (CL) (sample depth > 3.0m)[b]				n/a	40	15	400	8	2 - 100[c]	60[d]	300	250	700	20,000	19,000	40	40	500	10	40	100,000	n/a	300	200	n/a	600

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

\- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.

[b] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

[c] Standard is pH dependent.

[d] Individual standards exist for Cr +3 and Cr +6. Reported value represents more stringent standard.

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

TABLE 3 (Cont'd): Summary of Analytical Results for Metals in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Phys	Total Metals																					
				pH pH	Antimony µg/g	Arsenic µg/g	Barium µg/g	Beryllium µg/g	Cadmium µg/g	Chromium µg/g	Cobalt µg/g	Copper µg/g	Lead µg/g	Lithium µg/g	Manganese µg/g	Mercury µg/g	Molybdenum µg/g	Nickel µg/g	Selenium µg/g	Silver µg/g	Strontium µg/g	Thallium µg/g	Tin µg/g	Uranium µg/g	Vanadium µg/g	Zinc µg/g
BH135	BH135-2	2010 08 27	1.5 - 1.8	***8.77***	< 10	< 5	106	< 0.5	< 0.5	14	4	11.4	< 30	-	-	< 0.05	< 4	17.7	< 2[a]	< 2	-	-	< 5	-	17.3	35.6
	GR4	Duplicate	1.5 - 1.8	***8.69***	< 10	< 5	110	< 0.5	< 0.5	14.4	4.2	11.2	< 30	-	-	< 0.05	< 4	16.9	< 2[a]	< 2	-	-	< 5	-	23.6	30.8
	QA/QC RPD%			1	*	*	4	*	*	3	5	2	*	-	-	*	*	5	*	*	-	-	*	-	31	14
	BH135-3	2010 08 27	2.7 - 3.1	***9.01***	< 10	< 5	116	< 0.5	< 0.5	13.7	4.3	12	< 30	-	-	0.095	< 4	16.5	< 2[a]	< 2	-	-	< 5	-	18.2	28.8
BH12-01	BH12-01-1-AD05	2012 10 14	0.3 - 0.6	7.9	0.55	6.2	223	0.39	0.38	19	6.8	22.6	51.4	-	-	0.04	0.89	20.9	0.5	0.1	-	< 0.05	0.95	-	24	69
	BH12-01-2-AD05	2012 10 14	0.9 - 1.2	7	0.48	7.4	160	0.62	0.11	26	9.2	12.2	9.6	-	-	0.02	0.63	26	< 0.1	< 0.05	-	< 0.05	0.49	-	31	48
	BH12-01-32-AD05	2012 10 14	25.5 - 25.8	***8.8***	0.34	4.1	226	0.25	0.13	24	5	11	4.1	-	-	0.01	0.82	18.7	< 0.1	0.2	-	< 0.05	0.25	-	28	27
	BH12-01-36-AD05	2012 10 14	28.5 - 28.8	***8.9***	0.31	4.3	178	0.21	0.25	47	3.7	12.5	3.2	-	-	0.02	1.95	12.8	< 0.1	0.36	-	< 0.05	0.29	-	22	25
BH12-02	BH12-02-27-AD05	2012 10 15	19.5 - 19.8	8	0.36	2.5	79.8	0.2	0.1	11	3.9	9	3.9	-	-	< 0.01	1.21	13.6	< 0.1	0.05	-	< 0.05	0.16	-	16	29
	BH12-02-28-AD05	Duplicate	19.5 - 19.8	***8.1***	0.41	3.2	92.9	0.24	0.13	13	4.7	11.2	4.5	-	-	0.01	1.48	15.6	< 0.1	0.07	-	< 0.05	0.18	-	21	35
	QA/QC RPD%			1	*	25	15	18	26	17	19	22	14	-	-	*	20	14	*	*	-	*	*	-	27	19
	BH12-02-2-AD05	2012 10 14	0.5 - 0.8	7.2	0.48	8.3	118	0.53	0.09	27	9	10.4	11.2	-	-	< 0.01	1.18	24.7	< 0.1	< 0.05	-	< 0.05	0.45	-	32	57
	BH12-02-30-AD05	2012 10 15	26.4 - 26.7	***8.2***	0.26	2.3	87.1	0.16	0.07	15	2.8	16.3	2.7	-	-	0.02	1.3	10.4	0.2	0.06	-	< 0.05	0.17	-	15	30
	BH12-02-31-AD05	Duplicate	26.4 - 26.7	***9.4***	0.32	2.6	91.6	0.2	0.07	16	3.2	17.4	3.3	-	-	0.01	1.12	10.7	0.1	0.07	-	< 0.05	0.23	-	17	35
	QA/QC RPD%			14	*	*	5	22	0	6	13	7	20	-	-	*	15	3	*	*	-	*	*	-	12	15
	BH12-02-3-AD05	2012 10 14	1.2 - 1.5	***8.6***	0.43	3.9	95.6	0.21	0.13	17	5.1	11.7	5.8	-	-	0.04	0.63	18.1	< 0.1	0.1	-	< 0.05	0.33	-	23	30
SS12-01	SS12-01-AD05	2012 10 20	0.2 - 0.5	6.8	0.24	2.2	178	0.44	0.15	24	5.7	10.8	10.3	-	-	0.02	0.37	20.8	***1.8***	0.13	-	0.11	0.54	-	25	82
SS12-02	SS12-02-AD05	2012 10 20	0.2 - 0.5	6.7	0.14	1.4	279	0.34	0.56	21	4.7	10.1	8.2	-	-	0.01	0.3	18.1	***2.8***	0.13	-	0.13	0.45	-	19	84
SS12-03	SS12-03-AD05	2012 10 20	0.2 - 0.5	6.6	0.13	1.4	252	0.36	0.67	20	4.4	11.6	7.7	-	-	0.02	0.27	17.8	***3.1***	0.14	-	0.14	0.42	-	18	80
SS12-04	SS12-04-AD05	2012 10 20	0.2 - 0.5	6.8	0.37	5.3	139	0.4	0.56	20	8.4	9.4	8.3	-	-	< 0.01	0.73	17.5	0.5	0.08	-	< 0.05	0.4	-	30	121
SS12-05	SS12-05-AD05	2012 10 20	0.2 - 0.5	***5.5***	0.46	6.2	147	0.42	0.52	22	8.3	8.4	8.4	-	-	< 0.01	0.89	20.4	0.4	< 0.05	-	0.05	0.43	-	32	104
SS12-06	SS12-06-AD05	2012 10 20	0.2 - 0.5	7	0.16	1.5	261	0.39	0.57	22	4.4	11.3	10.6	-	-	0.02	0.26	15.5	***6.1***	0.09	-	0.1	0.5	-	21	78
SS12-07	SS12-07-AD05	2012 10 20	0.2 - 0.5	6.6	0.27	1.8	192	0.47	0.48	25	6.6	12.7	10.1	-	-	0.02	0.29	23.7	***2.2***	0.11	-	0.07	0.41	-	24	77
SS12-08	SS12-08-AD05	2012 10 20	0.2 - 0.5	6.5	0.45	5.3	308	0.61	0.25	27	8.3	15.6	10.8	-	-	0.02	0.5	29.8	***1.2***	0.18	-	0.07	0.55	-	33	69
SS12-09	SS12-09-AD05	2012 10 20	0.2 - 0.5	6.7	0.28	5.1	274	0.39	0.34	22	7.4	10.4	27.5	-	-	0.03	0.6	17.3	0.3	0.11	-	0.09	1.88	-	33	106
SS12-10	SS12-10-AD05	2012 10 20	0.2 - 0.5	***5.7***	0.27	7.3	269	0.56	0.05	26	7.1	10.1	10.4	-	-	0.03	0.45	23.6	0.4	0.08	-	0.09	1	-	36	56
BH13-03	BH13-03-23-AD05	2013 03 17	17.9 - 18.1	***8.6***	0.5	2.4	25.1	< 0.5	< 0.5	3.6	2.3	6.2	3	-	-	< 0.5	< 0.5	7.6	< 0.5	< 0.5	-	< 0.5	< 0.5	-	4.4	19
	BH13-03-25-AD05	2013 03 17	19.5 - 19.8	***8.5***	< 0.5	2.3	63.3	< 0.5	< 0.5	5.8	2.7	7.4	3.7	-	-	< 0.5	0.6	8.7	< 0.5	< 0.5	-	< 0.5	< 0.5	-	7.7	20
	BH13-03-33-AD05	2013 03 17	25.7 - 25.9	***8.6***	< 0.5	1.9	35.5	< 0.5	< 0.5	9.5	3.7	7.9	3.9	-	-	< 0.5	0.6	12.6	< 0.5	< 0.5	-	< 0.5	< 0.5	-	8.6	22
	BH13-03-A-AD05	Duplicate	25.7 - 25.9	***8.3***	< 0.5	2.1	35.1	< 0.5	< 0.5	9.8	3.6	7.9	3.6	-	-	< 0.5	0.6	12.4	< 0.5	< 0.5	-	< 0.5	< 0.5	-	8.4	21
	QA/QC RPD%			*	*	*	1	*	*	3	3	0	8	-	-	*	*	2	*	*	-	*	*	-	2	5
	BH13-03-34-AD05	2013 03 17	26.2 - 26.5	***8.7***	< 0.5	1.8	46	< 0.5	< 0.5	9.9	3.2	7.8	4.2	-	-	< 0.5	< 0.5	11.7	< 0.5	< 0.5	-	< 0.5	< 0.5	-	8.3	22
	BH13-03-35-AD05	2013 03 17	26.8 - 27.0	***8.4***	< 0.5	1.6	33.7	< 0.5	< 0.5	6.8	2.6	7.7	3.2	-	-	< 0.5	< 0.5	9.4	< 0.5	< 0.5	-	< 0.5	< 0.5	-	6.1	18
	BH13-03-36-AD05	2013 03 17	28.1 - 28.4	***8.7***	< 0.5	1.2	31.2	< 0.5	< 0.5	6.7	2.5	6.6	3	-	-	< 0.5	0.5	10.7	< 0.5	< 0.5	-	< 0.5	< 0.5	-	6.5	18
TP13-01	TP13-01-1	2013 08 22	0.7 - 1.0	***9.25***	0.39	4.96	103	0.42	0.253	22.6	6.59	12.9	5.64	6.7	360	< 0.1	0.45	24.7	< 1	0.059	17.4	0.071	0.23	0.554	27.8	42.1
	TP13-01-2	2013 08 22	1.7 - 2.0	***8.81***	0.62	6.88	96.7	< 0.8	0.329	23.5	7.68	14.1	7.71	10.3	338	< 0.1	0.72	27.5	< 1	0.06	14	0.096	0.33	0.818	27.6	58.4
TP13-02	TP13-02-1	2013 08 22	0.5 - 1.0	***8.77***	0.53	5.9	126	< 0.8	0.296	20.6	6.96	14.4	7.11	9.3	316	< 0.1	0.61	23.8	< 1	0.064	57.3	0.084	0.3	0.615	26.2	48.7
	TP13-02-2	2013 08 22	1.7 - 2.0	***8.68***	0.61	5.96	135	< 0.8	0.285	20.2	7.34	15.1	59.3	9.5	312	0.066	0.69	24.7	< 1	0.054	28.2	0.082	0.32	0.599	25.7	52.3
TP13-03	TP13-03-1	2013 08 22	0.5 - 1.0	***8.39***	0.55	6.68	120	< 0.8	0.246	26.2	7.38	12.9	22.8	8.6	305	< 0.1	0.62	25.6	< 1	< 0.1	20.9	0.074	0.37	1.31	33.2	49.7
	TP13-03-2	2013 08 22	1.0 - 2.2	***8.35***	0.48	5.62	125	< 0.8	0.254	22.7	6.57	12	11.7	8.2	313	< 0.1	0.64	20.6	< 1	0.052	31.3	0.068	0.38	0.655	27.1	52.7
TP13-04	TP13-04-1	2013 08 22	0.5 - 0.8	***8.33***	0.73	5.52	111	< 0.8	0.29	23.2	6.85	13.6	10.5	8.3	278	< 0.1	0.54	26.2	< 1	< 0.1	15.4	0.068	0.37	1.28	30.9	48.4
TP13-05	TP13-05-1	2013 08 22	0.5 - 0.8	***8.18***	0.48	5.37	103	< 0.8	0.236	20.7	6.45	12.3	7.33	8.2	268	< 0.1	0.58	22.6	< 1	< 0.1	17.2	0.07	0.32	0.616	27.1	46.4
	TP13-05-2	2013 08 22	1.5 - 1.8	***8.35***	0.48	4.99	106	< 0.8	0.245	19.6	6.17	11.7	6.95	7.9	257	< 0.1	0.55	22.4	< 1	< 0.1	23	0.065	0.29	0.56	25.7	44.4
TP13-06	TP13-06-1	2013 08 22	0.3 - 0.8	8	0.58	5.62	131	< 0.8	0.463	21.9	7.52	10.7	19.5	9.2	332	< 0.1	0.82	22.6	< 1	0.068	40.5	0.065	0.32	0.548	29.5	68.5
	TP13-06-2	2013 08 22	1.0 - 1.5	***8.47***	0.4	4.69	120	< 0.8	0.264	19	6.36	12.3	6.42	6.1	308	< 0.1	0.45	23.1	< 1	0.077	24.9	0.07	0.22	0.541	27.3	39.5
TP13-07	TP13-07-1	2013 08 22	0.1 - 0.4	7.16	0.28	4.86	137	< 0.8	0.153	20.4	5.36	6.81	9.23	11.7	214	< 0.1	0.53	15.5	< 1	0.058	12.4	0.086	0.53	0.467	33.7	46
TP13-08	TP13-08-1	2013 08 22	0.5 - 0.9	7.96	0.62	7.75	159	0.58	0.301	27.6	8.41	14.7	9.06	11.7	325	< 0.1	0.78	27.4	< 1	0.06	26	0.095	0.48	0.942	34.7	55.1
TP13-09	TP13-09-1	2013 08 22	0.5 - 0.8	***8.06***	0.5	5.37	102	0.42	0.254	30.7	7.78	8.3	6.93	9.5	397	< 0.1	0.68	21.3	< 1	< 0.1	14.7	0.057	0.37	0.627	38.2	62.2
	TP13-09-101	Duplicate	0.5 - 0.8	7.88	0.51	6.07	114	< 0.8	0.235	26.3	8.65	9.21	8.61	9.1	475	< 0.1	0.71	19.7	< 1	< 0.1	16	0.06	0.43	0.589	33	57.4
	QA/QC RPD%			*	2	12	11	*	8	15	11	10	22	*	18	*	4	8	*	*	8	*	*	6	15	8
TP13-10	TP13-10-1	2013 08 22	0.5 - 0.8	7.56	0.24	5.32	149	< 0.8	0.096	23.1	5.32	6.34	10.9	13.8	192	< 0.1	0.69	15	< 1	< 0.1	15.3	0.08	0.49	0.574	32.7	51.9
	TP13-10-2	2013 08 22	1.0 - 1.3	7.75	0.39	5.34	113	< 0.8	0.289	24.5	6.8	13.8	6.01	6.4	381	< 0.1	0.49	26.7	< 1	0.056	18	0.073	0.23	0.614	28.8	43.1
TP13-11	TP13-11-1	2013 08 22	0.0 - 0.4	***8.1***	0.4	6.04	150	< 0.8	0.16	21.4	8.16	8.85	14.4	12.3	410	< 0.1	0.72	17.3	< 1	0.066	12.8	0.079	0.5	0.534	33.4	60.6
	TP13-11-102	Duplicate	0.0 - 0.4	***8.14***	0.57	6.92	124	0.46	0.23	25.1	8.5	12.6	9.24	11.2	320	< 0.1	0.73	25.6	< 1	< 0.1	13.9	0.079	0.4	0.675	30.9	57.1
	QA/QC RPD%			*	*	14	19	*	36	16	4	35	44	*	25	*	1	39	*	*	8	*	*	23	8	6
	TP13-11-2	2013 08 22	1.0 - 1.3	***8.14***	0.68	5.6	161	< 0.8	0.297	22.3	5.98	12.4	35.2	8.6	260	< 0.1	0.62	18	< 1	0.082	48.4	0.071	0.54	0.537	23.8	200
Federal Guideline																										
CCME CEQG Residential Land Use (RL)				6.0 - 8.0	20	12	500	4	10	64	50	63	140	n/a	n/a	6.6	10	45	1	20	n/a	1	50	23	130	200
BC Standard																										
CSR Residential Land Use (RL) (sample depth < 3.0m)[b]				n/a	20	15	400	4	2 - 35[c]	60[d]	50	150	400	1,600	1,800	15	10	100	3	20	47,000	n/a	50	16	200	450
CSR Commercial Land Use (CL) (sample depth > 3.0m)[b]				n/a	40	15	400	8	2 - 100[c]	60[d]	300	250	700	20,000	19,000	40	40	500	10	40	100,000	n/a	300	200	n/a	600

All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).
[c] Standard is pH dependent.
[d] Individual standards exist for Cr +3 and Cr +6. Reported value represents more stringent standard.

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

TABLE 3 (Cont'd): Summary of Analytical Results for Metals in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Phys	Total Metals																						
				pH pH	Antimony µg/g	Arsenic µg/g	Barium µg/g	Beryllium µg/g	Cadmium µg/g	Chromium µg/g	Cobalt µg/g	Copper µg/g	Lead µg/g	Lithium µg/g	Manganese µg/g	Mercury µg/g	Molybdenum µg/g	Nickel µg/g	Selenium µg/g	Silver µg/g	Strontium µg/g	Thallium µg/g	Tin µg/g	Uranium µg/g	Vanadium µg/g	Zinc µg/g
TP13-12	TP13-12-1	2013 08 22	0.3 - 0.6	***8.75***	0.59	6.38	109	< 0.8	0.276	22.5	7.37	12.8	7.27	10.1	315	< 0.1	0.67	25.3	< 1	< 0.1	14.6	0.088	0.33	0.755	26.3	53
	TP13-12-2	2013 08 22	1.0 - 1.3	***8.39***	0.57	6.29	154	0.41	0.302	23.2	7.23	15.6	8.11	9.7	315	< 0.1	0.7	23.9	< 1	0.056	23.5	0.103	0.41	0.612	29.6	53.6
TP13-13	TP13-13-1	2013 08 22	0.4 - 0.7	***9.47***	0.65	5.85	125	0.41	0.349	20.8	7.13	16.2	6.42	10	298	< 0.1	0.78	26.7	< 1	0.089	49.2	0.088	0.2	0.623	26	57.8
	TP13-13-2	2013 08 22	1.6 - 1.9	***9.39***	0.39	4.28	145	< 0.8	0.253	15.4	5.55	12.5	5.41	6.9	237	0.05	0.54	20	< 1	0.072	40.7	0.072	< 0.2	0.446	22.5	48.3
TP13-14	TP13-14-1	2013 08 22	0.3 - 0.6	7.6	0.58	6.56	205	0.52	0.405	23.7	7.13	16.9	29.9	12.1	297	< 0.1	0.58	23	< 1	0.073	32.8	0.08	0.44	0.526	29.9	91.4
	TP13-14-2	2013 08 22	1.0 - 1.3	6.32	0.43	4.97	186	< 0.8	0.384	20.5	6.03	10.9	15.9	10.2	347	< 0.1	0.62	17.8	< 1	0.073	22	0.073	0.36	0.475	29.7	85.6
TP13-15	TP13-15-1	2013 08 22	0.0 - 0.3	7.28	0.66	7.49	168	0.74	0.372	30.5	9.77	14.2	9.07	13.1	337	< 0.1	0.98	29.7	< 1	0.057	13.1	0.101	0.37	1.01	34.5	73
	TP13-15-2	2013 08 22	0.4 - 0.7	7.58	0.5	5.17	93.2	< 0.8	0.333	24.7	6.62	12.7	6.46	7.5	288	< 0.1	0.91	28.5	< 1	< 0.1	14.5	0.061	< 0.2	0.595	30.4	45.6
TP13-16	TP13-16-1	2013 08 22	0.2 - 0.5	***8.66***	0.38	4	82.8	< 0.8	0.273	16.4	5.56	12.8	5.83	6.6	239	< 0.1	0.67	21.8	< 1	0.06	60.5	0.069	0.22	0.505	23.7	40.9
	TP13-16-2	2013 08 22	1.0 - 1.3	***8.87***	0.37	3.79	84.3	< 0.8	0.232	15.3	4.84	9.26	4.8	6.3	203	< 0.1	0.4	16.7	< 1	0.081	53.7	0.057	0.19	0.397	20	37.9
TP13-17	TP13-17-1	2013 08 22	0.9 - 1.2	***8.58***	0.58	5.56	140	0.46	0.17	22.8	6.67	15.2	20.7	13.2	174	< 0.1	0.74	23.8	< 1	0.077	34.6	0.079	0.36	0.7	29.7	59.3
	TP13-17-103	Duplicate	0.9 - 1.2	***8.51***	0.37	4.63	99.1	< 0.8	0.193	16.7	5.46	12.3	9.21	10.6	165	< 0.1	0.71	19.9	< 1	0.08	40.4	0.082	0.33	0.583	29.4	47.6
	QA/QC RPD%			*	*	*	34	*	13	31	20	21	77	*	5	*	4	18	*	*	15	*	*	18	1	22
	TP13-17-2	2013 08 22	1.5 - 2.0	***8.63***	0.36	4.32	87.5	< 0.8	0.232	16.2	5.14	12.1	9.67	9.7	166	< 0.1	0.64	18	< 1	0.068	51.6	0.062	0.37	0.489	27.4	43.3
TP13-18	TP13-18-1	2013 08 23	0.0 - 0.5	***8.38***	0.51	7.98	179	0.57	0.284	28.7	8.81	19	9.83	13	296	< 0.1	0.66	32.5	< 1	0.091	29.5	0.093	0.3	0.746	34.9	60.8
TP13-19	TP13-19-1	2013 08 23	0.0 - 0.5	***8.84***	0.65	5.01	118	< 0.8	0.365	20.1	6.28	13.1	6.8	9.3	257	< 0.1	0.57	24	< 1	0.19	53.7	0.058	0.54	0.516	23.1	53.5
TP13-20	TP13-20-1	2013 08 23	0.0 - 0.5	***8.81***	0.55	4.97	131	< 0.8	0.381	12.8	4.71	11.7	10.2	7.4	254	< 0.1	0.8	14.7	< 1	0.098	81.8	0.069	< 0.2	0.533	20.3	51.1
TP13-21	TP13-21-1	2013 08 23	0.0 - 0.5	***8.7***	0.58	6.14	101	< 0.8	0.243	22.3	6.97	13.6	6.92	9.3	281	< 0.1	0.66	27.4	< 1	< 0.1	13.1	0.068	0.16	0.649	25.8	52.6
TP13-22	TP13-22-1	2013 08 23	0.1 - 0.5	7.91	0.43	5.9	132	< 0.8	0.355	22.8	7.54	9.51	8.11	11	303	< 0.1	0.69	21.8	< 1	0.052	14.3	0.085	0.39	0.69	31.3	75.5
TP13-23	TP13-23-1	2013 08 23	0.0 - 0.5	***8.39***	0.63	6.84	105	< 0.8	0.207	23.6	7.7	15.5	8.23	10.2	327	< 0.1	0.75	26.2	< 1	< 0.1	15.7	0.109	0.32	0.797	27.6	68.4
	TP13-23-104	Duplicate	0.0 - 0.5	***8.35***	0.71	6.89	98.4	< 0.8	0.246	22.8	7.53	15	8.47	10.8	319	< 0.1	0.79	27	< 1	0.067	14.2	0.098	0.36	0.762	26.5	53.5
	QA/QC RPD%			*	12	1	6	*	17	3	2	3	3	*	2	*	5	3	*	*	10	*	*	4	4	24
BH13-04	BH13-04-1-AD05	2013 09 22	0.3 - 0.6	7.67	0.82	6.37	194	< 0.8	1.04	20	6.97	17.4	***153***	10.8	246	< 0.1	1.12	18.7	< 1	0.118	32.7	0.103	1.52	0.506	28.9	81.8
	BH13-04-2-AD05	2013 09 22	0.8 - 1.1	7.7	0.58	7.73	82	< 0.8	0.272	22.3	7.39	13.3	8.99	10.8	164	< 0.1	0.99	28.8	< 1	< 0.1	12.5	0.109	0.37	0.509	26.6	48.8
	BH13-04-21-AD05	2013 09 22	21.8 - 22.1	***8.79***	0.22	5.08	87.8	< 0.8	0.227	11.9	4.79	11	6.31	5.2	201	< 0.1	0.4	17.3	< 1	0.056	54	0.057	0.23	0.329	19.2	26.6
	BH13-04-22-AD05	2013 09 22	22.6 - 22.9	***9.12***	0.22	3.95	202	< 0.8	0.19	10	3.33	10.5	3.92	6	200	< 0.1	0.84	10.3	< 1	0.071	68	< 0.1	0.23	0.322	19.3	21.8
	BH13-04-30-AD05	2013 09 23	31.5 - 31.8	***8.85***	0.24	2.42	54.9	< 0.8	0.111	8.9	3.02	7.53	3.1	< 10	122	< 0.1	0.27	10.3	< 1	0.065	42.4	< 0.1	0.12	0.281	16	19.9
BH13-05	BH13-05-02-AD05	2013 09 23	1.1 - 1.4	***8.83***	0.29	4.91	105	< 0.8	0.249	15.2	4.94	12.9	5.44	< 10	314	< 0.1	0.63	19.4	< 1	0.057	114	0.06	0.17	0.4	22.6	36.6
	BH13-05-A	Duplicate	1.1 - 1.4	***8.72***	0.3	3.96	106	< 0.8	0.257	17.8	4.9	10.6	5.15	6.3	278	< 0.1	0.49	17.6	< 1	0.083	134	0.053	0.14	0.542	22.3	36.1
	QA/QC RPD%			1	*	21	1	*	3	16	1	20	5	*	12	*	*	10	*	*	16	*	*	*	1	1
	BH13-05-14-AD05	2013 09 23	11.6 - 11.9	***8.72***	0.35	5.17	108	< 0.8	0.276	15.8	5.37	8.85	5.67	< 10	329	< 0.1	1.04	29.1	< 1	0.054	91.7	< 0.1	0.1	0.333	16.1	27.6
	BH13-05-27-AD05	2013 09 24	21.9 - 22.2	***8.35***	0.29	4.75	49.3	< 0.8	0.233	14.9	4.14	8.96	3.78	6.5	156	< 0.1	0.44	17	< 1	0.055	58.6	< 0.1	0.16	0.704	21.4	33.9
	BH13-05-28-AD05	2013 09 24	22.6 - 22.9	***8.25***	0.36	5.45	54.4	< 0.8	0.257	13.4	3.75	9.88	4.11	6.1	173	< 0.1	0.52	15.2	< 1	0.067	43.9	< 0.1	0.16	0.869	20.6	32.7
	BH13-05-29-AD05	2013 09 24	23.0 - 23.3	***8.79***	0.33	6.32	173	< 0.8	0.29	21.7	5.7	15.1	6.69	10.9	260	< 0.1	0.46	24.3	< 1	0.087	76.4	0.103	0.34	0.524	26.3	49.7
	BH13-05-30-AD05	2013 09 24	23.7 - 24.0	***8.72***	0.29	***12.4***	82	< 0.8	0.364	14.2	3.99	7.67	2.97	< 10	204	< 0.1	0.61	19.3	< 1	< 0.1	40.9	< 0.1	0.11	0.33	21.7	28.1
	BH13-05-31-AD05	2013 09 24	24.9 - 25.2	***8.7***	0.39	6.01	166	< 0.8	0.308	24.1	6.47	16.2	6.37	11.4	278	< 0.1	0.43	25.3	< 1	0.089	79.4	0.089	0.34	0.54	27.9	46.3
BH13-06	BH13-06-31-AD05	2013 09 25	31.7 - 32.0	***8.68***	0.28	3.37	89.6	< 0.8	0.367	13.9	4.25	9.88	4.55	< 10	146	< 0.1	0.65	16	< 1	0.058	76.2	< 0.1	0.14	0.581	25.6	26.9
	BH13-06-B	Duplicate	31.7 - 32.0	***8.72***	0.25	2.87	101	< 0.8	0.202	11.6	3.69	10.2	4.09	< 10	138	< 0.1	0.55	13.2	< 1	0.061	89.8	< 0.1	0.1	0.803	20.6	24.8
	QA/QC RPD%			0	*	16	12	*	58	18	14	3	11	*	6	*	*	19	*	*	16	*	*	32	22	8
	BH13-06-32-AD05	2013 09 25	32.3 - 32.6	***8.6***	0.2	3.06	53.4	< 0.8	0.159	12.1	4.31	9.73	3.23	< 10	171	< 0.1	0.37	16.1	< 1	0.054	69	< 0.1	0.15	0.465	23	23.9
BH13-07	BH13-07-01-AD05	2013 09 25	0.3 - 0.6	***8.55***	0.91	6.6	122	< 0.8	0.32	13.5	5.12	13.2	13.5	7.3	162	< 0.1	0.71	18.8	< 1	0.067	57.6	0.073	0.26	0.497	20.8	43.8
	BH13-07-02-AD05	2013 09 25	1.3 - 1.6	***8.22***	0.63	7.35	102	< 0.8	0.344	24.2	8.71	11.9	9.64	12.2	259	< 0.1	1.06	28	< 1	< 0.1	16.8	0.095	0.5	0.616	30.3	68.8
	BH13-07-21-AD05	2013 09 26	17.6 - 17.9	***8.67***	0.55	5.18	243	< 0.8	0.391	15	6.08	14.6	7.28	9.5	272	0.052	0.63	20.5	< 1	0.143	71.2	0.108	0.28	0.579	22.6	56.5
	BH13-07-22-AD05	2013 09 26	18.7 - 19.0	***8.97***	0.32	4.65	62.8	< 0.8	0.173	6.8	2.93	7.84	4.18	< 10	111	< 0.1	0.59	11	< 1	0.051	47.4	< 0.1	< 0.2	0.521	14.7	28
BH14-09	BH14-09-02-AD05	2014 02 15	1.4 - 1.4	***8.72***	0.5	4.71	111	0.4	0.395	***74.5***	6.89	17	6.28	9.6	306	< 0.1	0.83	29.8	< 1	0.067	13.3	0.082	0.35	0.63	24.1	47.5
	BH14-09-41-AD05	2014 02 17	31.2 - 31.2	***9.01***	0.28	2.49	110	< 0.8	0.145	14.2	3.4	24.7	3.81	5.4	160	< 0.1	2.52	11.7	< 1	0.064	53.4	< 0.1	0.13	0.322	15.2	29.3
	BH14-09-40-AD05	2014 02 17	32.3 - 32.3	***8.92***	0.36	3.92	84.8	< 0.8	0.167	17.1	3.84	10.2	4.47	< 10	163	< 0.1	1.89	11.6	< 1	0.08	58	0.055	0.16	0.389	17	29.5
BH14-10	BH14-10-33-AD05	2014 02 19	19.8 - 19.8	***9.07***	0.25	3.24	81.5	< 0.8	0.136	11.8	4.38	8.67	4.68	6.6	168	< 0.1	0.73	12.2	< 1	0.057	61	< 0.1	0.19	0.369	15.2	28.5
	BH14-10-42-AD05	2014 02 20	31.9 - 31.9	***8.72***	0.43	4.03	88	< 0.8	0.178	21.7	6.53	15.3	5.91	6.5	202	< 0.1	2.24	21.8	< 1	0.058	48.8	0.07	0.21	0.671	27.3	32.8
	BH14-10-44-AD05	2014 02 20	33.1 - 33.1	***8.72***	0.35	3.12	81.3	< 0.8	0.153	21.5	5.41	18.1	4.83	5.3	166	< 0.1	2.03	20.2	< 1	0.064	58.6	0.056	0.41	0.486	23.4	29.6
BH14-11	BH14-11-02-AD05	2014 02 21	1.4 - 1.4	***8.1***	0.55	6.58	149	0.47	0.171	23.6	7.58	14.2	7.85	10.8	330	< 0.1	0.77	27	< 1	< 0.1	14	0.077	0.35	0.711	26.3	53.6
	BH14-11-02A-AD05	Duplicate	1.4 - 1.4	***8.18***	0.61	7.23	160	0.48	0.179	25.5	7.95	15.6	8.14	11	329	< 0.1	0.98	27.8	< 1	< 0.1	14.7	0.094	0.38	0.777	29	56.5
	QA/QC RPD%			1	*	9	7	2	5	8	5	9	4	*	0	*	*	3	*	*	5	*	*	9	10	5
	BH14-11-33-AD05	2014 02 22	21.3 - 21.3	***8.03***	1.58	***38.5***	***1,680***	0.53	9.71	20.5	***227***	***78.5***	6.68	6.4	**24,700**	0.212	***24.8***	***273***	< 1	0.151	121	***5.37***	0.26	0.748	45.8	***212***
	BH14-11-47-AD05	2014 02 23	30.5 - 30.5	***8.93***	0.29	2.75	155	< 0.8	0.195	16.4	3.39	10.7	5.02	5.8	133	< 0.1	1.17	14.5	< 1	0.056	53.9	0.053	0.18	0.433	18.8	30.1
Federal Guideline																											
CCME CEQG Residential Land Use (RL)				6.0 - 8.0	20	12	500	4	10	64	50	63	140	n/a	n/a	6.6	10	45	1	20	n/a	1	50	23	130	200
BC Standard																											
CSR Residential Land Use (RL) (sample depth < 3.0m)[b]				n/a	20	15	400	4	2 - 35[c]	60[d]	50	150	400	1,600	1,800	15	10	100	3	20	47,000	n/a	50	16	200	450
CSR Commercial Land Use (CL) (sample depth > 3.0m)[b]				n/a	40	15	400	8	2 - 100[c]	60[d]	300	250	700	20,000	19,000	40	40	500	10	40	100,000	n/a	300	200	n/a	600

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

\- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.

[b] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

[c] Standard is pH dependent.

[d] Individual standards exist for Cr +3 and Cr +6. Reported value represents more stringent standard.

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

TABLE 3 (Cont'd): Summary of Analytical Results for Metals in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Phys	Total Metals																					
				pH pH	Antimony µg/g	Arsenic µg/g	Barium µg/g	Beryllium µg/g	Cadmium µg/g	Chromium µg/g	Cobalt µg/g	Copper µg/g	Lead µg/g	Lithium µg/g	Manganese µg/g	Mercury µg/g	Molybdenum µg/g	Nickel µg/g	Selenium µg/g	Silver µg/g	Strontium µg/g	Thallium µg/g	Tin µg/g	Uranium µg/g	Vanadium µg/g	Zinc µg/g
BH14-13	BH14-13-01-AD05	2014 02 27	1.1 - 1.1	6.73	0.35	3.91	127	< 0.8	0.196	16.2	6.56	33.9	11.1	5.6	358	< 0.1	3.85	17.9	< 1	0.076	89	0.074	0.29	0.293	23.2	83.6
	BH14-13-16-AD05	2014 02 27	3.4 - 3.4	***8.49***	0.34	7.02	213	1.14	0.649	45.6	14	34.4	13.9	31.9	475	< 0.1	1.18	41.5	0.62	0.129	66.7	0.363	0.97	1.78	64.4	91.8
	BH14-13-17-AD05	2014 02 27	11.6 - 11.6	***8.77***	0.63	6.34	74.4	0.66	0.654	13.5	9.7	21.7	15	10.7	431	< 0.1	1.86	19.8	< 1	0.095	238	0.148	0.15	0.585	20	78.2
	BH14-13-25-AD05	2014 02 27	18.1 - 18.1	***8.68***	0.6	6.49	123	0.57	0.637	13.1	6.62	20.2	14.6	11.7	567	0.07	1.51	16.2	< 1	0.099	220	0.131	0.12	0.555	19	74.7
	BH14-13-25A-AD05	Duplicate	18.1 - 18.1	***8.71***	0.61	6.75	121	0.6	0.467	13	7.02	19.9	14.4	10.6	610	0.174	1.74	17.1	0.54	0.076	208	0.166	0.13	0.496	21	78
	QA/QC RPD%			0	*	4	2	5	31	1	6	1	1	*	7	85	14	5	*	*	6	*	*	*	10	4
	BH14-13-30-AD05	2014 02 28	22.1 - 22.1	***8.72***	0.53	5.8	114	0.53	0.433	12.3	6.68	18.4	12.1	10.9	305	0.069	1.28	15.6	***1.35***	0.082	202	0.072	0.15	0.533	20	65.5
	BH14-13-30A-AD05	Duplicate	22.1 - 22.1	***8.89***	0.69	6.03	112	0.54	0.516	13.3	7.21	17.8	13.3	10.8	340	0.074	1.64	16.6	0.67	0.09	239	0.236	0.17	0.563	22.1	69.9
	QA/QC RPD%			2	*	4	2	2	17	8	8	3	9	*	11	7	25	6	67	*	17	*	*	5	10	6
BH14-14	BH14-14-01-AD05	2014 02 27	0.2 - 0.2	***8.56***	0.76	6.58	234	< 0.8	0.547	17.1	6.48	18.9	10.2	8.1	311	< 0.1	1.64	20.3	< 1	0.114	110	0.095	0.3	0.591	24	71.9
	BH14-14-03-AD05	2014 02 27	1.1 - 1.1	***8.2***	0.52	4.72	81.1	0.49	0.19	25.2	6.73	12	9.61	20.1	132	< 0.1	0.69	27.3	< 1	0.064	18.5	0.119	0.41	0.591	29.1	53.6
	BH14-14-05-AD05	2014 02 27	2.0 - 2.0	***8.09***	0.57	6.14	76.8	< 0.8	0.237	21.1	6.23	14.9	7.52	11.4	154	< 0.1	0.71	24.5	< 1	0.116	22.2	0.079	0.34	0.633	25.1	58.5
	BH14-14-19-AD05	2014 02 28	11.4 - 11.4	***8.35***	0.16	2.93	41.5	< 0.8	0.107	5.9	2.69	6.9	2.93	< 10	126	< 0.1	0.39	8.28	< 1	0.055	31.9	< 0.1	< 0.2	0.247	13.3	20.9
BH14-15	BH14-15-01-AD05	2014 02 28	0.3 - 0.3	***10.3***	0.32	4.57	143	< 0.8	0.234	13.6	4.69	10.3	9.18	6.2	214	< 0.1	0.64	14.3	< 1	0.076	54.3	0.057	0.23	0.49	21.2	31.7
	BH14-15-02-AD05	2014 02 28	0.9 - 0.9	7.6	0.72	6.33	234	0.72	0.337	28.9	10.5	18.7	10.3	13.9	369	0.05	0.82	31.6	< 1	< 0.1	14.7	0.103	0.48	0.833	34.5	58.6
	BH14-15-03-AD05	2014 02 28	1.5 - 1.5	***8.72***	0.52	5.05	107	< 0.8	0.201	20.2	6.58	12.6	5.78	8.4	282	< 0.1	0.64	23.9	< 1	< 0.1	14.2	0.068	0.26	0.553	26.2	41.6
BH14-17	BH14-17-17-AD05	2014 03 01	10.7 - 10.7	***8.54***	1.07	9.06	***1,030***	0.62	1.12	15.5	***73.4***	24.1	12.2	12.1	**32,000**	0.055	***19.6***	***81.8***	< 1	0.083	336	***2.63***	0.18	1.83	28.3	149
	BH14-17-2-AD05	2014 03 01	1.1 - 1.1	***9.13***	0.46	5.27	169	< 0.8	0.239	22.5	5.03	18	15.4	6.8	256	< 0.1	3.06	16	< 1	0.109	87.5	0.064	0.58	0.51	21.7	48.7
	BH14-17-6-AD05	2014 03 01	3.2 - 3.2	***9.59***	0.55	4.36	123	< 0.8	0.274	13.4	4.57	12.4	6.11	5.9	344	< 0.1	0.93	17.2	< 1	0.163	83.6	0.077	0.2	1.02	20.7	35.4
BH14-18	BH14-18-01-AD05	2014 03 02	0.3 - 0.3	***9.08***	0.31	3.6	107	< 0.8	0.195	14.5	4.3	10.3	3.84	5.4	255	< 0.1	0.82	13.3	< 1	0.07	72.3	< 0.1	0.16	0.29	19.2	26.8
	BH14-18-19-AD05	2014 03 02	20.6 - 20.6	***9.25***	0.31	3.25	235	< 0.8	0.148	11.8	3.56	10.1	3.6	5.7	177	< 0.1	0.78	12.8	< 1	0.088	83.6	< 0.1	0.15	0.305	18.4	25.3
	BH14-18-20-AD05	2014 03 02	22.4 - 22.4	***8.76***	0.33	3.22	81.6	< 0.8	0.192	17.1	4.12	9.38	3.83	5.6	148	< 0.1	0.77	13.4	< 1	0.06	85.6	0.051	0.18	0.569	19.9	29.3
	BH14-18-25-AD05	2014 03 02	27.0 - 27.0	***8.72***	0.4	3.51	81	< 0.8	0.177	14.1	4.68	9.58	3.93	5.8	158	< 0.1	0.41	17.4	< 1	0.055	54.4	< 0.1	0.13	0.853	22.2	30.5
	BH14-18-25A-AD05	Duplicate	27.0 - 27.0	***8.68***	0.31	3	60.6	< 0.8	0.143	11.3	3.99	8.91	3.26	5.2	150	< 0.1	0.44	14.6	< 1	0.07	51.4	< 0.1	0.1	0.519	18.2	24.9
	QA/QC RPD%			0	*	16	29	*	21	22	16	7	19	*	5	*	*	17	*	*	6	*	*	49	20	20
	BH14-18-27-AD05	2014 03 02	29.0 - 29.0	***8.64***	0.22	3.15	146	< 0.8	0.146	13.4	4.78	8.75	3.47	5.1	233	< 0.1	0.36	13.7	< 1	0.062	55	< 0.1	0.19	0.419	18.9	26.3
BH14-19	BH14-19-02-AD05	2014 03 02	1.7 - 1.7	***8.95***	0.33	3.32	92.2	< 0.8	0.211	13.4	4.58	9.92	3.86	5	286	< 0.1	0.63	15.1	< 1	0.072	54.6	0.055	0.13	0.34	18.4	29.8
	BH14-19-24-AD05	2014 03 04	18.9 - 18.9	7.88	0.85	10.3	***3,150***	< 0.8	***38.1***	10.8	***794***	***360***	6.95	11.3	**93,900**	0.194	***81.8***	***908***	< 1	0.181	137	***23.1***	0.22	1.19	23.8	***627***
	BH14-19-37-AD05	2014 03 05	31.2 - 31.2	***8.89***	0.21	3.3	71	< 0.8	0.13	27.7	4.71	11.2	3.5	6.4	183	< 0.1	0.55	21.3	< 1	< 0.1	50.5	< 0.1	0.2	0.326	23.7	28.8
	BH14-19-41A-AD05	2014 03 05	32.8 - 32.8	***8.82***	0.28	3.09	99.7	< 0.8	0.187	32.9	5.43	15.7	3.73	6.1	214	< 0.1	2.02	23.6	< 1	0.053	56.3	0.052	0.28	0.364	28.6	36.4
BH14-20	BH14-20-01-AD05	2014 03 03	1.8 - 1.8	***8.45***	0.4	4.21	119	< 0.8	0.207	15	5.51	12.9	6.29	6.9	313	< 0.1	0.52	19.2	< 1	0.053	23.4	< 0.1	0.17	0.663	23.9	32.1
	BH14-20-06-AD05	2014 03 03	6.9 - 6.9	***9.1***	0.3	3.35	89.4	< 0.8	0.214	20.3	5.37	9.7	4.27	5.4	226	< 0.1	0.45	21.4	< 1	0.085	58.8	0.051	0.17	0.423	24	31.8
	BH14-20-21-AD05	2014 03 03	22.0 - 22.0	***8.72***	0.31	2.72	66.3	< 0.8	0.153	6.6	2.97	7.98	3.81	< 10	92.3	< 0.1	0.55	9.21	< 1	0.069	53.8	< 0.1	< 0.2	0.584	14	24.8
	BH14-20-23-AD05	2014 03 03	23.9 - 23.9	***8.72***	0.47	3.45	153	< 0.8	0.259	10.1	3.16	10.5	4.36	5	91.6	< 0.1	0.51	11.7	< 1	0.082	42.9	< 0.1	0.12	0.416	17.1	41.2
	BH14-20-23A-AD05	Duplicate	23.9 - 23.9	***8.76***	0.58	4.58	227	< 0.8	0.246	11.7	3.77	13	4.94	5.2	104	0.064	0.56	12.3	0.6	0.093	48	0.055	0.15	0.456	19.8	52.2
	QA/QC RPD%			0	*	28	39	*	5	15	18	21	12	*	13	*	*	5	*	*	11	*	*	*	15	24
BH14-21	BH14-21-02-AD05	2014 03 03	1.2 - 1.4	7.6	0.51	6.12	114	< 0.8	0.218	21.4	7.63	14	7.79	12.3	299	< 0.1	0.78	27.1	< 1	0.054	13.4	0.114	0.42	0.631	24.9	49.6
	BH14-21-12-AD05	2014 03 03	8.7 - 8.8	***9.1***	0.46	3.47	95.8	< 0.8	0.222	20.5	5.54	11	3.82	6.6	238	< 0.1	0.53	20.7	< 1	0.069	56.5	0.053	0.21	0.42	22.6	33.2
BH14-22	BH14-22-01-AD05	2014 03 04	1.2 - 1.2	***8.08***	0.54	5.93	201	0.49	0.452	25.7	7.6	11.9	23.3	13.7	324	< 0.1	1.08	16.8	< 1	0.09	60.4	0.09	0.87	0.564	31.6	62.8
	BH14-22-19-AD05	2014 03 04	26.8 - 26.8	***8.8***	0.55	4.18	191	< 0.8	0.271	21.2	7.3	14.7	7.58	11.9	248	< 0.1	0.52	22.7	< 1	0.091	75	0.107	0.37	0.549	23.7	54.8
	BH14-22-19A-AD05	Duplicate	26.8 - 26.8	***8.93***	0.42	3.57	175	< 0.8	0.279	19.4	7	12.7	6.53	10.9	230	< 0.1	0.47	20.2	< 1	0.087	68.3	0.08	0.31	0.519	22.2	51
	QA/QC RPD%			1	*	16	9	*	3	9	4	15	15	*	8	*	*	12	*	*	9	*	*	6	7	7
	BH14-22-30-AD05	2014 03 04	29.1 - 29.1	***8.76***	0.48	2.79	150	< 0.8	0.344	25.7	6.62	14.4	4.4	9.9	271	< 0.1	0.55	26.4	< 1	0.064	74.5	0.063	0.29	1.19	28.6	46.5
BH14-23	BH14-23-01-AD05	2014 03 04	0.6 - 0.6	***9.07***	0.46	4.62	167	< 0.8	0.234	15.1	5.18	13.6	13	7.8	267	< 0.1	0.73	17.6	< 1	0.1	54.4	0.068	0.42	0.461	21.8	39
	BH14-23-02-AD05	2014 03 04	1.2 - 1.2	***9.17***	0.47	4.14	198	< 0.8	0.409	15.7	5.79	13.8	13.9	9.6	298	< 0.1	0.71	21	< 1	0.094	70.6	0.076	0.35	1.62	23.9	47.5
	BH14-23-15-AD05	2014 03 04	16.3 - 16.3	***8.78***	0.29	3.79	70.3	< 0.8	0.246	10.1	5.21	10.6	4.71	< 10	217	< 0.1	0.63	14.7	< 1	0.07	64.8	< 0.1	0.16	0.346	21	31.3
	BH14-23-16-AD05	2014 03 04	17.5 - 17.5	***8.79***	0.27	3.02	71.7	< 0.8	0.16	18	4.06	7.65	3.49	< 10	156	< 0.1	0.51	16.5	< 1	0.06	47.5	< 0.1	0.17	0.487	20.1	26.9
	BH14-23-17-AD05	2014 03 04	19.7 - 19.7	***8.87***	0.31	3.71	81.7	< 0.8	0.171	14.7	4.02	8.06	3.77	5.2	153	< 0.1	0.49	15.8	< 1	0.06	53.4	< 0.1	0.16	0.329	20	31.3
	BH14-23-23-AD05	2014 03 04	27.0 - 27.0	***8.83***	0.54	4.86	206	< 0.8	0.368	9.9	3.41	11.7	4.27	< 10	148	< 0.1	0.58	12.2	< 1	0.114	50.8	< 0.1	0.14	0.439	16.5	45.2
	BH14-23-23A-AD05	Duplicate	27.0 - 27.0	***8.82***	0.63	5.71	227	< 0.8	0.31	9.6	3.47	12.5	4.85	< 10	153	< 0.1	0.66	12.3	< 1	0.098	53	< 0.1	0.13	0.516	17.4	46.4
	QA/QC RPD%			0	*	16	10	*	17	3	2	7	13	*	3	*	*	1	*	*	4	*	*	*	5	3
Federal Guideline																										
CCME CEQG Residential Land Use (RL)				6.0 - 8.0	20	12	500	4	10	64	50	63	140	n/a	n/a	6.6	10	45	1	20	n/a	1	50	23	130	200
BC Standard																										
CSR Residential Land Use (RL) (sample depth < 3.0m)[b]				n/a	20	15	400	4	2 - 35[c]	60[d]	50	150	400	1,600	1,800	15	10	100	3	20	47,000	n/a	50	16	200	450
CSR Commercial Land Use (CL) (sample depth > 3.0m)[b]				n/a	40	15	400	8	2 - 100[c]	60[d]	300	250	700	20,000	19,000	40	40	500	10	40	100,000	n/a	300	200	n/a	600

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

\- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.

[b] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

[c] Standard is pH dependent.

[d] Individual standards exist for Cr +3 and Cr +6. Reported value represents more stringent standard.

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

TABLE 3 (Cont'd): Summary of Analytical Results for Metals in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Phys	Total Metals																					
				pH pH	Antimony µg/g	Arsenic µg/g	Barium µg/g	Beryllium µg/g	Cadmium µg/g	Chromium µg/g	Cobalt µg/g	Copper µg/g	Lead µg/g	Lithium µg/g	Manganese µg/g	Mercury µg/g	Molybdenum µg/g	Nickel µg/g	Selenium µg/g	Silver µg/g	Strontium µg/g	Thallium µg/g	Tin µg/g	Uranium µg/g	Vanadium µg/g	Zinc µg/g
BH14-24	BH14-24-01-AD05	2014 03 05	0.8 - 0.8	***8.92***	0.45	4.85	108	< 0.8	0.257	14.8	4.52	17.6	7.04	< 10	199	< 0.1	0.65	17	< 1	0.079	55.8	0.056	0.17	0.405	21.2	38.1
	BH14-24-02-AD05	2014 03 05	1.1 - 1.1	***11.1***	0.35	2.85	165	< 0.8	0.456	18.7	5.02	8.51	6.84	13.1	188	< 0.1	1.03	13.3	< 1	0.092	60	0.061	0.74	0.55	25.7	***235***
	BH14-24-03-AD05	2014 03 05	1.5 - 1.5	***8.05***	0.48	5.24	73.5	< 0.8	0.177	22.3	6.27	12.4	7.21	13.7	153	< 0.1	0.65	26.5	< 1	< 0.1	13.4	0.083	0.32	0.539	25.3	45.6
	BH14-24-12-AD05	2014 03 05	20.1 - 20.1	***8.43***	0.28	6.27	63.1	< 0.8	0.267	4.3	2.42	10	4.24	< 10	274	< 0.1	0.85	11.1	< 1	< 0.1	23	0.093	< 0.2	0.285	11.4	30
	BH14-24-14-AD05	2014 03 05	20.7 - 20.7	***8.22***	0.85	3.43	336	0.59	0.511	20.7	5.85	33.6	10.4	10.8	135	0.188	0.34	20.6	< 1	0.284	62.5	0.093	0.42	0.842	24.7	87.8
	BH14-24-15-AD05	2014 03 05	20.9 - 20.9	***8.52***	0.82	9.56	257	0.43	0.593	22.1	8.47	21.5	11.9	16	209	0.055	0.56	28.3	< 1	0.16	71.2	0.131	0.47	0.688	27	79.5
	BH14-24-18-AD05	2014 03 05	24.7 - 24.7	***9.09***	0.26	3.58	90.1	< 0.8	0.136	13.5	3.06	7.05	3.06	< 10	199	< 0.1	0.45	11.1	< 1	< 0.1	39	< 0.1	0.12	0.322	16	26.1
BH14-25	BH14-25-01-AD05	2014 03 06	2.0 - 2.0	***9.72***	0.31	2.97	70.7	< 0.8	0.139	17.5	4.73	9.99	4.31	5.4	211	< 0.1	0.45	22.1	< 1	< 0.1	30.5	< 0.1	0.15	0.418	20.2	25.9
	BH14-25-06-AD05	2014 03 06	9.9 - 9.9	***8.95***	0.34	4.05	67.1	< 0.8	0.154	8.7	2.95	7.43	2.91	< 10	133	< 0.1	0.57	10.5	< 1	0.058	46.9	< 0.1	< 0.2	0.414	13.7	29.1
	BH14-25-09-AD05	2014 03 06	12.8 - 12.8	***8.16***	0.34	11.2	61.9	< 0.8	0.398	14.3	8.93	7.61	2.92	6.9	805	< 0.1	4.12	25.3	< 1	< 0.1	41.1	0.327	0.16	1	18.8	33.5
	BH14-25-09A-AD05	Duplicate	12.8 - 12.8	***8.22***	0.31	9.96	71.7	< 0.8	0.406	17.3	8.78	8.36	3.67	9	647	< 0.1	3.4	26.9	< 1	0.061	43.6	0.316	0.19	1.16	19.7	36.8
	QA/QC RPD%			1	*	12	15	*	2	19	2	9	23	*	22	*	19	6	*	*	6	3	*	15	5	9
BH14-26	BH14-26-23-AD05	2014 03 07	32.8 - 32.8	***8.71***	0.28	2.45	74.7	< 0.8	0.139	8.7	3.36	14.8	3.66	< 10	145	< 0.1	1.11	12.1	< 1	< 0.1	88.1	< 0.1	0.11	0.385	16	26.9
BH14-27	BH14-27-01-AD05	2014 03 06	1.5 - 1.5	***9.31***	0.35	3.43	96.8	< 0.8	0.202	12.9	5.11	12	4.98	5.5	297	0.057	0.63	18	< 1	0.06	12.7	0.067	0.26	0.446	21.6	31.4
	BH14-27-06-AD05	2014 03 06	7.8 - 7.8	***8.97***	0.48	***24.5***	109	< 0.8	0.221	8.6	9.89	13.3	7.75	< 10	637	0.084	1.41	23.2	< 1	0.115	60.4	0.071	0.12	0.38	16.3	34.6
	BH14-27-10-AD05	2014 03 07	12.7 - 12.7	***8.41***	0.18	1.27	88.2	< 0.8	0.181	33.3	7.35	8.53	6.06	9	191	0.075	0.62	17.1	< 1	0.067	49.9	0.12	0.27	1.22	15.5	38.4
	BH14-27-10A-AD05	Duplicate	12.7 - 12.7	***8.27***	0.23	2.11	88.2	< 0.8	0.179	15.9	7.19	7.74	5.6	8	273	0.059	0.44	16	< 1	0.053	50	0.106	0.24	0.728	16.9	36.2
	QA/QC RPD%			2	*	*	0	*	1	71	2	10	8	*	35	24	*	7	*	*	0	*	*	51	9	6
	BH14-27-11-AD05	2014 03 07	13.1 - 13.1	***8.39***	0.42	***13***	87.1	< 0.8	0.137	14.1	5.01	10.4	4.55	6.1	176	< 0.1	0.59	14.2	< 1	0.062	47.4	< 0.1	0.16	0.351	19	31.2
BH14-28	BH14-28-01-AD05	2014 03 07	0.9 - 0.9	***8.5***	0.49	5.49	123	< 0.8	0.22	20.3	15.6	8.47	6.83	8.2	1,240	< 0.1	1.13	15.2	< 1	< 0.1	10.8	0.068	0.28	0.415	32.1	47.7
	BH14-28-07-AD05	2014 03 07	12.8 - 12.8	***8.97***	0.45	3.96	342	< 0.8	0.316	20.6	32	12.4	5.22	7.9	**4,430**	0.059	5.91	24.1	< 1	0.097	106	0.167	0.29	0.451	18.6	42.1
	BH14-28-10-AD05	2014 03 07	15.9 - 15.9	***8.52***	0.2	2.5	48.3	< 0.8	0.119	13.2	3.82	6.78	3.19	< 10	165	0.053	0.73	12.1	< 1	0.062	29.3	< 0.1	0.15	0.266	16.6	21.3
SS14-01	SS14-01-01-AD05	2014 02 20	0.0 - 0.5	***8.17***	0.51	5.85	212	0.51	0.413	32.3	8.18	14.3	17.6	11.6	489	< 0.1	1.09	22.7	< 1	0.112	24.7	0.088	0.44	0.527	28.6	80
	SS14-01-02-AD05	2014 02 20	0.5 - 1.0	***8.18***	0.58	6.75	178	0.47	0.349	25.5	7.93	15	13.7	11.2	406	< 0.1	0.95	23.4	< 1	0.106	18.9	0.096	0.4	0.575	27.1	77.4
	SS14-01-03-AD05	2014 02 20	1.0 - 1.5	***8.63***	0.69	7.74	**464**	0.62	0.441	25.5	9.28	18.1	12.6	17	496	< 0.1	0.72	27	< 1	0.177	111	0.1	0.59	0.845	33.3	74.8
SS14-02	SS14-02-01-AD05	2014 02 20	0.0 - 0.5	***8.93***	0.42	5.95	120	< 0.8	0.213	31	6.94	9.11	13.8	11.6	323	0.081	1.04	18	< 1	0.06	18	0.083	0.49	0.521	29.3	71
	SS14-02-02-AD05	2014 02 20	0.5 - 1.0	***8.88***	0.37	7.75	116	0.44	0.19	28.7	9.88	9.07	12.2	14.5	480	< 0.1	1.31	19.4	< 1	0.051	12.1	0.096	0.45	0.604	33.9	65.6
	SS14-02-03-AD05	2014 02 20	1.0 - 1.5	***9.05***	0.47	7.03	129	0.44	0.224	29.2	9.29	16.2	10.3	14.2	388	< 0.1	0.96	26.8	< 1	0.065	14.9	0.11	0.43	0.682	31.3	61.9
SS14-03	SS14-03-01-AD05	2014 02 20	0.0 - 0.5	***8.42***	0.6	8.08	147	0.5	0.305	41.8	8.66	11.7	10	14.2	300	< 0.1	1.64	25.7	< 1	0.053	18.8	0.109	0.47	0.609	32.7	65.2
	SS14-D1-01-AD05	Duplicate	0.0 - 0.5	***8.47***	0.6	8.5	143	0.48	0.235	36.1	8.74	12.4	10.3	15.1	263	< 0.1	1.56	27.6	< 1	< 0.1	22.7	0.11	0.49	0.62	33.6	66.4
	QA/QC RPD%			*	0	5	3	*	26	15	1	6	3	*	13	*	5	7	*	*	19	*	*	2	3	2
	SS14-03-02-AD05	2014 02 20	0.5 - 1.0	7.59	0.56	6.44	100	< 0.8	0.175	25.9	6.86	13.8	7.32	9.1	275	< 0.1	0.82	25.8	< 1	< 0.1	12.8	0.079	0.29	0.818	26.1	47.7
	SS14-03-03-AD05	2014 02 20	1.0 - 1.5	***8.42***	0.57	6.82	115	< 0.8	0.284	24.3	8.04	18.6	7.39	10.9	337	0.079	0.77	30.1	< 1	0.053	15.3	0.113	0.33	0.864	27.4	56.6
SS14-04	SS14-04-01-AD05	2014 02 20	0.0 - 0.5	***8.13***	0.51	6.59	119	< 0.8	0.204	30.1	7	11	8.92	10.9	229	< 0.1	1.17	25.2	< 1	< 0.1	13.4	0.087	0.34	0.543	26.3	55.2
	SS14-04-02-AD05	2014 02 20	0.5 - 1.0	***8.01***	0.57	6.69	122	< 0.8	0.284	25.2	7.61	18.7	7.88	10.6	301	< 0.1	0.82	28	< 1	0.109	14.6	0.098	0.36	0.722	25.9	52.1
	SS14-04-03-AD05	2014 02 20	1.0 - 1.5	***8.43***	0.51	6.08	123	< 0.8	0.353	19.9	6.7	14.6	6.42	9.5	302	< 0.1	0.64	25.8	< 1	0.075	15.5	0.089	0.38	0.584	22.9	54.8
SS14-05	SS14-05-01-AD05	2014 02 20	0.0 - 0.5	***8.2***	0.49	5.51	111	0.47	0.277	43.1	5.91	12.6	7.13	8.1	274	0.221	0.86	24.3	< 1	0.105	18.1	0.08	0.31	0.529	25	48
	SS14-05-02-AD05	2014 02 20	0.5 - 1.0	***8.31***	0.49	5.23	99.6	< 0.8	0.249	30.5	5.96	13.6	6.43	7.2	281	0.309	1.01	27.2	< 1	0.053	28.1	0.071	0.29	0.478	24.5	47.3
	SS14-05-03-AD05	2014 02 20	1.0 - 1.5	***8.32***	0.35	3.97	99.3	< 0.8	0.253	27.4	5.15	12.1	5.34	6.6	272	0.133	0.84	23.3	< 1	0.071	20.4	0.077	0.25	0.419	21.3	39.1
SS14-06	SS14-06-01-AD05	2014 02 20	0.0 - 0.5	6.83	0.52	6.45	98.1	< 0.8	0.295	30.5	7.27	12.9	7.39	9.8	276	< 0.1	0.94	27.3	< 1	< 0.1	10.9	0.074	0.35	0.549	30	45.5
	SS14-06-02-AD05	2014 02 20	0.5 - 1.0	***8.01***	0.97	6.97	121	0.4	0.225	20.8	11	19	8.09	9.7	315	0.057	0.65	23.6	< 1	0.102	19.4	0.066	0.29	0.631	23.5	40
	SS14-06-03-AD05	2014 02 20	1.0 - 1.5	***8.6***	0.38	4.78	103	< 0.8	0.247	19.1	5.71	13.3	5.67	7.6	310	< 0.1	0.65	20.2	< 1	0.092	45.8	0.073	0.26	0.595	22.7	36.1
SS14-07	SS14-07-01-AD05	2014 02 20	0.0 - 0.5	7.88	0.54	4.91	117	0.41	0.265	***69.5***	6.2	16.5	6.39	6.6	302	< 0.1	6.61	22.4	< 1	0.053	15.3	0.057	0.45	0.612	27.2	36.8
	SS14-07-02-AD05	2014 02 20	0.5 - 1.0	***8.21***	0.37	4.61	121	< 0.8	0.219	28.7	5.75	12.9	8.52	7.4	268	< 0.1	0.78	20.1	< 1	0.055	20.3	0.061	0.3	0.671	26.5	35.3
	SS14-07-03-AD05	2014 02 20	1.0 - 1.5	***8.46***	0.41	4.47	129	0.41	0.228	27.9	5.55	13.8	5.83	7.8	267	< 0.1	1.02	19.8	< 1	< 0.1	20.3	0.071	0.39	0.566	26.4	36.6
SS14-08	SS14-08-01-AD05	2014 02 20	0.0 - 0.5	***8.02***	0.41	5.36	140	< 0.8	0.283	34.6	6.82	10.5	7.45	9.1	261	< 0.1	2.44	22	< 1	< 0.1	18.3	0.067	0.51	0.448	28	42.7
	SS14-08-02-AD05	2014 02 20	0.5 - 1.0	7.96	0.37	5.19	116	< 0.8	0.18	23.6	6.06	9.1	6.67	8.1	263	< 0.1	0.93	20.5	< 1	< 0.1	15.7	0.062	0.38	0.392	25.6	37.3
	SS14-08-03-AD05	2014 02 20	1.0 - 1.5	7.52	0.49	5.49	131	0.46	0.251	28.4	7	12.5	6.49	9	310	< 0.1	1.08	27.8	< 1	< 0.1	12	0.079	0.32	0.484	29.9	39.8
	SS14-D2-01-AD05	Duplicate	1.0 - 1.5	***8.33***	0.35	4.63	185	< 0.8	0.155	24.6	5.02	11.2	5.47	6.8	245	< 0.1	1.43	18.1	< 1	< 0.1	13.5	0.057	0.23	0.398	23.8	32.4
	QA/QC RPD%			*	*	*	34	*	47	14	33	11	17	*	23	*	28	42	*	*	12	*	*	*	23	20
SS14-09	SS14-09-01-AD05	2014 02 20	0.0 - 0.5	7.89	0.49	5.69	142	0.49	0.319	23.4	6.55	10.1	8.68	8.8	253	< 0.1	0.79	21.8	< 1	< 0.1	18.2	0.07	0.5	0.51	26.5	52.2
	SS14-09-02-AD05	2014 02 20	0.5 - 1.0	***8.18***	0.47	4.9	99.7	< 0.8	0.227	26.1	6.53	10.6	5.84	8.4	317	< 0.1	0.65	22.7	< 1	< 0.1	15.8	0.071	0.29	0.53	24.7	44.7
	SS14-D3-01-AD05	Duplicate	0.5 - 1.0	7.72	0.46	6.14	136	0.42	0.252	28.9	7.2	11	7.52	8.6	285	< 0.1	0.85	27.9	< 1	< 0.1	15.7	0.067	0.51	0.627	29.8	54.5
	QA/QC RPD%			*	*	*	31	*	10	10	10	4	25	*	11	*	27	21	*	*	1	*	*	17	19	20
	SS14-09-03-AD05	2014 02 20	1.0 - 1.5	***8.07***	0.46	5.26	120	< 0.8	0.244	32.3	6.43	12.7	7.72	7.9	283	< 0.1	1.78	26.6	< 1	< 0.1	15.8	0.068	0.42	0.493	25.6	44.7
Federal Guideline																										
CCME CEQG Residential Land Use (RL)				6.0 - 8.0	20	12	500	4	10	64	50	63	140	n/a	n/a	6.6	10	45	1	20	n/a	1	50	23	130	200
BC Standard																										
CSR Residential Land Use (RL) (sample depth < 3.0m)[b]				n/a	20	15	400	4	2 - 35[c]	60[d]	50	150	400	1,600	1,800	15	10	100	3	20	47,000	n/a	50	16	200	450
CSR Commercial Land Use (CL) (sample depth > 3.0m)[b]				n/a	40	15	400	8	2 - 100[c]	60[d]	300	250	700	20,000	19,000	40	40	500	10	40	100,000	n/a	300	200	n/a	600

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

\- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.

[b] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

[c] Standard is pH dependent.

[d] Individual standards exist for Cr +3 and Cr +6. Reported value represents more stringent standard.

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

TABLE 3 (Cont'd): Summary of Analytical Results for Metals in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Phys	Total Metals																					
				pH pH	Antimony µg/g	Arsenic µg/g	Barium µg/g	Beryllium µg/g	Cadmium µg/g	Chromium µg/g	Cobalt µg/g	Copper µg/g	Lead µg/g	Lithium µg/g	Manganese µg/g	Mercury µg/g	Molybdenum µg/g	Nickel µg/g	Selenium µg/g	Silver µg/g	Strontium µg/g	Thallium µg/g	Tin µg/g	Uranium µg/g	Vanadium µg/g	Zinc µg/g
SS14-10	SS14-10-01-AD05	2014 02 20	0.0 - 0.5	***8.25***	0.39	4.53	94.5	< 0.8	0.183	20.4	6.27	9.72	6.31	8.2	294	< 0.1	0.51	20.7	< 1	< 0.1	14.1	0.069	0.29	0.504	22.7	41.3
	SS14-10-02-AD05	2014 02 20	0.5 - 1.0	***8.3***	0.44	4.89	95.2	< 0.8	0.206	31.6	6.72	10.5	5.81	8.4	322	< 0.1	0.6	22.2	< 1	< 0.1	15.1	0.062	0.33	0.552	23.2	44.5
	SS14-10-03-AD05	2014 02 20	1.0 - 1.5	***8.56***	0.43	4.71	97.1	< 0.8	0.224	24.7	6.36	10.9	5.88	7.7	346	< 0.1	0.74	24.2	< 1	< 0.1	16.5	0.061	0.28	0.7	24.7	43
SS14-11	SS14-11-01-AD05	2014 02 20	0.0 - 0.5	***8.63***	0.52	6.71	92.1	0.47	0.307	40.1	8.32	11.4	8.45	12.1	203	< 0.1	2.16	22.8	< 1	0.061	15.4	0.101	0.43	0.601	29.8	57.3
	SS14-11-02-AD05	2014 02 20	0.5 - 1.0	***8.18***	0.69	7.31	111	0.4	0.284	25.8	7.96	15.8	8.31	10.4	292	< 0.1	0.91	26.9	< 1	< 0.1	11.8	0.108	0.37	0.992	28.2	50.3
	SS14-11-03-AD05	2014 02 20	1.0 - 1.5	***8.68***	0.62	6.42	121	0.52	0.439	25.6	7.62	14.7	7.41	10.1	318	< 0.1	0.8	25.9	< 1	0.109	13.3	0.114	0.49	0.71	27.8	53.7
SS14-12	SS14-12-01-AD05	2014 02 20	0.0 - 0.5	***8.33***	0.64	6.73	226	0.55	0.331	39	7.68	13.4	9.09	11.4	352	< 0.1	2.46	22.8	< 1	0.08	47.4	0.086	0.58	0.702	30.7	56.7
	SS14-12-02-AD05	2014 02 20	0.5 - 1.0	7.46	0.54	7.1	114	< 0.8	0.295	23.2	7.12	12.1	7.11	10.2	311	< 0.1	0.83	26.7	< 1	< 0.1	16.3	0.094	0.36	0.723	27.1	48.9
	SS14-D4-01-AD05	Duplicate	0.5 - 1.0	***8.05***	0.51	6.56	128	0.41	0.274	22.9	7.17	12.7	7.35	10.4	302	< 0.1	0.87	24.3	< 1	< 0.1	19	0.076	0.36	0.621	25.7	49.3
	QA/QC RPD%			*	6	8	12	*	7	1	1	5	3	*	3	*	5	9	*	*	15	*	*	15	5	1
	SS14-12-03-AD05	2014 02 20	1.0 - 1.5	7.62	0.53	5.22	85.7	< 0.8	0.311	23.8	6.64	8.77	6.23	9.2	268	< 0.1	0.63	23.9	< 1	< 0.1	13.4	0.066	0.28	0.658	26.7	56.1
SS14-13	SS14-13-01-AD05	2014 02 20	0.0 - 0.5	***8.6***	0.68	6.15	144	0.5	0.33	22.2	7.34	15.4	7.48	11.2	319	< 0.1	0.85	24.4	< 1	0.092	73	0.11	0.38	0.703	24	53.2
	SS14-13-02-AD05	2014 02 20	0.5 - 1.0	***8.67***	0.54	5.62	120	< 0.8	0.262	22.8	6.95	13.5	6.61	10.2	296	< 0.1	0.61	25.4	< 1	0.074	71.1	0.078	0.33	0.684	26.6	47.5
	SS14-13-03-AD05	2014 02 20	1.0 - 1.5	***8.54***	0.55	5.43	99.5	< 0.8	0.256	18.6	6.55	12.2	5.95	9.2	288	< 0.1	0.63	22	< 1	0.06	38.3	0.081	0.27	0.64	23.5	47.9
SS14-14	SS14-14-01-AD05	2014 02 20	0.0 - 0.5	***8.46***	0.56	4.5	122	0.41	0.247	27.7	5.71	11.4	6.43	7.7	409	0.06	1.08	20	< 1	0.067	37.7	0.071	0.34	0.503	24.8	40.6
	SS14-14-02-AD05	2014 02 20	0.5 - 1.0	***8.43***	0.61	4.55	111	< 0.8	0.229	38.1	5.34	11.4	6.32	6.6	413	< 0.1	1.39	19	< 1	0.062	29	0.058	0.3	2.07	23.8	38.5
	SS14-14-03-AD05	2014 02 20	1.0 - 1.5	***8.33***	0.69	4.57	130	< 0.8	0.223	37	5.87	12	6.72	7	467	< 0.1	1.35	21.9	< 1	0.101	30.1	0.073	0.31	0.524	25.2	40.1
	SS14-D5-01-AD05	Duplicate	1.0 - 1.5	***8.38***	0.66	4.63	141	< 0.8	0.231	37.9	5.96	11.9	6.82	7.6	444	< 0.1	0.92	22	< 1	0.063	28.8	0.07	0.32	0.491	24.9	42.2
	QA/QC RPD%			*	4	*	8	*	4	2	2	1	1	*	5	*	38	0	*	*	4	*	*	*	1	5
SS14-15	SS14-15-01-AD05	2014 02 21	0.0 - 0.5	7.23	0.38	4.9	184	< 0.8	0.225	21.8	6.12	10.8	10.6	12	311	< 0.1	0.86	17.5	< 1	0.103	29.6	0.092	0.61	0.601	27.9	52.7
	SS14-15-02-AD05	2014 02 21	0.5 - 1.0	6.86	0.28	3.41	161	< 0.8	0.186	23.2	5.82	7.33	9.21	18.7	255	< 0.1	0.75	15.7	< 1	0.091	22.1	0.094	0.45	0.644	30	61.6
	SS14-15-03-AD05	2014 02 21	1.0 - 1.5	7.46	0.44	9.34	94.1	0.46	0.123	26.8	9.51	7.77	9.03	17.2	400	< 0.1	0.79	20.8	< 1	0.053	18.8	0.082	0.42	0.856	33.4	74.3
	SS14-D6-01-AD05	Duplicate	1.0 - 1.5	7.32	0.48	11.4	114	0.44	0.184	29	11.9	9.86	9.71	17.1	599	< 0.1	0.92	23.9	< 1	0.068	18.7	0.075	0.44	0.885	38.8	75.1
	QA/QC RPD%			*	*	20	19	*	40	8	22	24	7	*	40	*	15	14	*	*	1	*	*	3	15	1
SS14-16	SS14-16-01-AD05	2014 02 21	0.0 - 0.5	***8.03***	0.41	4.2	105	< 0.8	0.225	26	5.49	12.5	17.1	7	174	< 0.1	0.68	21.5	< 1	0.069	17.8	0.063	0.31	0.477	23.6	36.5
	SS14-16-02-AD05	2014 02 21	0.5 - 1.0	***8.43***	0.38	3.89	93.5	< 0.8	0.207	22.8	4.9	11.4	17.6	6.4	184	< 0.1	0.71	19.5	< 1	0.06	26.7	0.056	0.29	0.44	19.6	34.4
	SS14-16-03-AD05	2014 02 21	1.0 - 1.5	***8.47***	0.36	4.05	100	< 0.8	0.233	21.1	5.41	11.2	14.9	6.3	239	< 0.1	0.72	18.9	< 1	0.06	38.3	0.064	0.25	0.423	22.2	34.4
	SS14-D7-01-AD05	Duplicate	1.0 - 1.5	***8.47***	0.4	4.22	105	< 0.8	0.242	21.4	5.31	11.4	15.5	7	248	< 0.1	0.74	20.3	< 1	0.061	31.5	0.063	0.31	0.447	22.9	38
	QA/QC RPD%			*	*	*	5	*	4	1	2	2	4	*	4	*	3	7	*	*	19	*	*	*	3	10
SS14-17	SS14-17-01-AD05	2014 02 21	0.0 - 0.5	***8.39***	0.52	3.87	117	0.42	0.172	49.6	6.31	10.4	10.5	19.7	195	< 0.1	3.67	23.3	< 1	0.073	25.2	0.094	0.46	0.565	24.5	55.6
	SS14-17-02-AD05	2014 02 21	0.5 - 1.0	***8.37***	0.55	5.89	95.4	0.44	0.18	30.9	6.79	14.1	9.74	16.9	159	< 0.1	1.25	27.5	< 1	0.058	19	0.119	0.43	0.597	30.3	56.5
	SS14-17-03-AD05	2014 02 21	1.0 - 1.5	***8.33***	0.54	5.67	91.5	< 0.8	0.205	25.2	6.66	14.4	9.06	15.3	159	< 0.1	0.83	25.9	< 1	0.076	18.4	0.109	0.38	0.528	26.6	54.9
SS14-18	SS14-18-01-AD05	2014 02 21	0.0 - 0.5	***8.64***	0.5	4.84	159	< 0.8	0.27	29.6	5.49	14.2	9.37	8.6	239	< 0.1	1.56	16.8	< 1	0.081	62.8	0.068	0.32	0.533	22.4	56
	SS14-18-02-AD05	2014 02 21	0.5 - 1.0	***8.18***	0.48	2.91	93.8	0.46	0.166	26.4	5.1	8.61	9.65	18.3	122	< 0.1	0.82	20.8	< 1	0.053	22.3	0.106	0.36	0.533	22.7	59
	SS14-18-03-AD05	2014 02 21	1.0 - 1.5	***8.35***	0.45	4.22	90.5	0.43	0.198	25.8	5.46	10.6	9.09	14.1	127	< 0.1	0.89	22.7	< 1	< 0.1	18.7	0.092	0.34	0.502	26.2	52.7
SS14-19	SS14-19-01-AD05	2014 02 21	0.0 - 0.5	***8.18***	0.78	5.44	191	< 0.8	0.291	***84.1***	6.49	14.9	20.3	8	353	< 0.1	1.61	20.3	< 1	0.089	51.9	0.087	0.41	0.51	22.9	51.3
	SS14-19-02-AD05	2014 02 21	0.5 - 1.0	***8.04***	0.52	4.94	150	< 0.8	0.253	***64.9***	6.36	15.4	17.8	7.8	285	< 0.1	1.24	20.4	< 1	0.077	41.1	0.07	0.41	0.499	23.8	46.6
	SS14-19-03-AD05	2014 02 21	1.0 - 1.5	***8.14***	0.6	5.49	145	< 0.8	0.293	51.9	6.98	16.3	14.7	8.3	294	< 0.1	1.32	22.7	< 1	0.091	36.3	0.073	0.36	0.525	25.2	52.7
SS14-20	SS14-20-01-AD05	2014 02 21	0.0 - 0.5	***9.27***	0.53	6.11	148	0.4	0.322	31.3	6.73	13	10.3	10	258	< 0.1	1.29	20.7	< 1	0.06	23.7	0.067	0.53	0.519	26.4	53.8
	SS14-20-02-AD05	2014 02 21	0.5 - 1.0	***9.25***	0.52	6.07	157	0.48	0.289	30.4	7.34	13.2	13.1	10.9	286	< 0.1	1.16	21.9	< 1	0.074	25.7	0.084	0.49	0.603	28.5	56.9
	SS14-20-03-AD05	2014 02 21	1.0 - 1.5	***9.09***	0.63	7.06	161	0.43	0.268	23.6	8.17	17.2	9.43	11.5	334	< 0.1	0.81	27.4	< 1	0.085	30.4	0.102	0.45	0.627	28.3	62.5
SS14-21	SS14-21-01-AD05	2014 02 21	0.0 - 0.5	***9.62***	0.4	4.01	94.6	< 0.8	0.196	33.7	4.52	9.64	4.81	6.1	219	< 0.1	0.9	17.8	< 1	0.071	16.4	0.059	0.29	0.39	20.5	30.1
	SS14-21-02-AD05	2014 02 21	0.5 - 1.0	***9.64***	0.43	4.12	97	< 0.8	0.238	36.3	4.74	11	4.48	< 10	251	< 0.1	3.08	18.8	< 1	0.095	22.7	0.055	0.24	0.371	19.9	33.9
	SS14-21-03-AD05	2014 02 21	1.0 - 1.5	***9.68***	0.36	4.23	105	< 0.8	0.184	21.4	4.97	10.3	6.05	5.2	230	< 0.1	0.81	17.2	< 1	0.072	26.5	0.053	0.19	0.377	21	33.2
SS14-22	SS14-22-01-AD05	2014 02 21	0.0 - 0.5	***8.74***	0.47	4.73	95.5	< 0.8	0.271	18.5	5.84	11.1	5.43	8.6	296	< 0.1	0.67	22.6	< 1	< 0.1	55.9	0.073	0.27	0.579	22.2	43.9
	SS14-D8-01-AD05	Duplicate	0.0 - 0.5	***8.72***	0.5	5.05	96.5	< 0.8	0.228	20.1	6.08	11.8	5.78	8.8	307	< 0.1	0.69	22.7	< 1	0.078	56.5	0.06	0.27	0.564	23.6	45.2
	QA/QC RPD%			*	*	*	1	*	17	8	4	6	6	*	4	*	3	0	*	*	1	*	*	3	6	3
	SS14-22-02-AD05	2014 02 21	0.5 - 1.0	***8.79***	0.56	4.98	124	< 0.8	0.3	20.2	6.24	11.5	5.4	9	296	< 0.1	0.7	22.6	< 1	0.071	60.2	0.072	0.26	0.591	24.3	48
	SS14-22-03-AD05	2014 02 21	1.0 - 1.5	***8.76***	0.54	5.22	123	< 0.8	0.331	20.9	6.49	13.2	5.7	9.6	413	< 0.1	0.73	23.7	< 1	0.08	62.2	0.066	0.3	0.584	23.8	48.5
SS14-23	SS14-23-01-AD05	2014 02 21	0.0 - 0.5	***8.47***	0.47	4.96	102	< 0.8	0.182	26.6	5.43	12.2	8.66	8.6	251	< 0.1	0.81	19.4	< 1	0.07	59.1	0.078	0.29	0.4	20.6	46.4
	SS14-23-02-AD05	2014 02 21	0.5 - 1.0	***8.27***	0.58	5.69	132	0.42	0.286	***70.1***	7.18	13.1	10.8	12.4	311	< 0.1	1.03	22.8	< 1	0.095	26.1	0.083	0.42	0.602	25.6	59.5
	SS14-23-03-AD05	2014 02 21	1.0 - 1.5	7.92	0.6	8.26	124	0.59	0.262	35.7	6.88	14.5	14.2	26.5	150	< 0.1	1.38	24.5	< 1	0.165	24.9	0.127	0.69	0.753	50.7	74.7
SS14-24	SS14-24-01-AD05	2014 02 21	0.0 - 0.5	***8.41***	0.83	8.55	197	0.51	0.333	32.2	9.44	22.7	11.4	14.3	405	0.054	1	32.1	< 1	0.132	39.6	0.1	0.61	0.744	31.8	66.9
	SS14-24-02-AD05	2014 02 21	0.5 - 1.0	***8.6***	0.61	5.45	120	< 0.8	0.291	21.4	6.69	12.9	6.38	8.9	285	< 0.1	0.81	22.6	< 1	0.075	61.2	0.073	0.28	0.578	23.8	51.9
	SS14-24-03-AD05	2014 02 21	1.0 - 1.5	***8.81***	0.56	4.56	111	< 0.8	0.299	18	5.5	10.4	5.16	8.6	254	< 0.1	0.68	21	< 1	0.055	63.6	0.06	0.25	0.58	21.9	47.9
Federal Guideline																										
CCME CEQG Residential Land Use (RL)				6.0 - 8.0	20	12	500	4	10	64	50	63	140	n/a	n/a	6.6	10	45	1	20	n/a	1	50	23	130	200
BC Standard																										
CSR Residential Land Use (RL) (sample depth < 3.0m)[b]				n/a	20	15	400	4	2 - 35[c]	60[d]	50	150	400	1,600	1,800	15	10	100	3	20	47,000	n/a	50	16	200	450
CSR Commercial Land Use (CL) (sample depth > 3.0m)[b]				n/a	40	15	400	8	2 - 100[c]	60[d]	300	250	700	20,000	19,000	40	40	500	10	40	100,000	n/a	300	200	n/a	600

All terms defined within the body of SNC-Lavalin's report.

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\- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.

[b] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

[c] Standard is pH dependent.

[d] Individual standards exist for Cr +3 and Cr +6. Reported value represents more stringent standard.

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

TABLE 3 (Cont'd): Summary of Analytical Results for Metals in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Phys	Total Metals																					
				pH pH	Antimony µg/g	Arsenic µg/g	Barium µg/g	Beryllium µg/g	Cadmium µg/g	Chromium µg/g	Cobalt µg/g	Copper µg/g	Lead µg/g	Lithium µg/g	Manganese µg/g	Mercury µg/g	Molybdenum µg/g	Nickel µg/g	Selenium µg/g	Silver µg/g	Strontium µg/g	Thallium µg/g	Tin µg/g	Uranium µg/g	Vanadium µg/g	Zinc µg/g
FIRE14BKSS1	FIRE14BKSS1	2014 03 01	0.0 - 0.5	6.49	0.44	3.17	200	0.42	0.375	16.9	5.05	4.68	10.9	8.2	259	< 0.1	1.48	12.7	< 1	0.054	21.2	0.079	0.52	0.325	37	67.8
FIRE14BKSS2	FIRE14BKSS2	2014 03 02	0.0 - 0.5	***4.98***	0.15	0.59	324	< 0.8	0.912	9.9	3.06	5.03	9.25	< 10	1,210	< 0.1	0.73	6.78	< 1	0.15	22	< 0.1	0.42	0.465	19.9	80.4
FIRE14BKSS3	FIRE14BKSS3	2014 03 02	0.0 - 0.5	6.54	0.22	1.46	334	< 0.8	1.61	10.9	5.49	9.71	10.9	< 10	464	0.082	0.8	12.5	< 1	0.467	36.3	0.061	0.35	0.31	18.1	86.8
FIRE14SS4	FIRE14SS4	2014 02 28	0.0 - 0.5	7.27	< 0.2	< 1	245	< 0.8	1.39	1.1	2.15	8.12	1.05	< 10	681	0.065	2.93	2.8	< 1	0.084	98.5	< 0.1	< 0.2	< 0.1	< 4	176
FIRE14SS5	FIRE14SS5	2014 03 01	0.0 - 0.5	6.16	0.94	5.54	145	0.54	0.24	22.6	8.51	11	23.1	14.5	412	< 0.1	0.75	21.1	< 1	0.095	20.5	0.092	0.66	0.551	28.5	56.2
FIRE14SS6	FIRE14SS6	2014 03 01	0.0 - 0.5	6.79	0.43	3.77	192	< 0.8	1.04	21.4	6.26	11.5	10.8	8.8	437	< 0.1	0.87	18.7	< 1	0.096	32.6	0.063	0.36	0.391	24.9	102
FIRE14SS8	FIRE14SS8	2014 03 01	0.0 - 0.5	7.15	0.33	4.42	226	0.55	0.292	30.7	8.35	7.36	13.2	8.9	270	< 0.1	0.7	27.2	< 1	0.08	17.1	0.09	0.7	0.412	45.5	65.8
	FIRE14-DUP1	Duplicate	0.0 - 0.5	6.84	0.31	4.2	165	0.61	0.316	28.6	7.39	6.67	7.47	9.4	218	< 0.1	0.7	21.8	< 1	0.074	14.3	0.085	0.57	0.398	41	51.4
	QA/QC RPD%			*	*	*	31	*	8	7	12	10	55	*	21	*	0	22	*	*	18	*	*	*	10	25
Federal Guideline																										
CCME CEQG Residential Land Use (RL)				6.0 - 8.0	20	12	500	4	10	64	50	63	140	n/a	n/a	6.6	10	45	1	20	n/a	1	50	23	130	200
BC Standard																										
CSR Residential Land Use (RL) (sample depth < 3.0m)[b]				n/a	20	15	400	4	2 - 35[c]	60[d]	50	150	400	1,600	1,800	15	10	100	3	20	47,000	n/a	50	16	200	450
CSR Commercial Land Use (CL) (sample depth > 3.0m)[b]				n/a	40	15	400	8	2 - 100[c]	60[d]	300	250	700	20,000	19,000	40	40	500	10	40	100,000	n/a	300	200	n/a	600

All terms defined within the body of SNC-Lavalin's report.

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* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.

[b] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

[c] Standard is pH dependent.

[d] Individual standards exist for Cr +3 and Cr +6. Reported value represents more stringent standard.

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

TABLE 4: Summary of Analytical Results for Soil Salinity

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Soil Salinity																		
				Salinity mg/L	% Saturation %	Saturation pH pH	Saturated Paste Conductivity uS/cm	Theoretical Gypsum Req. t/ha	Saturated Paste Sodium µg/g	Saturated Paste Chloride µg/g	Water Soluble Calcium µg/g	Water Soluble Magnesium µg/g	Water Soluble Potassium µg/g	Water Soluble Sulphate µg/g	Soluble Sodium mg/L	Soluble Chloride mg/L	Soluble Calcium mg/L	Soluble Magnesium mg/L	Soluble Potassium mg/L	Soluble Sulphate mg/L	Sodium Adsorption Ratio None
TP-32	FS-32-0.25	2002 10 05	0.3 - 0.3	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-33	FS-33-2.0	2002 10 05	2.0 - 2.0	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-34	FS-34-1.0	2002 10 05	1.0 - 1.0	> 0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-35	FS-35-1.0	2002 10 05	1.0 - 1.0	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	BH02-01	2003 01 01	1.2 - 1.2	-	-	-	-	-	-	26	-	-	-	-	-	-	-	-	-	-	-
	BH02-08	2003 01 01	6.6 - 6.6	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-
BH05	BH05-04	2003 01 01	5.5 - 5.5	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-
BH06	BH06-01	2003 01 01	1.2 - 1.2	-	-	-	-	-	-	**1,290**	-	-	-	-	-	-	-	-	-	-	-
	BH06-05	2003 01 01	7.3 - 7.3	-	-	-	-	-	-	**564**	-	-	-	-	-	-	-	-	-	-	-
BH12	BH12-01	2003 01 01	1.2 - 1.2	-	-	-	-	-	-	**1,240**	-	-	-	-	-	-	-	-	-	-	-
	BH12-05	2003 01 01	7.3 - 7.3	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-
BH39	BH39-1	2004 11 29	0.6 - 0.6	-	-	-	-	-	55.4	**10,100**	-	-	-	-	-	-	-	-	-	-	-
BH40	BH40-1	2004 11 29	0.6 - 0.6	-	-	-	-	-	56	**10,000**	-	-	-	-	-	-	-	-	-	-	-
	BH40-2	2004 11 29	1.2 - 1.2	-	-	-	-	-	27.4	**4,820**	-	-	-	-	-	-	-	-	-	-	-
BH41	BH41-1	2004 11 29	0.6 - 0.6	-	-	-	-	-	< 5	**393**	-	-	-	-	-	-	-	-	-	-	-
BH46	BH46-1	2004 11 29	0.3 - 0.3	-	-	-	-	-	9.29	**1,550**	-	-	-	-	-	-	-	-	-	-	-
BH47	BH47-1	2004 11 29	0.3 - 0.3	-	-	-	-	-	17.2	**3,130**	-	-	-	-	-	-	-	-	-	-	-
BH52	BH52-2	2004 11 29	2.4 - 2.4	-	-	-	-	-	< 5	45	-	-	-	-	-	-	-	-	-	-	-
BH83	BH83-4	2005 03 15	6.0 - 6.0	-	-	-	-	-	< 5	< 5	-	-	-	-	-	-	-	-	-	-	-
	BH83-5	2005 03 15	7.5 - 7.5	-	-	-	-	-	< 5	< 5	-	-	-	-	-	-	-	-	-	-	-
BH101	BH101-5	2005 03 17	6.9 - 6.9	-	-	-	-	-	< 5	< 5	-	-	-	-	-	-	-	-	-	-	-
BH105	BH105-1	2006 08 07	0.0 - 0.6	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-
BH106	BH106-1	2006 08 07	0.0 - 0.6	-	-	-	-	-	-	**151**	-	-	-	-	-	-	-	-	-	-	-
	BH106-2	2006 08 07	1.1 - 1.4	-	-	-	-	-	-	**240**	-	-	-	-	-	-	-	-	-	-	-
BH107	BH107-1	2006 08 07	0.0 - 0.6	-	-	-	-	-	-	81	-	-	-	-	-	-	-	-	-	-	-
	BH107-2	2006 08 07	1.1 - 1.4	-	-	-	-	-	-	29	-	-	-	-	-	-	-	-	-	-	-
BH108	BH108-1	2006 08 07	0.0 - 0.6	-	-	-	-	-	-	19	-	-	-	-	-	-	-	-	-	-	-
BH109	BH109-1	2006 08 07	0.0 - 0.6	-	-	-	-	-	-	**98**	-	-	-	-	-	-	-	-	-	-	-
	BH109-2	2006 08 07	1.1 - 1.4	-	-	-	-	-	-	**108**	-	-	-	-	-	-	-	-	-	-	-
BH110	BH110-1	2006 08 07	0.0 - 0.6	-	-	-	-	-	-	**144**	-	-	-	-	-	-	-	-	-	-	-
	GR55	Duplicate	0.0 - 0.6	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%			-	-	-	-	-	-	55	-	-	-	-	-	-	-	-	-	-	-
	BH110-2	2006 08 07	1.1 - 1.4	-	-	-	-	-	-	**218**	-	-	-	-	-	-	-	-	-	-	-
	GR56	Duplicate	1.1 - 1.4	-	-	-	-	-	-	**255**	-	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%			-	-	-	-	-	-	16	-	-	-	-	-	-	-	-	-	-	-
BH111	BH111-1	2006 08 07	1.2 - 1.8	-	-	-	-	-	-	**2,540**	-	-	-	-	-	-	-	-	-	-	-
	BH111-3	2006 08 07	4.3 - 4.9	-	-	-	-	-	-	**1,480**	-	-	-	-	-	-	-	-	-	-	-
	BH111-5	2006 08 07	7.3 - 7.9	-	-	-	-	-	-	**2,340**	-	-	-	-	-	-	-	-	-	-	-
	GR57	Duplicate	7.3 - 7.9	-	-	-	-	-	-	**4,080**	-	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%			-	-	-	-	-	-	54	-	-	-	-	-	-	-	-	-	-	-
	BH111-6	2006 08 07	8.8 - 9.5	-	-	-	-	-	-	**2,500**	-	-	-	-	-	-	-	-	-	-	-
	BH111-8	2006 08 07	11.9 - 12.2	-	-	-	-	-	-	**752**	-	-	-	-	-	-	-	-	-	-	-
BH112M	BH112M-1	2006 08 07	1.2 - 1.8	-	-	-	-	-	-	69	-	-	-	-	-	-	-	-	-	-	-
	BH112M-3	2006 08 07	4.3 - 4.9	-	-	-	-	-	-	39	-	-	-	-	-	-	-	-	-	-	-
BH121	BH121-1	2009 10 16	0.0 - 0.6	-	-	-	-	-	-	12.9	-	-	-	-	-	-	-	-	-	-	-
BH122	BH122-1	2009 10 16	0.0 - 0.6	-	-	-	-	-	-	24.3	-	-	-	-	-	-	-	-	-	-	-
BH123	BH123-1	2009 10 16	0.0 - 0.6	-	-	-	-	-	-	71.3	-	-	-	-	-	-	-	-	-	-	-
BH124	BH124-1	2009 10 16	0.0 - 0.6	-	-	-	-	-	-	60.6	-	-	-	-	-	-	-	-	-	-	-
	FSGR1	Duplicate	0.0 - 0.6	-	-	-	-	-	-	**161**	-	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%			-	-	-	-	-	-	91	-	-	-	-	-	-	-	-	-	-	-
BH125	BH125-1	2009 10 16	0.0 - 0.6	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-
	FSGR2	Duplicate	0.0 - 0.6	-	-	-	-	-	-	20.8	-	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%			-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-
BH126	BH126-1	2009 10 16	0.0 - 0.6	-	-	-	-	-	-	28.5	-	-	-	-	-	-	-	-	-	-	-
Federal Guideline																					
CCME CEQG Residential Land Use (RL)				n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5
BC Standard																					
CSR Residential Land Use (RL) (sample depth < 3.0m)[a]				n/a	n/a	n/a	n/a	n/a	200	90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CSR Commercial Land Use (CL) (sample depth > 3.0m)[a]				n/a	n/a	n/a	n/a	n/a	1,000	90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

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[a] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

TABLE 4 (Cont'd): Summary of Analytical Results for Soil Salinity

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Soil Salinity																	
				Salinity mg/L	% Saturation %	Saturation pH pH	Saturated Paste Conductivity uS/cm	Theoretical Gypsum Req. t/ha	Saturated Paste Sodium µg/g	Saturated Paste Chloride µg/g	Water Soluble Calcium µg/g	Water Soluble Magnesium µg/g	Water Soluble Potassium µg/g	Water Soluble Sulphate µg/g	Soluble Sodium mg/L	Soluble Chloride mg/L	Soluble Calcium mg/L	Soluble Magnesium mg/L	Soluble Potassium mg/L	Soluble Sulphate mg/L	Sodium Adsorption Ratio None
BH12-01	BH12-01-1-AD05	2012 10 14	0.3 - 0.6	-	43	7.2	1,820	0	51	43	106	21	9	326	119	101	246	49	20	757	1.81
	BH12-01-2-AD05	2012 10 14	0.9 - 1.2	-	40	7.4	460	0	23	10	14	1	< 2	16	57	24	36	3	3	40	2.45
BH12-02	BH12-02-2-AD05	2012 10 14	0.5 - 0.8	-	38	7.5	480	0.02	41	14	3	< 1	< 2	14	107	37	9	2	2	36	***8.4***
	BH12-02-30-AD05	2012 10 15	26.4 - 26.7	-	31	7.4	1,300	0	70	3	17	5	3	102	227	9	56	17	9	329	***6.82***
	BH12-02-31-AD05	Duplicate	26.4 - 26.7	-	29	7.3	920	0	5	< 2	36	8	4	82	17	6	124	28	13	284	0.36
	QA/QC RPD%			-	*	*	34	*	*	*	72	46	*	22	*	*	76	49	*	15	*
BH13-03	BH13-03-23-AD05	2013 03 17	17.9 - 18.1	-	-	-	-	-	-	**175**	-	-	-	-	-	625	-	-	-	-	-
	BH13-03-25-AD05	2013 03 17	19.5 - 19.8	-	-	-	-	-	-	64	-	-	-	-	-	246	-	-	-	-	-
	BH13-03-33-AD05	2013 03 17	25.7 - 25.9	-	-	-	-	-	-	70	-	-	-	-	-	249	-	-	-	-	-
	BH13-03-A-AD05	Duplicate	25.7 - 25.9	-	-	-	-	-	-	68	-	-	-	-	-	251	-	-	-	-	-
	QA/QC RPD%			-	-	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-
	BH13-03-34-AD05	2013 03 17	26.2 - 26.5	-	-	-	-	-	-	67	-	-	-	-	-	224	-	-	-	-	-
	BH13-03-35-AD05	2013 03 17	26.8 - 27.0	-	-	-	-	-	-	**96**	-	-	-	-	-	342	-	-	-	-	-
	BH13-03-36-AD05	2013 03 17	28.1 - 28.4	-	-	-	-	-	-	**162**	-	-	-	-	-	577	-	-	-	-	-
BH13-04	BH13-04-1-AD05	2013 09 22	0.3 - 0.6	-	53.3	-	-	-	21.5	18.4	-	-	-	-	40.2	34.5	-	-	-	-	-
	BH13-04-2-AD05	2013 09 22	0.8 - 1.1	-	52.1	-	-	-	17.1	18.3	-	-	-	-	32.7	35.1	-	-	-	-	-
	BH13-04-21-AD05	2013 09 22	21.8 - 22.1	-	39.1	-	-	-	13.2	8.8	-	-	-	-	33.8	22.5	-	-	-	-	-
	BH13-04-22-AD05	2013 09 22	22.6 - 22.9	-	38.7	-	-	-	19.2	9.4	-	-	-	-	49.6	24.4	-	-	-	-	-
	BH13-04-30-AD05	2013 09 23	31.5 - 31.8	-	36.8	-	-	-	2.8	4.7	-	-	-	-	7.6	12.9	-	-	-	-	-
BH13-05	BH13-05-02-AD05	2013 09 23	1.1 - 1.4	-	32.1	-	-	-	6.2	9	-	-	-	-	19.4	28.1	-	-	-	-	-
	BH13-05-A	Duplicate	1.1 - 1.4	-	30.2	-	-	-	4.8	6	-	-	-	-	16	19.9	-	-	-	-	-
	QA/QC RPD%			-	6	-	-	-	*	*	-	-	-	-	*	*	-	-	-	-	-
	BH13-05-14-AD05	2013 09 23	11.6 - 11.9	-	42.3	-	-	-	8.1	7.9	-	-	-	-	19	18.7	-	-	-	-	-
	BH13-05-27-AD05	2013 09 24	21.9 - 22.2	-	41.4	-	-	-	37.7	**331**	-	-	-	-	91.2	801	-	-	-	-	-
	BH13-05-28-AD05	2013 09 24	22.6 - 22.9	-	41.7	-	-	-	32.7	**243**	-	-	-	-	78.4	583	-	-	-	-	-
	BH13-05-29-AD05	2013 09 24	23.0 - 23.3	-	45.1	-	-	-	31.7	48.6	-	-	-	-	70.3	108	-	-	-	-	-
	BH13-05-30-AD05	2013 09 24	23.7 - 24.0	-	37.7	-	-	-	19.6	29.2	-	-	-	-	51.9	77.4	-	-	-	-	-
	BH13-05-31-AD05	2013 09 24	24.9 - 25.2	-	47.1	-	-	-	34.6	56.9	-	-	-	-	73.4	121	-	-	-	-	-
BH13-06	BH13-06-31-AD05	2013 09 25	31.7 - 32.0	-	33.2	-	-	-	22.2	87.1	-	-	-	-	66.7	262	-	-	-	-	-
	BH13-06-B	Duplicate	31.7 - 32.0	-	32.7	-	-	-	23.9	**92.8**	-	-	-	-	72.9	283	-	-	-	-	-
	QA/QC RPD%			-	2	-	-	-	7	6	-	-	-	-	9	8	-	-	-	-	-
	BH13-06-32-AD05	2013 09 25	32.3 - 32.6	-	31.6	-	-	-	17.3	52.1	-	-	-	-	54.7	165	-	-	-	-	-
BH13-07	BH13-07-21-AD05	2013 09 26	17.6 - 17.9	-	42.9	-	-	-	4.7	7.2	-	-	-	-	10.9	16.7	-	-	-	-	-
	BH13-07-22-AD05	2013 09 26	18.7 - 19.0	-	38.9	-	-	-	2.3	3.3	-	-	-	-	6	8.6	-	-	-	-	-
BH14-09	BH14-09-02-AD05	2014 02 15	1.4 - 1.4	-	36.1	-	-	-	5	9.8	-	-	-	-	116	27.1	-	-	-	-	-
	BH14-09-40-AD05	2014 02 17	32.3 - 32.3	-	37.6	-	-	-	< 10	45.7	-	-	-	-	83.4	122	-	-	-	-	-
	BH14-09-41-AD05	2014 02 17	31.2 - 31.2	-	34.8	-	-	-	< 10	33.9	-	-	-	-	89.7	97.3	-	-	-	-	-
BH14-10	BH14-10-02-AD05	2014 02 19	1.4 - 1.4	-	35.6	-	-	-	< 10	15.1	-	-	-	-	53.3	42.4	-	-	-	-	-
	BH14-10-25-AD05	2014 02 19	16.6 - 16.6	-	87.1	-	-	-	< 10	33	-	-	-	-	50.3	37.9	-	-	-	-	-
	BH14-10-35-AD05	2014 02 19	20.6 - 20.6	-	36.4	-	-	-	< 10	21.4	-	-	-	-	50.5	58.7	-	-	-	-	-
	BH14-10-42-AD05	2014 02 20	31.9 - 31.9	-	37	-	-	-	< 10	72.7	-	-	-	-	106	196	-	-	-	-	-
	BH14-10-44-AD05	2014 02 20	33.1 - 33.1	-	41.7	-	-	-	< 10	67.5	-	-	-	-	104	162	-	-	-	-	-
BH14-11	BH14-11-02-AD05	2014 02 21	1.4 - 1.4	-	51.6	-	-	-	< 10	38.1	-	-	-	-	89.1	73.8	-	-	-	-	-
	BH14-11-02A-AD05	Duplicate	1.4 - 1.4	-	45.3	-	-	-	< 10	36.7	-	-	-	-	96.5	81	-	-	-	-	-
	QA/QC RPD%			-	13	-	-	-	*	4	-	-	-	-	8	9	-	-	-	-	-
	BH14-11-47-AD05	2014 02 23	30.5 - 30.5	-	41.8	-	-	-	< 10	20.3	-	-	-	-	55.2	48.7	-	-	-	-	-
BH14-13	BH14-13-01-AD05	2014 02 27	1.1 - 1.1	-	79.9	-	-	-	< 10	5.5	-	-	-	-	16.4	6.9	-	-	-	-	-
	BH14-13-25-AD05	2014 02 27	18.1 - 18.1	-	38.2	-	-	-	< 10	2.2	-	-	-	-	21.9	5.8	-	-	-	-	-
	BH14-13-25A-AD05	Duplicate	18.1 - 18.1	-	36.2	-	-	-	< 10	4.2	-	-	-	-	19.7	11.5	-	-	-	-	-
	QA/QC RPD%			-	5	-	-	-	*	*	-	-	-	-	*	*	-	-	-	-	-
	BH14-13-30-AD05	2014 02 28	22.1 - 22.1	-	35.6	-	-	-	< 10	4.6	-	-	-	-	19.1	13	-	-	-	-	-
	BH14-13-30A-AD05	Duplicate	22.1 - 22.1	-	38.3	-	-	-	< 10	3.8	-	-	-	-	18.5	10	-	-	-	-	-
	QA/QC RPD%			-	7	-	-	-	*	*	-	-	-	-	*	*	-	-	-	-	-
BH14-14	BH14-14-01-AD05	2014 02 27	0.2 - 0.2	-	70.5	-	-	-	< 10	8.6	-	-	-	-	18.3	12.2	-	-	-	-	-
	BH14-14-03-AD05	2014 02 27	1.1 - 1.1	-	63.2	-	-	-	< 10	11.5	-	-	-	-	45	18.2	-	-	-	-	-
	BH14-14-05-AD05	2014 02 27	2.0 - 2.0	-	60.6	-	-	-	< 10	32	-	-	-	-	40.1	52.7	-	-	-	-	-
	BH14-14-19-AD05	2014 02 28	11.4 - 11.4	-	38.6	-	-	-	< 10	4	-	-	-	-	16.8	10.3	-	-	-	-	-
Federal Guideline																					
CCME CEQG Residential Land Use (RL)				n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5
BC Standard																					
CSR Residential Land Use (RL) (sample depth < 3.0m)[a]				n/a	n/a	n/a	n/a	n/a	200	90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CSR Commercial Land Use (CL) (sample depth > 3.0m)[a]				n/a	n/a	n/a	n/a	n/a	1,000	90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

TABLE 4 (Cont'd): Summary of Analytical Results for Soil Salinity

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Soil Salinity																	
				Salinity mg/L	% Saturation %	Saturation pH pH	Saturated Paste Conductivity uS/cm	Theoretical Gypsum Req. t/ha	Saturated Paste Sodium µg/g	Saturated Paste Chloride µg/g	Water Soluble Calcium µg/g	Water Soluble Magnesium µg/g	Water Soluble Potassium µg/g	Water Soluble Sulphate µg/g	Soluble Sodium mg/L	Soluble Chloride mg/L	Soluble Calcium mg/L	Soluble Magnesium mg/L	Soluble Potassium mg/L	Soluble Sulphate mg/L	Sodium Adsorption Ratio None
BH14-15	BH14-15-01-AD05	2014 02 28	0.3 - 0.3	-	47.2	-	-	-	< 10	61.3	-	-	-	-	72.9	130	-	-	-	-	-
	BH14-15-02-AD05	2014 02 28	0.9 - 0.9	-	54.3	-	-	-	< 10	32.2	-	-	-	-	86.7	59.3	-	-	-	-	-
	BH14-15-03-AD05	2014 02 28	1.5 - 1.5	-	39.9	-	-	-	5.2	27.3	-	-	-	-	119	68.4	-	-	-	-	-
	BH14-15-07-AD05	2014 02 28	4.0 - 4.0	-	43.8	-	-	-	< 10	70.2	-	-	-	-	80.1	160	-	-	-	-	-
	BH14-15-11-AD05	2014 03 01	8.4 - 8.4	-	34.1	-	-	-	< 10	37.2	-	-	-	-	104	109	-	-	-	-	-
	BH14-15-13-AD05	2014 03 01	10.5 - 10.5	-	43.5	-	-	-	< 10	30	-	-	-	-	61.8	68.9	-	-	-	-	-
	BH14-15-15-AD05	2014 03 01	12.8 - 12.8	-	63	-	-	-	< 10	**230**	-	-	-	-	101	366	-	-	-	-	-
	BH14-15-18-AD05	2014 03 01	15.4 - 15.4	-	45	-	-	-	7.6	**427**	-	-	-	-	175	950	-	-	-	-	-
	BH14-15-26-AD05	2014 03 01	22.4 - 22.4	-	33.3	-	-	-	< 10	**170**	-	-	-	-	41.4	511	-	-	-	-	-
	BH14-15-27-AD05	2014 03 01	23.8 - 23.8	-	38.8	-	-	-	< 10	33.3	-	-	-	-	63.1	85.8	-	-	-	-	-
	BH14-15-27A-AD05	Duplicate	23.8 - 23.8	-	38.5	-	-	-	< 10	19.5	-	-	-	-	42.6	50.8	-	-	-	-	-
	QA/QC RPD%			-	1	-	-	-	*	52	-	-	-	-	*	51	-	-	-	-	-
	BH14-15-30-AD05	2014 03 01	27.0 - 27.0	-	31.5	-	-	-	< 10	9	-	-	-	-	30	28.7	-	-	-	-	-
BH14-17	BH14-17-17-AD05	2014 03 01	10.7 - 10.7	-	51	-	-	-	< 10	23.4	-	-	-	-	34.9	45.8	-	-	-	-	-
	BH14-17-2-AD05	2014 03 01	1.1 - 1.1	-	37.7	-	-	-	7.9	30.6	-	-	-	-	181	81.3	-	-	-	-	-
	BH14-17-6-AD05	2014 03 01	3.2 - 3.2	-	70	-	-	-	10.3	**134**	-	-	-	-	236	191	-	-	-	-	-
BH14-18	BH14-18-01-AD05	2014 03 02	0.3 - 0.3	-	36.9	-	-	-	18	**253**	-	-	-	-	413	684	-	-	-	-	-
	BH14-18-19-AD05	2014 03 02	20.6 - 20.6	-	36.5	-	-	-	5.3	42.1	-	-	-	-	122	115	-	-	-	-	-
	BH14-18-20-AD05	2014 03 02	22.4 - 22.4	-	42.6	-	-	-	< 10	76.8	-	-	-	-	72.4	180	-	-	-	-	-
	BH14-18-25-AD05	2014 03 02	27.0 - 27.0	-	30.2	-	-	-	< 10	76.6	-	-	-	-	35.2	253	-	-	-	-	-
	BH14-18-25A-AD05	Duplicate	27.0 - 27.0	-	31.4	-	-	-	< 10	72.9	-	-	-	-	33.3	232	-	-	-	-	-
	QA/QC RPD%			-	4	-	-	-	*	5	-	-	-	-	*	9	-	-	-	-	-
	BH14-18-27-AD05	2014 03 02	29.0 - 29.0	-	32.8	-	-	-	< 10	61.2	-	-	-	-	45.4	187	-	-	-	-	-
BH14-19	BH14-19-02-AD05	2014 03 02	1.7 - 1.7	-	30.2	-	-	-	30.6	**359**	-	-	-	-	705	1,190	-	-	-	-	-
	BH14-19-24-AD05	2014 03 04	18.9 - 18.9	-	112	-	-	-	< 10	**266**	-	-	-	-	12.8	238	-	-	-	-	-
	BH14-19-37-AD05	2014 03 05	31.2 - 31.2	-	77.3	-	-	-	< 10	7.5	-	-	-	-	20.1	9.7	-	-	-	-	-
BH14-20	BH14-20-01-AD05	2014 03 03	1.8 - 1.8	-	38.4	-	-	-	< 10	10.6	-	-	-	-	68.6	27.5	-	-	-	-	-
	BH14-20-06-AD05	2014 03 03	6.9 - 6.9	-	38.9	-	-	-	< 10	10.7	-	-	-	-	61.3	27.5	-	-	-	-	-
	BH14-20-21-AD05	2014 03 03	22.0 - 22.0	-	35.6	-	-	-	< 10	65.1	-	-	-	-	58.8	183	-	-	-	-	-
	BH14-20-23-AD05	2014 03 03	23.9 - 23.9	-	38.3	-	-	-	< 10	4.9	-	-	-	-	20.8	12.8	-	-	-	-	-
	BH14-20-23A-AD05	Duplicate	23.9 - 23.9	-	40.6	-	-	-	< 10	5.1	-	-	-	-	20.5	12.5	-	-	-	-	-
	QA/QC RPD%			-	6	-	-	-	*	*	-	-	-	-	*	*	-	-	-	-	-
BH14-21	BH14-21-02-AD05	2014 03 03	1.2 - 1.4	-	54.1	-	-	-	< 10	5.8	-	-	-	-	31.6	10.7	-	-	-	-	-
	BH14-21-12-AD05	2014 03 03	8.7 - 8.8	-	34.8	-	-	-	< 10	5.1	-	-	-	-	27.5	14.7	-	-	-	-	-
BH14-22	BH14-22-01-AD05	2014 03 04	1.2 - 1.2	-	59.4	-	-	-	140	**3,290**	-	-	-	-	3,210	5,540	-	-	-	-	-
	BH14-22-19-AD05	2014 03 04	26.8 - 26.8	-	41.4	-	-	-	5.7	61.1	-	-	-	-	131	148	-	-	-	-	-
	BH14-22-19A-AD05	Duplicate	26.8 - 26.8	-	41.7	-	-	-	5.7	56.1	-	-	-	-	130	134	-	-	-	-	-
	QA/QC RPD%			-	1	-	-	-	*	9	-	-	-	-	1	10	-	-	-	-	-
	BH14-22-30-AD05	2014 03 04	29.1 - 29.1	-	41.8	-	-	-	< 10	6.7	-	-	-	-	27.8	16	-	-	-	-	-
BH14-23	BH14-23-01-AD05	2014 03 04	0.6 - 0.6	-	43.5	-	-	-	< 10	11.1	-	-	-	-	114	25.5	-	-	-	-	-
	BH14-23-02-AD05	2014 03 04	1.2 - 1.2	-	40.3	-	-	-	5.7	10.3	-	-	-	-	131	25.6	-	-	-	-	-
	BH14-23-15-AD05	2014 03 04	16.3 - 16.3	-	68.1	-	-	-	< 10	**120**	-	-	-	-	97.8	176	-	-	-	-	-
	BH14-23-16-AD05	2014 03 04	17.5 - 17.5	-	58.5	-	-	-	< 10	**122**	-	-	-	-	105	208	-	-	-	-	-
	BH14-23-17-AD05	2014 03 04	19.7 - 19.7	-	54	-	-	-	< 10	51.8	-	-	-	-	47.4	95.9	-	-	-	-	-
	BH14-23-23-AD05	2014 03 04	27.0 - 27.0	-	42.8	-	-	-	< 10	4.6	-	-	-	-	20.1	10.7	-	-	-	-	-
	BH14-23-23A-AD05	Duplicate	27.0 - 27.0	-	40.1	-	-	-	< 10	6.4	-	-	-	-	24.9	15.9	-	-	-	-	-
	QA/QC RPD%			-	7	-	-	-	*	*	-	-	-	-	*	*	-	-	-	-	-
BH14-24	BH14-24-01-AD05	2014 03 05	0.8 - 0.8	-	38.4	-	-	-	86.1	**1,110**	-	-	-	-	1,980	2,880	-	-	-	-	-
	BH14-24-02-AD05	2014 03 05	1.1 - 1.1	-	64.9	-	-	-	59.9	**1,280**	-	-	-	-	1,380	1,970	-	-	-	-	-
	BH14-24-03-AD05	2014 03 05	1.5 - 1.5	-	43.5	-	-	-	23.4	**368**	-	-	-	-	538	847	-	-	-	-	-
	BH14-24-12-AD05	2014 03 05	20.1 - 20.1	-	40	-	-	-	< 10	5.1	-	-	-	-	16	12.7	-	-	-	-	-
BH14-25	BH14-25-01-AD05	2014 03 06	2.0 - 2.0	-	40.1	-	-	-	9.5	42.3	-	-	-	-	219	106	-	-	-	-	-
	BH14-25-06-AD05	2014 03 06	9.9 - 9.9	-	45.8	-	-	-	< 10	7.4	-	-	-	-	68.1	16.2	-	-	-	-	-
	BH14-25-09-AD05	2014 03 06	12.8 - 12.8	-	41.5	-	-	-	< 10	**131**	-	-	-	-	39.3	317	-	-	-	-	-
	BH14-25-09A-AD05	Duplicate	12.8 - 12.8	-	38.3	-	-	-	< 10	**107**	-	-	-	-	39.4	279	-	-	-	-	-
	QA/QC RPD%			-	8	-	-	-	*	20	-	-	-	-	*	13	-	-	-	-	-
Federal Guideline																					
CCME CEQG Residential Land Use (RL)				n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5
BC Standard																					
CSR Residential Land Use (RL) (sample depth < 3.0m)[a]				n/a	n/a	n/a	n/a	n/a	200	90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CSR Commercial Land Use (CL) (sample depth > 3.0m)[a]				n/a	n/a	n/a	n/a	n/a	1,000	90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

TABLE 4 (Cont'd): Summary of Analytical Results for Soil Salinity

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Soil Salinity																	
				Salinity mg/L	% Saturation %	Saturation pH pH	Saturated Paste Conductivity uS/cm	Theoretical Gypsum Req. t/ha	Saturated Paste Sodium µg/g	Saturated Paste Chloride µg/g	Water Soluble Calcium µg/g	Water Soluble Magnesium µg/g	Water Soluble Potassium µg/g	Water Soluble Sulphate µg/g	Soluble Sodium mg/L	Soluble Chloride mg/L	Soluble Calcium mg/L	Soluble Magnesium mg/L	Soluble Potassium mg/L	Soluble Sulphate mg/L	Sodium Adsorption Ratio None
BH14-26	BH14-26-23-AD05	2014 03 07	32.8 - 32.8	-	60.6	-	-	-	< 10	30.5	-	-	-	-	59.7	50.3	-	-	-	-	-
BH14-27	BH14-27-01-AD05	2014 03 06	1.5 - 1.5	-	56.1	-	-	-	6.2	33.2	-	-	-	-	142	59.2	-	-	-	-	-
	BH14-27-06-AD05	2014 03 06	7.8 - 7.8	-	57.4	-	-	-	7.4	80.3	-	-	-	-	171	140	-	-	-	-	-
	BH14-27-10-AD05	2014 03 07	12.7 - 12.7	-	46.9	-	-	-	< 10	52.1	-	-	-	-	33.3	111	-	-	-	-	-
	BH14-27-10A-AD05	Duplicate	12.7 - 12.7	-	44.1	-	-	-	< 10	60.2	-	-	-	-	41	137	-	-	-	-	-
	QA/QC RPD%			-	6	-	-	-	*	14	-	-	-	-	*	21	-	-	-	-	-
	BH14-27-11-AD05	2014 03 07	13.1 - 13.1	-	35.6	-	-	-	< 10	3.5	-	-	-	-	16.8	9.7	-	-	-	-	-
BH14-28	BH14-28-01-AD05	2014 03 07	0.9 - 0.9	-	69.3	-	-	-	7.7	28.8	-	-	-	-	178	41.6	-	-	-	-	-
	BH14-28-07-AD05	2014 03 07	12.8 - 12.8	-	56.9	-	-	-	12	**164**	-	-	-	-	275	287	-	-	-	-	-
	BH14-28-10-AD05	2014 03 07	15.9 - 15.9	-	34.6	-	-	-	< 10	39.1	-	-	-	-	30.5	113	-	-	-	-	-
FIRE14BKSS1	FIRE14BKSS1	2014 03 01	0.0 - 0.5	-	107	-	-	-	< 10	16.8	-	-	-	-	12.1	15.7	-	-	-	-	-
FIRE14BKSS2	FIRE14BKSS2	2014 03 02	0.0 - 0.5	-	226	-	-	-	< 10	47	-	-	-	-	7.7	20.6	-	-	-	-	-
FIRE14BKSS3	FIRE14BKSS3	2014 03 02	0.0 - 0.5	-	263	-	-	-	< 10	52	-	-	-	-	9	19.8	-	-	-	-	-
FIRE14SS4	FIRE14SS4	2014 02 28	0.0 - 0.5	-	280	-	-	-	< 10	**222**	-	-	-	-	8.2	79.2	-	-	-	-	-
FIRE14SS5	FIRE14SS5	2014 03 01	0.0 - 0.5	-	149	-	-	-	< 10	47.5	-	-	-	-	14.5	32	-	-	-	-	-
FIRE14SS6	FIRE14SS6	2014 03 01	0.0 - 0.5	-	179	-	-	-	< 10	44.4	-	-	-	-	9.7	24.8	-	-	-	-	-
FIRE14SS8	FIRE14SS8	2014 03 01	0.0 - 0.5	-	60.1	-	-	-	< 10	13	-	-	-	-	19.1	21.7	-	-	-	-	-
	FIRE14-DUP1	Duplicate	0.0 - 0.5	-	49	-	-	-	< 10	13.1	-	-	-	-	25.1	26.8	-	-	-	-	-
	QA/QC RPD%			-	20	-	-	-	*	1	-	-	-	-	*	*	-	-	-	-	-
RES1	RES1-1	2006 08 07	0.6 - 0.6	-	-	-	-	-	-	**94**	-	-	-	-	-	-	-	-	-	-	-
RES2	RES2-1	2006 08 07	0.0 - 0.1	-	-	-	-	-	-	23	-	-	-	-	-	-	-	-	-	-	-
RES3	RES3-1	2006 08 07	0.0 - 0.1	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-
RES4	RES4-1	2006 08 07	0.0 - 0.1	-	-	-	-	-	-	< 5	-	-	-	-	-	-	-	-	-	-	-
RES5	RES5-1	2006 08 07	0.2 - 0.2	-	-	-	-	-	-	19	-	-	-	-	-	-	-	-	-	-	-
RES6	RES6-1	2006 08 07	0.0 - 0.1	-	-	-	-	-	-	< 5	-	-	-	-	-	-	-	-	-	-	-
RES7	RES7-1	2006 08 07	0.0 - 0.1	-	-	-	-	-	-	< 5	-	-	-	-	-	-	-	-	-	-	-
	GR58b	Duplicate	0.0 - 0.1	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%			-	-	-	-	-	-	*	-	-	-	-	-	-	-	-	-	-	-
RES8	RES8-1	2006 08 07	0.0 - 0.1	-	-	-	-	-	-	< 5	-	-	-	-	-	-	-	-	-	-	-
GARDEN1	Garden 1	2006 08 19	0.0 - 0.1	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-
GARDEN2	Garden 2	2006 08 19	0.0 - 0.1	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-
SS14-01	SS14-01-01-AD05	2014 02 20	0.0 - 0.5	-	58.2	-	-	-	< 10	18.5	-	-	-	-	19.2	31.8	-	-	-	-	-
	SS14-01-02-AD05	2014 02 20	0.5 - 1.0	-	60.9	-	-	-	< 10	23.1	-	-	-	-	20.3	38	-	-	-	-	-
	SS14-01-03-AD05	2014 02 20	1.0 - 1.5	-	60.9	-	-	-	< 10	30.3	-	-	-	-	35.8	49.8	-	-	-	-	-
SS14-02	SS14-02-01-AD05	2014 02 20	0.0 - 0.5	-	49.8	-	-	-	12.2	32.7	-	-	-	-	281	65.7	-	-	-	-	-
	SS14-02-02-AD05	2014 02 20	0.5 - 1.0	-	51.8	-	-	-	13.3	40.8	-	-	-	-	306	78.9	-	-	-	-	-
	SS14-02-03-AD05	2014 02 20	1.0 - 1.5	-	45.9	-	-	-	15.7	38.1	-	-	-	-	362	82.9	-	-	-	-	-
SS14-03	SS14-03-01-AD05	2014 02 20	0.0 - 0.5	-	48.5	-	-	-	< 10	11.6	-	-	-	-	57.8	23.9	-	-	-	-	-
	SS14-D1-01-AD05	Duplicate	0.0 - 0.5	-	53.7	-	-	-	< 10	20.8	-	-	-	-	62.7	38.7	-	-	-	-	-
	QA/QC RPD%			-	10	-	-	-	*	57	-	-	-	-	8	*	-	-	-	-	-
	SS14-03-02-AD05	2014 02 20	0.5 - 1.0	-	44.1	-	-	-	< 10	8.4	-	-	-	-	49	18.9	-	-	-	-	-
	SS14-03-03-AD05	2014 02 20	1.0 - 1.5	-	43.2	-	-	-	< 10	10.9	-	-	-	-	51.3	25.3	-	-	-	-	-
SS14-04	SS14-04-01-AD05	2014 02 20	0.0 - 0.5	-	46	-	-	-	< 10	8.9	-	-	-	-	27.1	19.3	-	-	-	-	-
	SS14-04-02-AD05	2014 02 20	0.5 - 1.0	-	42	-	-	-	< 10	15.8	-	-	-	-	46.5	37.7	-	-	-	-	-
	SS14-04-03-AD05	2014 02 20	1.0 - 1.5	-	41	-	-	-	< 10	12.9	-	-	-	-	44.5	31.5	-	-	-	-	-
SS14-05	SS14-05-01-AD05	2014 02 20	0.0 - 0.5	-	41.2	-	-	-	< 10	8.4	-	-	-	-	24.8	20.3	-	-	-	-	-
	SS14-05-02-AD05	2014 02 20	0.5 - 1.0	-	38.2	-	-	-	< 10	8.4	-	-	-	-	28.4	22	-	-	-	-	-
	SS14-05-03-AD05	2014 02 20	1.0 - 1.5	-	38.5	-	-	-	< 10	7.1	-	-	-	-	25.6	18.3	-	-	-	-	-
SS14-06	SS14-06-01-AD05	2014 02 20	0.0 - 0.5	-	39.7	-	-	-	< 10	22	-	-	-	-	32.9	55.4	-	-	-	-	-
	SS14-06-02-AD05	2014 02 20	0.5 - 1.0	-	42.9	-	-	-	< 10	24.1	-	-	-	-	48.9	56.2	-	-	-	-	-
	SS14-06-03-AD05	2014 02 20	1.0 - 1.5	-	35.5	-	-	-	< 10	18.4	-	-	-	-	35.1	51.8	-	-	-	-	-
SS14-07	SS14-07-01-AD05	2014 02 20	0.0 - 0.5	-	34	-	-	-	< 10	11.2	-	-	-	-	47.6	32.8	-	-	-	-	-
	SS14-07-02-AD05	2014 02 20	0.5 - 1.0	-	38.5	-	-	-	< 10	11.6	-	-	-	-	47.4	30.1	-	-	-	-	-
	SS14-07-03-AD05	2014 02 20	1.0 - 1.5	-	33.9	-	-	-	< 10	9.1	-	-	-	-	41.9	26.9	-	-	-	-	-
Federal Guideline																					
CCME CEQG Residential Land Use (RL)				n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5
BC Standard																					
CSR Residential Land Use (RL) (sample depth < 3.0m)[a]				n/a	n/a	n/a	n/a	n/a	200	90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CSR Commercial Land Use (CL) (sample depth > 3.0m)[a]				n/a	n/a	n/a	n/a	n/a	1,000	90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

[a] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

TABLE 4 (Cont'd): Summary of Analytical Results for Soil Salinity

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Soil Salinity																	
				Salinity mg/L	% Saturation %	Saturation pH pH	Saturated Paste Conductivity uS/cm	Theoretical Gypsum Req. t/ha	Saturated Paste Sodium µg/g	Saturated Paste Chloride µg/g	Water Soluble Calcium µg/g	Water Soluble Magnesium µg/g	Water Soluble Potassium µg/g	Water Soluble Sulphate µg/g	Soluble Sodium mg/L	Soluble Chloride mg/L	Soluble Calcium mg/L	Soluble Magnesium mg/L	Soluble Potassium mg/L	Soluble Sulphate mg/L	Sodium Adsorption Ratio None
SS14-08	SS14-08-01-AD05	2014 02 20	0.0 - 0.5	-	43.5	-	-	-	< 10	9	-	-	-	-	38.9	20.8	-	-	-	-	-
	SS14-08-02-AD05	2014 02 20	0.5 - 1.0	-	43.9	-	-	-	< 10	9.4	-	-	-	-	39.6	21.4	-	-	-	-	-
	SS14-08-03-AD05	2014 02 20	1.0 - 1.5	-	34.5	-	-	-	< 10	6.5	-	-	-	-	34.1	18.9	-	-	-	-	-
	SS14-D2-01-AD05	Duplicate	1.0 - 1.5	-	41.5	-	-	-	< 10	10.1	-	-	-	-	34.2	24.3	-	-	-	-	-
	QA/QC RPD%			-	18	-	-	-	*	*	-	-	-	-	*	*	-	-	-	-	-
SS14-09	SS14-09-01-AD05	2014 02 20	0.0 - 0.5	-	42.9	-	-	-	< 10	7.7	-	-	-	-	25.6	17.9	-	-	-	-	-
	SS14-09-02-AD05	2014 02 20	0.5 - 1.0	-	44.8	-	-	-	< 10	8.7	-	-	-	-	28	19.5	-	-	-	-	-
	SS14-D3-01-AD05	Duplicate	0.5 - 1.0	-	41.7	-	-	-	< 10	11	-	-	-	-	25	26.3	-	-	-	-	-
	QA/QC RPD%			-	7	-	-	-	*	*	-	-	-	-	*	*	-	-	-	-	-
	SS14-09-03-AD05	2014 02 20	1.0 - 1.5	-	35.4	-	-	-	< 10	8.4	-	-	-	-	28.8	23.7	-	-	-	-	-
SS14-10	SS14-10-01-AD05	2014 02 20	0.0 - 0.5	-	37.4	-	-	-	< 10	6.8	-	-	-	-	25.7	18.2	-	-	-	-	-
	SS14-10-02-AD05	2014 02 20	0.5 - 1.0	-	34.5	-	-	-	< 10	6.5	-	-	-	-	26	18.8	-	-	-	-	-
	SS14-10-03-AD05	2014 02 20	1.0 - 1.5	-	35	-	-	-	< 10	5.8	-	-	-	-	28.9	16.6	-	-	-	-	-
SS14-11	SS14-11-01-AD05	2014 02 20	0.0 - 0.5	-	46.4	-	-	-	< 10	23.7	-	-	-	-	84.2	51	-	-	-	-	-
	SS14-11-02-AD05	2014 02 20	0.5 - 1.0	-	42.3	-	-	-	< 10	27.5	-	-	-	-	94.8	65	-	-	-	-	-
	SS14-11-03-AD05	2014 02 20	1.0 - 1.5	-	44.4	-	-	-	7.4	23.2	-	-	-	-	170	52.3	-	-	-	-	-
SS14-12	SS14-12-01-AD05	2014 02 20	0.0 - 0.5	-	54.1	-	-	-	< 10	14.1	-	-	-	-	23.7	26.1	-	-	-	-	-
	SS14-12-02-AD05	2014 02 20	0.5 - 1.0	-	42.4	-	-	-	< 10	12.7	-	-	-	-	21.1	30	-	-	-	-	-
	SS14-D4-01-AD05	Duplicate	0.5 - 1.0	-	42.8	-	-	-	< 10	10.3	-	-	-	-	20.1	24	-	-	-	-	-
	QA/QC RPD%			-	1	-	-	-	*	21	-	-	-	-	*	*	-	-	-	-	-
	SS14-12-03-AD05	2014 02 20	1.0 - 1.5	-	44.6	-	-	-	< 10	10.8	-	-	-	-	19	24.2	-	-	-	-	-
SS14-13	SS14-13-01-AD05	2014 02 20	0.0 - 0.5	-	50.6	-	-	-	< 10	12.7	-	-	-	-	22.5	25	-	-	-	-	-
	SS14-13-02-AD05	2014 02 20	0.5 - 1.0	-	54.4	-	-	-	< 10	9.8	-	-	-	-	13.9	18	-	-	-	-	-
	SS14-13-03-AD05	2014 02 20	1.0 - 1.5	-	39.6	-	-	-	< 10	12.3	-	-	-	-	23	31.1	-	-	-	-	-
SS14-14	SS14-14-01-AD05	2014 02 20	0.0 - 0.5	-	39.9	-	-	-	< 10	12.8	-	-	-	-	24.6	32.1	-	-	-	-	-
	SS14-14-02-AD05	2014 02 20	0.5 - 1.0	-	39.8	-	-	-	< 10	12.2	-	-	-	-	24	30.7	-	-	-	-	-
	SS14-14-03-AD05	2014 02 20	1.0 - 1.5	-	40.3	-	-	-	< 10	12.7	-	-	-	-	23	31.5	-	-	-	-	-
	SS14-D5-01-AD05	Duplicate	1.0 - 1.5	-	44.9	-	-	-	< 10	12.3	-	-	-	-	21.9	27.3	-	-	-	-	-
	QA/QC RPD%			-	11	-	-	-	*	3	-	-	-	-	*	*	-	-	-	-	-
SS14-15	SS14-15-01-AD05	2014 02 21	0.0 - 0.5	-	66.4	-	-	-	141	**3,800**	-	-	-	-	3,240	5,720	-	-	-	-	-
	SS14-15-02-AD05	2014 02 21	0.5 - 1.0	-	65.6	-	-	-	100	**3,340**	-	-	-	-	2,300	5,100	-	-	-	-	-
	SS14-15-03-AD05	2014 02 21	1.0 - 1.5	-	51	-	-	-	72.8	**1,770**	-	-	-	-	1,670	3,470	-	-	-	-	-
	SS14-D6-01-AD05	Duplicate	1.0 - 1.5	-	49.1	-	-	-	62	**1,320**	-	-	-	-	1,430	2,680	-	-	-	-	-
	QA/QC RPD%			-	4	-	-	-	16	29	-	-	-	-	15	26	-	-	-	-	-
SS14-16	SS14-16-01-AD05	2014 02 21	0.0 - 0.5	-	48.4	-	-	-	< 10	63.6	-	-	-	-	110	131	-	-	-	-	-
	SS14-16-02-AD05	2014 02 21	0.5 - 1.0	-	38.4	-	-	-	< 10	29.4	-	-	-	-	87.5	76.4	-	-	-	-	-
	SS14-16-03-AD05	2014 02 21	1.0 - 1.5	-	42	-	-	-	< 10	24.8	-	-	-	-	79.3	59.2	-	-	-	-	-
	SS14-D7-01-AD05	Duplicate	1.0 - 1.5	-	43.7	-	-	-	< 10	27.1	-	-	-	-	78.2	62	-	-	-	-	-
	QA/QC RPD%			-	4	-	-	-	*	9	-	-	-	-	1	5	-	-	-	-	-
SS14-17	SS14-17-01-AD05	2014 02 21	0.0 - 0.5	-	52.5	-	-	-	< 10	72.9	-	-	-	-	94.7	139	-	-	-	-	-
	SS14-17-02-AD05	2014 02 21	0.5 - 1.0	-	55	-	-	-	5.1	**139**	-	-	-	-	117	252	-	-	-	-	-
	SS14-17-03-AD05	2014 02 21	1.0 - 1.5	-	51	-	-	-	< 10	64.7	-	-	-	-	69	127	-	-	-	-	-
SS14-18	SS14-18-01-AD05	2014 02 21	0.0 - 0.5	-	41.8	-	-	-	< 10	15.2	-	-	-	-	48.3	36.4	-	-	-	-	-
	SS14-18-02-AD05	2014 02 21	0.5 - 1.0	-	53.6	-	-	-	< 10	18	-	-	-	-	40.1	33.6	-	-	-	-	-
	SS14-18-03-AD05	2014 02 21	1.0 - 1.5	-	49.2	-	-	-	< 10	19.1	-	-	-	-	40.2	38.9	-	-	-	-	-
SS14-19	SS14-19-01-AD05	2014 02 21	0.0 - 0.5	-	42.3	-	-	-	47.8	**1,110**	-	-	-	-	1,100	2,620	-	-	-	-	-
	SS14-19-02-AD05	2014 02 21	0.5 - 1.0	-	44.3	-	-	-	28.1	**1,080**	-	-	-	-	646	2,430	-	-	-	-	-
	SS14-19-03-AD05	2014 02 21	1.0 - 1.5	-	43.6	-	-	-	27.3	**918**	-	-	-	-	629	2,110	-	-	-	-	-
SS14-20	SS14-20-01-AD05	2014 02 21	0.0 - 0.5	-	49.5	-	-	-	10.2	47.7	-	-	-	-	234	96.3	-	-	-	-	-
	SS14-20-02-AD05	2014 02 21	0.5 - 1.0	-	44.8	-	-	-	10.8	40.3	-	-	-	-	248	89.9	-	-	-	-	-
	SS14-20-03-AD05	2014 02 21	1.0 - 1.5	-	47.7	-	-	-	7.2	23.5	-	-	-	-	166	49.3	-	-	-	-	-
SS14-21	SS14-21-01-AD05	2014 02 21	0.0 - 0.5	-	35.2	-	-	-	8.5	39.1	-	-	-	-	196	111	-	-	-	-	-
	SS14-21-02-AD05	2014 02 21	0.5 - 1.0	-	40.8	-	-	-	7.6	34.9	-	-	-	-	174	85.5	-	-	-	-	-
	SS14-21-03-AD05	2014 02 21	1.0 - 1.5	-	37.3	-	-	-	8.3	33.1	-	-	-	-	192	88.5	-	-	-	-	-
Federal Guideline																					
CCME CEQG Residential Land Use (RL)				n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5
BC Standard																					
CSR Residential Land Use (RL) (sample depth < 3.0m)[a]				n/a	n/a	n/a	n/a	n/a	200	90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CSR Commercial Land Use (CL) (sample depth > 3.0m)[a]				n/a	n/a	n/a	n/a	n/a	1,000	90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

[a] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

TABLE 4 (Cont'd): Summary of Analytical Results for Soil Salinity

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Soil Salinity																	
				Salinity mg/L	% Saturation %	Saturation pH pH	Saturated Paste Conductivity uS/cm	Theoretical Gypsum Req. t/ha	Saturated Paste Sodium µg/g	Saturated Paste Chloride µg/g	Water Soluble Calcium µg/g	Water Soluble Magnesium µg/g	Water Soluble Potassium µg/g	Water Soluble Sulphate µg/g	Soluble Sodium mg/L	Soluble Chloride mg/L	Soluble Calcium mg/L	Soluble Magnesium mg/L	Soluble Potassium mg/L	Soluble Sulphate mg/L	Sodium Adsorption Ratio None
SS14-22	SS14-22-01-AD05	2014 02 21	0.0 - 0.5	-	35.9	-	-	-	< 10	10.8	-	-	-	-	28.2	30	-	-	-	-	-
	SS14-D8-01-AD05	Duplicate	0.0 - 0.5	-	39.5	-	-	-	< 10	12.2	-	-	-	-	23.6	30.8	-	-	-	-	-
	QA/QC RPD%			-	10	-	-	-	*	12	-	-	-	-	*	*	-	-	-	-	-
	SS14-22-02-AD05	2014 02 21	0.5 - 1.0	-	44.8	-	-	-	< 10	7.9	-	-	-	-	16	17.6	-	-	-	-	-
	SS14-22-03-AD05	2014 02 21	1.0 - 1.5	-	48.5	-	-	-	< 10	12.8	-	-	-	-	20.9	26.3	-	-	-	-	-
SS14-23	SS14-23-01-AD05	2014 02 21	0.0 - 0.5	-	44	-	-	-	< 10	10	-	-	-	-	19.6	22.8	-	-	-	-	-
	SS14-23-02-AD05	2014 02 21	0.5 - 1.0	-	50.4	-	-	-	< 10	11.6	-	-	-	-	19.3	23.1	-	-	-	-	-
	SS14-23-03-AD05	2014 02 21	1.0 - 1.5	-	68.4	-	-	-	< 10	19.2	-	-	-	-	18.2	28	-	-	-	-	-
SS14-24	SS14-24-01-AD05	2014 02 21	0.0 - 0.5	-	57.3	-	-	-	5.2	**115**	-	-	-	-	121	201	-	-	-	-	-
	SS14-24-02-AD05	2014 02 21	0.5 - 1.0	-	48	-	-	-	< 10	85	-	-	-	-	99.7	177	-	-	-	-	-
	SS14-24-03-AD05	2014 02 21	1.0 - 1.5	-	44.6	-	-	-	< 10	35.9	-	-	-	-	68.8	80.5	-	-	-	-	-
Federal Guideline																					
CCME CEQG Residential Land Use (RL)				n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5
BC Standard																					
CSR Residential Land Use (RL) (sample depth < 3.0m)[a]				n/a	n/a	n/a	n/a	n/a	200	90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CSR Commercial Land Use (CL) (sample depth > 3.0m)[a]				n/a	n/a	n/a	n/a	n/a	1,000	90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

[a] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

TABLE 5: Summary of Analytical Results for VOCs in Soil

Volatile Organic Compounds (Table 5, part 1 of 3)

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Bromobenzene µg/g	Bromodichloromethane µg/g	Bromoform µg/g	Bromomethane µg/g	1,3-Butadiene µg/g	Carbon tetrachloride µg/g	Chlorobenzene µg/g	Chloroethane µg/g	Chloroform µg/g	Chloromethane µg/g	Dibromochloromethane µg/g	1,2-Dibromoethane µg/g	1,2-Dichlorobenzene µg/g	1,3-Dichlorobenzene µg/g	1,4-Dichlorobenzene µg/g
TP-35	FS-35-1.0	2002 10 05	1.0 - 1.0	-	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01
BH82	BH82-4	2005 03 15	6.0 - 6.0	-	< 0.01	< 0.01	< 0.04	-	< 0.01	< 0.01	< 0.02	< 0.01	< 0.04	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
BH84	BH84-4	2005 03 16	6.0 - 6.0	-	< 0.01	< 0.01	< 0.04	-	< 0.01	< 0.01	< 0.02	< 0.01	< 0.04	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
SS4	SS4	2005 11 08	0.0 - 0.1	-	< 0.01	< 0.01	< 0.04	-	< 0.01	< 0.01	< 0.02	< 0.01	< 0.04	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
BH13-04	BH13-04-1-AD05	2013 09 22	0.3 - 0.6	< 0.4	< 0.28	< 0.1	< 0.6	< 0.2	< 0.05	< 0.28	< 0.2	< 0.1	< 0.2	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05
	BH13-04-2-AD05	2013 09 22	0.8 - 1.1	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05
	BH13-04-21-AD05	2013 09 22	21.8 - 22.1	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05
	BH13-04-22-AD05	2013 09 22	22.6 - 22.9	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05
	BH13-04-30-AD05	2013 09 23	31.5 - 31.8	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05
BH13-05	BH13-05-02-AD05	2013 09 23	1.1 - 1.4	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.074	< 0.2	< 0.1	< 0.2	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05
	BH13-05-A	Duplicate	1.1 - 1.4	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.168	< 0.2	< 0.1	< 0.2	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05
	QA/QC RPD%			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	BH13-05-27-AD05	2013 09 24	21.9 - 22.2	< 0.4	< 0.22	< 0.1	< 0.6	< 0.2	< 0.05	< 0.24	< 0.2	< 0.1	< 0.2	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05
	BH13-05-28-AD05	2013 09 24	22.6 - 22.9	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.2	< 0.2	< 0.1	< 0.2	< 0.1	< 0.076	< 0.05	< 0.05	< 0.05
	BH13-05-29-AD05	2013 09 24	23.0 - 23.3	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05
	BH13-05-30-AD05	2013 09 24	23.7 - 24.0	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05
	BH13-05-31-AD05	2013 09 24	24.9 - 25.2	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05
BH13-07	BH13-07-01-AD05	2013 09 25	0.3 - 0.6	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.94	< 0.2	< 0.1	< 0.2	< 0.1	< 0.13	< 0.05	< 0.05	< 0.05
	BH13-07-02-AD05	2013 09 25	1.3 - 1.6	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05
	BH13-07-21-AD05	2013 09 26	17.6 - 17.9	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05
	BH13-07-22-AD05	2013 09 26	18.7 - 19.0	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05
BH14-15	BH14-15-01-AD05	2014 02 28	0.3 - 0.3	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	-	< 0.05	< 0.05	< 0.05
	BH14-15-02-AD05	2014 02 28	0.9 - 0.9	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	-	< 0.05	< 0.05	< 0.05
	BH14-15-03-AD05	2014 02 28	1.5 - 1.5	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	-	< 0.05	< 0.05	< 0.05
	BH14-15-15-AD05	2014 03 01	12.8 - 12.8	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	-	< 0.05	< 0.05	< 0.05
BH14-19	BH14-19-41-AD05	2014 03 05	32.8 - 32.8	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	-	< 0.05	< 0.05	< 0.05
	BH14-19-41A-AD05	Duplicate	32.8 - 32.8	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	-	< 0.05	< 0.05	< 0.05
	QA/QC RPD%			*	*	*	*	*	*	*	*	*	*	*	-	*	*	*
BH14-23	BH14-23-01-AD05	2014 03 04	0.6 - 0.6	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	-	< 0.05	< 0.05	< 0.05
	BH14-23-15-AD05	2014 03 04	16.3 - 16.3	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	-	< 0.05	< 0.05	< 0.05
	BH14-23-16-AD05	2014 03 04	17.5 - 17.5	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	-	< 0.05	< 0.05	< 0.05
	BH14-23-17-AD05	2014 03 04	19.7 - 19.7	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	-	< 0.05	< 0.05	< 0.05
BH14-24	BH14-24-18-AD05	2014 03 05	24.7 - 24.7	< 0.4	< 0.1	< 0.1	< 0.6	< 0.2	< 0.05	< 0.05	< 0.2	< 0.1	< 0.2	< 0.1	-	< 0.05	< 0.05	< 0.05
Federal Guideline																		
CCME CEQG Residential Land Use (RL)				n/a	n/a	n/a	n/a	n/a	5	1	n/a	5	n/a	n/a	n/a	1	1	1
BC Standard																		
CSR Residential Land Use (RL) (sample depth < 3.0m)[b]				28	8.2	620	3.9	0.58	5	1	30	5	47	11	0.32	1	1	1
CSR Commercial Land Use (CL) (sample depth > 3.0m)[b]				92	18	2,200	13	1.2	50	10	65	50	160	26	0.73	10	10	10

Volatile Organic Compounds (Table 5, part 2 of 3)

Sample ID	Dichlorodifluoromethane µg/g	1,1-Dichloroethane µg/g	1,2-Dichloroethane µg/g	1,1-Dichloroethylene µg/g	cis-1,2-Dichloroethylene µg/g	trans-1,2-Dichloroethylene µg/g	Dichloromethane µg/g	1,2-Dichloropropane µg/g	cis-1,3-Dichloropropene µg/g	trans-1,3-Dichloropropene µg/g	Hexachlorobutadiene µg/g	2-Hexanone µg/g	Methyl ethyl ketone µg/g	Methyl isobutyl ketone µg/g
FS-35-1.0	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	< 0.01	< 0.01	-	-	-	-
BH82-4	< 0.02	< 0.01	< 0.02	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	-	-	< 0.5	< 0.2
BH84-4	< 0.02	< 0.01	< 0.02	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	-	-	< 0.5	< 0.2
SS4	< 0.02	< 0.01	< 0.02	< 0.01	< 0.01	< 0.01	< 0.3	< 0.01	< 0.01	< 0.01	-	< 0.5	< 0.5	< 0.2
BH13-04-1-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	< 0.4	-	-	-
BH13-04-2-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	< 0.4	-	-	-
BH13-04-21-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	< 0.4	-	-	-
BH13-04-22-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	< 0.4	-	-	-
BH13-04-30-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	< 0.4	-	-	-
BH13-05-02-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	< 0.4	-	-	-
BH13-05-A	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	< 0.4	-	-	-
QA/QC RPD%	-	*	*	*	*	*	*	*	*	*	*	-	-	-
BH13-05-27-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	< 0.4	-	-	-
BH13-05-28-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	< 0.4	-	-	-
BH13-05-29-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	< 0.4	-	-	-
BH13-05-30-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	< 0.4	-	-	-
BH13-05-31-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	< 0.4	-	-	-
BH13-07-01-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	< 0.4	-	-	-
BH13-07-02-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	< 0.4	-	-	-
BH13-07-21-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	< 0.4	-	-	-
BH13-07-22-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	< 0.4	-	-	-
BH14-15-01-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	-	-	-	-
BH14-15-02-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	-	-	-	-
BH14-15-03-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	-	-	-	-
BH14-15-15-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	-	-	-	-
BH14-19-41-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	-	-	-	-
BH14-19-41A-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	-	-	-	-
QA/QC RPD%	-	*	*	*	*	*	*	*	*	*	-	-	-	-
BH14-23-01-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.23	< 0.05	< 0.1	< 0.1	-	-	-	-
BH14-23-15-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	-	-	-	-
BH14-23-16-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	-	-	-	-
BH14-23-17-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	-	-	-	-
BH14-24-18-AD05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.1	< 0.1	-	-	-	-
Federal Guideline														
CCME CEQG Residential Land Use (RL)	n/a	5	5	5	n/a	n/a	5	5	5	5	n/a	n/a	n/a	n/a
BC Standard														
CSR Residential Land Use (RL) (sample depth < 3.0m)[b]	94	5	5	5	5	5	5	5	5	5	62	n/a	22,000	5,300
CSR Commercial Land Use (CL) (sample depth > 3.0m)[b]	310	50	50	50	50	50	50	50	50	50	220	n/a	110,000	47,000

Volatile Organic Compounds (Table 5, part 3 of 3)

Sample ID	Methylene bromide µg/g	1,1,1,2-Tetrachloroethane µg/g	1,1,2,2-Tetrachloroethane µg/g	Tetrachloroethylene µg/g	1,2,3-Trichlorobenzene µg/g	1,2,4-Trichlorobenzene µg/g	1,1,1-Trichloroethane µg/g	1,1,2-Trichloroethane µg/g	Trichloroethylene µg/g	Trichlorofluoromethane µg/g	Vinyl chloride µg/g
FS-35-1.0	-	< 0.01	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
BH82-4	< 0.01	-	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.02
BH84-4	< 0.01	-	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.02
SS4	< 0.01	-	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.02
BH13-04-1-AD05	< 0.58	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.16	< 0.018[a]	< 0.4	< 0.12
BH13-04-2-AD05	< 0.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH13-04-21-AD05	< 0.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH13-04-22-AD05	< 0.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH13-04-30-AD05	< 0.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH13-05-02-AD05	< 0.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH13-05-A	< 0.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
QA/QC RPD%	*	*	*	*	*	*	*	*	*	*	*
BH13-05-27-AD05	< 0.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH13-05-28-AD05	< 0.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH13-05-29-AD05	< 0.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH13-05-30-AD05	< 0.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH13-05-31-AD05	< 0.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH13-07-01-AD05	< 2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH13-07-02-AD05	< 0.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH13-07-21-AD05	< 0.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH13-07-22-AD05	< 0.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH14-15-01-AD05	< 0.4	< 0.05	< 0.05	< 0.05	-	-	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH14-15-02-AD05	< 0.4	< 0.05	< 0.05	< 0.05	-	-	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH14-15-03-AD05	< 0.4	< 0.05	< 0.05	< 0.05	-	-	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH14-15-15-AD05	< 0.4	< 0.05	< 0.114	< 0.05	-	-	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH14-19-41-AD05	< 0.4	< 0.05	< 0.05	< 0.05	-	-	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH14-19-41A-AD05	< 0.4	< 0.05	< 0.05	< 0.05	-	-	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
QA/QC RPD%	*	*	*	*	-	-	*	*	*	*	*
BH14-23-01-AD05	< 0.4	< 0.05	< 0.05	< 0.05	-	-	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH14-23-15-AD05	< 0.4	< 0.05	< 0.05	< 0.05	-	-	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH14-23-16-AD05	< 0.4	< 0.05	< 0.05	< 0.05	-	-	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH14-23-17-AD05	< 0.4	< 0.05	< 0.05	< 0.05	-	-	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
BH14-24-18-AD05	< 0.4	< 0.05	< 0.05	< 0.05	-	-	< 0.05	< 0.05	< 0.018[a]	< 0.4	< 0.12
Federal Guideline											
CCME CEQG Residential Land Use (RL)	n/a	n/a	5	0.2	2	2	5	5	0.01	n/a	n/a
BC Standard											
CSR Residential Land Use (RL) (sample depth < 3.0m)[b]	67	32	4.1	5	2	n/a	5	5	0.015	390	0.79
CSR Commercial Land Use (CL) (sample depth > 3.0m)[b]	230	73	9.3	5	10	n/a	50	50	0.015	2,000	7.5

All terms defined within the body of SNC-Lavalin's report.

<   Denotes concentration less than indicated detection limit or RPD less than indicated value.

-    Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

*   RPDs are not calculated where one or more concentrations are less than five times RDL.

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

[a] Laboratory detection limit exceeds regulatory standard/guideline.

[b] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

TABLE 6: Summary of Analytical Results for PCBs in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	PCBs			
				Arochlor 1242 µg/g	Arochlor 1248 µg/g	Arochlor 1254 µg/g	Arochlor 1260 µg/g
SS4	SS4	2005 11 08	0.0 - 0.1	< 0.03	< 0.03	< 0.03	< 0.03
Federal Guideline							
CCME CEQG Residential Land Use (RL)[a]				1.3	1.3	1.3	1.3
BC Standard							
CSR Residential Land Use (RL) (sample depth < 3.0m)[b]				5	5	5	5
CSR Commercial Land Use (CL) (sample depth > 3.0m)[b]				15	15	15	15

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

[a] Guideline is for Total PCBs. It has been conservatively applied to individual arochlor mixtures.

[b] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

TABLE 7: Summary of Analytical Results for Glycols in Soil

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Glycols				
				Propylene glycol µg/g	Ethylene glycol µg/g	Diethylene glycol µg/g	Triethylene glycol µg/g	Tetraethylene glycol µg/g
SS4	SS4	2005 11 08	0.0 - 0.1	< 10	< 10	< 10	< 20	-
BH13-04	BH13-04-1-AD05	2013 09 22	0.3 - 0.6	-	< 20	< 20	< 20	< 20
	BH13-04-2-AD05	2013 09 22	0.8 - 1.1	-	< 20	< 20	< 20	< 20
	BH13-04-21-AD05	2013 09 22	21.8 - 22.1	-	< 20	< 20	< 20	< 20
	BH13-04-22-AD05	2013 09 22	22.6 - 22.9	-	< 20	< 20	< 20	< 20
	BH13-04-30-AD05	2013 09 23	31.5 - 31.8	-	< 20	< 20	< 20	< 20
BH13-05	BH13-05-02-AD05	2013 09 23	1.1 - 1.4	-	< 20	< 20	< 20	< 20
	BH13-05-A	Duplicate	1.1 - 1.4	-	< 20	< 20	< 20	< 20
	QA/QC RPD%			-	*	*	*	*
	BH13-05-27-AD05	2013 09 24	21.9 - 22.2	< 20	< 20	< 20	< 20	< 20
	BH13-05-28-AD05	2013 09 24	22.6 - 22.9	< 20	< 20	< 20	< 20	< 20
	BH13-05-29-AD05	2013 09 24	23.0 - 23.3	< 20	< 20	< 20	< 20	< 20
	BH13-05-30-AD05	2013 09 24	23.7 - 24.0	< 20	< 20	< 20	< 20	< 20
	BH13-05-31-AD05	2013 09 24	24.9 - 25.2	< 20	< 20	< 20	< 20	< 20
BH13-07	BH13-07-01-AD05	2013 09 25	0.3 - 0.6	< 20	< 20	< 20	< 20	< 20
	BH13-07-02-AD05	2013 09 25	1.3 - 1.6	< 20	< 20	< 20	< 20	< 20
	BH13-07-21-AD05	2013 09 26	17.6 - 17.9	< 20	< 20	< 20	< 20	< 20
	BH13-07-22-AD05	2013 09 26	18.7 - 19.0	-	< 20	< 20	< 20	< 20
BH14-09	BH14-09-41-AD05	2014 02 17	31.2 - 31.2	< 20	< 20	< 20	< 20	< 20
BH14-10	BH14-10-42-AD05	2014 02 20	31.9 - 31.9	< 20	< 20	< 20	< 20	< 20
	BH14-10-44-AD05	2014 02 20	33.1 - 33.1	< 20	< 20	< 20	< 20	< 20
BH14-11	BH14-11-02-AD05	2014 02 21	1.4 - 1.4	< 20	< 20	< 20	< 20	< 20
	BH14-11-02A-AD05	Duplicate	1.4 - 1.4	< 20	< 20	< 20	< 20	< 20
	QA/QC RPD%			*	*	*	*	*
BH14-13	BH14-13-30-AD05	2014 02 28	22.1 - 22.1	< 20	< 20	< 20	< 20	< 20
	BH14-13-30A-AD05	Duplicate	22.1 - 22.1	< 20	< 20	< 20	< 20	< 20
	QA/QC RPD%			*	*	*	*	*
BH14-14	BH14-14-19-AD05	2014 02 28	11.4 - 11.4	< 20	< 20	< 20	< 20	< 20
BH14-15	BH14-15-01-AD05	2014 02 28	0.3 - 0.3	< 20	< 20	< 20	< 20	< 20
	BH14-15-02-AD05	2014 02 28	0.9 - 0.9	< 20	< 20	< 20	< 20	< 20
	BH14-15-03-AD05	2014 02 28	1.5 - 1.5	< 20	< 20	< 20	< 20	< 20
	BH14-15-15-AD05	2014 03 01	12.8 - 12.8	< 20	< 20	< 20	< 20	< 20
BH14-19	BH14-19-41-AD05	2014 03 05	32.8 - 32.8	< 20	< 20	< 20	< 20	< 20
	BH14-19-41A-AD05	Duplicate	32.8 - 32.8	< 20	< 20	< 20	< 20	< 20
	QA/QC RPD%			*	*	*	*	*
BH14-20	BH14-20-21-AD05	2014 03 03	22.0 - 22.0	< 20	< 20	< 20	< 20	< 20
BH14-23	BH14-23-01-AD05	2014 03 04	0.6 - 0.6	< 20	< 20	< 20	< 20	< 20
	BH14-23-15-AD05	2014 03 04	16.3 - 16.3	< 20	< 20	< 20	< 20	< 20
	BH14-23-16-AD05	2014 03 04	17.5 - 17.5	< 20	< 20	< 20	< 20	< 20
	BH14-23-17-AD05	2014 03 04	19.7 - 19.7	< 20	< 20	< 20	< 20	< 20
	BH14-23-23-AD05	2014 03 04	27.0 - 27.0	< 20	< 20	< 20	< 20	< 20
	BH14-23-23A-AD05	Duplicate	27.0 - 27.0	< 20	< 20	< 20	< 20	< 20
	QA/QC RPD%			*	*	*	*	*
BH14-24	BH14-24-12-AD05	2014 03 05	20.1 - 20.1	< 20	< 20	< 20	< 20	< 20
	BH14-24-18-AD05	2014 03 05	24.7 - 24.7	< 20	< 20	< 20	< 20	< 20
Federal Guideline								
CCME CEQG Residential Land Use (RL)				n/a	960	n/a	n/a	n/a
BC Standard								
CSR Residential Land Use (RL) (sample depth < 3.0m) [a]				30,000	1,500	n/a	n/a	n/a
CSR Commercial Land Use (CL) (sample depth > 3.0m) [a]				100,000	1,500	n/a	n/a	n/a

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n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

BOLD Concentration greater than CCME CEQG Residential Land Use (RL) Guideline

SHADOW Concentration greater than CSR Residential Land Use (RL) Standard (Commercial Land Use [CL] below 3.0 m).

[a] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by freshwater aquatic life (whichever is most stringent).

TABLE 8: Summary of Analytical Results for Hydrocarbons in Groundwater

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Monocyclic Aromatic Hydrocarbons					Gross Parameters					Petroleum Hydrocarbon Fractions				MTBE
			Benzene µg/L	Ethylbenzene µg/L	Toluene µg/L	Xylenes µg/L	Styrene µg/L	VH (C6-C10) µg/L	VPH (C6-C10) µg/L	EPH (C10-C19) µg/L	LEPH (C10-C19)[d] µg/L	EPH (C19-C32) µg/L	F1 (C6-C10) µg/L	F2 (>C10-C16) µg/L	F3 (>C16-C34) µg/L	F4 (>C34-C50) µg/L	MTBE µg/L
BH113M	BH113M (2006)	2006 08 20	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	< 250	-	-	-	-	-
	BH113M (2007)	2007 08 22	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	< 250	-	-	-	-	< 0.5
	GR71	Duplicate	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	< 250	-	-	-	-	< 0.5
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	-	-	-	-	*
	BH113M (2008)	2008 10 06	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	< 250	-	-	-	-	< 0.5
	GR81	Duplicate	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	< 250	-	-	-	-	< 0.5
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	-	-	-	-	*
	BH113M (2009)	2009 10 19	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	< 250	-	-	-	-	-
	BH113M (2010)	2010 09 08	< 0.500	< 0.500	< 1	< 0.710	< 0.500	< 100	< 100	< 250	< 250	< 250	-	-	-	-	< 0.500
BH118M	BH118M (2009)	2009 10 19	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	350	-	-	-	-	-
	GR82	Duplicate	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	380	-	-	-	-	-
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	-	-	-	-	-
	BH118M (2010)	2010 09 08	< 0.500	< 0.500	< 1	< 0.710	< 0.500	< 100	< 100	< 250	< 250	< 250	-	-	-	-	< 0.500
	GR1	Duplicate	< 0.500	< 0.500	< 1	< 0.710	< 0.500	< 100	< 100	< 250	< 250	< 250	-	-	-	-	< 0.500
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	-	-	-	-	*
	BH118M (2011)	2011 09 16	< 0.5	< 0.5	< 0.5	< 0.75	< 0.5	< 100	< 100	< 250	< 250	< 250	-	-	-	-	< 0.5
BH119M	BH119M (2009)	2009 10 19	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	< 250	-	-	-	-	-
	BH119M (2010)	2010 09 08	< 0.500	< 0.500	< 1	< 0.710	< 0.500	< 100	< 100	< 250	< 250	< 250	-	-	-	-	< 0.500
BH120M	BH120M (2009)	2009 10 19	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	< 250	-	-	-	-	-
	BH120M (2010)	2010 09 08	< 0.500	< 0.500	< 1	< 0.710	< 0.500	< 100	< 100	< 250	< 250	< 250	-	-	-	-	< 0.500
BH12-02	MW12-02-AD05	2012 10 24	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 100	< 100	< 100	< 100	< 100	-	-	-	-	< 1
	MW12-A-AD05	Duplicate	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 100	< 100	< 100	< 100	< 100	-	-	-	-	< 1
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	-	-	-	-	*
	MW12-02-AD05	2013 03 14	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 100	< 100	< 100	< 100	< 100	-	-	-	-	< 1
	MW12-A-AD05	Duplicate	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 100	< 100	< 100	< 100	< 100	-	-	-	-	< 1
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	-	-	-	-	*
	MW12-02-AD05	2013 07 26	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
BH13-03	MW13-03-AD05	2013 03 14	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	MW13-03-AD05	2013 07 26	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	MW13-C-AD05	Duplicate	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	-	-	-	-	-
	MW13-C-AD05	2013 07 26	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	zMW13-03-AD05	2013 10 01	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
BH13-04	zMW13-04-AD05	2013 10 02	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	BH13-04	2013 10 29	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	BH13-04-GW2-AD05	2014 08 18	-	-	-	-	-	-	-	< 400	< 400	< 400	-	-	-	-	-
	MW13-04-141030	2014 10 30	-	-	-	-	-	-	-	< 200	< 200	< 200	-	-	-	-	-
	BH13-04-6W03-AD05	2015 10 01	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 300	< 300	< 200	< 200	< 200	-	-	-	-	< 4.0
BH13-05	BH13-05	2013 10 29	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	590	**590**	< 400	-	-	-	-	< 8
	DUP 1	Duplicate	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	690	**680**	< 400	-	-	-	-	< 8
	QA/QC RPD%		*	*	*	*	*	*	*	16	14	*	-	-	-	-	*
	BH13-05-GW2-AD05	2014 08 15	-	-	-	-	-	-	-	200	< 400	< 400	-	-	-	-	-
	BH14-B-GW2-AD05	Duplicate	-	-	-	-	-	-	-	200	< 400	< 400	-	-	-	-	-
	QA/QC RPD%		-	-	-	-	-	-	-	*	*	*	-	-	-	-	-
	MW13-05-141030	2014 10 30	-	-	-	-	-	-	-	360	360	< 200	-	-	-	-	-
	BH13-05-GW03-AD05	2015 09 28	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 300	< 300	910	**910**	< 200	-	-	-	-	< 4.0
	DUP 1	Duplicate	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 300	< 300	890	**890**	< 200	-	-	-	-	< 4.0
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	-	-	-	-	*
BH13-06	BH13-06	2013 10 29	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 600	< 600	**8,200**	**8,200**	560	-	-	-	-	< 8
	BH13-06-GW2-AD05	2014 08 13	-	-	-	-	-	-	-	340	340	< 400	-	-	-	-	-
	MW13-06-141031	2014 10 31	-	-	-	-	-	-	-	460	460	< 200	-	-	-	-	-
	BH13-06-GW03-AD05	2015 09 28	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 300	< 300	340	340	< 200	-	-	-	-	< 4.0
BH13-07	zMW13-07-AD05	2013 10 01	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	BH13-07	2013 10 29	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	200	-	-	-	-	< 8
BH13-08	BH13-08	2013 12 09	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 600	< 600	< 400	< 400	270	-	-	-	-	< 8
	BH13-08-100	Duplicate	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	-	-	-	-	*
	BH13-08-GW01-AD05	2014 03 11	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	BH13-08-GW2-AD05	2014 08 17	-	-	-	-	-	-	-	< 400	< 400	< 400	-	-	-	-	-
	MW13-08-141101	2014 11 01	-	-	-	-	-	-	-	< 200	< 200	< 200	-	-	-	-	-
BH14-09	BH14-09-GW01-AD05	2014 03 12	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	BH14-09-GW2-AD05	2014 08 18	-	-	-	-	-	-	-	< 400	< 400	< 400	-	-	-	-	-
	MW14-09-141101	2014 11 01	-	-	-	-	-	-	-	< 200	< 200	230	-	-	-	-	-
	BH14-09-6W03-AD05	2015 10 01	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 300	< 300	< 200	< 200	290	-	-	-	-	< 4.0
BH14-10	BH14-10-GW01-AD05	2014 03 11	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	3,400	**3,400**	270	-	-	-	-	< 8
	BH14-10-GW2-AD05	2014 08 13	-	-	-	-	-	-	-	250	250	< 400	-	-	-	-	-
	MW14-10-141030	2014 10 30	-	-	-	-	-	-	-	< 200	< 200	< 200	-	-	-	-	-
	BH14-10-GW03-AD05	2015 09 28	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 300	< 300	920	**920**	< 200	-	-	-	-	< 4.0
	PUMPTEST	2014 08 14	-	-	-	-	-	-	-	280	280	< 200	-	-	-	-	-
BH14-11	BH14-11-GW01-AD05	2014 03 10	< 0.8	< 0.8	< 0.8	< 0.8	< 1	740	740	**56,000**	**56,000**	6,600	-	-	-	-	< 8
	BH14-11-GW2-AD05	2014 08 14	-	-	-	-	-	-	-	220	220	< 400	-	-	-	-	-
	MW14-11-141031	2014 10 31	-	-	-	-	-	-	-	1,400	**1,300**	210	-	-	-	-	-
	BH14-11-GW03-AD05	2015 09 28	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 300	< 300	4,400	**4,400**	650	-	-	-	-	< 4.0
BH14-12	BH14-12-GW01-AD05	2014 03 09	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	BH14-12-GW2-AD05	2014 08 17	-	-	-	-	-	-	-	< 400	< 400	< 400	-	-	-	-	-
	MW14-12-141101	2014 11 01	-	-	-	-	-	-	-	< 200	< 200	< 200	-	-	-	-	-
BH14-13	BH14-13-GW01-AD05	2014 03 10	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	BH14-13-GW2-AD05	2014 08 18	-	-	-	-	-	-	-	< 400	< 400	< 400	-	-	-	-	-
	MW14-13-141101	2014 11 01	-	-	-	-	-	-	-	< 200	< 200	< 200	-	-	-	-	-
BH14-14	BH14-14-GW01-AD05	2014 03 09	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	BH14-14-GW2-AD05	2014 08 19	-	-	-	-	-	-	-	< 400	< 400	< 400	-	-	-	-	-
	MW14-14-141031	2014 10 31	-	-	-	-	-	-	-	< 200	< 200	< 200	-	-	-	-	-
BH14-15	BH14-15-GW01-AD05	2014 03 10	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	BH14-15A-GW01-AD05	Duplicate	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	-	-	-	-	*
	BH14-15-GW2-AD05	2014 08 14	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	260	260	< 400	-	-	-	-	< 8
	BH14-A-GW2-AD05	Duplicate	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	290	290	< 400	-	-	-	-	< 8
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	-	-	-	-	*
	MW14-15-141030	2014 10 30	-	-	-	-	-	-	-	< 200	< 200	< 200	-	-	-	-	-
	MW14-A-141030	Duplicate	-	-	-	-	-	-	-	< 200	< 200	< 200	-	-	-	-	-
	QA/QC RPD%		-	-	-	-	-	-	-	*	*	*	-	-	-	-	-
BH14-16	BH14-16-GW01-AD05	2014 03 09	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	BH14-16-GW2-AD05	2014 08 19	-	-	-	-	-	-	-	< 400	< 400	< 400	-	-	-	-	-
	MW14-16-141101	2014 11 01	-	-	-	-	-	-	-	< 200	< 200	< 200	-	-	-	-	-
BH14-18	BH14-18-GW01-AD05	2014 03 13	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	830	**830**	< 400	-	-	-	-	< 8
	BH14-18-GW2-AD05	2014 08 17	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	280	280	< 400	-	-	-	-	< 8
	MW14-18-141030	2014 10 30	-	-	-	-	-	-	-	720	**720**	< 200	-	-	-	-	-
	BH14-18-GW03-AD05	2015 09 28	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 300	< 300	1,500	**1,500**	360	-	-	-	-	< 4.0
Federal Guideline																	
Canadian Drinking Water Quality Guidelines (CDWQG			5	1.6	24	20	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	15
FGQG Tier 2 Residential Land Use (RL)[a]			140	16,000	83	3,900	72	n/a	n/a	n/a	n/a	n/a	810	1,300	n/a	n/a	340
BC Standard																	
CSR Drinking Water (DW)			5	2.4	24	300	n/a	15,000[c]	n/a	5,000[c]	n/a	n/a	n/a	n/a	n/a	n/a	15
CSR Aquatic Life (AW)[b]			4,000	2,000	390	n/a	720	15,000[c]	1,500	5,000[c]	500	n/a	n/a	n/a	n/a	n/a	34,000

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Pathways Included: Freshwater Aquatic Life - Coarse, Inhalation - Coarse, Soil Organisms Direct Contact - Coarse (whichever is most stringent).

[b] Standard to protect freshwater aquatic life.

[c] Applicable at all sites irrespective of water use.

[d] Where available, values corrected for the presence of individual PAH are shown. Otherwise, uncorrected values are shown.

SHADED Concentration greater than Canadian Drinking Water Quality Guidelines (CDWQG) Guideline

BOLD Concentration greater than FGQG Tier 2 Residential Land Use (RL) Guideline

OUTLINE Concentration greater than CSR Drinking Water (DW) standard

SHADOW Concentration greater than CSR Aquatic Life (AW) standard

YELLOW VPH or LEPH concentration greater than FGQG RL F1 or F2 guideline (potential FGQG exceedance), only applied where no F1 or F2 concentration is available.

TABLE 8 (Cont'd): Summary of Analytical Results for Hydrocarbons in Groundwater

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Monocyclic Aromatic Hydrocarbons					Gross Parameters					Petroleum Hydrocarbon Fractions				MTBE
			Benzene µg/L	Ethylbenzene µg/L	Toluene µg/L	Xylenes µg/L	Styrene µg/L	VH (C6-C10) µg/L	VPH (C6-C10) µg/L	EPH (C10-C19) µg/L	LEPH (C10-C19)[d] µg/L	EPH (C19-C32) µg/L	F1 (C6-C10) µg/L	F2 (>C10-C16) µg/L	F3 (>C16-C34) µg/L	F4 (>C34-C50) µg/L	MTBE µg/L
BH14-19	BH14-19-GW01-AD05	2014 03 10	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	MW14-19-141101	2014 11 01	-	-	-	-	-	-	-	< 200	< 200	< 200	-	-	-	-	-
BH14-20	BH14-20-GW01-AD05	2014 03 10	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	370	370	< 400	-	-	-	-	< 8
	BH14-20-GW2-AD05	2014 08 14	< 0.8	< 0.8	< 0.8	< 0.8	-	< 600	< 600	300	300	< 400	-	-	-	-	-
	MW14-20-141101	2014 11 01	-	-	-	-	-	-	-	520	**520**	< 200	-	-	-	-	-
	BH14-20-6W03-AD05	2015 10 01	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 300	< 300	520	**520**	< 200	-	-	-	-	< 4.0
BH14-22	BH14-22-GW01-AD05	2014 03 11	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	BH14-22A-GW01-AD05	Duplicate	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	-	-	-	-	*
	BH14-22-GW2-AD05	2014 08 15	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	MW14-22-141031	2014 10 31	-	-	-	-	-	-	-	< 200	< 200	< 200	-	-	-	-	-
BH14-23	BH14-23-GW01-AD05	2014 03 11	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	BH14-23-GW2-AD05	2014 08 15	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	MW14-23-141030	2014 10 30	-	-	-	-	-	-	-	< 200	< 200	< 200	-	-	-	-	-
	MW14-B-141030	Duplicate	-	-	-	-	-	-	-	< 200	< 200	< 200	-	-	-	-	-
	QA/QC RPD%		-	-	-	-	-	-	-	*	*	*	-	-	-	-	-
BH14-24	BH14-24-GW01-AD05	2014 03 11	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	BH14-24-GW2-AD05	2014 08 16	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	BH14-C-GW2-AD05	Duplicate	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 600	< 600	-	-	-	-	-	-	-	< 8
	QA/QC RPD%		*	*	*	*	*	*	*	-	-	-	-	-	-	-	*
	MW14-24-141031	2014 10 31	-	-	-	-	-	-	-	< 200	< 200	< 200	-	-	-	-	-
	MW14-C-141031	Duplicate	-	-	-	-	-	-	-	< 200	< 200	< 200	-	-	-	-	-
	QA/QC RPD%		-	-	-	-	-	-	-	*	*	*	-	-	-	-	-
BH14-25	BH14-25-GW01-AD05	2014 03 11	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	BH14-25-GW2-AD05	2014 08 16	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
BH14-26	BH14-26-GW01-AD05	2014 03 13	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	BH14-26-GW2-AD05	2014 08 17	-	-	-	-	-	-	-	< 400	< 400	< 400	-	-	-	-	-
	MW14-26-141102	2014 11 02	-	-	-	-	-	-	-	< 200	< 200	< 200	-	-	-	-	-
	BH14-26-6W03-AD05	2015 10 01	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 300	< 300	< 200	< 200	< 200	-	-	-	-	< 4.0
BH14-27	BH14-27-GW01-AD05	2014 03 12	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	BH14-27-GW2-AD05	2014 08 15	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	MW14-27-141101	2014 11 01	-	-	-	-	-	-	-	< 200	< 200	< 200	-	-	-	-	-
BH14-28	BH14-28-GW01-AD05	2014 03 12	< 0.8	< 0.8	< 0.8	< 0.8	< 1	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	BH14-28-GW2-AD05	2014 08 16	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
	MW14-28-141101	2014 11 01	-	-	-	-	-	-	-	< 200	< 200	< 200	-	-	-	-	-
MW16-12D	MW16-12-160315	2016 03 15	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 300	< 300	200	200	< 200	< 300	250	< 200	< 200	< 4.0
	MW16-A-160315	Duplicate	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 300	< 300	200	200	< 200	< 300	260	< 200	< 200	< 4.0
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Tap	Tap (2006)	2006 08 20	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	< 250	-	-	-	-	-
	Tap (2007)	2007 08 22	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	< 250	-	-	-	-	< 0.5
	GR70	Duplicate	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	< 250	-	-	-	-	< 0.5
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	-	-	-	-	*
	Tap (2008)	2008 10 06	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	< 250	-	-	-	-	< 0.5
	2458-0812-TW1	2012 08 08	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 100	< 100	-	< 100	-	-	-	-	-	< 1
Tap FS	Tap FS	2011 09 16	< 0.5	< 0.5	< 0.5	< 0.75	< 0.5	< 100	< 100	< 250	< 250	< 250	-	-	-	-	< 0.5
Tap4	TAP 4-AD05	2013 07 26	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
Well	Well (2004)	2004 12 08	-	-	-	-	-	-	-	< 250	< 250	< 250	-	-	-	-	-
	Well (2005)	2005 11 06	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	< 250	-	-	-	-	-
	GR23	Duplicate	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	< 250	-	-	-	-	-
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	-	-	-	-	-
	Well (2006)	2006 08 20	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	< 250	-	-	-	-	-
	GR60	Duplicate	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	< 250	-	-	-	-	-
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	-	-	-	-	-
	Well (2008)	2008 10 06	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	< 250	-	-	-	-	< 0.5
	Well (2009)	2009 10 19	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	< 250	-	-	-	-	-
	GR83	Duplicate	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 100	< 100	< 250	< 250	< 250	-	-	-	-	-
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	-	-	-	-	-
	WELL (2010)	2010 09 08	< 0.500	< 0.500	< 1	2.71	< 0.500	< 100	< 100	320	320	< 250	-	-	-	-	< 0.500
	Well (2011)	2011 09 16	< 0.5	< 0.5	< 0.5	< 0.75	< 0.5	< 100	< 100	< 250	< 250	< 250	-	-	-	-	< 0.5
	GR85	Duplicate	< 0.5	< 0.5	< 0.5	< 0.75	< 0.5	< 100	< 100	< 250	< 250	< 250	-	-	-	-	< 0.5
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	-	-	-	-	*
	2458-0812-DW1	2012 08 08	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 100	< 100	-	< 100	-	-	-	-	-	< 1
	2458-0812-DW101	Duplicate	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 100	< 100	-	< 100	-	-	-	-	-	< 1
	QA/QC RPD%		*	*	*	*	*	*	*	-	*	-	-	-	-	-	*
	WELL-AD05	2013 07 26	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 600	< 600	< 400	< 400	< 400	-	-	-	-	< 8
Federal Guideline																	
Canadian Drinking Water Quality Guidelines (CDWQG			5	1.6	24	20	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	15
FGQG Tier 2 Residential Land Use (RL)[a]			140	16,000	83	3,900	72	n/a	n/a	n/a	n/a	n/a	810	1,300	n/a	n/a	340
BC Standard																	
CSR Drinking Water (DW)			5	2.4	24	300	n/a	15,000[c]	n/a	5,000[c]	n/a	n/a	n/a	n/a	n/a	n/a	15
CSR Aquatic Life (AW)[b]			4,000	2,000	390	n/a	720	15,000[c]	1,500	5,000[c]	500	n/a	n/a	n/a	n/a	n/a	34,000

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Pathways Included: Freshwater Aquatic Life - Coarse, Inhalation - Coarse, Soil Organisms Direct Contact - Coarse (whichever is most stringent).

[b] Standard to protect freshwater aquatic life.

[c] Applicable at all sites irrespective of water use.

[d] Where available, values corrected for the presence of individual PAH are shown. Otherwise, uncorrected values are shown.

SHADED Concentration greater than Canadian Drinking Water Quality Guidelines (CDWQG) Guideline

BOLD Concentration greater than FGQG Tier 2 Residential Land Use (RL) Guideline

OUTLINE Concentration greater than CSR Drinking Water (DW) standard

SHADOW Concentration greater than CSR Aquatic Life (AW) standard

YELLOW VPH or LEPH concentration greater than FGQG RL F1 or F2 guideline (potential FGQG exceedance), only applied where no F1 or F2 concentration is available.

TABLE 9: Summary of Analytical Results for PAHs in Groundwater

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Polycyclic Aromatic Hydrocarbons																			
			Naphthalene µg/L	2-Methylnaphthalene µg/L	Acenaphthylene µg/L	Acenaphthene µg/L	Fluorene µg/L	Phenanthrene µg/L	Anthracene µg/L	Acridine µg/L	Fluoranthene µg/L	Pyrene µg/L	Benzo(a) anthracene µg/L	Chrysene µg/L	Benzo(b) fluoranthene µg/L	Benzo(b+j) fluoranthene µg/L	Benzo(k) fluoranthene µg/L	Benzo(a) pyrene µg/L	Indeno(1,2,3-cd) pyrene µg/L	Dibenz(a,h) anthracene µg/L	Benzo(g,h,i) perylene µg/L	Quinoline µg/L
BH113M	BH113M (2006)	2006 08 20	< 0.3	-	< 0.1	< 0.1	< 0.05	< 0.05	< 0.01	< 0.05	< 0.04	< 0.02	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
	BH113M (2007)	2007 08 22	< 0.3	-	< 0.1	-	< 0.05	< 0.05	< 0.01	< 0.05	< 0.04	< 0.02	< 0.01	< 0.01	-	-	-	< 0.01	-	-	-	< 0.5
	GR71	Duplicate	< 0.3	-	< 0.1	-	< 0.05	< 0.05	< 0.01	< 0.05	< 0.04	< 0.02	< 0.01	< 0.01	-	-	-	< 0.01	-	-	-	< 0.5
	QA/QC RPD%		*	-	*	-	*	*	*	*	*	*	*	*	-	-	-	*	-	-	-	*
	BH113M (2008)	2008 10 06	< 0.3	-	< 0.1	< 0.1	< 0.05	< 0.05	< 0.01	< 0.05	< 0.04	< 0.02	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
	GR81	Duplicate	< 0.3	-	< 0.1	< 0.1	< 0.05	< 0.05	< 0.01	< 0.05	< 0.04	< 0.02	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
	QA/QC RPD%		*	-	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*
	BH113M (2009)	2009 10 19	< 0.3	-	< 0.1	< 0.1	< 0.05	< 0.05	< 0.01	< 0.05	< 0.04	< 0.02	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
	BH113M (2010)	2010 09 08	< 0.0500	-	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500[a]	< 0.0500	< 0.0500[a]	< 0.0500[a]	< 0.0500[a]	< 0.0500	< 0.0500	-	< 0.0500	< 0.0100	< 0.0500	< 0.0500	< 0.0500	< 0.0500
BH118M	BH118M (2009)	2009 10 19	< 0.3	-	< 0.1	< 0.1	< 0.05	< 0.05	< 0.01	< 0.05	< 0.04	< 0.02	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
	GR82	Duplicate	< 0.3	-	< 0.1	< 0.1	< 0.05	< 0.05	< 0.01	< 0.05	< 0.04	< 0.02	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
	QA/QC RPD%		*	-	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*
	BH118M (2010)	2010 09 08	< 0.0500	-	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0100	< 0.0500	< 0.0400	< 0.0200	< 0.0100	< 0.0500	< 0.0500	-	< 0.0500	< 0.0100	< 0.0500	< 0.0500	< 0.0500	< 0.0500
	GR1	Duplicate	< 0.0500	-	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0100	< 0.0500	< 0.0400	< 0.0200	< 0.0100	< 0.0500	< 0.0500	-	< 0.0500	< 0.0100	< 0.0500	< 0.0500	< 0.0500	< 0.0500
	QA/QC RPD%		*	-	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*
	BH118M (2011)	2011 09 16	< 0.02	-	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
BH119M	BH119M (2009)	2009 10 19	< 0.3	-	< 0.1	< 0.1	< 0.05	< 0.05	< 0.01	< 0.05	< 0.04	< 0.02	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
	BH119M (2010)	2010 09 08	< 0.0500	-	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0110	< 0.0500	< 0.0400	< 0.0200	< 0.0100	< 0.0500	< 0.0500	-	< 0.0500	< 0.0100	< 0.0500	< 0.0500	< 0.0500	< 0.0500
BH120M	BH120M (2009)	2009 10 19	< 0.3	-	< 0.1	< 0.1	< 0.05	< 0.05	< 0.01	< 0.05	< 0.04	< 0.02	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
	BH120M (2010)	2010 09 08	< 0.0500	-	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0100	< 0.0500	< 0.0400	< 0.0200	< 0.0100	< 0.0500	< 0.0500	-	< 0.0500	< 0.0100	< 0.0500	< 0.0500	< 0.0500	< 0.0500
BH12-02	MW12-02-AD05	2012 10 24	< 0.05	-	< 0.05	< 0.05	< 0.05	0.1	< 0.05[a]	< 0.05	< 0.05[a]	< 0.02	< 0.05[a]	< 0.05	< 0.05	-	< 0.05	< 0.01	< 0.05	< 0.05	< 0.05	< 0.1
	MW12-A-AD05	Duplicate	< 0.05	-	< 0.05	< 0.05	< 0.05	0.09	< 0.05[a]	< 0.05	< 0.05[a]	< 0.02	< 0.05[a]	< 0.05	< 0.05	-	< 0.05	< 0.01	< 0.05	< 0.05	< 0.05	< 0.1
	QA/QC RPD%		*	-	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*
	MW12-02-AD05	2013 03 14	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05[a]	< 0.05	< 0.05[a]	< 0.02	< 0.05[a]	< 0.05	< 0.05	-	< 0.05	< 0.01	< 0.05	< 0.05	< 0.05	< 0.1
	MW12-A-AD05	2013 03 14	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05[a]	< 0.05	< 0.05[a]	< 0.02	< 0.05[a]	< 0.05	< 0.05	-	< 0.05	< 0.01	< 0.05	< 0.05	< 0.05	< 0.1
	MW12-02-AD05	2013 07 26	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 1
BH13-03	MW13-03-AD05	2013 03 14	< 0.01	-	-	< 0.01	< 0.01	0.02	< 0.01	< 0.1[a]	< 0.01	< 0.01	< 0.01	< 0.01	-	-	-	< 0.01	-	-	-	< 0.1
	MW13-03-AD05	2013 07 26	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 1
	MW13-C-AD05	Duplicate	< 0.01	-	-	< 0.01	< 0.01	0.02	< 0.01	< 0.1[a]	< 0.01	< 0.01	< 0.01	< 0.01	-	-	-	< 0.01	-	-	-	< 0.1
	QA/QC RPD%		*	-	-	*	*	*	*	*	*	*	*	*	-	-	-	*	-	-	-	*
	MW13-C-AD05	2013 07 26	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 1
	zMW13-03-AD05	2013 10 01	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 1
BH13-04	zMW13-04-AD05	2013 10 02	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 1
	BH13-04	2013 10 29	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 1
	BH13-04-GW2-AD05	2014 08 18	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	MW13-04-141030	2014 10 30	< 0.1	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 0.24
	BH13-04-6W03-AD05	2015 10 01	< 0.10	< 0.10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.010	< 0.050	< 0.020	< 0.020	< 0.010	< 0.050	-	< 0.050	< 0.050	< 0.0090	< 0.050	< 0.050	< 0.050	< 0.24
BH13-05	BH13-05	2013 10 29	< 1.4[a]	1.9	< 0.12	0.94	2.3	***2***	< 0.14[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 1
	DUP 1	Duplicate	< 1.6[a]	2.2	< 0.16	1.1	2.6	***2.3***	< 0.12[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 1
	QA/QC RPD%		*	15	*	16	12	14	*	*	*	*	*	*	-	*	*	*	*	*	*	*
	BH13-05-GW2-AD05	2014 08 15	0.19	< 0.2	< 0.1	0.12	0.65	***0.65***	< 0.088[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	BH14-B-GW2-AD05	Duplicate	< 0.48	< 0.2	< 0.44	< 0.2	0.55	***0.65***	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	QA/QC RPD%		*	*	*	*	17	0	*	*	*	*	*	*	-	*	*	*	*	*	*	*
	MW13-05-141030	2014 10 30	< 0.3	< 0.1	< 0.3	0.18	0.83	***1.1***	< 0.06[a]	< 0.05	< 0.02	< 0.02	0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 4[a]
	BH13-05-GW03-AD05	2015 09 28	< 0.16	< 0.10	< 0.21	< 0.079	< 0.24	***0.43***	< 0.054[a]	< 0.050	< 0.020	< 0.020	< 0.010	< 0.050	-	< 0.050	< 0.050	< 0.0090	< 0.050	< 0.050	< 0.050	< 0.70
	DUP 1	Duplicate	< 0.14	< 0.10	< 0.050	< 0.050	< 0.23	***0.43***	< 0.060[a]	< 0.050	< 0.020	< 0.020	< 0.010	< 0.050	-	< 0.050	< 0.050	< 0.0090	< 0.050	< 0.050	< 0.050	< 0.47
	QA/QC RPD%		*	*	*	*	*	0	*	*	*	*	*	*	-	*	*	*	*	*	*	*
BH13-06	BH13-06	2013 10 29	< 4.6[a]	< 2	< 0.86	4.8	< 19[a]	***14***	< 1.6[a]	***0.63***	***0.13***	***0.25***	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 1
	BH13-06-GW2-AD05	2014 08 13	< 1.2[a]	< 0.2	< 0.56	< 0.1	< 3	***1.6***	< 0.16[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	MW13-06-141031	2014 10 31	< 0.4	< 0.1	< 0.2	0.46	0.92	***1***	< 0.05[a]	< 0.05	< 0.02	< 0.02	0.011	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 4.5[a]
	BH13-06-GW03-AD05	2015 09 28	< 0.36	< 0.10	< 0.16	< 0.67	< 1.1	***0.77***	< 0.043[a]	< 0.050	< 0.020	< 0.020	< 0.010	< 0.050	-	< 0.050	< 0.050	< 0.0090	< 0.050	< 0.050	< 0.050	< 0.81
Federal Guideline																						
Canadian Drinking Water Quality Guidelines (CDWQ(			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.01	n/a	n/a	n/a	n/a
FGQG Tier 2 Residential/Parkland Land Use (RL/PL)[b]			1.1	180	46	5.8	3	0.4	0.012	0.05	0.04	0.025	0.018	1.4	n/a	0.48	0.48	0.015	0.21	0.26	0.17	3.4
BC Standard																						
CSR Drinking Water (DW)			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.01	n/a	n/a	n/a	n/a
CSR Aquatic Life (AW)[c]			10	n/a	n/a	60	120	3	1	0.5	2	0.2	1	1	n/a	n/a	n/a	0.1	n/a	n/a	n/a	34

All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Pathways Included: Freshwater Aquatic Life - Coarse, Inhalation - Coarse, Soil Organisms Direct Contact - Coarse (whichever is most stringent).
[c] Standard to protect freshwater aquatic life.

SHADED Concentration greater than Canadian Drinking Water Quality Guidelines (CDWQG) Guideline
BOLD Concentration greater than FGQG Tier 2 Residential Land Use (RL) Guideline
OUTLINE Concentration greater than CSR Drinking Water (DW) standard
SHADOW Concentration greater than CSR Aquatic Life (AW) standard

TABLE 9 (Cont'd): Summary of Analytical Results for PAHs in Groundwater

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Polycyclic Aromatic Hydrocarbons																			
			Naphthalene µg/L	2-Methylnaphthalene µg/L	Acenaphthylene µg/L	Acenaphthene µg/L	Fluorene µg/L	Phenanthrene µg/L	Anthracene µg/L	Acridine µg/L	Fluoranthene µg/L	Pyrene µg/L	Benzo(a) anthracene µg/L	Chrysene µg/L	Benzo(b) fluoranthene µg/L	Benzo(b+j) fluoranthene µg/L	Benzo(k) fluoranthene µg/L	Benzo(a) pyrene µg/L	Indeno(1,2,3-cd) pyrene µg/L	Dibenz(a,h) anthracene µg/L	Benzo(g,h,i) perylene µg/L	Quinoline µg/L
BH13-07	zMW13-07-AD05	2013 10 01	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 1
	BH13-07	2013 10 29	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 1
BH13-08	BH13-08	2013 12 09	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 1
	BH13-08-100	Duplicate	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 1
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*
	BH13-08-GW01-AD05	2014 03 11	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	BH13-08-GW2-AD05	2014 08 17	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	MW13-08-141101	2014 11 01	< 0.1	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 0.24
BH14-09	BH14-09-GW01-AD05	2014 03 12	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	BH14-09-GW2-AD05	2014 08 18	< 0.2	< 0.2	< 0.1	< 0.1	< 0.162	0.052	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	MW14-09-141101	2014 11 01	< 0.2	< 0.1	< 0.05	< 0.07	< 0.3	0.11	< 0.02[a]	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 2
	BH14-09-6W03-AD05	2015 10 01	< 0.10	< 0.10	< 0.050	< 0.050	< 0.070	< 0.050	< 0.010	< 0.050	< 0.020	< 0.020	< 0.010	< 0.050	-	< 0.050	< 0.050	< 0.0090	< 0.050	< 0.050	< 0.050	< 0.24
BH14-10	BH14-10-GW01-AD05	2014 03 11	< 0.8	< 0.6	< 0.3	2.1	***4***	***5.3***	< 0.28[a]	***0.32***	***0.042***	***0.14***	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 10[a]
	BH14-10-GW2-AD05	2014 08 13	< 0.9	< 0.2	< 0.4	< 1.18	< 2.6	***1.1***	< 0.14[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	MW14-10-141030	2014 10 30	< 0.2	< 0.1	< 0.06	< 0.2	0.42	0.3	< 0.02[a]	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 1.5
	BH14-10-GW03-AD05	2015 09 28	< 0.60	< 0.10	< 0.40	< 0.80	< 1.9	***2.7***	< 0.14[a]	< 0.050	0.033	***0.081***	< 0.010	< 0.050	-	< 0.050	< 0.050	< 0.0090	< 0.050	< 0.050	< 0.050	< 1.6
	PUMPTEST	2014 08 14	< 0.55	< 0.10	< 0.17	< 0.66	1.4	***1.1***	< 0.050[a]	< 0.050	< 0.020	< 0.020	< 0.010	< 0.050	-	< 0.050	< 0.050	< 0.0090	< 0.050	< 0.050	< 0.050	< 0.24
BH14-11	BH14-11-GW01-AD05	2014 03 10	< 1.54[a]	< 2.2	< 1.38	< 11.8[a]	***10***	***14***	< 2.2[a]	< 3.8[a]	***0.26***	***0.53***	0.01	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 13[a]
	BH14-11-GW2-AD05	2014 08 14	0.31	< 0.2	< 0.1	< 1.08	0.94	***0.67***	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	MW14-11-141031	2014 10 31	< 0.41	< 0.1	< 0.05	< 0.54	1	***1.1***	< 0.072[a]	< 0.05	0.022	***0.031***	0.012	< 0.05	-	< 0.05	< 0.05	0.01	< 0.05	< 0.05	< 0.05	< 0.24
	BH14-11-GW03-AD05	2015 09 28	< 0.49	< 0.10	< 0.42	< 0.71	< 1.2	***2.1***	< 0.19[a]	< 0.050	0.022	***0.052***	< 0.010	< 0.050	-	< 0.050	< 0.050	< 0.0090	< 0.050	< 0.050	< 0.050	< 1.1
BH14-12	BH14-12-GW01-AD05	2014 03 09	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	BH14-12-GW2-AD05	2014 08 17	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	MW14-12-141101	2014 11 01	< 0.1	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 0.24
BH14-13	BH14-13-GW01-AD05	2014 03 10	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	BH14-13-GW2-AD05	2014 08 18	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	MW14-13-141101	2014 11 01	< 0.1	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 0.24
BH14-14	BH14-14-GW01-AD05	2014 03 09	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	BH14-14-GW2-AD05	2014 08 19	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	MW14-14-141031	2014 10 31	< 0.1	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 0.24
BH14-15	BH14-15-GW01-AD05	2014 03 10	< 0.38	< 0.32	< 0.1	0.18	< 0.86	0.12	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 1.4
	BH14-15A-GW01-AD05	Duplicate	0.19	< 0.2	< 0.1	0.2	< 0.86	0.12	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 2.8
	QA/QC RPD%		*	*	*	11	*	0	*	*	*	*	*	*	-	*	*	*	*	*	*	*
	BH14-15-GW2-AD05	2014 08 14	< 1.6[a]	< 0.5	< 0.7	< 0.72	< 1.9	0.35	< 0.06[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	BH14-A-GW2-AD05	Duplicate	0.46	< 0.2	< 0.1	< 0.36	0.93	0.33	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	QA/QC RPD%		*	*	*	*	*	6	*	*	*	*	*	*	-	*	*	*	*	*	*	*
	MW14-15-141030	2014 10 30	< 0.43	< 0.1	< 0.064	< 0.17	0.79	0.3	< 0.043[a]	< 0.05	***0.049***	0.022	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 0.24
	MW14-A-141030	Duplicate	0.48	< 0.1	< 0.056	< 0.19	0.89	0.34	< 0.048[a]	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 0.24
	QA/QC RPD%		*	*	*	*	12	13	*	*	*	*	*	*	-	*	*	*	*	*	*	*
BH14-16	BH14-16-GW01-AD05	2014 03 09	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	BH14-16-GW2-AD05	2014 08 19	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	MW14-16-141101	2014 11 01	< 0.1	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 0.24
BH14-18	BH14-18-GW01-AD05	2014 03 13	< 0.3	0.62	< 0.4	0.18	< 1.6	***0.49***	< 0.16[a]	***0.064***	< 0.04	0.023	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 9[a]
	BH14-18-GW2-AD05	2014 08 17	0.43	1	0.36	< 0.46	0.76	***0.54***	< 0.094[a]	< 0.1[a]	< 0.04	0.022	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	MW14-18-141030	2014 10 30	0.45	2	< 0.14	< 0.18	0.86	***0.72***	< 0.1[a]	< 0.05	***0.046***	***0.054***	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 0.24
	BH14-18-GW03-AD05	2015 09 28	< 0.59	1.4	< 0.64	< 0.30	< 1.0	***0.84***	< 0.13[a]	< 0.050	0.024	***0.06***	< 0.010	< 0.050	-	< 0.050	< 0.050	< 0.0090	< 0.050	< 0.050	< 0.050	< 1.2
BH14-19	BH14-19-GW01-AD05	2014 03 10	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	MW14-19-141101	2014 11 01	< 0.1	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 0.24
Federal Guideline																						
Canadian Drinking Water Quality Guidelines (CDWQG			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.01	n/a	n/a	n/a	n/a
FGQG Tier 2 Residential/Parkland Land Use (RL/PL)[b]			1.1	180	46	5.8	3	0.4	0.012	0.05	0.04	0.025	0.018	1.4	n/a	0.48	0.48	0.015	0.21	0.26	0.17	3.4
BC Standard																						
CSR Drinking Water (DW)			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.01	n/a	n/a	n/a	n/a
CSR Aquatic Life (AW)[c]			10	n/a	n/a	60	120	3	1	0.5	2	0.2	1	1	n/a	n/a	n/a	0.1	n/a	n/a	n/a	34

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

\- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.

[b] Pathways Included: Freshwater Aquatic Life - Coarse, Inhalation - Coarse, Soil Organisms Direct Contact - Coarse (whichever is most stringent).

[c] Standard to protect freshwater aquatic life.

SHADED Concentration greater than Canadian Drinking Water Quality Guidelines (CDWQG) Guideline

BOLD Concentration greater than FGQG Tier 2 Residential Land Use (RL) Guideline

OUTLINE Concentration greater than CSR Drinking Water (DW) standard

SHADOW Concentration greater than CSR Aquatic Life (AW) standard

TABLE 9 (Cont'd): Summary of Analytical Results for PAHs in Groundwater

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Polycyclic Aromatic Hydrocarbons																		
			Naphthalene µg/L	2-Methylnaphthalene µg/L	Acenaphthylene µg/L	Acenaphthene µg/L	Fluorene µg/L	Phenanthrene µg/L	Anthracene µg/L	Acridine µg/L	Fluoranthene µg/L	Pyrene µg/L	Benzo(a) anthracene µg/L	Chrysene µg/L	Benzo(b) fluoranthene µg/L	Benzo(b+j) fluoranthene µg/L	Benzo(k) fluoranthene µg/L	Benzo(a) pyrene µg/L	Indeno(1,2,3-cd) pyrene µg/L	Dibenz(a,h) anthracene µg/L	Benzo(g,h,i) perylene µg/L	Quinoline µg/L
BH14-20	BH14-20-GW01-AD05	2014 03 10	< 0.4	1.7	< 0.1	0.14	< 1.5	***1***	< 0.06[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 5[a]
	BH14-20-GW2-AD05	2014 08 14	0.38	1.3	< 0.1	< 0.162	0.79	***1.3***	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	MW14-20-141101	2014 11 01	0.83	1.6	< 0.16	< 0.17	1.2	***1.7***	< 0.083[a]	< 0.05	< 0.02	0.02	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 0.24
	BH14-20-6W03-AD05	2015 10 01	< 0.45	2.2	< 0.34	< 0.11	< 0.71	***1.3***	< 0.029[a]	< 0.050	< 0.020	< 0.020	< 0.010	< 0.050	-	< 0.050	< 0.050	< 0.0090	< 0.050	< 0.050	< 0.050	< 0.42
BH14-22	BH14-22-GW01-AD05	2014 03 11	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	0.022	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	BH14-22A-GW01-AD05	Duplicate	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*
	BH14-22-GW2-AD05	2014 08 15	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	MW14-22-141031	2014 10 31	< 0.1	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 0.24
BH14-23	BH14-23-GW01-AD05	2014 03 11	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	BH14-23-GW2-AD05	2014 08 15	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	MW14-23-141030	2014 10 30	< 0.1	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.05	0.025	< 0.02	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 0.24
	MW14-B-141030	Duplicate	< 0.1	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.05	0.023	< 0.02	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 0.24
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*
BH14-24	BH14-24-GW01-AD05	2014 03 11	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	BH14-24-GW2-AD05	2014 08 16	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	MW14-24-141031	2014 10 31	< 0.1	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 0.24
	MW14-C-141031	Duplicate	< 0.1	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 0.24
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*
BH14-25	BH14-25-GW01-AD05	2014 03 11	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	BH14-25-GW2-AD05	2014 08 16	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
BH14-26	BH14-26-GW01-AD05	2014 03 13	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	BH14-26-GW2-AD05	2014 08 17	< 0.2	< 0.2	< 0.1	< 0.1	0.076	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	MW14-26-141102	2014 11 02	< 0.1	< 0.1	< 0.05	< 0.05	0.13	0.055	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 0.24
	BH14-26-6W03-AD05	2015 10 01	< 0.10	< 0.10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.010	< 0.050	< 0.020	< 0.020	< 0.010	< 0.050	-	< 0.050	< 0.050	< 0.0090	< 0.050	< 0.050	< 0.050	< 0.24
BH14-27	BH14-27-GW01-AD05	2014 03 12	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	BH14-27-GW2-AD05	2014 08 15	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	MW14-27-141101	2014 11 01	< 0.1	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 0.24
BH14-28	BH14-28-GW01-AD05	2014 03 12	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	BH14-28-GW2-AD05	2014 08 16	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 0.48
	MW14-28-141101	2014 11 01	< 0.1	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	-	< 0.05	< 0.05	< 0.009	< 0.05	< 0.05	< 0.05	< 0.24
MW16-12D	MW16-12-160315	2016 03 15	< 0.10	< 0.10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.010	< 0.050	< 0.020	< 0.020	< 0.010	< 0.050	-	< 0.050	< 0.050	< 0.0090	< 0.050	< 0.050	< 0.050	< 0.24
	MW16-A-160315	Duplicate	< 0.10	< 0.10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.010	< 0.050	< 0.020	< 0.020	< 0.010	< 0.050	-	< 0.050	< 0.050	< 0.0090	< 0.050	< 0.050	< 0.050	< 0.24
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*	*
Tap	Tap (2006)	2006 08 20	< 0.3	-	< 0.1	< 0.1	< 0.05	< 0.05	< 0.01	< 0.05	< 0.04	< 0.02	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
	Tap (2007)	2007 08 22	< 0.3	-	< 0.1	-	< 0.05	0.06	< 0.01	< 0.05	< 0.04	0.02	< 0.01	< 0.01	-	-	-	< 0.01	-	-	-	< 0.5
	GR70	Duplicate	< 0.3	-	< 0.1	-	< 0.05	0.06	< 0.01	< 0.05	< 0.04	0.02	< 0.01	< 0.01	-	-	-	< 0.01	-	-	-	< 0.5
	QA/QC RPD%		*	-	*	-	*	*	*	*	*	*	*	*	-	-	-	*	-	-	-	*
	Tap (2008)	2008 10 06	< 0.3	-	< 0.1	< 0.1	< 0.05	< 0.05	< 0.01	< 0.05	< 0.04	< 0.02	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
	2458-0812-TW1	2012 08 08	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05[a]	< 0.05	< 0.05[a]	< 0.02	< 0.05[a]	< 0.05	< 0.05	-	< 0.05	< 0.01	< 0.05	< 0.05	< 0.05	< 0.1
Tap FS	Tap FS	2011 09 16	< 0.02	-	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Tap4	TAP 4-AD05	2013 07 26	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 1
Federal Guideline																					
Canadian Drinking Water Quality Guidelines (CDWQG)			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.01	n/a	n/a	n/a	n/a
FGQG Tier 2 Residential/Parkland Land Use (RL/PL)[b]			1.1	180	46	5.8	3	0.4	0.012	0.05	0.04	0.025	0.018	1.4	n/a	0.48	0.48	0.015	0.21	0.26	0.17	3.4
BC Standard																					
CSR Drinking Water (DW)			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.01	n/a	n/a	n/a	n/a
CSR Aquatic Life (AW)[c]			10	n/a	n/a	60	120	3	1	0.5	2	0.2	1	1	n/a	n/a	n/a	0.1	n/a	n/a	n/a	34

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

\- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.

[b] Pathways Included: Freshwater Aquatic Life - Coarse, Inhalation - Coarse, Soil Organisms Direct Contact - Coarse (whichever is most stringent).

[c] Standard to protect freshwater aquatic life.

SHADED Concentration greater than Canadian Drinking Water Quality Guidelines (CDWQG) Guideline

BOLD Concentration greater than FGQG Tier 2 Residential Land Use (RL) Guideline

OUTLINE Concentration greater than CSR Drinking Water (DW) standard

SHADOW Concentration greater than CSR Aquatic Life (AW) standard

TABLE 9 (Cont'd): Summary of Analytical Results for PAHs in Groundwater

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Polycyclic Aromatic Hydrocarbons																		
			Naphthalene µg/L	2-Methylnaphthalene µg/L	Acenaphthylene µg/L	Acenaphthene µg/L	Fluorene µg/L	Phenanthrene µg/L	Anthracene µg/L	Acridine µg/L	Fluoranthene µg/L	Pyrene µg/L	Benzo(a) anthracene µg/L	Chrysene µg/L	Benzo(b) fluoranthene µg/L	Benzo(b+j) fluoranthene µg/L	Benzo(k) fluoranthene µg/L	Benzo(a) pyrene µg/L	Indeno(1,2,3-cd) pyrene µg/L	Dibenz(a,h) anthracene µg/L	Benzo(g,h,i) perylene µg/L	Quinoline µg/L
Well	Well (2004)	2004 12 08	< 0.3	-	< 0.1	< 0.1	< 0.05	< 0.05	< 0.01	< 0.05	< 0.04	< 0.02	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
	Well (2005)	2005 11 06	< 0.3	-	< 0.1	< 0.1	< 0.05	< 0.05	< 0.01	< 0.05	< 0.04	< 0.02	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
	GR23	Duplicate	< 0.3	-	< 0.1	< 0.1	< 0.05	< 0.05	< 0.01	< 0.05	< 0.04	< 0.02	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
	QA/QC RPD%		*	-	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*
	Well (2006)	2006 08 20	< 0.3	-	< 0.1	< 0.1	< 0.05	< 0.05	< 0.01	< 0.05	< 0.04	< 0.02	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
	GR60	Duplicate	< 0.3	-	< 0.1	< 0.1	< 0.05	< 0.05	< 0.01	< 0.05	< 0.04	< 0.02	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
	QA/QC RPD%		*	-	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*
	Well (2008)	2008 10 06	< 0.3	-	< 0.1	< 0.1	< 0.05	< 0.05	< 0.01	< 0.05	< 0.04	< 0.02	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
	Well (2009)	2009 10 19	< 0.3	-	< 0.1	< 0.1	< 0.05	< 0.05	< 0.01	< 0.05	< 0.04	< 0.02	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
	GR83	Duplicate	< 0.3	-	< 0.1	-	< 0.05	< 0.05	< 0.01	< 0.05	< 0.04	< 0.02	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
	QA/QC RPD%		*	-	*	-	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*
	WELL (2010)	2010 09 08	< 0.0500	-	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0100	< 0.0500	< 0.0400	0.022	< 0.0100	< 0.0500	< 0.0500	-	< 0.0500	< 0.0100	< 0.0500	< 0.0500	< 0.0500	2.59
	Well (2011)	2011 09 16	< 0.04	-	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	GR85	Duplicate	< 0.04	-	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	QA/QC RPD%		*	-	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*
	2458-0812-DW1	2012 08 08	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05[a]	< 0.05	< 0.05[a]	< 0.02	< 0.05[a]	< 0.05	< 0.05	-	< 0.05	< 0.01	< 0.05	< 0.05	< 0.05	< 0.1
	2458-0812-DW101	Duplicate	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05[a]	< 0.05	< 0.05[a]	< 0.02	< 0.05[a]	< 0.05	< 0.05	-	< 0.05	< 0.01	< 0.05	< 0.05	< 0.05	< 0.1
	QA/QC RPD%		*	-	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*
	WELL-AD05	2013 07 26	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.02[a]	< 0.1[a]	< 0.04	< 0.04[a]	< 0.02[a]	< 0.1	-	< 0.1	< 0.1	< 0.018[a]	< 0.1	< 0.1	< 0.1	< 1
Federal Guideline																					
Canadian Drinking Water Quality Guidelines (CDWQ(			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.01	n/a	n/a	n/a	n/a
FGQG Tier 2 Residential/Parkland Land Use (RL/PL)[b]			1.1	180	46	5.8	3	0.4	0.012	0.05	0.04	0.025	0.018	1.4	n/a	0.48	0.48	0.015	0.21	0.26	0.17	3.4
BC Standard																					
CSR Drinking Water (DW)			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.01	n/a	n/a	n/a	n/a
CSR Aquatic Life (AW)[c]			10	n/a	n/a	60	120	3	1	0.5	2	0.2	1	1	n/a	n/a	n/a	0.1	n/a	n/a	n/a	34

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.

[b] Pathways Included: Freshwater Aquatic Life - Coarse, Inhalation - Coarse, Soil Organisms Direct Contact - Coarse (whichever is most stringent).

[c] Standard to protect freshwater aquatic life.

SHADED Concentration greater than Canadian Drinking Water Quality Guidelines (CDWQG) Guideline

BOLD Concentration greater than FGQG Tier 2 Residential Land Use (RL) Guideline

OUTLINE Concentration greater than CSR Drinking Water (DW) standard

SHADOW Concentration greater than CSR Aquatic Life (AW) standard

TABLE 10: Summary of Analytical Results for Dissolved Inorganics in Groundwater

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Physical Parameters			Dissolved Inorganics															
			Hardness mg/L	Conductivity µS/cm	Total Dissolved Solids mg/L	pH pH	Ammonia Nitrogen µg/L	Nitrate Nitrogen µg/L	Nitrite Nitrogen µg/L	Nitrate+Nitrite Nitrogen µg/L	Chloride mg/L	Fluoride µg/L	Sulphate mg/L	Phosphate mg/L	Total Alkalinity mg/L	Alkalinity, Bicarbonate mg/L	Alkalinity, Carbonate mg/L	Alkalinity, Hydroxide mg/L	Alkalinity pH 4.5 mg/L	Salinity mg/L	Sodium Adsorption Ratio None
BH113M	BH113M (2006)	2006 08 20	349	-	-	-	-	-	-	-	9.9	-	64.4	-	-	-	-	-	-	-	-
	BH113M (2007)	2007 08 22	298	-	-	-	-	-	-	-	4.01	-	70	-	-	319	-	-	-	7	-
	GR71	Duplicate	318	-	-	-	-	-	-	-	4.21	-	71.9	-	-	325	-	-	-	0.007	-
	QA/QC RPD%		6	-	-	-	-	-	-	-	5	-	3	-	-	2	-	-	-	*	-
	BH113M (2008)	2008 10 06	-	-	-	-	-	-	-	-	2.27	-	80.9	-	-	-	-	-	-	-	-
	GR81	Duplicate	-	-	-	-	-	-	-	-	2.44	-	80.6	-	-	-	-	-	-	-	-
	QA/QC RPD%		-	-	-	-	-	-	-	-	7	-	0	-	-	-	-	-	-	-	-
	BH113M (2009)	2009 10 19	336	567	-	-	-	-	-	-	1.65	-	80.1	-	-	-	-	-	-	**280,000**	-
	BH113M (2010)	2010 09 08	340	-	-	-	-	-	-	-	1.3	-	77.4	-	-	-	-	-	-	< 1,000	-
BH118M	BH118M (2009)	2009 10 19	395	1,290	-	-	-	-	-	-	***158***	-	68	-	-	-	-	-	-	**650,000**	-
	GR82	Duplicate	401	1,140	-	-	-	-	-	-	***160***	-	68.3	-	-	-	-	-	-	**570,000**	-
	QA/QC RPD%		2	12	-	-	-	-	-	-	1	-	0	-	-	-	-	-	-	*	-
	BH118M (2010)	2010 09 08	398	-	-	-	-	-	-	-	92.7	-	66.1	-	-	-	-	-	-	< 1,000	-
	GR1	Duplicate	396	-	-	-	-	-	-	-	92.6	-	65.7	-	-	-	-	-	-	< 1,000	-
	QA/QC RPD%		1	-	-	-	-	-	-	-	0	-	1	-	-	-	-	-	-	*	-
	BH118M (2011)	2011 09 16	454	-	-	-	-	-	-	-	***308***	-	68.8	-	-	-	-	-	-	< 1,000	-
	GR84	Duplicate	448	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH119M	BH119M (2009)	2009 10 19	389	1,300	-	-	-	-	-	-	***191***	-	65.8	-	-	-	-	-	-	**650,000**	-
	BH119M (2010)	2010 09 08	405	-	-	-	-	-	-	-	***214***	-	64	-	-	-	-	-	-	< 1,000	-
BH120M	BH120M (2009)	2009 10 19	327	567	-	-	-	-	-	-	4.87	-	69.6	-	-	-	-	-	-	**280,000**	-
	BH120M (2010)	2010 09 08	358	-	-	-	-	-	-	-	5.2	-	66.6	-	-	-	-	-	-	< 1,000	-
BH12-02	MW12-02-AD05	2012 10 24	401	703	-	7.67	-	78	5	80	5.31	100	76.8	-	-	299	< 1	-	299	-	-
	MW12-A-AD05	Duplicate	404	706	-	7.64	-	82	< 5	80	5.52	***140***	77.8	-	-	299	< 1	-	299	-	-
	QA/QC RPD%		< 1	< 1	-	< 1	-	5	*	0	4	33	1	-	-	0	*	-	0	-	-
	MW12-02-AD05	2013 03 14	422	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-
	MW12-A-AD05	Duplicate	421	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		< 1	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-
	MW12-02-AD05	2013 07 26	417	775	-	7.94	-	-	-	-	11	***150***	95.1	-	357	435	< 1	< 1	-	-	-
BH13-03	MW13-03-AD05	2013 03 14	371	-	-	-	-	-	-	-	***170***	-	-	-	-	-	-	-	-	-	-
	MW13-03-AD05	2013 07 26	425	1,330	-	8.16	-	-	-	-	***200***	89	65.6	-	301	368	< 1	< 1	-	-	-
	MW13-C-AD05	Duplicate	371	-	-	-	-	-	-	-	***144***	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		14	-	-	-	-	-	-	-	33	-	-	-	-	-	-	-	-	-	-
	MW13-C-AD05	2013 07 26	426	1,340	-	8.11	-	-	-	-	***220***	90	63.8	-	301	367	< 1	< 1	-	-	-
BH13-04	zMW13-04-AD05	2013 10 02	318	637	-	8.17	-	316	6.3	322	6.5	100	-	-	269	328	< 1	< 1	-	-	-
	BH13-04	2013 10 29	353	-	-	-	-	-	-	-	7.5	-	-	-	-	-	-	-	-	-	-
	BH13-04-GW2-AD05	2014 08 18	356	-	-	-	-	-	-	-	5.8	-	-	-	-	-	-	-	-	-	-
	MW13-04-141030	2014 10 30	373	-	-	-	-	-	-	-	6.4	-	-	-	-	-	-	-	-	-	-
	BH13-04-6W03-AD05	2015 10 01	365	606	-	8.27	24	100	< 5.0	100	9.8	100	77.9	0.0052	243	297	< 0.50	< 0.50	< 0.50	-	-
BH13-05	BH13-05	2013 10 29	381	-	-	-	-	-	-	-	***200***	-	-	-	-	-	-	-	-	-	-
	DUP 1	Duplicate	378	-	-	-	-	-	-	-	***200***	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		1	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-
	BH13-05-GW2-AD05	2014 08 15	336	-	-	-	-	-	-	-	***130***	-	-	-	-	-	-	-	-	-	-
	BH14-B-GW2-AD05	Duplicate	353	-	-	-	-	-	-	-	***130***	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		5	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-
	MW13-05-141030	2014 10 30	361	-	-	-	-	-	-	-	120	-	-	-	-	-	-	-	-	-	-
	BH13-05-GW03-AD05	2015 09 28	339	437	-	8.08	37	< 20	< 5.0	< 20	40	88	70.1	< 0.0050	89.3	109	< 0.50	< 0.50	< 0.50	-	-
	DUP 1	Duplicate	366	702	-	8.16	17	< 20	9.5	< 20	42	87	67.4	< 0.0050	242	295	< 0.50	< 0.50	< 0.50	-	-
	QA/QC RPD%		8	47	-	*	*	*	*	*	5	1	4	*	92	92	*	*	*	-	-
Federal Guideline																					
Canadian Drinking Water Quality Guidelines (CDWQG			n/a	n/a	500	6.5 - 8.5	n/a	10,000	1,000	n/a	250	1,500	500	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
FGQG Tier 2 Residential Land Use (RL)[a]			n/a	n/a	n/a	6.5 - 9.0	77 - 1,916[c]	13,000	60	n/a	120	120	100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BC Standard																					
CSR Drinking Water (DW)			n/a	n/a	n/a	n/a	n/a	10,000	3,200	10,000	250	1,500	500	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CSR Aquatic Life (AW)[b]			n/a	n/a	n/a	n/a	3,700 - 11,300[d]	400,000	200 - 1,000[e]	400,000	1,500	2,000 - 3,000[f]	1,000	n/a	n/a	n/a	n/a	n/a	n/a	15,000	n/a

All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Pathways Included: Freshwater Aquatic Life - Coarse, Inhalation - Coarse, Soil Organisms Direct Contact - Coarse (whichever is most stringent).
[b] Standard to protect freshwater aquatic life.
[c] Guideline varies with pH and temperature.
[d] Standard varies with pH.
[e] Standard varies with Chloride.
[f] Standard varies with hardness.

SHADED Concentration greater than Canadian Drinking Water Quality Guidelines (CDWQG) Guideline
BOLD Concentration greater than FGQG Tier 2 Residential Land Use (RL) Guideline
OUTLINE Concentration greater than CSR Drinking Water (DW) standard
SHADOW Concentration greater than CSR Aquatic Life (AW) standard

TABLE 10 (Cont'd): Summary of Analytical Results for Dissolved Inorganics in Groundwater

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Physical Parameters			Dissolved Inorganics															
			Hardness mg/L	Conductivity µS/cm	Total Dissolved Solids mg/L	pH pH	Ammonia Nitrogen µg/L	Nitrate Nitrogen µg/L	Nitrite Nitrogen µg/L	Nitrate+Nitrite Nitrogen µg/L	Chloride mg/L	Fluoride µg/L	Sulphate mg/L	Phosphate mg/L	Total Alkalinity mg/L	Alkalinity, Bicarbonate mg/L	Alkalinity, Carbonate mg/L	Alkalinity, Hydroxide mg/L	Alkalinity pH 4.5 mg/L	Salinity mg/L	Sodium Adsorption Ratio None
BH13-06	BH13-06	2013 10 29	784	-	-	-	-	-	-	-	***630***	-	-	-	-	-	-	-	-	-	-
	BH13-06-GW2-AD05	2014 08 13	368	-	-	-	-	-	-	-	71	-	-	-	-	-	-	-	-	-	-
	MW13-06-141030	2014 10 30	447	-	-	-	-	-	-	-	87	-	-	-	-	-	-	-	-	-	-
	BH13-06-GW03-AD05	2015 09 28	409	969	-	8.16	51	31	< 5.0	31	120	86	57.5	< 0.0050	265	323	< 0.50	< 0.50	< 0.50	-	-
BH13-07	zMW13-07-AD05	2013 10 01	411	921	-	8.13	-	139	< 10	139	87	***230***	-	-	264	322	< 1	< 1	-	-	-
	BH13-07	2013 10 29	430	-	-	-	-	-	-	-	120	-	-	-	-	-	-	-	-	-	-
BH13-08	BH13-08-GW01-AD05	2014 03 11	351	934	-	8.1	32	< 40	< 10	< 40	84	98	73.2	0.0053	307	375	< 1	< 1	-	-	-
	BH13-08-GW2-AD05	2014 08 17	363	-	-	-	-	-	-	-	75	-	-	-	-	-	-	-	-	-	-
	MW13-08-141101	2014 11 01	391	-	-	-	-	-	-	-	98	-	-	-	-	-	-	-	-	-	-
BH14-09	BH14-09-GW01-AD05	2014 03 12	383	1,250	-	7.99	50	< 40	< 10	< 40	***170***	100	72.2	< 0.01	327	399	< 1	< 1	-	-	-
	BH14-09-GW2-AD05	2014 08 18	391	-	-	-	-	-	-	-	***170***	-	-	-	-	-	-	-	-	-	-
	MW14-09-141031	2014 10 31	413	-	-	-	-	-	-	-	***150***	-	-	-	-	-	-	-	-	-	-
	BH14-09-6W03-AD05	2015 10 01	436	1,110	-	8.24	21	< 20	< 5.0	< 20	***140***	84	63.3	0.0247	294	358	< 0.50	< 0.50	< 0.50	-	-
BH14-10	BH14-10-GW01-AD05	2014 03 11	425	1,270	-	7.98	50	< 40	< 10	< 40	***130***	64	***130***	< 0.01	375	457	< 1	< 1	-	-	-
	BH14-10-GW2-AD05	2014 08 13	367	-	-	-	-	-	-	-	110	-	-	-	-	-	-	-	-	-	-
	MW14-10-141030	2014 10 30	425	-	-	-	-	-	-	-	96	-	-	-	-	-	-	-	-	-	-
	BH14-10-GW03-AD05	2015 09 28	410	917	-	8.1	84	< 20	< 5.0	< 20	120	92	55.8	0.0053	236	288	< 0.50	< 0.50	< 0.50	-	-
	PUMPTEST	2014 08 14	386	-	-	-	-	-	-	-	110	-	-	-	-	-	-	-	-	-	-
BH14-11	BH14-11-GW01-AD05	2014 03 10	421	1,150	-	7.97	88	< 40	< 10	< 40	***130***	71	94.4	< 0.01	335	408	< 1	< 1	-	-	-
	BH14-11-GW2-AD05	2014 08 14	392	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	-	-	-
	MW14-11-141030	2014 10 30	433	-	-	-	-	-	-	-	***140***	-	-	-	-	-	-	-	-	-	-
	BH14-11-GW03-AD05	2015 09 28	418	953	-	8.13	36	< 20	< 5.0	< 20	***140***	93	62	< 0.0050	240	292	< 0.50	< 0.50	< 0.50	-	-
BH14-12	BH14-12-GW01-AD05	2014 03 09	416	887	-	7.96	29	< 40	< 10	< 40	65	81	69.9	< 0.01	328	400	< 1	< 1	-	-	-
	BH14-12-GW2-AD05	2014 08 17	369	-	-	-	-	-	-	-	36	-	-	-	-	-	-	-	-	-	-
	MW14-12-141101	2014 11 01	409	-	-	-	-	-	-	-	72	-	-	-	-	-	-	-	-	-	-
BH14-13	BH14-13-GW01-AD05	2014 03 10	383	684	-	8	15	347	< 10	347	2	88	84.9	< 0.01	303	369	< 1	< 1	-	-	-
	BH14-13-GW2-AD05	2014 08 18	360	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-
	MW14-13-141031	2014 10 31	402	-	-	-	-	-	-	-	1.3	-	-	-	-	-	-	-	-	-	-
BH14-14	BH14-14-GW01-AD05	2014 03 09	315	585	-	8.18	72	< 40	< 10	< 40	3.8	110	75.4	< 0.01	251	307	< 1	< 1	-	-	-
	BH14-14-GW2-AD05	2014 08 19	327	-	-	-	-	-	-	-	9.2	-	-	-	-	-	-	-	-	-	-
	MW14-14-141030	2014 10 30	321	-	-	-	-	-	-	-	5.4	-	-	-	-	-	-	-	-	-	-
BH14-15	BH14-15-GW01-AD05	2014 03 10	343	654	-	8.08	43	< 40	< 10	< 40	10	70	67.2	< 0.01	284	347	< 1	< 1	-	-	-
	BH14-15A-GW01-AD05	Duplicate	343	667	-	8.09	51	< 40	< 10	< 40	11	70	67.8	< 0.01	291	356	< 1	< 1	-	-	-
	QA/QC RPD%		0	2	-	0	*	*	*	*	10	*	1	*	2	3	*	*	-	-	-
	BH14-15-GW2-AD05	2014 08 14	333	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-
	BH14-A-GW2-AD05	Duplicate	332	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		0	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-
	MW14-15-141029	2014 10 29	362	-	-	-	-	-	-	-	6.6	-	-	-	-	-	-	-	-	-	-
	MW14-A-141029	Duplicate	344	-	-	-	-	-	-	-	6.6	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		5	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-
BH14-16	BH14-16-GW01-AD05	2014 03 09	354	663	-	8.15	24	144	< 10	144	3.4	67	85.2	< 0.01	290	354	< 1	< 1	-	-	-
	BH14-16-GW2-AD05	2014 08 19	345	-	-	-	-	-	-	-	17	-	-	-	-	-	-	-	-	-	-
	MW14-16-141031	2014 10 31	347	-	-	-	-	-	-	-	3.8	-	-	-	-	-	-	-	-	-	-
BH14-18	BH14-18-GW01-AD05	2014 03 13	370	694	-	7.99	81	< 40	< 10	< 40	11	98	68	< 0.01	308	376	< 1	< 1	-	-	-
	BH14-18-GW2-AD05	2014 08 17	367	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-
	MW14-18-141029	2014 10 29	374	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-
	BH14-18-GW03-AD05	2015 09 28	357	634	-	8.25	16.5	< 20	< 5.0	< 20	19	97	59	< 0.0050	260	317	< 0.50	< 0.50	< 0.50	-	-
BH14-19	BH14-19-GW01-AD05	2014 03 10	372	1,080	-	7.99	70	38	< 10	38	120	82	73.5	0.0222	315	385	< 1	< 1	-	-	-
	MW14-19-141031	2014 10 31	417	-	-	-	-	-	-	-	***190***	-	-	-	-	-	-	-	-	-	-
BH14-20	BH14-20-GW01-AD05	2014 03 10	405	764	-	8.02	55	< 40	< 10	< 40	17	63	64.9	0.0094	342	417	< 1	< 1	-	-	-
	BH14-20-GW2-AD05	2014 08 14	282	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-
	MW14-20-141031	2014 10 31	352	-	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-	-
	BH14-20-6W03-AD05	2015 10 01	382	667	-	8.34	48	< 20	< 5.0	< 20	20	94	53.9	< 0.0050	283	339	3.16	< 0.50	2.63	-	-
Federal Guideline																					
Canadian Drinking Water Quality Guidelines (CDWQG			n/a	n/a	500	6.5 - 8.5	n/a	10,000	1,000	n/a	250	1,500	500	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
FGQG Tier 2 Residential Land Use (RL)[a]			n/a	n/a	n/a	6.5 - 9.0	77 - 1,916[c]	13,000	60	n/a	120	120	100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BC Standard																					
CSR Drinking Water (DW)			n/a	n/a	n/a	n/a	n/a	10,000	3,200	10,000	250	1,500	500	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CSR Aquatic Life (AW)[b]			n/a	n/a	n/a	n/a	3,700 - 11,300[d]	400,000	200 - 1,000[e]	400,000	1,500	2,000 - 3,000[f]	1,000	n/a	n/a	n/a	n/a	n/a	n/a	15,000	n/a

All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Pathways Included: Freshwater Aquatic Life - Coarse, Inhalation - Coarse, Soil Organisms Direct Contact - Coarse (whichever is most stringent).
[b] Standard to protect freshwater aquatic life.
[c] Guideline varies with pH and temperature.
[d] Standard varies with pH.
[e] Standard varies with Chloride.
[f] Standard varies with hardness.

SHADED Concentration greater than Canadian Drinking Water Quality Guidelines (CDWQG) Guideline
BOLD Concentration greater than FGQG Tier 2 Residential Land Use (RL) Guideline
OUTLINE Concentration greater than CSR Drinking Water (DW) standard
SHADOW Concentration greater than CSR Aquatic Life (AW) standard

TABLE 10 (Cont'd): Summary of Analytical Results for Dissolved Inorganics in Groundwater

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Physical Parameters			Dissolved Inorganics															
			Hardness mg/L	Conductivity µS/cm	Total Dissolved Solids mg/L	pH pH	Ammonia Nitrogen µg/L	Nitrate Nitrogen µg/L	Nitrite Nitrogen µg/L	Nitrate+Nitrite Nitrogen µg/L	Chloride mg/L	Fluoride µg/L	Sulphate mg/L	Phosphate mg/L	Total Alkalinity mg/L	Alkalinity, Bicarbonate mg/L	Alkalinity, Carbonate mg/L	Alkalinity, Hydroxide mg/L	Alkalinity pH 4.5 mg/L	Salinity mg/L	Sodium Adsorption Ratio None
BH14-22	BH14-22-GW01-AD05	2014 03 11	323	1,270	-	8.1	19	114	11.6	126	***190***	110	71.4	0.0268	281	343	< 1	< 1	-	-	-
	BH14-22A-GW01-AD05	Duplicate	327	1,270	-	8.07	23	113	10.9	124	***190***	110	74.4	0.0281	279	340	< 1	< 1	-	-	-
	QA/QC RPD%		1	0	-	0	*	*	*	*	0	0	4	*	1	1	*	*	-	-	-
	BH14-22-GW2-AD05	2014 08 15	322	-	-	-	-	-	-	-	98	-	-	-	-	-	-	-	-	-	-
	MW14-22-141030	2014 10 30	359	-	-	-	-	-	-	-	***140***	-	-	-	-	-	-	-	-	-	-
BH14-23	BH14-23-GW01-AD05	2014 03 11	397	1,230	-	8.01	75	220	< 10	220	***170***	95	73.9	0.0075	320	390	< 1	< 1	-	-	-
	BH14-23-GW2-AD05	2014 08 15	393	-	-	-	-	-	-	-	***180***	-	-	-	-	-	-	-	-	-	-
	MW14-23-141030	2014 10 30	415	-	-	-	-	-	-	-	***160***	-	-	-	-	-	-	-	-	-	-
	MW14-B-141030	Duplicate	397	-	-	-	-	-	-	-	***160***	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		4	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-
BH14-24	BH14-24-GW01-AD05	2014 03 11	321	638	-	8.19	36	125	< 10	125	14	100	78.2	< 0.01	263	321	< 1	< 1	-	-	-
	BH14-24-GW2-AD05	2014 08 16	326	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-
	BH14-C-GW2-AD05	Duplicate	322	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		1	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-
	MW14-24-141030	2014 10 30	336	-	-	-	-	-	-	-	9.7	-	-	-	-	-	-	-	-	-	-
	MW14-C-141030	Duplicate	321	-	-	-	-	-	-	-	8.9	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		5	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-
BH14-25	BH14-25-GW01-AD05	2014 03 11	362	879	-	8.03	18	< 40	< 10	< 40	70	84	67.6	0.0109	307	374	< 1	< 1	-	-	-
	BH14-25-GW2-AD05	2014 08 16	354	-	-	-	-	-	-	-	65	-	-	-	-	-	-	-	-	-	-
BH14-26	BH14-26-GW01-AD05	2014 03 13	383	1,270	-	7.93	52	35	5.2	40	***170***	110	75.1	< 0.01	339	414	< 1	< 1	-	-	-
	BH14-26-GW2-AD05	2014 08 17	367	-	-	-	-	-	-	-	110	-	-	-	-	-	-	-	-	-	-
	MW14-26-141101	2014 11 01	442	-	-	-	-	-	-	-	***160***	-	-	-	-	-	-	-	-	-	-
	BH14-26-6W03-AD05	2015 10 01	411	1,010	-	8.09	52	< 20	< 5.0	< 20	***130***	85	65.1	< 0.0050	249	304	< 0.50	< 0.50	< 0.50	-	-
BH14-27	BH14-27-GW01-AD05	2014 03 12	336	675	-	8.13	49	96	< 10	96	11	110	77.7	0.0051	288	352	< 1	< 1	-	-	-
	BH14-27-GW2-AD05	2014 08 15	353	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-
	MW14-27-141031	2014 10 31	358	-	-	-	-	-	-	-	9.3	-	-	-	-	-	-	-	-	-	-
BH14-28	BH14-28-GW01-AD05	2014 03 12	349	828	-	7.99	63	152	< 10	152	45	100	77.4	< 0.01	311	380	< 1	< 1	-	-	-
	BH14-28-GW2-AD05	2014 08 16	364	-	-	-	-	-	-	-	59	-	-	-	-	-	-	-	-	-	-
	MW14-28-141031	2014 10 31	363	-	-	-	-	-	-	-	74	-	-	-	-	-	-	-	-	-	-
Tap	Tap (2006)	2006 08 20	363	-	-	-	-	-	-	-	0.76	-	85.8	-	-	-	-	-	-	-	-
	Tap (2007)	2007 08 22	365	-	-	-	-	-	-	-	0.37	-	77.3	-	-	-	-	-	-	1	-
	GR70	Duplicate	-	-	-	-	-	-	-	-	0.38	-	77.7	-	-	-	-	-	-	1	-
	QA/QC RPD%		-	-	-	-	-	-	-	-	*	-	1	-	-	-	-	-	-	*	-
	Tap (2008)	2008 10 06	-	-	-	-	-	-	-	-	0.65	-	77.3	-	-	-	-	-	-	-	-
	2458-0812-TW1	2012 08 08	< 1	694	396	8.23	-	-	-	-	0.55	-	73.5	-	-	272	< 1	-	272	297	120
Tap FS	Tap FS	2011 09 16	0.54	-	-	-	-	-	-	-	< 0.5	-	73	-	-	-	-	-	-	< 1,000	-
	GR86	Duplicate	0.53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tap4	TAP 4-AD05	2013 07 26	< 1	709	-	8.5	-	-	-	-	1.2	110	89.2	-	287	337	6.44	< 1	-	-	-
Federal Guideline																					
Canadian Drinking Water Quality Guidelines (CDWQG			n/a	n/a	500	6.5 - 8.5	n/a	10,000	1,000	n/a	250	1,500	500	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
FGQG Tier 2 Residential Land Use (RL)[a]			n/a	n/a	n/a	6.5 - 9.0	77 - 1,916[c]	13,000	60	n/a	120	120	100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BC Standard																					
CSR Drinking Water (DW)			n/a	n/a	n/a	n/a	n/a	10,000	3,200	10,000	250	1,500	500	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CSR Aquatic Life (AW)[b]			n/a	n/a	n/a	n/a	3,700 - 11,300[d]	400,000	200 - 1,000[e]	400,000	1,500	2,000 - 3,000[f]	1,000	n/a	n/a	n/a	n/a	n/a	n/a	15,000	n/a

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Pathways Included: Freshwater Aquatic Life - Coarse, Inhalation - Coarse, Soil Organisms Direct Contact - Coarse (whichever is most stringent).

[b] Standard to protect freshwater aquatic life.

[c] Guideline varies with pH and temperature.

[d] Standard varies with pH.

[e] Standard varies with Chloride.

[f] Standard varies with hardness.

SHADED Concentration greater than Canadian Drinking Water Quality Guidelines (CDWQG) Guideline

BOLD Concentration greater than FGQG Tier 2 Residential Land Use (RL) Guideline

OUTLINE Concentration greater than CSR Drinking Water (DW) standard

SHADOW Concentration greater than CSR Aquatic Life (AW) standard

TABLE 10 (Cont'd): Summary of Analytical Results for Dissolved Inorganics in Groundwater

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Physical Parameters			Dissolved Inorganics															
			Hardness mg/L	Conductivity µS/cm	Total Dissolved Solids mg/L	pH pH	Ammonia Nitrogen µg/L	Nitrate Nitrogen µg/L	Nitrite Nitrogen µg/L	Nitrate+Nitrite Nitrogen µg/L	Chloride mg/L	Fluoride µg/L	Sulphate mg/L	Phosphate mg/L	Total Alkalinity mg/L	Alkalinity, Bicarbonate mg/L	Alkalinity, Carbonate mg/L	Alkalinity, Hydroxide mg/L	Alkalinity pH 4.5 mg/L	Salinity mg/L	Sodium Adsorption Ratio None
Well	Well (2004)	2004 12 08	-	-	-	-	-	-	-	-	0.41	-	84.7	-	-	-	-	-	-	0.3	-
	Well (2005)	2005 11 06	346	-	-	-	-	-	-	-	0.34	-	87.7	-	-	-	-	-	-	-	-
	GR23	Duplicate	339	-	-	-	-	-	-	-	0.32	-	87.9	-	-	-	-	-	-	-	-
	QA/QC RPD%		2	-	-	-	-	-	-	-	*	-	0	-	-	-	-	-	-	-	-
	Well (2006)	2006 08 20	371	-	-	-	-	-	-	-	0.76	-	85.9	-	-	-	-	-	-	-	-
	GR60	Duplicate	340	-	-	-	-	-	-	-	0.79	-	85.9	-	-	-	-	-	-	-	-
	QA/QC RPD%		9	-	-	-	-	-	-	-	*	-	0	-	-	-	-	-	-	-	-
	Well (2008)	2008 10 06	-	-	-	-	-	-	-	-	0.65	-	76.6	-	-	-	-	-	-	-	-
	Well (2009)	2009 10 19	359	610	-	-	-	-	-	-	0.79	-	71.2	-	-	-	-	-	-	**300,000**	-
	GR83	Duplicate	348	614	-	-	-	-	-	-	0.79	-	71.2	-	-	-	-	-	-	**300,000**	-
	QA/QC RPD%		3	1	-	-	-	-	-	-	*	-	0	-	-	-	-	-	-	*	-
	WELL (2010)	2010 09 08	364	-	-	-	-	-	-	-	< 1	-	65.7	-	-	-	-	-	-	< 1,000	-
	GR2	Duplicate	364	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Well (2011)	2011 09 16	356	-	-	-	-	-	-	-	< 0.5	-	76.1	-	-	-	-	-	-	< 1,000	-
	GR85	Duplicate	-	-	-	-	-	-	-	-	< 0.5	-	76.4	-	-	-	-	-	-	< 1,000	-
	QA/QC RPD%		-	-	-	-	-	-	-	-	*	-	0	-	-	-	-	-	-	*	-
	2458-0812-DW1	2012 08 08	337	624	348	7.87	-	-	-	-	3.45	-	75.5	-	-	257	< 1	-	257	266	0.044
	2458-0812-DW101	Duplicate	332	623	344	7.88	-	-	-	-	1.23	-	75.1	-	-	258	< 1	-	258	266	0.044
	QA/QC RPD%		1	0	1	0	-	-	-	-	95	-	1	-	-	0	*	-	0	*	*
	WELL-AD05	2013 07 26	370	633	-	8.2	-	-	-	-	1.1	110	93	-	272	332	< 1	< 1	-	-	-
Federal Guideline																					
Canadian Drinking Water Quality Guidelines (CDWQG			n/a	n/a	500	6.5 - 8.5	n/a	10,000	1,000	n/a	250	1,500	500	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
FGQG Tier 2 Residential Land Use (RL)[a]			n/a	n/a	n/a	6.5 - 9.0	77 - 1,916[c]	13,000	60	n/a	120	120	100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BC Standard																					
CSR Drinking Water (DW)			n/a	n/a	n/a	n/a	n/a	10,000	3,200	10,000	250	1,500	500	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CSR Aquatic Life (AW)[b]			n/a	n/a	n/a	n/a	3,700 - 11,300[d]	400,000	200 - 1,000[e]	400,000	1,500	2,000 - 3,000[f]	1,000	n/a	n/a	n/a	n/a	n/a	n/a	15,000	n/a

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

SHADED Concentration greater than Canadian Drinking Water Quality Guidelines (CDWQG) Guideline

BOLD Concentration greater than FGQG Tier 2 Residential Land Use (RL) Guideline

OUTLINE Concentration greater than CSR Drinking Water (DW) standard

SHADOW Concentration greater than CSR Aquatic Life (AW) standard

[a] Pathways Included: Freshwater Aquatic Life - Coarse, Inhalation - Coarse, Soil Organisms Direct Contact - Coarse (whichever is most stringent).

[b] Standard to protect freshwater aquatic life.

[c] Guideline varies with pH and temperature.

[d] Standard varies with pH.

[e] Standard varies with Chloride.

[f] Standard varies with hardness.

TABLE 11: Summary of Analytical Results for Dissolved Metals in Groundwater

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Physical	Geochemical Indicators							Dissolved Metals																					
			Hardness mg/L	Aluminum µg/L	Calcium mg/L	Iron µg/L	Magnesium mg/L	Manganese µg/L	Potassium mg/L	Sodium mg/L	Antimony µg/L	Arsenic µg/L	Barium µg/L	Beryllium µg/L	Boron µg/L	Cadmium µg/L	Chromium µg/L	Cobalt µg/L	Copper µg/L	Lead µg/L	Lithium µg/L	Mercury µg/L	Molybdenum µg/L	Nickel µg/L	Selenium µg/L	Silver µg/L	Strontium µg/L	Thallium µg/L	Titanium µg/L	Tin µg/L	Uranium µg/L	Vanadium µg/L	Zinc µg/L
BH113M	BH113M (2006)	2006 08 20	349	-	76.5	-	32.8	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH113M (2007)	2007 08 22	298	7	69.8	< 50	30	1	2.1	4.47	< 1	< 1	46	< 1	50	< 0.2[a]	< 1	< 1	1	< 1	-	< 0.02	0.9	< 1	< 1	< 0.25[a]	250	< 0.1	< 1	-	1.4	-	< 5
	GR71	Duplicate	318	6	69.7	< 50	30.4	1	2.9	4.52	< 1	< 1	48	< 1	50	< 0.2[a]	< 1	< 1	2	< 1	-	< 0.02	0.8	< 1	< 1	< 0.25[a]	260	< 0.1	< 1	-	1.4	-	**7,000**
	QA/QC RPD%		6	15	0	*	1	*	32	*	*	*	4	*	0	*	*	*	67	*	-	*	12	*	*	*	4	*	*	-	0	-	*
	BH113M (2008)	2008 10 06	-	-	77.9	-	35.7	-	1.5	3.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	GR81	Duplicate	-	-	77.8	-	35.8	-	1.5	3.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		-	-	0	-	0	-	0	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH113M (2009)	2009 10 19	336	7	72	< 50	37.9	0.9	1.85	2.97	< 0.5	< 1	46	< 0.5	< 25	< 0.05[a]	< 1	< 0.5	3.6	< 0.25	8.8	< 0.02	0.8	< 1	< 1	< 0.2[a]	241	< 0.1	< 1	< 0.5	1.3	< 0.5	9
	BH113M (2010)	2010 09 08	340	< 5	78.8	< 30	34.8	< 0.300	2.3	2.4	< 0.500	< 0.500	52	< 1	< 100	***0.124***	< 2	< 0.300	< 1	< 0.500	8.7	< 0.0100	< 1	1.1	< 1	< 0.0200	-	< 0.200	< 10	< 0.500	1.32	< 1	< 5
BH118M	BH118M (2009)	2009 10 19	395	8	92.9	< 50	39.5	1.2	2.37	91.6	< 0.5	< 1	93	< 0.5	< 25	< 0.05[a]	< 1	< 0.5	< 0.5	< 0.25	8.5	< 0.02	0.8	< 1	< 1	< 0.2[a]	318	< 0.1	< 1	< 0.5	1.4	< 0.5	< 5
	GR82	Duplicate	401	11	94.6	< 50	39.9	1.1	2.4	92.2	< 0.5	< 1	94	< 0.5	< 25	< 0.05[a]	< 1	< 0.5	< 0.5	< 0.25	8.6	< 0.02	0.8	< 1	< 1	< 0.2[a]	328	< 0.1	< 1	< 0.5	1.5	< 0.5	< 5
	QA/QC RPD%		2	32	2	*	1	*	1	*	*	*	1	*	*	*	*	*	*	*	*	*	0	*	*	*	3	*	*	*	7	*	*
	BH118M (2010)	2010 09 08	398	< 10	100	< 30	35.7	< 0.600	< 2	49.5	< 1	< 1	91	< 2	< 100	***0.06***	< 4	< 0.600	< 2	< 1	< 10	< 0.0100	< 2	< 2	0.69	< 0.0400	-	< 0.400	< 10	< 1	1.73	< 2	< 5
	GR1	Duplicate	396	< 10	99.6	< 30	35.8	< 0.600	< 2	51.4	< 1	< 1	94	< 2	< 100	***0.064***	< 2	< 0.600	< 2	< 1	< 10	< 0.0100	< 2	< 2	0.69	< 0.0400	-	< 0.400	< 10	< 1	1.69	< 2	< 5
	QA/QC RPD%		1	*	0	*	0	*	*	*	*	*	3	*	*	6	*	*	*	*	*	*	*	*	0	*	-	*	*	*	2	*	*
	BH118M (2011)	2011 09 16	454	< 5	113	< 30	41.8	0.87	2.8	184	< 0.5	< 0.5	140	< 1	< 100	***0.031***	< 1	< 0.3	< 1	< 0.5	-	< 0.01	< 1	< 1	< 1	< 0.02	381	< 0.2	15	< 0.5	1.5	< 1	< 5
	GR84	Duplicate	448	< 5	112	< 30	40.7	0.93	2.8	174	< 0.5	< 0.5	139	< 1	< 100	***0.032***	< 1	< 0.3	< 1	< 0.5	-	< 0.01	< 1	< 1	< 1	< 0.02	-	< 0.2	14	< 0.5	1.51	< 1	< 5
	QA/QC RPD%		1	*	1	*	3	*	0	*	*	*	1	*	*	*	*	*	*	*	-	*	*	*	*	*	-	*	7	*	1	*	*
BH119M	BH119M (2009)	2009 10 19	389	12	94.2	< 50	37.2	**53**	2.48	109	< 0.5	< 1	100	< 0.5	< 25	***0.05***	< 1	1.1	< 0.5	< 0.25	6.8	< 0.02	0.6	1	< 1	< 0.2[a]	305	< 0.1	1	< 0.5	1.5	< 0.5	< 5
	BH119M (2010)	2010 09 08	405	< 10	102	< 30	36.6	10.2	2.8	121	< 1	< 1	120	< 2	< 100	***0.066***	< 2	< 0.600	< 2	< 1	< 10	< 0.0100	< 2	< 2	< 0.500	< 0.0400	-	< 0.400	< 10	< 1	1.46	< 2	< 5
BH120M	BH120M (2009)	2009 10 19	327	10	70.4	< 50	36.7	1.6	1.6	4.69	< 0.5	< 1	44	< 0.5	< 25	< 0.05[a]	< 1	< 0.5	< 0.5	< 0.25	7.9	< 0.02	0.8	< 1	< 1	< 0.2[a]	244	< 0.1	< 1	< 0.5	1.3	< 0.5	< 5
	BH120M (2010)	2010 09 08	358	< 5	80.6	< 30	37.9	0.82	3.5	4.8	< 0.500	< 0.500	49	< 1	< 100	***0.028***	< 1	< 0.300	< 1	< 0.500	6.5	< 0.0100	< 1	< 1	< 1	< 0.0200	-	< 0.200	< 10	< 0.500	1.5	< 1	< 5
BH12-02	MW12-02-AD05	2012 10 24	401	3	94.8	***1,390***	40	29	2.09	3.4	0.09	0.1	61.2	< 0.01	7	< 0.01	< 0.5	0.3	< 0.2	< 0.01	7.8	< 0.003	0.39	0.8	< 0.1	< 0.01	-	0.002	***137***	-	1.22	< 0.1	1
	MW12-A-AD05	Duplicate	404	2	95.5	***1,390***	40.3	29	2.06	3.34	0.09	0.2	62.3	< 0.01	7	< 0.01	< 0.5	0.29	< 0.2	0.01	8.1	< 0.003	0.42	0.9	< 0.1	< 0.01	-	< 0.002	***131***	-	1.25	< 0.1	< 1
	QA/QC RPD%		< 1	*	< 1	0	< 1	0	1	*	*	*	2	*	*	*	*	3	*	*	*	*	7	12	*	*	-	*	5	-	2	*	*
	MW12-02-AD05	2013 03 14	422	3	98.1	***1,690***	43.1	11	-	5.74	0.29	0.3	66	< 0.01	11	0.01	< 0.5	0.31	0.3	< 0.07	12.1	< 0.025	0.38	4	< 0.1	< 0.01	-	< 0.03	1.6	-	1.77	0.2	14
	MW12-A-AD05	Duplicate	421	3	98	***1,700***	42.8	11	-	5.67	0.32	0.2	65.2	0.02	11	< 0.01	< 0.5	0.31	0.4	< 0.07	11.9	< 0.025	0.41	3.8	0.2	< 0.01	-	< 0.03	1.8	-	1.73	< 0.1	10
	QA/QC RPD%		< 1	*	< 1	< 1	< 1	0	-	*	*	*	1	*	*	*	*	0	*	*	*	*	7	5	*	*	-	*	12	-	2	*	*
	MW12-02-AD05	2013 07 26	417	3.7	99	19	41.3	29.1	2.78	7.57	< 1	< 0.2	78.9	< 0.2	< 100	***0.039***	< 2	1.42	1.81	< 0.4	10.1	< 0.1[a]	9.6	51.8	0.42	< 0.04	428	< 0.1	< 10	< 10	1.72	< 10	***71.3***
BH13-03	MW13-03-AD05	2013 03 14	371	6	90.3	***400***	35.4	**425**	-	93.1	< 1	< 1	110	< 1	< 10	< 0.05[a]	3	3	< 2	< 1	8	< 0.025	< 3	6	< 1	< 0.1	-	< 0.1	2	-	1	< 1	13
	MW13-03-AD05	2013 07 26	425	4.2	103	188	40.7	10.5	3.03	109	< 1	0.38	116	< 0.2	< 100	< 0.02[a]	< 2	< 1	0.52	< 0.4	7.8	< 0.1[a]	< 2	< 2	0.26	0.037	362	< 0.1	< 10	< 10	1.3	< 10	19.8
	MW13-C-AD05	Duplicate	371	4	90.1	***400***	35.4	**427**	-	92.6	< 1	< 1	110	< 1	< 10	***0.06***	3	3	< 2	< 1	8	< 0.025	< 3	6	< 1	< 0.1	-	< 0.1	2	-	1	< 1	6
	QA/QC RPD%		14	*	13	72	14	190	-	*	*	*	5	*	*	*	*	*	*	*	*	*	*	*	*	*	-	*	*	-	26	*	107
	MW13-C-AD05	2013 07 26	426	3.5	101	195	42	11.2	3.04	113	< 1	0.55	114	< 0.2	< 100	< 0.02[a]	< 2	< 1	0.74	< 0.4	6.9	< 0.1[a]	< 2	< 2	0.21	0.071	367	< 0.1	< 10	< 10	1.28	< 10	< 10
BH13-04	zMW13-04-AD05	2013 10 02	318	< 6	72.9	< 10	33.1	34.9	1.71	3.95	< 1	0.12	60.7	< 0.2	< 100	***0.018***	< 2	< 1	0.43	< 0.4	6.9	< 0.1[a]	< 2	1.2	0.52	< 0.04	252	< 0.1	< 10	< 10	1.39	< 10	8
	BH13-04	2013 10 29	353	3.8	83.5	9.9	35	3.1	1.81	4.77	< 1	0.15	57.9	< 0.2	< 100	***0.02***	< 2	< 1	0.39	< 0.4	7.1	< 0.1[a]	< 2	< 2	0.51	< 0.04	300	< 0.1	< 10	< 10	1.52	< 10	< 10
	BH13-04-GW2-AD05	2014 08 18	356	3.8	77.6	9.3	39.3	< 2	1.95	4.95	< 1	0.31	50.9	< 0.2	< 100	0.012	< 2	< 1	1.52	< 0.4	6.4	< 0.02	< 2	1.2	0.49	< 0.04	259	< 0.1	< 10	< 10	1.55	< 10	5.7
	MW13-04-141030	2014 10 30	373	6.1	83.3	45.1	40.1	2	1.91	5.06	< 0.5	0.26	55.8	< 0.1	< 50	0.011	< 1	< 0.5	0.33	< 0.2	7.8	< 0.01	< 1	1.3	0.46	0.023	277	< 0.05	< 5	< 5	1.55	< 5	< 5
	BH13-04-6W03-AD05	2015 10 01	365	10.3	79.6	12.8	40.5	4.1	1.96	6.79	< 0.50	0.45	46.8	< 0.10	< 50	***0.027***	< 1.0	< 0.50	1.28	< 0.20	7.5	< 0.010	1	< 1.0	0.43	< 0.020	272	< 0.050	< 5.0	< 5.0	1.39	< 5.0	22.3
BH13-05	BH13-05	2013 10 29	381	< 6	93.8	***904***	35.7	**183**	2.66	119	< 1	1.4	92.5	< 0.2	< 100	< 0.02[a]	< 2	< 1	< 0.4	< 0.4	7.4	< 0.1[a]	< 2	< 2	< 0.2	< 0.04	348	< 0.1	< 10	< 10	1.35	< 10	< 10
	DUP 1	Duplicate	378	< 6	93.6	***843***	34.9	**182**	2.74	115	< 1	1.38	92.5	< 0.2	< 100	< 0.02[a]	< 2	< 1	0.48	< 0.4	7.6	< 0.1[a]	< 2	< 2	< 0.2	< 0.04	351	< 0.1	< 10	< 10	1.35	< 10	< 10
	QA/QC RPD%		1	*	0	7	2	1	3	*	*	1	0	*	*	*	*	*	*	*	*	*	*	*	*	*	1	*	*	*	0	*	*
	BH13-05-GW2-AD05	2014 08 15	336	3.9	82.5	***601***	31.6	**78**	1.79	83.4	< 1	0.47	76.4	< 0.2	< 100	< 0.02[a]	< 2	< 1	***4.81***	< 0.4	7.2	< 0.02	1.6	< 2	< 0.2	< 0.04	285	< 0.1	< 10	< 10	1.64	< 10	< 10
	BH14-B-GW2-AD05	Duplicate	353	3.2	84.9	***598***	34.2	**78.4**	1.86	85.2	< 1	0.51	76.1	< 0.2	< 100	< 0.02[a]	< 2	< 1	0.64	< 0.4	7	< 0.02	1.7	< 2	< 0.2	< 0.04	283	< 0.1	< 10	< 10	1.65	< 10	< 10
	QA/QC RPD%		5	*	3	1	8	1	4	*	*	*	0	*	*	*	*	*	*	*	*	*	6	*	*	*	1	*	*	*	1	*	*
	MW13-05-141030	2014 10 30	361	< 3	87.7	***744***	34.4	**87.2**	1.97	83.1	< 0.5	3.93	83.3	< 0.1	< 50	< 0.01	< 1	< 0.5	< 0.2	< 0.2	7.1	< 0.01	< 1	< 1	< 0.1	< 0.02	300	< 0.05	< 5	< 5	1.84	< 5	< 5
	BH13-05-GW03-AD05	2015 09 28	339	9.3	82.4	***376***	32.4	**51.1**	1.73	22.9	< 0.50	0.49	61.2	< 0.10	330	< 0.010	< 1.0	< 0.50	< 0.20	< 0.20	5.7	< 0.010	< 1.0	< 1.0	< 0.10	< 0.020	272	< 0.050	< 5.0	< 5.0	1.46	< 5.0	9.4
	DUP 1	Duplicate	366	7.5	84	***397***	38	49.7	1.94	25.8	< 0.50	0.44	66	< 0.10	74	< 0.010	< 1.0	< 0.50	< 0.20	< 0.20	< 5.0	< 0.010	< 1.0	< 1.0	< 0.10	< 0.020	286	< 0.050	< 5.0	< 5.0	1.65	< 5.0	< 5.0
	QA/QC RPD%		8	*	2	5	16	3	11	12	*	*	8	*	*	*	*	*	*	*	*	*	*	*	*	*	5	*	*	*	12	*	*
BH13-06	BH13-06	2013 10 29	784	3.2	188	***3,730***	76.5	**291**	4.88	**264**	< 1	1.87	459	< 0.2	< 100	< 0.02[a]	< 2	0.97	0.3	< 0.4	17.8	< 0.1[a]	< 2	2.4	< 0.2	< 0.04	762	< 0.1	< 10	< 10	1.25	< 10	< 10
	BH13-06-GW2-AD05	2014 08 13	368	32.9	90.7	***1,720***	34.3	**142**	2.19	44.8	< 1	0.32	63.3	< 0.2	< 100	0.017	< 2	0.72	0.85	< 0.4	8.7	< 0.02	< 2	1.6	< 0.2	< 0.04	317	< 0.1	< 10	< 10	0.87	< 10	6.1
	MW13-06-141030	2014 10 30	447	< 3	114	***2,130***	39.8	**127**	2.66	51.4	< 0.5	0.27	87.1	< 0.1	< 50	< 0.01	< 1	< 0.5	< 0.2	< 0.2	10	< 0.01	< 1	< 1	< 0.1	< 0.02	379	< 0.05	< 5	< 5	0.75	< 5	< 5
	BH13-06-GW03-AD05	2015 09 28	409	13.4	96	***1,030***	41.1	**80.1**	2.45	54.7	< 0.50	0.61	72	< 0.10	206	< 0.010	< 1.0	0.68	< 0.20	< 0.20	9	< 0.010	< 1.0	< 1.0	< 0.10	< 0.020	344	< 0.050	< 5.0	< 5.0	0.73	< 5.0	13.4
BH13-07	zMW13-07-AD05	2013 10 01	411	4.3	110	114	33.3	**1,760**	2.8	27.3	< 1	0.2	46.5	< 0.2	< 100	***0.058***	< 2	5.94	1.19	< 0.4	10.8	< 0.1[a]	6.2	15.1	0.42	< 0.04	385	< 0.1	< 10	< 10	2.24	< 10	10.6
	BH13-07	2013 10 29	430	< 6	103	< 10	42	**264**	2.59	43.8	< 1	< 0.2	73.7	< 0.2	< 100	***0.139***	< 2	1.59	0.22	< 0.4	9.9	< 0.1[a]	1.1	6.1	0.39	< 0.04	365	< 0.1	< 10	< 10	1.54	< 10	< 10
BH13-08	BH13-08-GW01-AD05	2014 03 11	351	< 6	83.1	22	34.9	4.1	2.56	59.7	< 1	0.19	107	< 0.2	< 100	***0.024***	< 2	< 1	1.22	< 0.4	10	< 0.02	< 2	1.8	0.3	< 0.04	308	< 0.1	< 10	< 10	1.34	< 10	5
	BH13-08-GW2-AD05	2014 08 17	363	22.4	84.5	114	37	5.8	2.52	46.3	< 1	0.42	99.7	< 0.2	< 100	< 0.02[a]	1.2	< 1	0.27	< 0.4	8.4	< 0.02	1.4	5	0.14	< 0.04	295	< 0.1	< 10	< 10	1.17	< 10	7.8
	MW13-08-141101	2014 11 01	391	4.5	93.4	80.8	38.3	4.9	2.64	58	< 0.5	0.48	118	< 0.1	< 50	< 0.01	1.5	< 0.5	< 0.2	< 0.2	9.3	< 0.01	1.3	4.2	0.17	< 0.02	325	< 0.05	< 5	< 5	1.33	< 5	< 5
BH14-09	BH14-09-GW01-AD05	2014 03 12	383	< 6	101	7.6	31.9	**115**	2.76	108	< 1	0.13	70.8	< 0.2	< 100	***0.064***	< 2	1.12	1.28	< 0.4	8.8	< 0.02	1	4.2	0.1	< 0.04	362	< 0.1	< 10	< 10	1.8	< 10	5.7
	BH14-09-GW2-AD05	2014 08 18	391	16.2	94.1	291	38	**77.7**	2.63	105	< 1	0.46	86.3	< 0.2	< 100	***0.034***	< 2	0.69	0.74	< 0.4	7.4	< 0.02	< 2	2.2	< 0.2	< 0.04	323	< 0.1	< 10	< 10	1.15	< 10	< 10
	MW14-09-141031	2014 10 31	413	3.4	106	185	35.8	**81.8**	2.92	121	< 0.5	0.36	95.5	< 0.1	< 50	***0.023***	< 1	0.84	< 0.2	< 0.2	8	< 0.01	< 1	1.5	< 0.1	< 0.02	373	< 0.05	< 5	< 5	1.2	< 5	< 5
	BH14-09-6W03-AD05	2015 10 01	436	14.6	101	16.8	44.4	36.6	2.78	84.6	< 0.50	0.33	71.9	< 0.10	< 50	***0.098***	< 1.0	< 0.50	0.49	< 0.20	7.8	< 0.010	< 1.0	< 1.0	< 0.10	< 0.020	329	< 0.050	< 5.0	< 5.0	0.9	< 5.0	< 5.0
Federal Guideline																																	
Canadian Drinking Water Quality Guidelines (CDWQG)			n/a	100	n/a	300	n/a	50	n/a	200	6	10	1,000	n/a	5,000	5	50	n/a	1,000	10	n/a	1	n/a	n/a	50	n/a	n/a	n/a	n/a	n/a	20	n/a	5,000
FGQG Tier 2 Residential/Parkland Land Use (RL/PL)[b]			n/a	100[d]	n/a	300	n/a	n/a	n/a	n/a	2,000	5	2,900	5.3	n/a	0.017	8.9	n/a	2 - 4[e]	1 - 7[e]	n/a	0.026	73	25 - 150[e]	1	0.1	n/a	0.8	100	n/a	15	n/a	30
BC Standard																																	
CSR Drinking Water (DW)			n/a	9,500	n/a	6,500	100	550	n/a	200	6	10	1,000	n/a	5,000	5	50	n/a	1,000	10	730	1	250	n/a	10	n/a	22,000	n/a	n/a	22,000	20	n/a	5,000
CSR Aquatic Life (AW)[c]			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	200	50	10,000	53	50,000	0.1 - 0.6[e]	10	40	20 - 90[e]	40 - 160[e]	n/a	1	10,000	250 - 1,500[e]	10	0.5 - 15[e]	n/a	3	1,000	n/a	3,000	n/a	75 - 2,400[e]

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.

[b] Pathways Included: Freshwater Aquatic Life - Coarse, Inhalation - Coarse, Soil Organisms Direct Contact - Coarse (whichever is most stringent).

[c] Standard to protect freshwater aquatic life.

[d] Guideline is pH dependent; based on available data, site pH is > 6.5.

[e] Standard varies with hardness.

SHADED Concentration greater than Canadian Drinking Water Quality Guidelines (CDWQG) Guideline

BOLD Concentration greater than FGQG Tier 2 Residential Land Use (RL) Guideline

OUTLINE Concentration greater than CSR Drinking Water (DW) standard

SHADOW Concentration greater than CSR Aquatic Life (AW) standard

TABLE 11 (Cont'd): Summary of Analytical Results for Dissolved Metals in Groundwater

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Physical	Geochemical Indicators							Dissolved Metals																						
			Hardness mg/L	Aluminum µg/L	Calcium mg/L	Iron µg/L	Magnesium mg/L	Manganese µg/L	Potassium mg/L	Sodium mg/L	Antimony µg/L	Arsenic µg/L	Barium µg/L	Beryllium µg/L	Boron µg/L	Cadmium µg/L	Chromium µg/L	Cobalt µg/L	Copper µg/L	Lead µg/L	Lithium µg/L	Mercury µg/L	Molybdenum µg/L	Nickel µg/L	Selenium µg/L	Silver µg/L	Strontium µg/L	Thallium µg/L	Titanium µg/L	Tin µg/L	Uranium µg/L	Vanadium µg/L	Zinc µg/L
BH14-10	BH14-10-GW01-AD05	2014 03 11	425	< 6	106	***2,900***	39	**179**	3.39	107	< 1	1.11	249	< 0.2	< 100	< 0.02[a]	< 2	0.64	1.4	0.26	14.1	< 0.02	2.2	2.3	0.13	< 0.04	417	< 0.1	< 10	< 10	2.09	< 10	6.1
	BH14-10-GW2-AD05	2014 08 13	367	6.6	92.9	***1,870***	32.8	**115**	2.19	66.6	< 1	0.43	87.5	< 0.2	< 100	***0.019***	< 2	0.53	0.48	< 0.4	8.2	< 0.02	< 2	1.8	< 0.2	< 0.04	301	< 0.1	< 10	< 10	0.77	< 10	6.2
	MW14-10-141030	2014 10 30	425	< 3	105	***1,370***	39.8	**90.8**	2.61	57.5	< 0.5	0.53	87.3	< 0.1	< 50	***0.026***	< 1	0.57	0.44	< 0.2	9.1	< 0.01	< 1	1.7	< 0.1	< 0.02	361	< 0.05	< 5	< 5	1.01	< 5	< 5
	BH14-10-GW03-AD05	2015 09 28	410	13.9	96	***801***	41.4	47.2	2.5	52.7	< 0.50	0.48	84.8	< 0.10	141	< 0.010	< 1.0	< 0.50	0.32	< 0.20	7.1	< 0.010	< 1.0	< 1.0	< 0.10	< 0.020	329	< 0.050	< 5.0	< 5.0	0.56	< 5.0	< 5.0
BH14-11	BH14-11-GW01-AD05	2014 03 10	421	< 6	109	***3,010***	36.4	**127**	2.8	76.9	< 1	1.93	84.9	< 0.2	< 100	< 0.02[a]	< 2	< 1	1.34	< 0.4	10.4	< 0.02	< 2	1	< 0.2	< 0.04	383	< 0.1	< 10	< 10	0.86	< 10	6.2
	BH14-11-GW2-AD05	2014 08 14	392	22.4	101	***1,600***	34.1	**103**	2.27	54.1	< 1	1.41	59.6	< 0.2	< 100	< 0.02[a]	< 2	< 1	0.89	< 0.4	8.4	< 0.02	< 2	1.6	< 0.2	< 0.04	323	< 0.1	< 10	< 10	0.8	< 10	7.4
	MW14-11-141030	2014 10 30	433	14.6	111	***1,300***	37.8	**78.5**	2.74	62.9	< 0.5	0.98	82	< 0.1	< 50	0.011	< 1	< 0.5	0.46	< 0.2	9.1	< 0.01	< 1	1.3	< 0.1	< 0.02	368	< 0.05	< 5	< 5	0.95	< 5	6
	BH14-11-GW03-AD05	2015 09 28	418	14.6	100	***948***	40.8	**62.9**	2.59	65.9	< 0.50	0.79	81	< 0.10	118	< 0.010	< 1.0	< 0.50	< 0.20	< 0.20	9.7	< 0.010	< 1.0	< 1.0	< 0.10	< 0.020	329	< 0.050	< 5.0	< 5.0	0.79	< 5.0	< 5.0
BH14-12	BH14-12-GW01-AD05	2014 03 09	416	< 6	94.7	< 10	43.6	10.8	2.59	36	< 1	< 0.2	135	< 0.2	< 100	***0.027***	< 2	< 1	1.38	< 0.4	9.1	< 0.02	< 2	1.1	< 0.2	< 0.04	371	< 0.1	< 10	< 10	0.9	< 10	5.3
	BH14-12-GW2-AD05	2014 08 17	369	5.9	84	24.3	38.7	8.5	2.37	23.7	< 1	0.25	112	< 0.2	< 100	0.017	1.1	< 1	1.38	< 0.4	7.9	< 0.02	< 2	2.2	0.1	< 0.04	301	< 0.1	< 10	< 10	0.7	< 10	5.3
	MW14-12-141101	2014 11 01	409	5.8	98.8	24.3	39.5	7.4	2.74	41.5	< 0.5	0.17	153	< 0.1	< 50	***0.022***	< 1	< 0.5	0.3	< 0.2	10.1	< 0.01	< 1	1.5	< 0.1	< 0.02	373	< 0.05	< 5	< 5	0.83	< 5	< 5
BH14-13	BH14-13-GW01-AD05	2014 03 10	383	< 6	87.2	< 10	40	< 2	1.76	2.47	< 1	< 0.2	32.5	< 0.2	< 100	< 0.02[a]	< 2	< 1	1.12	< 0.4	7.2	< 0.02	< 2	< 2	***2.83***	< 0.04	301	< 0.1	< 10	< 10	1.63	< 10	5.5
	BH14-13-GW2-AD05	2014 08 18	360	4.3	76.8	20.5	40.8	< 2	1.76	2.22	< 1	0.15	31.6	< 0.2	< 100	< 0.02[a]	3.1	< 1	1.46	< 0.4	7.1	< 0.02	1.1	3	***1.78***	< 0.04	290	< 0.1	< 10	< 10	1.7	< 10	< 10
	MW14-13-141031	2014 10 31	402	4	90.4	7.4	42.7	< 1	1.95	2.63	< 0.5	< 0.1	33.2	< 0.1	< 50	< 0.01	< 1	< 0.5	0.3	< 0.2	7.9	< 0.01	< 1	< 1	***1.32***	< 0.02	323	< 0.05	< 5	< 5	1.79	< 5	< 5
BH14-14	BH14-14-GW01-AD05	2014 03 09	315	4.9	68.4	8.4	34.9	8.9	1.6	4.1	< 1	0.11	40.3	< 0.2	< 100	0.015	< 2	< 1	1.29	< 0.4	7.1	< 0.02	< 2	< 2	0.27	< 0.04	253	< 0.1	< 10	< 10	1.44	< 10	5.3
	BH14-14-GW2-AD05	2014 08 19	327	3.6	70.6	7.5	36.5	< 2	1.81	9.16	< 1	0.22	40.4	< 0.2	< 100	< 0.02[a]	< 2	< 1	1.15	< 0.4	7.1	< 0.02	< 2	< 2	0.28	< 0.04	238	< 0.1	< 10	< 10	1.49	< 10	< 10
	MW14-14-141030	2014 10 30	321	< 3	70.7	< 5	35.2	< 1	1.8	5.76	< 0.5	0.12	42.7	< 0.1	< 50	0.01	< 1	< 0.5	0.39	< 0.2	7.6	< 0.01	< 1	< 1	0.37	< 0.02	263	< 0.05	< 5	< 5	1.53	< 5	< 5
BH14-15	BH14-15-GW01-AD05	2014 03 10	343	< 6	83.7	***2,000***	32.6	**121**	1.94	8.83	< 1	2	86.2	< 0.2	< 100	< 0.02[a]	< 2	0.78	1.21	< 0.4	8.2	< 0.02	< 2	1.2	< 0.2	< 0.04	317	< 0.1	< 10	< 10	0.82	< 10	5.5
	BH14-15A-GW01-AD05	Duplicate	343	6.3	83.8	***2,000***	32.4	**123**	1.93	8.78	< 1	2.02	86.9	< 0.2	< 100	***0.069***	< 2	0.8	1.56	< 0.4	8.2	< 0.02	< 2	1.9	< 0.2	0.028	318	< 0.1	< 10	< 10	0.8	< 10	15
	QA/QC RPD%		0	*	0	0	1	2	1	*	*	1	1	*	*	*	*	3	25	*	*	*	*	45	*	*	0	*	*	*	*	*	93
	BH14-15-GW2-AD05	2014 08 14	333	65.5	77.3	***2,470***	33.9	**58.9**	1.91	9.92	< 1	1.99	66.3	< 0.2	< 100	< 0.02[a]	< 2	< 1	1.1	< 0.4	6.8	< 0.02	1	1.6	< 0.2	< 0.04	275	< 0.1	7.4	< 10	0.52	< 10	7.4
	BH14-A-GW2-AD05	Duplicate	332	10	79.1	***2,370***	32.6	**55.5**	1.82	9.73	< 1	1.99	66.3	< 0.2	< 100	< 0.02[a]	< 2	< 1	0.42	< 0.4	7.1	< 0.02	1.1	1.2	< 0.2	< 0.04	278	< 0.1	< 10	< 10	0.53	< 10	6
	QA/QC RPD%		0	147	2	4	4	6	5	*	*	0	0	*	*	*	*	*	*	*	*	*	10	29	*	*	1	*	*	*	*	*	21
	MW14-15-141029	2014 10 29	362	< 3	84.5	***1,540***	36.7	**55.6**	1.81	4.96	< 0.5	1.42	65.9	< 0.1	< 50	< 0.01	< 1	< 0.5	0.31	< 0.2	7	< 0.01	< 1	< 1	< 0.1	< 0.02	298	< 0.05	< 5	< 5	1.06	< 5	< 5
	MW14-A-141029	Duplicate	344	6	81.6	***1,490***	34.2	**53.4**	1.78	4.99	< 0.5	1.48	63.5	< 0.1	< 50	< 0.01	< 1	< 0.5	0.25	< 0.2	7.3	< 0.01	< 1	< 1	< 0.1	< 0.02	291	< 0.05	< 5	< 5	1.02	< 5	< 5
	QA/QC RPD%		5	*	3	3	7	4	2	*	*	4	4	*	*	*	*	*	*	*	*	*	*	*	*	*	2	*	*	*	4	*	*
BH14-16	BH14-16-GW01-AD05	2014 03 09	354	5.3	82.6	22.7	35.9	41.1	1.76	7.9	< 1	< 0.2	71	< 0.2	< 100	***0.022***	< 2	0.63	1.55	< 0.4	5.9	0.02	< 2	1.3	***3.1***	< 0.04	292	< 0.1	< 10	< 10	1.37	< 10	6.5
	BH14-16-GW2-AD05	2014 08 19	345	42.8	82.2	53.7	33.8	< 2	2.89	10.1	< 1	0.23	89	< 0.2	< 100	0.016	< 2	< 1	1.08	< 0.4	6.3	< 0.02	< 2	< 2	***2.86***	< 0.04	294	< 0.1	< 10	< 10	2	< 10	< 10
	MW14-16-141031	2014 10 31	347	3.8	82.7	20.8	34	< 1	2.01	5.04	< 0.5	0.11	75.7	< 0.1	< 50	< 0.01	< 1	< 0.5	0.36	< 0.2	< 5	< 0.01	< 1	< 1	***2.14***	< 0.02	285	< 0.05	< 5	< 5	1.87	< 5	< 5
BH14-18	BH14-18-GW01-AD05	2014 03 13	370	< 6	92.6	***1,110***	33.8	**122**	1.99	7.68	< 1	0.7	70.2	< 0.2	< 100	< 0.02[a]	< 2	1.37	1.16	< 0.4	9	< 0.02	< 2	1.3	< 0.2	< 0.04	322	< 0.1	< 10	< 10	1	< 10	6.2
	BH14-18-GW2-AD05	2014 08 17	367	6.3	82.8	***2,160***	38.8	**73.4**	2.15	6.9	< 1	0.69	88.4	< 0.2	< 100	< 0.02[a]	< 2	< 1	0.27	< 0.4	8.4	< 0.02	< 2	1.3	< 0.2	< 0.04	304	< 0.1	< 10	< 10	0.62	< 10	< 10
	MW14-18-141029	2014 10 29	374	3.1	89.6	***2,250***	36.5	**70.4**	1.92	7.03	< 0.5	0.75	92.7	< 0.1	< 50	< 0.01	< 1	< 0.5	< 0.2	< 0.2	7.7	< 0.01	< 1	< 1	< 0.1	< 0.02	310	< 0.05	< 5	< 5	0.69	< 5	< 5
	BH14-18-GW03-AD05	2015 09 28	357	16.3	80.2	***1,720***	38	**62.5**	1.82	7.51	< 0.50	1.11	86.5	< 0.10	81	< 0.010	< 1.0	< 0.50	< 0.20	< 0.20	7.6	< 0.010	< 1.0	< 1.0	< 0.10	< 0.020	293	< 0.050	< 5.0	< 5.0	0.66	< 5.0	5.5
BH14-19	BH14-19-GW01-AD05	2014 03 10	372	5	95.2	30.6	32.6	33.6	2.63	78.3	< 1	< 0.2	97.6	< 0.2	< 100	***0.03***	< 2	0.62	1.57	< 0.4	7.8	< 0.02	< 2	1.8	0.14	< 0.04	343	< 0.1	< 10	< 10	1.66	< 10	5.4
	MW14-19-141031	2014 10 31	417	3.5	106	11.2	36.8	25.5	2.84	109	< 0.5	0.11	126	< 0.1	< 50	***0.038***	< 1	< 0.5	0.47	< 0.2	8.3	< 0.01	< 1	2.6	< 0.1	< 0.02	369	< 0.05	< 5	< 5	1.91	< 5	6.3
BH14-20	BH14-20-GW01-AD05	2014 03 10	405	< 6	106	***7,110***	34.4	**440**	2.53	11.8	< 1	0.3	112	< 0.2	< 100	***0.022***	< 2	1.33	0.92	< 0.4	12.4	< 0.02	< 2	1.2	< 0.2	< 0.04	396	< 0.1	< 10	< 10	0.34	< 10	6.8
	BH14-20-GW2-AD05	2014 08 14	282	< 6	58.8	133	32.9	5.6	1.88	7.63	< 1	0.42	84.8	< 0.2	< 100	< 0.02[a]	< 2	< 1	0.45	< 0.4	9.8	< 0.02	< 2	< 2	< 0.2	< 0.04	290	< 0.1	< 10	< 10	0.38	< 10	< 10
	MW14-20-141031	2014 10 31	352	3.7	85.7	***2,180***	33.5	**128**	2.07	11.3	< 0.5	1.28	96.4	< 0.1	< 50	< 0.01	< 1	< 0.5	< 0.2	< 0.2	8.2	< 0.01	< 1	< 1	< 0.1	< 0.02	301	< 0.05	< 5	< 5	0.41	< 5	< 5
	BH14-20-6W03-AD05	2015 10 01	382	10.5	86.4	***1,540***	40.4	**101**	1.99	11	< 0.50	0.29	77.1	< 0.10	< 50	< 0.010	< 1.0	< 0.50	0.24	< 0.20	5.8	< 0.010	< 1.0	< 1.0	< 0.10	< 0.020	307	< 0.050	< 5.0	< 5.0	0.15	< 5.0	14.4
BH14-22	BH14-22-GW01-AD05	2014 03 11	323	< 6	78.2	5.4	30.9	12.2	2.72	125	< 1	< 0.2	90.5	< 0.2	< 100	***0.028***	< 2	< 1	1.36	< 0.4	8.6	< 0.02	< 2	< 2	***1.04***	< 0.04	290	< 0.1	< 10	< 10	1.62	< 10	5.9
	BH14-22A-GW01-AD05	Duplicate	327	3.7	78.4	6.3	31.8	12.9	2.79	128	< 1	< 0.2	90.6	< 0.2	< 100	***0.029***	< 2	< 1	1.52	< 0.4	8.6	< 0.02	< 2	< 2	0.97	< 0.04	290	< 0.1	< 10	< 10	1.7	< 10	6
	QA/QC RPD%		1	*	0	*	3	6	3	*	*	*	0	*	*	*	*	*	11	*	*	*	*	*	7	*	0	*	*	*	5	*	2
	BH14-22-GW2-AD05	2014 08 15	322	37	74.4	45	33.2	< 2	1.93	69.3	< 1	< 0.2	63.3	< 0.2	< 100	***0.018***	< 2	< 1	2.46	< 0.4	6.4	< 0.02	< 2	< 2	0.99	< 0.04	261	< 0.1	< 10	< 10	1.53	< 10	< 10
	MW14-22-141030	2014 10 30	359	3	86.3	< 5	34.9	< 1	2.79	88.7	< 0.5	< 0.1	79.1	< 0.1	< 50	0.014	< 1	< 0.5	< 0.2	< 0.2	7.3	< 0.01	< 1	< 1	0.84	< 0.02	294	< 0.05	< 5	< 5	1.61	< 5	< 5
BH14-23	BH14-23-GW01-AD05	2014 03 11	397	< 6	101	***1,200***	35	**774**	2.94	83	< 1	0.14	77.3	< 0.2	< 100	***0.077***	< 2	6.32	1.08	< 0.4	8.1	< 0.02	4.3	4.9	0.32	< 0.04	420	< 0.1	< 10	< 10	1.45	< 10	6.2
	BH14-23-GW2-AD05	2014 08 15	393	17.5	94.2	24.2	38.4	12.5	2.3	98.6	< 1	0.13	90.6	< 0.2	< 100	***0.056***	< 2	0.95	2.48	< 0.4	9.2	< 0.02	< 2	1.4	0.25	< 0.04	341	< 0.1	< 10	< 10	1.46	< 10	5.2
	MW14-23-141030	2014 10 30	415	4.1	105	5.2	37.1	6.3	2.4	77.6	< 0.5	< 0.1	90	< 0.1	< 50	***0.041***	< 1	1.24	< 0.2	< 0.2	8.4	< 0.01	< 1	< 1	0.32	< 0.02	363	< 0.05	< 5	< 5	1.68	< 5	< 5
	MW14-B-141030	Duplicate	397	3.1	99.1	< 5	36.3	6.1	2.44	75.3	< 0.5	< 0.1	87.2	< 0.1	< 50	***0.039***	< 1	1.2	0.31	< 0.2	8.1	< 0.01	< 1	< 1	0.27	< 0.02	348	< 0.05	< 5	< 5	1.64	< 5	< 5
	QA/QC RPD%		4	*	6	*	2	3	2	*	*	*	3	*	*	*	*	3	*	*	*	*	*	*	*	*	4	*	*	*	2	*	*
BH14-24	BH14-24-GW01-AD05	2014 03 11	321	3.3	70.3	5.6	35.4	**136**	1.83	10.8	< 1	0.17	50.7	< 0.2	< 100	***0.081***	< 2	0.53	1.31	< 0.4	7.7	< 0.02	2.2	2.9	0.29	< 0.04	274	< 0.1	< 10	< 10	1.68	< 10	7.7
	BH14-24-GW2-AD05	2014 08 16	326	10.9	68	20.6	37.9	2.1	1.82	7.3	< 1	0.18	45.8	< 0.2	< 100	***0.018***	1.2	< 1	***7.68***	< 0.4	8.1	< 0.02	1	1.6	0.28	< 0.04	274	< 0.1	< 10	< 10	1.5	< 10	6.1
	BH14-C-GW2-AD05	Duplicate	322	5.9	68.7	17	36.6	2	1.81	7	< 1	0.15	46.9	< 0.2	< 100	***0.02***	1	< 1	1.22	< 0.4	8.8	< 0.02	< 2	1.6	0.34	< 0.04	264	< 0.1	< 10	< 10	1.54	< 10	< 10
	QA/QC RPD%		1	60	1	*	3	5	1	*	*	*	2	*	*	*	*	*	145	*	*	*	*	0	*	*	4	*	*	*	3	*	*
	MW14-24-141030	2014 10 30	336	3.1	72.9	< 5	37.4	< 1	1.92	5.64	< 0.5	0.2	47.7	< 0.1	< 50	0.015	< 1	< 0.5	< 0.2	< 0.2	7.7	< 0.01	< 1	< 1	0.27	< 0.02	274	< 0.05	< 5	< 5	1.57	< 5	< 5
	MW14-C-141030	Duplicate	321	3.5	71.1	< 5	34.9	< 1	1.83	5.29	< 0.5	0.21	45.7	< 0.1	< 50	0.015	< 1	< 0.5	0.3	< 0.2	7.4	< 0.01	< 1	< 1	0.3	< 0.02	267	< 0.05	< 5	< 5	1.51	< 5	< 5
	QA/QC RPD%		5	*	3	*	7	*	5	*	*	*	4	*	*	*	*	*	*	*	*	*	*	*	*	*	3	*	*	*	4	*	*
BH14-25	BH14-25-GW01-AD05	2014 03 11	362	< 6	88.3	9.9	34.5	**222**	2.11	42.3	< 1	0.47	103	< 0.2	< 100	***0.283***	< 2	0.61	1.19	< 0.4	7.5	< 0.02	1.1	4.6	0.15	< 0.04	305	0.497	< 10	< 10	1.33	< 10	6.6
	BH14-25-GW2-AD05	2014 08 16	354	9.6	82	89.2	36.3	**207**	2.08	39.7	< 1	0.74	122	< 0.2	< 100	***0.052***	3.1	< 1	***5.19***	< 0.4	8	< 0.02	5.8	8.9	< 0.2	< 0.04	303	0.063	< 10	< 10	1.37	< 10	< 10
BH14-26	BH14-26-GW01-AD05	2014 03 13	383	< 6	95.8	< 10	34.9	18	2.86	117	< 1	< 0.2	86.6	< 0.2	< 100	***0.043***	< 2	< 1	1.37	< 0.4	9.3	< 0.02	< 2	1	< 0.2	< 0.04	354	< 0.1	< 10	< 10	0.83	< 10	5.5
	BH14-26-GW2-AD05	2014 08 17	367	***136***	89.4	***452***	34.9	**192**	2.81	74.2	< 1	0.37	97.8	< 0.2	< 100	***0.049***	3.7	0.59	***4.2***	0.3	9.2	< 0.02	< 2	3	< 0.2	< 0.04	335	< 0.1	7.2	< 10	0.74	< 10	7.6
	MW14-26-141101	2014 11 01	442	< 3	112	7.5	39.1	**130**	2.93	89.9	< 0.5	< 0.1	105	< 0.1	< 50	***0.048***	< 1	< 0.5	0.33	< 0.2	9.5	< 0.01	< 1	2.4	< 0.1	< 0.02	385	< 0.05	< 5	< 5	0.72	< 5	< 5
	BH14-26-6W03-AD05	2015 10 01	411	9.1	98.8	9.1	39.9	24.8	2.52	75.3	< 0.50	0.22	90.7	< 0.10	< 50	***0.026***	< 1.0	< 0.50	0.27	< 0.20	8.6	< 0.010	< 1.0	< 1.0	< 0.10	< 0.020	344	< 0.050	< 5.0	< 5.0	0.71	< 5.0	< 5.0
Federal Guideline																																	
Canadian Drinking Water Quality Guidelines (CDWQG)			n/a	100	n/a	300	n/a	50	n/a	200	6	10	1,000	n/a	5,000	5	50	n/a	1,000	10	n/a	1	n/a	n/a	50	n/a	n/a	n/a	n/a	n/a	20	n/a	5,000
FGQG Tier 2 Residential/Parkland Land Use (RL/PL)[b]			n/a	100[d]	n/a	300	n/a	n/a	n/a	n/a	2,000	5	2,900	5.3	n/a	0.017	8.9	n/a	2 - 4[e]	1 - 7[e]	n/a	0.026	73	25 - 150[e]	1	0.1	n/a	0.8	100	n/a	15	n/a	30
BC Standard																																	
CSR Drinking Water (DW)			n/a	9,500	n/a	6,500	100	550	n/a	200	6	10	1,000	n/a	5,000	5	50	n/a	1,000	10	730	1	250	n/a	10	n/a	22,000	n/a	n/a	22,000	20	n/a	5,000
CSR Aquatic Life (AW)[c]			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	200	50	10,000	53	50,000	0.1 - 0.6[e]	10	40	20 - 90[e]	40 - 160[e]	n/a	1	10,000	250 - 1,500[e]	10	0.5 - 15[e]	n/a	3	1,000	n/a	3,000	n/a	75 - 2,400[e]

All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Pathways Included: Freshwater Aquatic Life - Coarse, Inhalation - Coarse, Soil Organisms Direct Contact - Coarse (whichever is most stringent).
[c] Standard to protect freshwater aquatic life.
[d] Guideline is pH dependent; based on available data, site pH is > 6.5.
[e] Standard varies with hardness.

SHADED Concentration greater than Canadian Drinking Water Quality Guidelines (CDWQG) Guideline
BOLD Concentration greater than FGQG Tier 2 Residential Land Use (RL) Guideline
OUTLINE Concentration greater than CSR Drinking Water (DW) standard
SHADOW Concentration greater than CSR Aquatic Life (AW) standard

TABLE 11 (Cont'd): Summary of Analytical Results for Dissolved Metals in Groundwater

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Physical	Geochemical Indicators							Dissolved Metals																						
			Hardness mg/L	Aluminum µg/L	Calcium mg/L	Iron µg/L	Magnesium mg/L	Manganese µg/L	Potassium mg/L	Sodium mg/L	Antimony µg/L	Arsenic µg/L	Barium µg/L	Beryllium µg/L	Boron µg/L	Cadmium µg/L	Chromium µg/L	Cobalt µg/L	Copper µg/L	Lead µg/L	Lithium µg/L	Mercury µg/L	Molybdenum µg/L	Nickel µg/L	Selenium µg/L	Silver µg/L	Strontium µg/L	Thallium µg/L	Titanium µg/L	Tin µg/L	Uranium µg/L	Vanadium µg/L	Zinc µg/L
BH14-27	BH14-27-GW01-AD05	2014 03 12	336	< 6	77.5	< 10	34.6	**371**	1.9	12.7	< 1	0.15	48.9	< 0.2	< 100	***0.028***	< 2	0.58	1.24	< 0.4	6.8	< 0.02	1.6	1.9	***2.06***	< 0.04	271	< 0.1	< 10	< 10	1.67	< 10	5.6
	BH14-27-GW2-AD05	2014 08 15	353	4.1	79.6	7.2	37.5	2.4	1.76	9.66	< 1	0.18	41.1	< 0.2	< 100	< 0.02[a]	< 2	< 1	1.81	< 0.4	7.8	< 0.02	< 2	< 2	***1.8***	< 0.04	288	< 0.1	< 10	< 10	1.56	< 10	< 10
	MW14-27-141031	2014 10 31	358	< 3	82.5	< 5	36.9	< 1	1.96	11	< 0.5	0.19	40.3	< 0.1	< 50	< 0.01	< 1	< 0.5	< 0.2	< 0.2	6.9	< 0.01	< 1	< 1	***1.86***	< 0.02	277	< 0.05	< 5	< 5	1.69	< 5	< 5
BH14-28	BH14-28-GW01-AD05	2014 03 12	349	< 6	83.4	7.2	34.2	**202**	2.09	37.2	< 1	< 0.2	58.3	< 0.2	< 100	***0.033***	< 2	0.63	1.28	< 0.4	7.5	< 0.02	< 2	1.1	***2.23***	< 0.04	315	< 0.1	< 10	< 10	1.56	< 10	5.7
	BH14-28-GW2-AD05	2014 08 16	364	13.1	85.5	20.9	36.7	< 2	2.03	34.9	< 1	< 0.2	61	< 0.2	< 100	< 0.02[a]	< 2	< 1	2.85	< 0.4	7.2	< 0.02	< 2	< 2	***1.76***	< 0.04	313	< 0.1	< 10	< 10	1.67	< 10	5.2
	MW14-28-141031	2014 10 31	363	< 3	88.7	< 5	34.4	< 1	2.32	48.6	< 0.5	< 0.1	65.3	< 0.1	< 50	< 0.01	< 1	< 0.5	< 0.2	< 0.2	7	< 0.01	< 1	< 1	***1.97***	< 0.02	320	< 0.05	< 5	< 5	1.74	< 5	< 5
Tap	Tap (2006)	2006 08 20	363	-	71.4	-	33.5	-	1.7	3.21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Tap (2007)	2007 08 22	365	-	81	-	39.1	-	1.7	2.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	GR70	Duplicate	-	-	76.3	-	37	-	1.7	1.91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		-	-	6	-	6	-	0	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Tap (2008)	2008 10 06	-	-	84.3	-	39.9	-	1.3	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2458-0812-TW1	2012 08 08	< 1	-	< 0.05	-	< 0.05	-	0.09	159	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tap FS	Tap FS	2011 09 16	0.54	-	0.215	-	< 0.1	-	< 2	167	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	GR86	Duplicate	0.53	-	0.212	-	< 0.1	-	< 2	166	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		2	-	*	-	*	-	*	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tap4	TAP 4-AD05	2013 07 26	< 1	< 6	< 0.1	19.6	< 0.1	< 2	< 0.1	163	< 1	0.24	< 2	< 0.2	< 100	< 0.02[a]	< 2	< 1	0.3	< 0.4	< 10	< 0.1[a]	< 2	< 2	< 0.2	< 0.04	< 2	< 0.1	< 10	< 10	1.68	< 10	< 10
Well	Well (2004)	2004 12 08	-	-	59.2	-	27.6	-	1	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Well (2005)	2005 11 06	346	-	84.9	-	39.3	-	1.8	4.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	GR23	Duplicate	339	-	85.4	-	39.7	-	1.7	2.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		2	-	1	-	1	-	6	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Well (2006)	2006 08 20	371	-	75.1	-	36.7	-	1.6	2.84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	GR60	Duplicate	340	-	72.7	-	35.3	-	1.5	1.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		9	-	3	-	4	-	6	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Well (2008)	2008 10 06	-	-	84.1	-	39.9	-	1.3	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Well (2009)	2009 10 19	359	-	82.1	-	39.7	-	1.6	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	GR83	Duplicate	348	-	82.1	-	39.5	-	1.6	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		3	-	0	-	1	-	0	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WELL (2010)	2010 09 08	364	-	81.2	-	39.3	-	< 2	< 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	GR2	Duplicate	364	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Well (2011)	2011 09 16	356	-	81.5	-	37.1	-	2	8.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2458-0812-DW1	2012 08 08	337	-	74	-	37	-	1.67	1.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2458-0812-DW101	Duplicate	332	-	72.5	-	36.6	-	1.67	1.86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		1	-	2	-	1	-	0	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WELL-AD05	2013 07 26	370	< 6	82.2	***1.740***	39.9	49.9	2.12	2.02	< 1	1.14	31.4	< 0.2	< 100	< 0.02[a]	< 2	< 1	< 0.4	< 0.4	7.8	< 0.1[a]	< 2	< 2	< 0.2	< 0.04	267	< 0.1	< 10	< 10	1.75	< 10	< 10
Federal Guideline																																	
Canadian Drinking Water Quality Guidelines (CDWQG)			n/a	100	n/a	300	n/a	50	n/a	200	6	10	1,000	n/a	5,000	5	50	n/a	1,000	10	n/a	1	n/a	n/a	50	n/a	n/a	n/a	n/a	n/a	20	n/a	5,000
FGQG Tier 2 Residential/Parkland Land Use (RL/PL)[b]			n/a	100[d]	n/a	300	n/a	n/a	n/a	n/a	2,000	5	2,900	5.3	n/a	0.017	8.9	n/a	2 - 4[e]	1 - 7[e]	n/a	0.026	73	25 - 150[e]	1	0.1	n/a	0.8	100	n/a	15	n/a	30
BC Standard																																	
CSR Drinking Water (DW)			n/a	9,500	n/a	6,500	100	550	n/a	200	6	10	1,000	n/a	5,000	5	50	n/a	1,000	10	730	1	250	n/a	10	n/a	22,000	n/a	n/a	22,000	20	n/a	5,000
CSR Aquatic Life (AW)[c]			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	200	50	10,000	53	50,000	0.1 - 0.6[e]	10	40	20 - 90[e]	40 - 160[e]	n/a	1	10,000	250 - 1,500[e]	10	0.5 - 15[e]	n/a	3	1,000	n/a	3,000	n/a	75 - 2,400[e]

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

\- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

SHADED Concentration greater than Canadian Drinking Water Quality Guidelines (CDWQG) Guideline

BOLD Concentration greater than FGQG Tier 2 Residential Land Use (RL) Guideline

OUTLINE Concentration greater than CSR Drinking Water (DW) standard

SHADOW Concentration greater than CSR Aquatic Life (AW) standard

[a] Laboratory detection limit exceeds regulatory standard/guideline.

[b] Pathways Included: Freshwater Aquatic Life - Coarse, Inhalation - Coarse, Soil Organisms Direct Contact - Coarse (whichever is most stringent).

[c] Standard to protect freshwater aquatic life.

[d] Guideline is pH dependent; based on available data, site pH is > 6.5.

[e] Standard varies with hardness.

TABLE 12: Summary of Analytical Results for Total Metals in Groundwater

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Phys	Total Metals																														
			Hardness mg/L	Aluminum mg/L	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Boron mg/L	Cadmium mg/L	Calcium mg/L	Chromium mg/L	Cobalt mg/L	Copper mg/L	Iron mg/L	Lead mg/L	Lithium mg/L	Magnesium mg/L	Manganese mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Potassium mg/L	Selenium mg/L	Silver mg/L	Sodium mg/L	Strontium mg/L	Thallium mg/L	Tin mg/L	Titanium mg/L	Uranium mg/L	Vanadium mg/L	Zinc mg/L
BH113M	BH113M (2006)	2006 08 20	349	0.006	< 0.001	< 0.001	0.05	< 0.001	< 0.05	< 0.0002[a]	77.8	< 0.001	< 0.001	0.003	< 0.05	< 0.001	0.01	33	0.007	< 0.02[a]	0.0006	< 0.001	1.8	< 0.001	< 0.00025[a]	7.2	0.28	< 0.000100	< 0.001	< 0.001	0.0015	< 0.001	0.019
	BH113M (2007)	2007 08 22	298	-	-	-	-	-	-	-	72.8	-	-	-	-	-	-	32.1	-	-	-	-	-	-	-	4.92	-	-	-	-	-	-	-	-
	GR71	Duplicate	318	-	-	-	-	-	-	-	74.5	-	-	-	-	-	-	31.9	-	-	-	-	-	-	-	6.72	-	-	-	-	-	-	-	-
	QA/QC RPD%		6	-	-	-	-	-	-	-	2	-	-	-	-	-	-	1	-	-	-	-	-	-	31	-	-	-	-	-	-	-	-
	BH113M (2008)	2008 10 06	-	-	-	-	-	-	-	-	74.6	-	-	-	-	-	-	34.3	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-
	GR81	Duplicate	-	-	-	-	-	-	-	-	74.7	-	-	-	-	-	-	34.4	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-
	QA/QC RPD%		-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-
	BH113M (2009)	2009 10 19	336	-	-	-	-	-	-	-	69.9	-	-	-	-	-	-	36.5	-	-	-	1.9	-	-	2.6	-	-	-	-	-	-	-	-
	BH113M (2010)	2010 09 08	340	-	-	-	-	-	-	-	79.6	-	-	-	-	-	-	36.4	-	-	-	2.5	-	-	2.5	-	-	-	-	-	-	-	-
BH118M	BH118M (2009)	2009 10 19	395	-	-	-	-	-	-	-	90.9	-	-	-	-	-	-	38.5	-	-	-	2.4	-	-	86.8	-	-	-	-	-	-	-	-
	GR82	Duplicate	401	-	-	-	-	-	-	-	90.6	-	-	-	-	-	-	38.3	-	-	-	2.4	-	-	87	-	-	-	-	-	-	-	-
	QA/QC RPD%		2	-	-	-	-	-	-	-	0	-	-	-	-	-	-	1	-	-	-	0	-	-	0	-	-	-	-	-	-	-	-
	BH118M (2010)	2010 09 08	398	-	-	-	-	-	-	-	101	-	-	-	-	-	-	36.8	-	-	-	2	-	-	52.4	-	-	-	-	-	-	-	-
	GR1	Duplicate	396	-	-	-	-	-	-	-	98.8	-	-	-	-	-	-	36.6	-	-	-	2	-	-	52	-	-	-	-	-	-	-	-
	QA/QC RPD%		1	-	-	-	-	-	-	-	2	-	-	-	-	-	-	1	-	-	-	0	-	-	1	-	-	-	-	-	-	-	-
	BH118M (2011)	2011 09 16	454	-	-	-	-	-	-	-	117	-	-	-	-	-	-	43.7	-	-	-	-	-	-	187	-	-	-	-	-	-	-	-
BH119M	BH119M (2009)	2009 10 19	389	-	-	-	-	-	-	-	93.9	-	-	-	-	-	-	36.7	**0.055**	-	-	-	2.6	-	-	106	-	-	-	-	-	-	-	-
	BH119M (2010)	2010 09 08	405	-	-	-	-	-	-	-	102	-	-	-	-	-	-	37.3	-	-	-	-	2.9	-	-	125	-	-	-	-	-	-	-	-
BH120M	BH120M (2009)	2009 10 19	327	-	-	-	-	-	-	-	72.2	-	-	-	-	-	-	36.2	-	-	-	-	1.7	-	-	4.9	-	-	-	-	-	-	-	-
	BH120M (2010)	2010 09 08	358	-	-	-	-	-	-	-	80.7	-	-	-	-	-	-	38.3	-	-	-	-	2.1	-	-	4.7	-	-	-	-	-	-	-	-
BH13-04	BH13-04	2013 10 29	353	-	-	-	-	-	-	-	87.5	-	-	-	-	-	-	39.9	-	-	-	-	-	-	-	5.22	-	-	-	-	-	-	-	-
BH13-05	BH13-05	2013 10 29	381	-	-	-	-	-	-	-	98	-	-	-	-	-	-	37.8	-	-	-	-	-	-	-	114	-	-	-	-	-	-	-	-
	DUP 1	Duplicate	378	-	-	-	-	-	-	-	100	-	-	-	-	-	-	38.1	-	-	-	-	-	-	-	115	-	-	-	-	-	-	-	-
	QA/QC RPD%		1	-	-	-	-	-	-	-	2	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
BH13-06	BH13-06	2013 10 29	784	-	-	-	-	-	-	-	227	-	-	-	-	-	-	96.3	-	-	-	-	-	-	-	**241**	-	-	-	-	-	-	-	-
BH13-07	BH13-07	2013 10 29	430	-	-	-	-	-	-	-	142	-	-	-	-	-	-	61	-	-	-	-	-	-	-	46.1	-	-	-	-	-	-	-	-
BH13-08	BH13-08-GW01-AD05	2014 03 11	351	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	***0.000041***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14-09	BH14-09-GW01-AD05	2014 03 12	383	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	***0.000064***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14-10	BH14-10-GW01-AD05	2014 03 11	425	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.00002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	PUMPTEST	2014 08 14	-	6.1	< 0.50	0.7	88.2	< 0.10	< 50	0.042	95,300	< 1.0	< 0.50	< 0.50	**1,860**	< 0.20	9.6	36,000	**119**	< 0.010	< 1.0	1.4	2,530	< 0.10	< 0.020	72,100	306	< 0.050	< 5.0	< 5.0	0.83	< 5.0	< 5.0	
BH14-11	BH14-11-GW01-AD05	2014 03 10	421	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.00002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14-12	BH14-12-GW01-AD05	2014 03 09	416	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	***0.000654***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14-13	BH14-13-GW01-AD05	2014 03 10	383	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	***0.000078***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14-14	BH14-14-GW01-AD05	2014 03 09	315	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	***0.000056***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14-15	BH14-15-GW01-AD05	2014 03 10	343	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.00002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14-15A-GW01-AD05	Duplicate	343	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.00002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14-16	BH14-16-GW01-AD05	2014 03 09	354	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	***0.000344***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14-18	BH14-18-GW01-AD05	2014 03 13	370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.00002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14-19	BH14-19-GW01-AD05	2014 03 10	372	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	***0.000091***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14-20	BH14-20-GW01-AD05	2014 03 10	405	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	***0.000013***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14-22	BH14-22-GW01-AD05	2014 03 11	323	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.00002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14-22A-GW01-AD05	Duplicate	327	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.00002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QA/QC RPD%		1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14-23	BH14-23-GW01-AD05	2014 03 11	397	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	***0.000032***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14-24	BH14-24-GW01-AD05	2014 03 11	321	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	***0.000814***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14-25	BH14-25-GW01-AD05	2014 03 11	362	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.00002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14-26	BH14-26-GW01-AD05	2014 03 13	383	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	***0.000162***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14-27	BH14-27-GW01-AD05	2014 03 12	336	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	***0.000092***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14-28	BH14-28-GW01-AD05	2014 03 12	349	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.00002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tap	Tap (2006)	2006 08 20	363	< 0.005	< 0.001	< 0.001	0.025	< 0.001	< 0.05	< 0.0002[a]	82.3	< 0.001	< 0.001	< 0.001	***0.82***	< 0.001	0.007	38.9	0.047	< 0.02[a]	0.0008	< 0.001	1.6	< 0.001	< 0.00025[a]	1.9	0.23	< 0.000100	< 0.001	< 0.001	0.0015	< 0.001	< 0.005
	Tap (2007)	2007 08 22	367	0.016	< 0.001	0.001	0.029	< 0.001	< 0.05	< 0.0002[a]	81.4	< 0.001	< 0.001	< 0.001	***1.38***	< 0.001	-	39.8	**0.052**	< 0.00002	0.0008	< 0.001	-	< 0.001	< 0.00025[a]	2.54	0.26	< 0.0001	-	< 0.001	0.0016	-	< 0.005
	GR70	Duplicate	-	< 0.005	< 0.001	0.001	0.027	< 0.001	< 0.05	< 0.0002[a]	80.5	< 0.001	< 0.001	< 0.001	***1.3***	< 0.001	-	39.8	0.048	< 0.00002	0.0009	< 0.001	-	< 0.001	< 0.00025[a]	2.27	0.24	< 0.0001	-	< 0.001	0.0016	-	< 0.005
	QA/QC RPD%		-	*	*	*	7	*	*	*	1	*	*	*	6	*	-	0	*	*	*	*	-	*	*	11	8	*	-	*	*	-	*
	Tap (2008)	2008 10 06	-	-	-	-	-	-	-	-	79.3	-	-	-	-	-	-	37.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2458-0812-TW1	2012 08 08	< 0.1	0.002	< 0.00005	0.0005	0.0002	< 0.00005	0.006	0.00001	< 0.05	< 0.0005	< 0.00005	***0.0054***	0.04	0.00032	< 0.0001	< 0.05	< 0.001	0.000003	0.0009	0.0007	-	< 0.0003	< 0.00001	157	-	< 0.00001	-	< 0.001	0.00137	< 0.0005	0.009
Tap FS	Tap FS	2011 09 16	0.54	< 0.005	< 0.0005	< 0.0005	< 0.02	< 0.001	< 0.1	< 0.000017	< 0.1	< 0.001	< 0.0003	0.0018	< 0.03	< 0.0005	-	< 0.1	0.00035	< 0.00001	< 0.001	< 0.001	-	< 0.001	< 0.00002	172	< 0.005	< 0.0002	< 0.0005	< 0.01	0.00127	< 0.001	0.0063
	GR86	Duplicate	0.53	< 0.005	< 0.0005	< 0.0005	< 0.02	< 0.001	< 0.1	< 0.000017	< 0.1	< 0.001	< 0.0003	0.0017	< 0.03	< 0.0005	-	< 0.1	0.00034	< 0.00001	< 0.001	< 0.001	-	< 0.001	< 0.00002	165	< 0.005	< 0.0002	< 0.0005	< 0.01	0.00124	< 0.001	0.0061
	QA/QC RPD%		2	*	*	*	*	*	*	*	*	*	*	*	*	*	-	*	*	*	*	*	-	*	*	4	*	*	*	*	*	*	*	*
Federal Guideline																																		
Canadian Drinking Water Quality Guidelines (CDWQG)			n/a	0.1	0.006	0.01	1	n/a	5	0.005	n/a	0.05	n/a	1	0.3	0.01	n/a	n/a	0.05	0.001	n/a	n/a	n/a	0.05	n/a	200	n/a	n/a	n/a	n/a	0.02	n/a	5
FGQG Tier 2 Residential/Parkland Land Use (RL/PL)[b]			n/a	0.1[d]	2	0.005	2.9	0.0053	n/a	0.000017	n/a	0.0089	n/a	0.002 - 0.004[e]	0.3	0.001 - 0.007[e]	n/a	n/a	n/a	0.000026	0.073	0.025 - 0.15[e]	n/a	0.001	0.0001	n/a	n/a	0.0008	n/a	1	0.015	n/a	0.03
BC Standard																																		
CSR Drinking Water (DW)			n/a	9.5	0.006	0.01	1	n/a	5	0.005	n/a	0.05	n/a	1	6.5	0.01	0.73	100	0.55	0.001	0.25	n/a	n/a	0.01	n/a	200	22	n/a	22	n/a	0.02	n/a	5
CSR Aquatic Life (AW)[c]			n/a	n/a	0.2	0.05	10	0.053	50	0.0001 - 0.0006[e]	n/a	0.01	0.04	0.02 - 0.09[e]	n/a	0.04 - 0.16[e]	n/a	n/a	n/a	0.001	10	0.25 - 1.5[e]	n/a	0.01	0.0005 - 0.0015[e]	n/a	n/a	0.003	n/a	1	3	n/a	0.075 - 2.4[e]

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.

[b] Pathways Included: Freshwater Aquatic Life - Coarse, Inhalation - Coarse, Soil Organisms Direct Contact - Coarse (whichever is most stringent).

[c] Standard to protect freshwater aquatic life.

[d] Guideline is pH dependent; based on available data, site pH is > 6.5.

[e] Standard varies with hardness.

SHADED Concentration greater than Canadian Drinking Water Quality Guidelines (CDWQG) Guideline

BOLD Concentration greater than FGQG Tier 2 Residential Land Use (RL) Guideline

OUTLINE Concentration greater than CSR Drinking Water (DW) standard

TABLE 12 (Cont'd): Summary of Analytical Results for Total Metals in Groundwater

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Phys	Total Metals																												
			Hardness mg/L	Aluminum mg/L	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Boron mg/L	Cadmium mg/L	Calcium mg/L	Chromium mg/L	Cobalt mg/L	Copper mg/L	Iron mg/L	Lead mg/L	Lithium mg/L	Magnesium mg/L	Manganese mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Potassium mg/L	Selenium mg/L	Silver mg/L	Sodium mg/L	Strontium mg/L	Thallium mg/L	Tin mg/L	Titanium mg/L	Uranium mg/L	Vanadium mg/L	Zinc mg/L
Well	Well (2004)	2004 12 08	-	-	-	-	-	-	-	-	72.2	-	-	-	-	-	-	36	-	-	-	-	-	-	-	1.8	-	-	-	-	-	-	-
	Well (2005)	2005 11 06	346	< 0.005	< 0.001	< 0.001	0.029	< 0.001	< 0.05	< 0.0002[a]	77.2	< 0.001	< 0.001	0.001	***1.14***	< 0.05[a]	0.009	37	0.044	< 0.00002	0.0009	< 0.001	1.5	< 0.001	< 0.00025[a]	1.8	0.24	< 0.000100	< 0.001	< 0.001	0.0016	< 0.001	0.007
	GR23	Duplicate	339	< 0.005	< 0.001	0.001	0.032	< 0.001	< 0.05	< 0.0002[a]	75.6	< 0.001	< 0.001	0.001	***1.38***	< 0.05[a]	0.009	36.4	0.047	< 0.00002	0.0009	< 0.001	1.5	< 0.001	< 0.00025[a]	1.8	0.25	< 0.000100	< 0.001	< 0.001	0.0016	< 0.001	< 0.005
	QA/QC RPD%		2	*	*	*	10	*	*	*	2	*	*	*	19	*	0	2	*	*	*	*	0	*	*	0	4	*	*	*	*	*	*
	Well (2006)	2006 08 20	371	0.019	< 0.001	0.001	0.031	< 0.001	< 0.05	< 0.0002[a]	75.6	< 0.001	< 0.001	< 0.001	***0.77***	< 0.001	0.008	36.2	0.043	< 0.02[a]	0.0009	< 0.001	1.8	< 0.001	< 0.00025[a]	1.9	0.25	< 0.000100	< 0.001	< 0.001	0.0018	< 0.001	0.026
	GR60	Duplicate	340	0.019	< 0.001	0.001	0.028	***7***	< 0.05	< 0.0002[a]	75.3	< 0.001	< 0.001	< 0.001	***0.62***	< 0.001	0.007	36.1	0.04	< 0.02[a]	0.0008	< 0.001	1.6	< 0.001	< 0.00025[a]	2.1	0.22	< 0.000100	< 0.001	< 0.001	0.0016	< 0.001	0.012
	QA/QC RPD%		9	0	*	0	10	*	*	*	0	*	*	*	22	*	13	0	*	*	*	*	12	*	*	10	13	*	*	*	*	*	*
	Well (2008)	2008 10 06	-	-	-	-	-	-	-	-	79.7	-	-	-	-	-	-	38	-	-	-	-	-	-	-	2.2	-	-	-	-	-	-	-
	Well (2009)	2009 10 19	359	< 0.005	< 0.0005	< 0.001	0.028	< 0.0005	< 0.025	< 0.00005[a]	78.4	< 0.001	< 0.0005	< 0.0005	***2.32***	< 0.00025	0.0078	39.5	**0.052**	< 0.02[a]	0.0008	< 0.001	1.67	< 0.001	< 0.0002[a]	2	0.247	< 0.0001	< 0.0005	< 0.001	0.0014	< 0.0005	< 0.005
	GR83	Duplicate	348	< 0.005	< 0.0005	< 0.001	0.025	< 0.0005	< 0.025	< 0.00005[a]	75.9	< 0.001	< 0.0005	< 0.0005	***0.37***	< 0.00025	0.0076	38.3	0.047	< 0.02[a]	0.0008	< 0.001	1.61	< 0.001	< 0.0002[a]	2	0.239	< 0.0001	< 0.0005	0.001	0.0013	< 0.0005	< 0.005
	QA/QC RPD%		3	*	*	*	11	*	*	*	3	*	*	*	145	*	3	3	*	*	*	*	4	*	*	0	3	*	*	*	*	*	*
	WELL (2010)	2010 09 08	364	< 0.005	< 0.000500	0.00082	0.031	< 0.001	< 0.1	< 0.0000170	82.2	< 0.001	< 0.000300	< 0.001	***5.47***	< 0.000500	0.0071	40.4	**0.0754**	< 0.0000100	< 0.001	< 0.001	< 2	< 0.001	< 0.0000200	2	-	< 0.000200	< 0.000500	< 0.01	0.00145	< 0.001	< 0.005
	GR2	Duplicate	364	< 0.005	< 0.000500	0.00083	0.03	< 0.001	< 0.1	< 0.0000170	80	< 0.001	< 0.000300	< 0.001	***5.35***	< 0.000500	0.007	39.8	**0.0734**	< 0.0000100	< 0.001	< 0.001	< 2	< 0.001	< 0.0000200	< 2	-	< 0.000200	< 0.000500	< 0.01	0.00144	< 0.001	< 0.005
	QA/QC RPD%		0	*	*	1	3	*	*	*	3	*	*	*	2	*	1	1	*	*	*	*	*	*	*	*	-	*	*	*	*	*	*
	Well (2011)	2011 09 16	356	< 0.005	< 0.0005	0.00092	0.031	< 0.001	< 0.1	< 0.000017	81.6	< 0.001	0.00054	0.0021	***5.06***	< 0.0005	-	39.3	**0.0633**	< 0.00001	< 0.001	< 0.001	-	< 0.001	< 0.00002	< 2	0.264	< 0.0002	< 0.0005	0.011	0.00138	< 0.001	< 0.005
	2458-0812-DW1	2012 08 08	334	0.002	< 0.00005	0.0012	0.0324	< 0.00005	0.006	0.00001	73.4	< 0.0005	0.00007	< 0.0005	***3.06***	0.00002	0.0071	36.7	0.05	< 0.000003	0.0009	< 0.0005	-	< 0.0003	< 0.00001	1.8	-	< 0.00001	-	0.103	0.00151	< 0.0005	< 0.005
	2458-0812-DW101	Duplicate	332	0.001	< 0.00005	0.0011	0.0306	< 0.00005	0.006	0.00001	72.8	< 0.0005	0.00006	< 0.0005	***3.1***	0.00002	0.0071	36.4	**0.052**	< 0.000003	0.0009	< 0.0005	-	< 0.0003	< 0.00001	1.8	-	< 0.00001	-	0.098	0.00144	< 0.0005	< 0.005
	QA/QC RPD%		1	*	*	9	6	*	*	*	1	*	*	*	1	*	0	1	*	*	*	*	-	*	*	0	-	*	-	5	*	*	*
Federal Guideline																																
Canadian Drinking Water Quality Guidelines (CDWQG)			n/a	0.1	0.006	0.01	1	n/a	5	0.005	n/a	0.05	n/a	1	0.3	0.01	n/a	n/a	0.05	0.001	n/a	n/a	n/a	0.05	n/a	200	n/a	n/a	n/a	n/a	0.02	n/a	5
FGQG Tier 2 Residential/Parkland Land Use (RL/PL)[b]			n/a	0.1[d]	2	0.005	2.9	0.0053	n/a	0.000017	n/a	0.0089	n/a	0.002 - 0.004[e]	0.3	0.001 - 0.007[e]	n/a	n/a	n/a	0.000026	0.073	0.025 - 0.15[e]	n/a	0.001	0.0001	n/a	n/a	0.0008	n/a	1	0.015	n/a	0.03
BC Standard																																
CSR Drinking Water (DW)			n/a	9.5	0.006	0.01	1	n/a	5	0.005	n/a	0.05	n/a	1	6.5	0.01	0.73	100	0.55	0.001	0.25	n/a	n/a	0.01	n/a	200	22	n/a	22	n/a	0.02	n/a	5
CSR Aquatic Life (AW)[c]			n/a	n/a	0.2	0.05	10	0.053	50	0.0001 - 0.0006[e]	n/a	0.01	0.04	0.02 - 0.09[e]	n/a	0.04 - 0.16[e]	n/a	n/a	n/a	0.001	10	0.25 - 1.5[a]	n/a	0.01	0.0005 - 0.0015[e]	n/a	n/a	0.003	n/a	1	3	n/a	0.075 - 2.4[e]

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- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
* RPDs are not calculated where one or more concentrations are less than five times RDL.

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Pathways Included: Freshwater Aquatic Life - Coarse, Inhalation - Coarse, Soil Organisms Direct Contact - Coarse (whichever is most stringent).
[c] Standard to protect freshwater aquatic life.
[d] Guideline is pH dependent; based on available data, site pH is > 6.5.
[e] Standard varies with hardness.

SHADED Concentration greater than Canadian Drinking Water Quality Guidelines (CDWQG) Guideline
BOLD Concentration greater than FGQG Tier 2 Residential Land Use (RL) Guideline
OUTLINE Concentration greater than CSR Drinking Water (DW) standard
SHADOW Concentration greater than CSR Aquatic Life (AW) standard

TABLE 13: Summary of Analytical Results for VOCs in Groundwater

| Sample Location | Sample ID | Sample Date (yyyy mm dd) | Volatile Organic Compounds | | |

TABLE 14: Summary of Analytical Results for Glycols in Groundwater

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Glycols				
			Diethylene glycol mg/L	Ethylene glycol mg/L	Propylene glycol mg/L	Tetraethylene glycol mg/L	Triethylene glycol mg/L
BH113M	BH113M (2006)	2006 08 20	< 5	< 5	< 5	-	< 10
BH13-04	BH13-04	2013 10 29	< 20	< 20	< 20[a]	< 20	< 20
BH13-05	BH13-05	2013 10 29	< 20	< 20	< 20[a]	< 20	< 20
	DUP 1	Duplicate	< 20	< 20	< 20[a]	< 20	< 20
	QA/QC RPD%		*	*	*	*	*
BH13-07	BH13-07	2013 10 29	< 20	< 20	< 20[a]	< 20	< 20
BH13-08	BH13-08-GW01-AD05	2014 03 11	< 20	< 20	< 20[a]	< 20	< 20
BH14-09	BH14-09-GW01-AD05	2014 03 12	< 20	< 20	< 20[a]	< 20	< 20
BH14-10	BH14-10-GW01-AD05	2014 03 11	< 20	< 20	< 20[a]	< 20	< 20
BH14-11	BH14-11-GW01-AD05	2014 03 10	< 20	< 20	< 20[a]	< 20	< 20
BH14-12	BH14-12-GW01-AD05	2014 03 09	< 20	< 20	< 20[a]	< 20	< 20
BH14-13	BH14-13-GW01-AD05	2014 03 10	< 20	< 20	< 20[a]	< 20	< 20
BH14-14	BH14-14-GW01-AD05	2014 03 09	< 20	< 20	< 20[a]	< 20	< 20
BH14-15	BH14-15-GW01-AD05	2014 03 10	< 20	< 20	< 20[a]	< 20	< 20
	BH14-15A-GW01-AD05	Duplicate	< 20	< 20	< 20[a]	< 20	< 20
	QA/QC RPD%		*	*	*	*	*
	BH14-15-GW2-AD05	2014 08 14	< 20	< 20	< 20[a]	< 20	< 20
	BH14-A-GW2-AD05	Duplicate	< 20	< 20	< 20[a]	< 20	< 20
	QA/QC RPD%		*	*	*	*	*
BH14-16	BH14-16-GW01-AD05	2014 03 09	< 20	< 20	< 20[a]	< 20	< 20
BH14-18	BH14-18-GW01-AD05	2014 03 13	< 20	< 20	< 20[a]	< 20	< 20
BH14-19	BH14-19-GW01-AD05	2014 03 10	< 20	< 20	< 20[a]	< 20	< 20
BH14-20	BH14-20-GW01-AD05	2014 03 10	< 20	< 20	< 20[a]	< 20	< 20
	BH14-20-GW2-AD05	2014 08 14	< 20	< 20	< 20[a]	< 20	< 20
BH14-22	BH14-22-GW01-AD05	2014 03 11	< 20	< 20	< 20[a]	< 20	< 20
	BH14-22A-GW01-AD05	Duplicate	< 20	< 20	< 20[a]	< 20	< 20
	QA/QC RPD%		*	*	*	*	*
	BH14-22-GW2-AD05	2014 08 15	< 20	< 20	< 20[a]	< 20	< 20
BH14-23	BH14-23-GW01-AD05	2014 03 11	< 20	< 20	< 20[a]	< 20	< 20
	BH14-23-GW2-AD05	2014 08 15	< 20	< 20	< 20[a]	< 20	< 20
BH14-24	BH14-24-GW01-AD05	2014 03 11	< 20	< 20	< 20[a]	< 20	< 20
	BH14-24-GW2-AD05	2014 08 16	< 20	< 20	< 20[a]	< 20	< 20
	BH14-C-GW2-AD05	Duplicate	< 20	< 20	< 20[a]	< 20	< 20
	QA/QC RPD%		*	*	*	*	*
BH14-25	BH14-25-GW01-AD05	2014 03 11	< 20	< 20	< 20[a]	< 20	< 20
	BH14-25-GW2-AD05	2014 08 16	< 20	< 20	< 20[a]	< 20	< 20
BH14-26	BH14-26-GW01-AD05	2014 03 13	< 20	< 20	< 20[a]	< 20	< 20
BH14-27	BH14-27-GW01-AD05	2014 03 12	< 20	< 20	< 20[a]	< 20	< 20
	BH14-27-GW2-AD05	2014 08 15	< 20	< 20	< 20[a]	< 20	< 20
BH14-28	BH14-28-GW01-AD05	2014 03 12	< 20	< 20	< 20[a]	< 20	< 20
	BH14-28-GW2-AD05	2014 08 16	< 20	< 20	< 20[a]	< 20	< 20
Federal Guideline							
Canadian Drinking Water Quality Guidelines (CDWQG)			n/a	n/a	n/a	n/a	n/a
FGQG Tier 2 Residential/Parkland Land Use (RL/PL)[b]			n/a	190	500	n/a	n/a
BC Standard							
CSR Drinking Water (DW)			n/a	n/a	18	n/a	n/a
CSR Aquatic Life (AW)[c]			n/a	1,920	5,000	n/a	n/a

All terms defined within the body of SNC-Lavalin's report.

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- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

SHADED Concentration greater than Canadian Drinking Water Quality Guidelines (CDWQG) Guideline

BOLD Concentration greater than FGQG Tier 2 Residential Land Use (RL) Guideline

OUTLINE Concentration greater than CSR Drinking Water (DW) standard

SHADOW Concentration greater than CSR Aquatic Life (AW) standard

[a] Laboratory detection limit exceeds regulatory standard/guideline.

[b] Pathways Included: Freshwater Aquatic Life - Coarse, Inhalation - Coarse, Soil Organisms Direct Contact - Coarse (whichever is most stringent).

[c] Standard to protect freshwater aquatic life.

TABLE 14 (Cont'd): Summary of Analytical Results for Glycols in Groundwater

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Glycols				
			Diethylene glycol mg/L	Ethylene glycol mg/L	Propylene glycol mg/L	Tetraethylene glycol mg/L	Triethylene glycol mg/L
Tap	Tap (2006)	2006 08 20	< 5	< 5	< 5	-	< 10
	Tap (2007)	2007 08 22	< 5	< 5	< 5	-	< 10
	GR70	Duplicate	< 5	< 5	< 5	-	< 10
	QA/QC RPD%		*	*	*	-	*
Well	Well (2005)	2005 11 06	< 5	< 5	< 5	-	< 10
	GR23	Duplicate	< 5	< 5	< 5	-	< 10
	QA/QC RPD%		*	*	*	-	*
	Well (2006)	2006 08 20	< 5	< 5	< 5	-	< 10
	GR60	Duplicate	< 5	< 5	< 5	-	< 10
	QA/QC RPD%		*	*	*	-	*
Federal Guideline							
Canadian Drinking Water Quality Guidelines (CDWQG)			n/a	n/a	n/a	n/a	n/a
FGQG Tier 2 Residential/Parkland Land Use (RL/PL)[b]			n/a	190	500	n/a	n/a
BC Standard							
CSR Drinking Water (DW)			n/a	n/a	18	n/a	n/a
CSR Aquatic Life (AW)[c]			n/a	1,920	5,000	n/a	n/a

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

* RPDs are not calculated where one or more concentrations are less than five times RDL.

SHADED Concentration greater than Canadian Drinking Water Quality Guidelines (CDWQG) Guideline

BOLD Concentration greater than FGQG Tier 2 Residential Land Use (RL) Guideline

OUTLINE Concentration greater than CSR Drinking Water (DW) standard

SHADOW Concentration greater than CSR Aquatic Life (AW) standard

[a] Laboratory detection limit exceeds regulatory standard/guideline.

[b] Pathways Included: Freshwater Aquatic Life - Coarse, Inhalation - Coarse, Soil Organisms Direct Contact - Coarse (whichever is most stringent).

[c] Standard to protect freshwater aquatic life.

Project No:

Project: Alaska Highway Maintenance Camps

Client:

Location: Fireside

Log of Borehole: FS-03

Enclosure:

Technician: Laurie Washington

SUBSURFACE PROFILE			SAMPLE			VOC Concentration ppm (100 200 300 400) %LEL (20 40 60 80)	Lab Analysis
Depth	Symbol	Description	Number	Type	Recovery		
		Ground Surface					
0		Granular with cobbles.	1				
		Silty with fine sand. Black seam on top of silt layer. Odour of old diesel.	2				
		Granular with cobbles. HC odour.	3				
1		Granular with cobbles.	4				
2							
3							

Drill Method:

Drill Date: October, 2002

Hole Size:

PWGSC Environmental Services
Western Region
1000, 9700 Jasper Ave.
Edmonton AB T5J-4E2

Datum:

Checked by:

Sheet: 1 of 1

BOREHOLE LOG

BH78

SUPERVISOR: **Tyler Wilen**
TYPE OF RIG: **ODEX / split spoon sampler**
CONTRACTOR: **Geotech Drilling Services Ltd.**
DATE DRILLED: **March 15, 2005**
GROUND ELEV: **~517.2m asl**

CLIENT: **PWGSC**
PGL FILE: **125-66.01**

Depth (m)	Elev.(m-asl)	LITHOLOGY	SAMPLE NAMES AND DEPTHS	COMMENTS	Vapours (ppm)
0.0	517.2	Ground surface			
		Brown SAND GRAVEL, dry, coarse.	BH78-1		
2.0	515.2	Brown SAND, minor gravel, fine, dry.			
			BH78-2		
4.0	513.2				
			BH78-3	PHC-like odour	
6.0	511.2				
		Brown SAND, some gravel, fine, moist.	BH78-4	PHC-like odour	
			BH78-5	medium to strong PHC-like odour	
8.0	509.2	Brown SAND, coarse.			
			BH78-6	PHC-like odour	
10.0	507.2				
			BH78-7	PHC-like odour	
12.0	505.2				
			BH78-8		
14.0	503.2		BH78-9		
		End of Hole at 14m			
16.0	501.2				
18.0	499.2				

PHC Petroleum Hydrocarbon

DETAILED SITE INVESTIGATION
Fireside Maintenance Camp
Km 839, Alaska Highway, BC

POTTINGER GAHERTY ENVIRONMENTAL CONSULTANTS LTD.

BOREHOLE LOG

BH85

SUPERVISOR: **Tyler Wilen**
TYPE OF RIG: **ODEX / split spoon sampler**
CONTRACTOR: **Geotech Drilling Services Ltd.**
DATE DRILLED: **March 16, 2005**
GROUND ELEV: **~517.2m asl**

CLIENT: **PWGSC**
PGL FILE: **125-66.01**

Depth (m)	Elev.(m-asl)	LITHOLOGY	SAMPLE NAMES AND DEPTHS	COMMENTS	Vapours (ppm)
0.0	517.2	Ground surface			
		Brown SAND, some gravel, fine.			
2.0	515.2		BH85-1		
			BH85-2		
4.0	513.2				
6.0	511.2		BH85-3	minor PHC-like odour	
8.0	509.2		BH85-4	minor PHC-like odour	
			BH85-5	minor PHC-like odour	
10.0	507.2				
			BH85-6		
		End of Hole at 10.9m			
12.0	505.2				
14.0	503.2				
16.0	501.2				
18.0	499.2				

PHC Petroleum Hydrocarbon

DETAILED SITE INVESTIGATION
Fireside Maintenance Camp
Km 839, Alaska Highway, BC

POTTINGER GAHERTY ENVIRONMENTAL CONSULTANTS LTD.

FRANZ ENVIRONMENTAL INC.
CONSULTING • ENGINEERING • TECHNOLOGIES

Borehole Log: BH12-02

Project No.: 2458-1202
Project: Fireside Maintenance Camp Remediation Feasibility Study
Client: Public Works and Government Services Canada
Location: Fireside Maintenance Camp, KM 839, Alaska Highway, BC
Logged By: John Dewis

SUBSURFACE PROFILE				SAMPLE			
Depth (ft / m)	Symbol	Description	Depth/Elev.	Sample No.	Type	Vapour ppm (0 500 1000 1500)	Well Description
0 / 0		Ground Surface	0.0				
0		***Sand and Gravel*** Silty, black staining, moist.	0.3	01 (Heavy Odour)	G	90 ppm	
2				02 (Heavy Odour)	G	150 ppm	
4		***Medium Sand*** Silty, brown, moist.	1.2 / 1.5	03 (Heavy Odour)	G	55 ppm	
6 / 2		***Sand and Gravel*** Trace silt, brown.		04 (Heavy Odour)	G	250 ppm	
8		***Medium to Coarse Sand and Gravel*** Trace silt, trace cobbles; grey staining, slight moisture from 4.9 to 7.9 m.		05 (Heavy Odour)	G	170 ppm	
10				06 (Heavy Odour)	G	45 ppm	
12 / 4				07 (Heavy Odour)	G	25 ppm	
14							
16				08 (Heavy Odour)	G	3350 ppm	
18				09 (Heavy Odour)	G	1050 ppm	
20 / 6							
22				10 (Heavy Odour)	G	170 ppm	
24				11 (Heavy Odour)	G	50 ppm	
26 / 8		***Sand and Gravel*** Silty.	7.9	12	G	85 ppm	
28			8.8	13 (Heavy Odour)	G	640 ppm	
30		***Medium Sand and Gravel*** Trace silt, trace cobbles, moist.	9.4	14 (Heavy Odour)	G	100 ppm	
32 / 10				15 (Heavy Odour)	G	35 ppm	
34							
36				16 (Moderate Odour)	G	170 ppm	

Drilled By: Tervita
Drill Method: Sonic
Drill Date: October 15, 2012

Well Dia: 2" / 5 cm
Hole Dia: 6" / 15 cm
Sheet: 1 of 3

FRANZ ENVIRONMENTAL INC.
CONSULTING • ENGINEERING • TECHNOLOGIES

Borehole Log: BH12-02

Project No.: 2458-1202
Project: Fireside Maintenance Camp Remediation Feasibility Study
Client: Public Works and Government Services Canada
Location: Fireside Maintenance Camp, KM 839, Alaska Highway, BC
Logged By: John Dewis

SUBSURFACE PROFILE				SAMPLE			
Depth	Symbol	Description	Depth/Elev.	Sample No.	Type	Vapour ppm (0 500 1000 1500)	Well Description
39		***Medium Sand*** Some gravel, trace silt, brown, moist; trace cobbles from 11.6 to 12.8 m; 0.05 m silty sand lense at 13.4 m.					
41				17 (Moderate Odour)	G	710 ppm	
43 13				18 (Moderate Odour)	G	130 ppm	
45				19 (Moderate Odour)	G	45 ppm	
			13.9				
47		***Medium Sand and Gravel*** Trace silt, trace cobbles, brown, moist; grey staining from 18.9 to 19.2 m; heavy black staining from 19.2 to 20.0 m.		20 (Light Odour)	G	200 ppm	
49 15				21 (Light Odour)	G	440 ppm	
51				22	G	55 ppm	
53				23	G	35 ppm	
55 17				24 (Light Odour)	G	130 ppm	
57				25 (Light Odour)	G	250 ppm	
59				26 (Moderate Odour)	G	40 ppm	
61 19				27 (DUP 28) (H. Odour)	G	20 ppm	
63			19.8				
65		***Refer to BH12-01 for stratigraphy*** Due to drilling complications, casing was advanced absent of sample collection.					
67							
69 21							
71							
73							

Drill Cuttings
14-Mar-2013

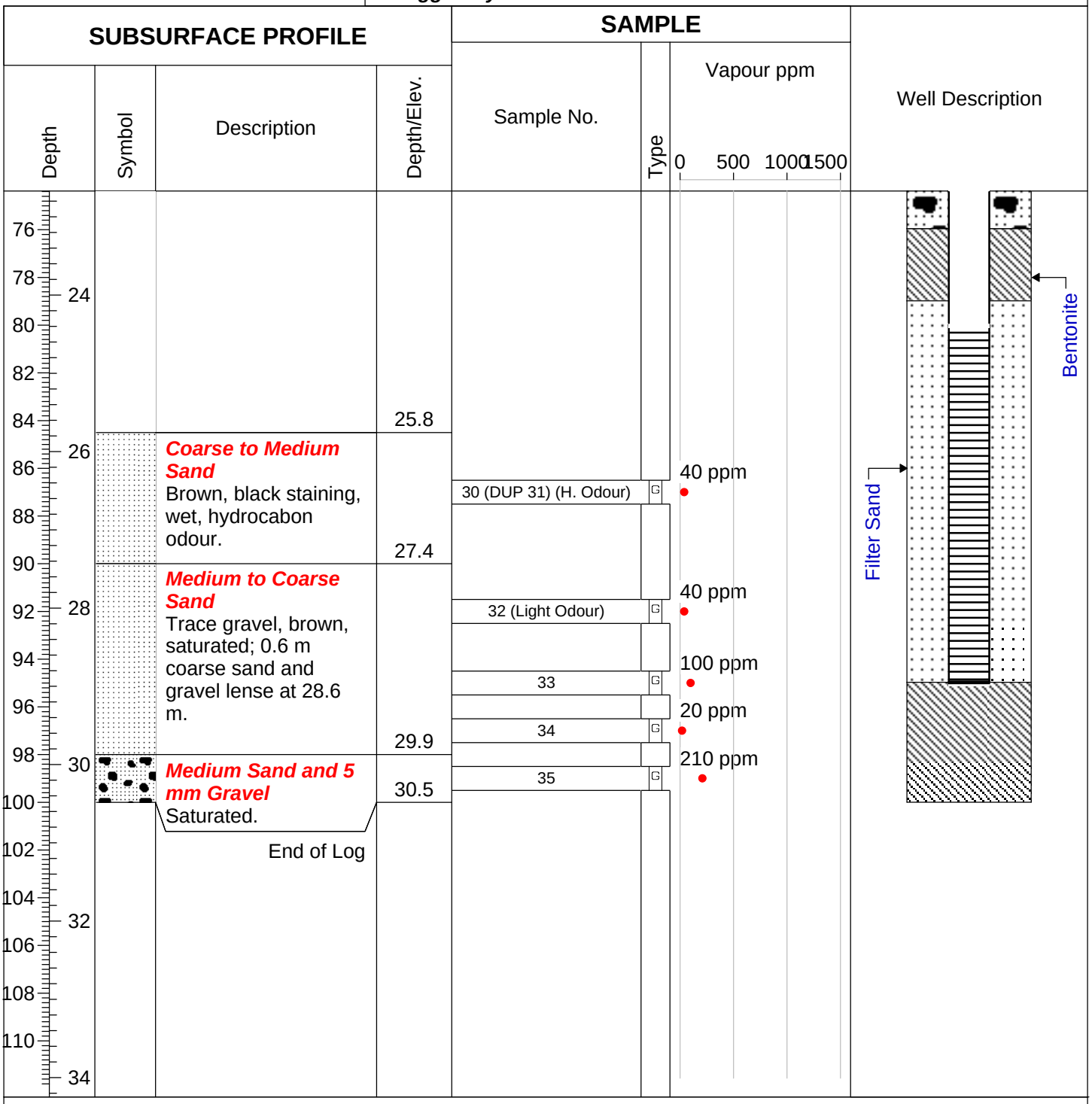
Drilled By: Tervita
Drill Method: Sonic
Drill Date: October 15, 2012

Well Dia: 2" / 5 cm
Hole Dia: 6" / 15 cm
Sheet: 2 of 3

FRANZ ENVIRONMENTAL INC.
CONSULTING • ENGINEERING • TECHNOLOGIES

Borehole Log: BH12-02

Project No.: 2458-1202
Project: Fireside Maintenance Camp Remediation Feasibility Study
Client: Public Works and Government Services Canada
Location: Fireside Maintenance Camp, KM 839, Alaska Highway, BC
Logged By: John Dewis



Drilled By: Tervita
Drill Method: Sonic
Drill Date: October 15, 2012

Well Dia: 2" / 5 cm
Hole Dia: 6" / 15 cm
Sheet: 3 of 3

FRANZ ENVIRONMENTAL INC.
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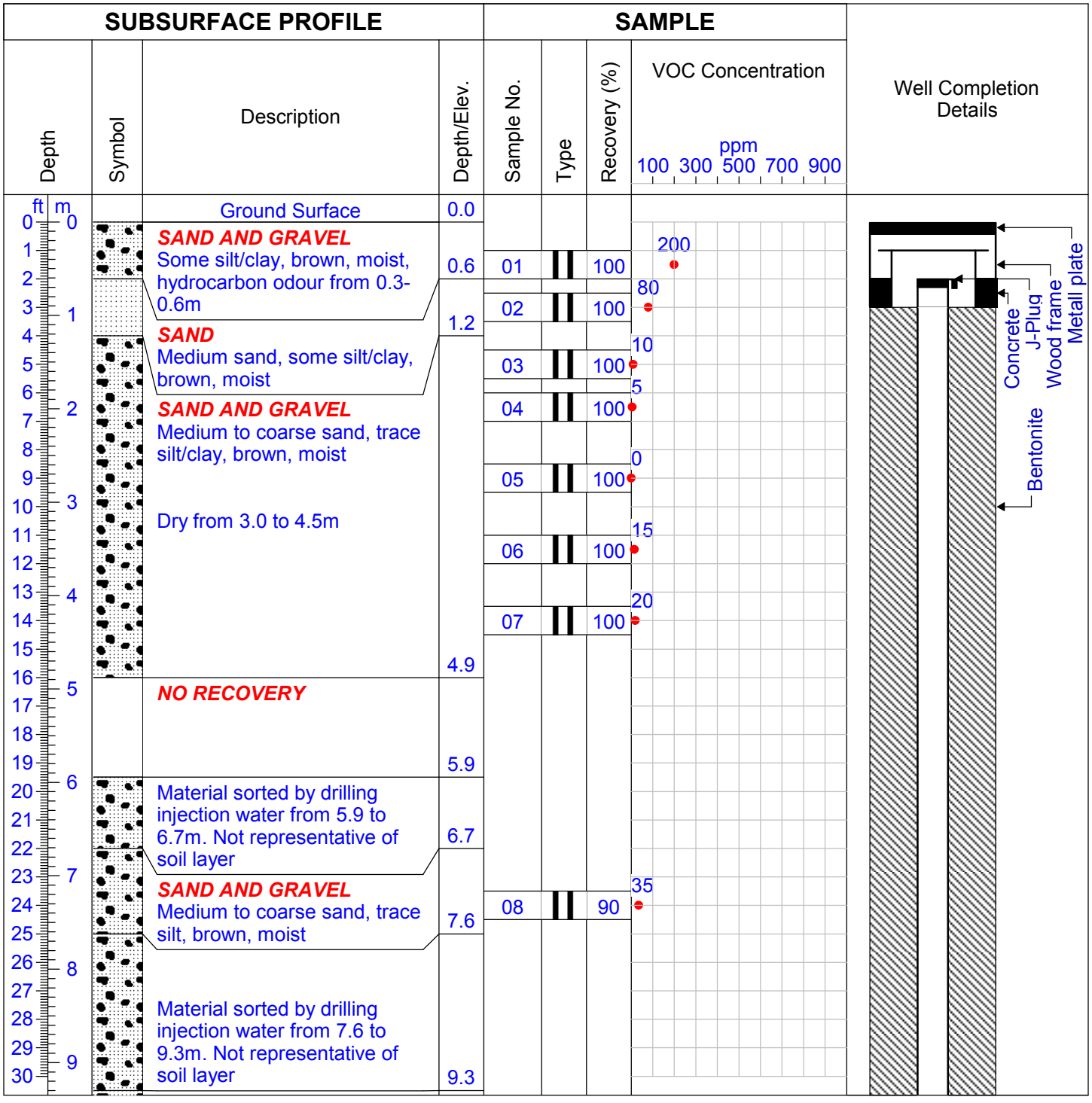
Borehole Log: BH13-04

Project No.: 2458-1302

Project: Fireside Maintenance Camp

Client: PWGSC ***Logged By:*** NR

Location: Fireside Maintenance Camp ***Checked By:*** JD



Drilled By: Tervita

Drill Method: Sonic

Drill Date: 22/09/2013

Top of Casing Elevation: 516.533m

FRANZ ENVIRONMENTAL INC.
CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

Borehole Log: BH13-04

Project No.: 2458-1302

Project: Fireside Maintenance Camp

Client: PWGSC ***Logged By:*** NR

Location: Fireside Maintenance Camp ***Checked By:*** JD

SUBSURFACE PROFILE

Depth	Symbol	Description	Depth/Elev.
31–60		***SAND AND GRAVEL*** Medium to coarse sand, trace cobbles, trace silt/clay, brown to light brown, moist	

SAMPLE

Sample No.	Type	Recovery (%)	VOC Concentration (ppm)
09		90	100
10		90	25
11		90	100
12		90	65
13		90	55
14		90	45
15		100	45
16		100	40
17		100	35
18		100	0

VOC Concentration ppm: 100 300 500 700 900

Well Completion Details

Drilled By: Tervita

Drill Method: Sonic

Drill Date: 22/09/2013

Top of Casing Elevation: 516.533m

FRANZ ENVIRONMENTAL INC.
CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

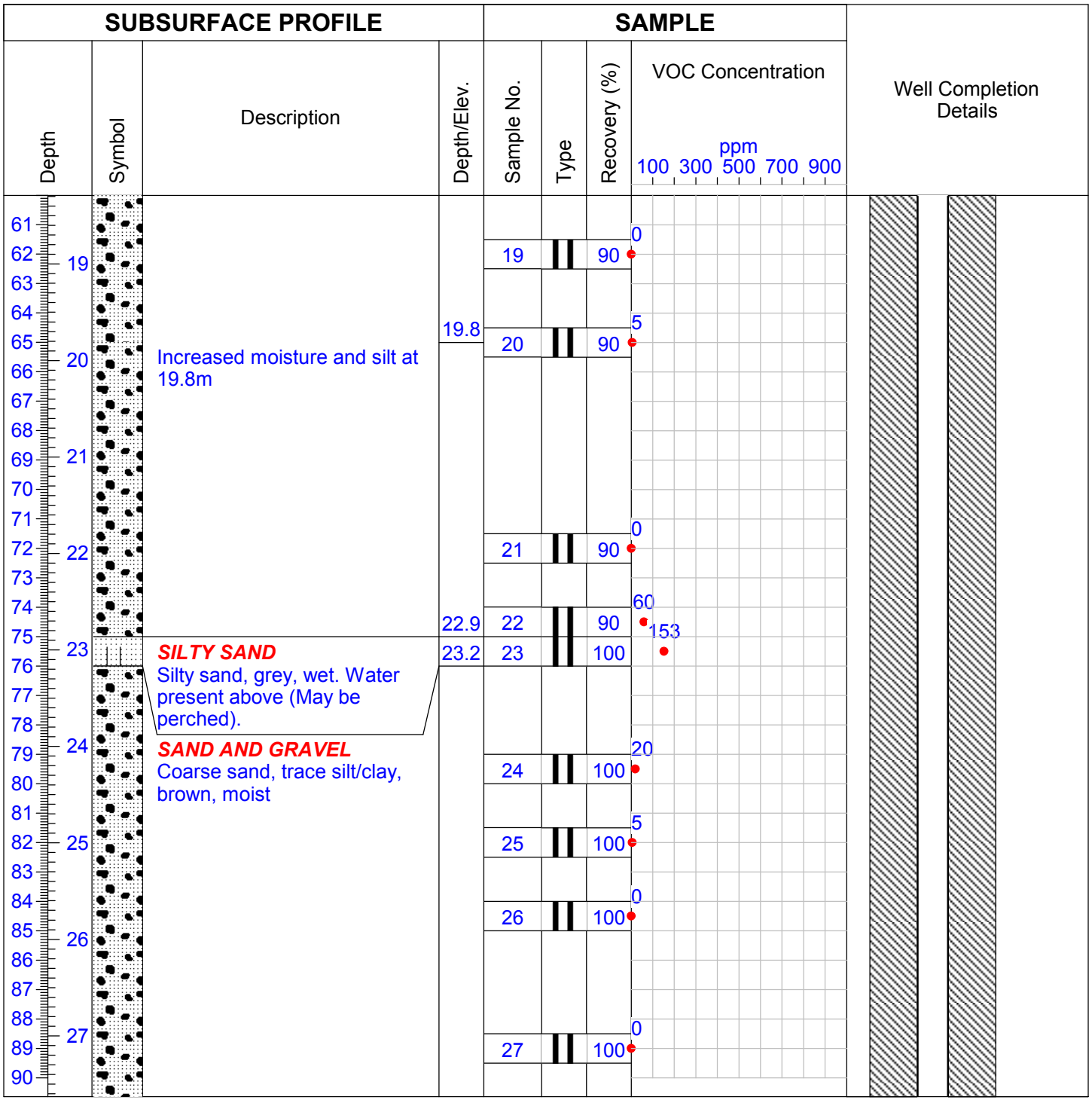
Borehole Log: BH13-04

Project No.: 2458-1302

Project: Fireside Maintenance Camp

Client: PWGSC ***Logged By:*** NR

Location: Fireside Maintenance Camp ***Checked By:*** JD



Drilled By: Tervita

Drill Method: Sonic

Drill Date: 22/09/2013

Top of Casing Elevation: 516.533m

FRANZ ENVIRONMENTAL INC.
CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

Borehole Log: BH13-04

Project No.: 2458-1302

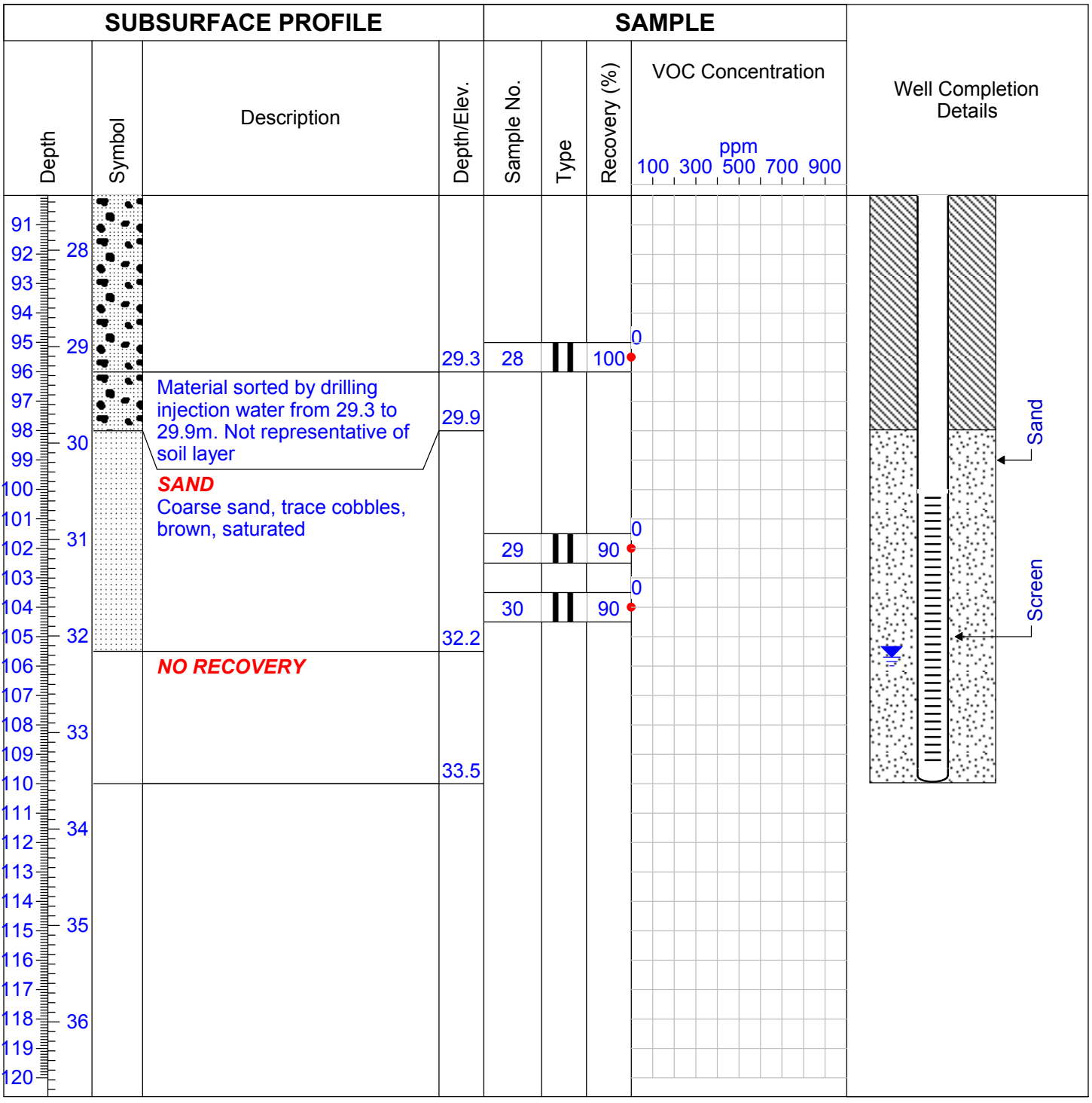
Project: Fireside Maintenance Camp

Client: PWGSC

Logged By: NR

Location: Fireside Maintenance Camp

Checked By: JD



Drilled By: Tervita

Drill Method: Sonic

Drill Date: 22/09/2013

Top of Casing Elevation: 516.533m

Sheet: 4 of 4

FRANZ ENVIRONMENTAL INC.
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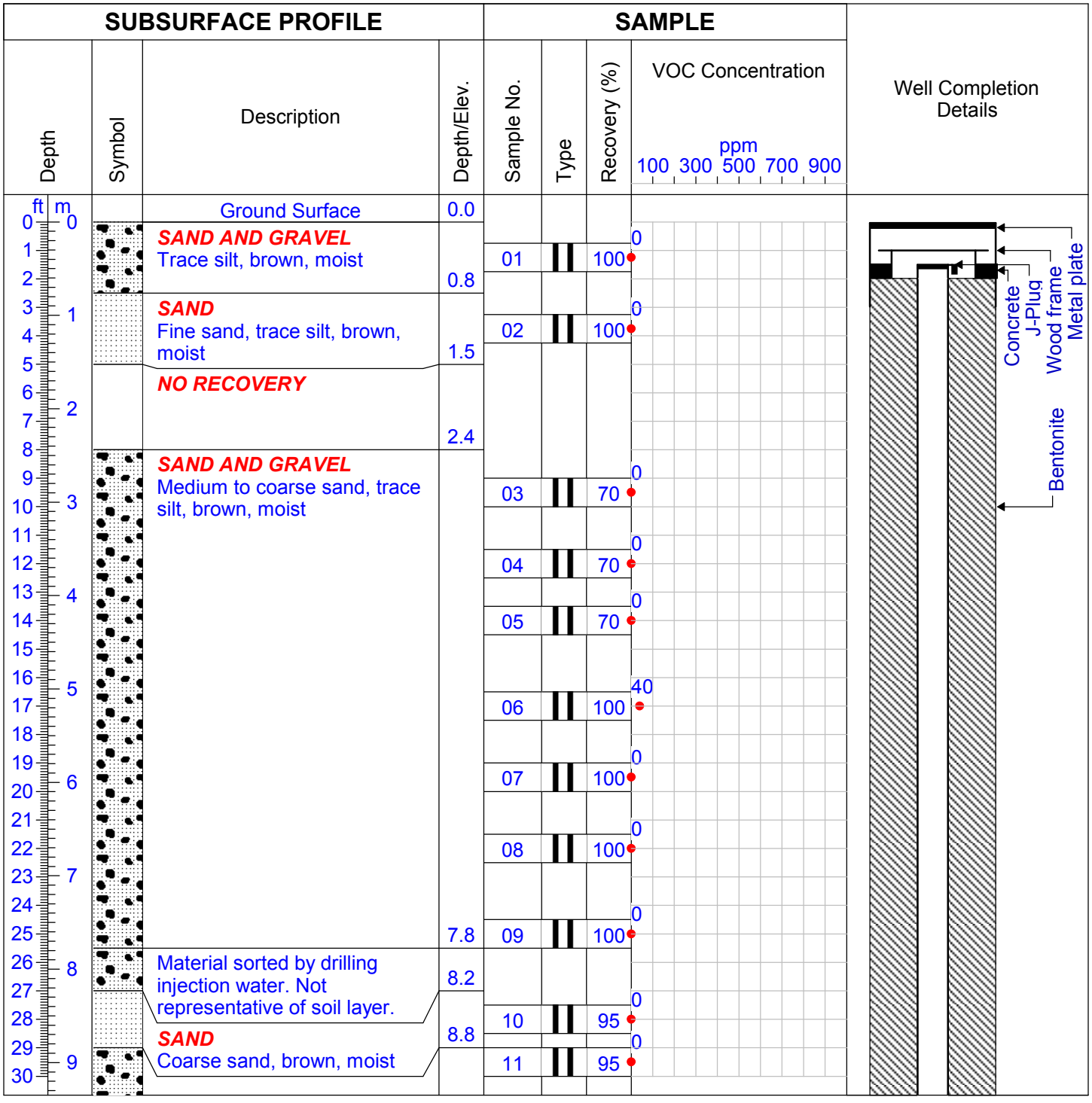
Borehole Log: BH13-06

Project No.: 2458-1302

Project: Fireside Maintenance Camp

Client: PWGSC ***Logged By:*** NR

Location: Fireside Maintenance Camp ***Checked By:*** JD



Drilled By: Tervita

Drill Method: Sonic

Drill Date: 25/09/2013

Top of Casing Elevation: 516.34

Sheet: 1 of 4

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Borehole Log: BH13-06

Project No.: 2458-1302

Project: Fireside Maintenance Camp

Client: PWGSC ***Logged By:*** NR

Location: Fireside Maintenance Camp ***Checked By:*** JD

SUBSURFACE PROFILE				SAMPLE				
Depth	Symbol	Description	Depth/Elev.	Sample No.	Type	Recovery (%)	VOC Concentration (ppm: 100 300 500 700 900)	Well Completion Details
31								
32		***SAND AND GRAVEL*** Medium to coarse sand, trace cobbles, trace silt/clay, brown, moist		12		90	0	
33 10								
34				13		90	0	
35								
36 11				14		90	0	
37								
38								
39				15		90	50	
40 12								
41								
42				16		90	0	
43 13								
44				17		90	0	
45			13.7					
46 14		***NO RECOVERY***						
47								
48								
49 15								
50								
51								
52								
53 16								
54								
55								
56 17								
57								
58								
59 18								
60								

Drilled By: Tervita

Drill Method: Sonic

Drill Date: 25/09/2013

Top of Casing Elevation: 516.34

FRANZ ENVIRONMENTAL INC.
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Borehole Log: BH13-06

Project No.: 2458-1302

Project: Fireside Maintenance Camp

Client: PWGSC ***Logged By:*** NR

Location: Fireside Maintenance Camp ***Checked By:*** JD

SUBSURFACE PROFILE				SAMPLE				
Depth	Symbol	Description	Depth/Elev.	Sample No.	Type	Recovery (%)	VOC Concentration (ppm: 100 300 500 700 900)	Well Completion Details
61								
62								
63	19							
64								
65			19.8					
66	20	***SAND AND GRAVEL*** Medium to coarse sand, trace silt/clay, trace cobbles, brown, moist		18		100	0	
67								
68								
69	21	Wet at 28.6m		19		100	0	
70								
71								
72	22			20		100	0	
73								
74				21		100	0	
75	23							
76								
77								
78								
79	24			22		100	0	
80								
81								
82	25			23		100	0	
83								
84				24		100	0	
85	26							
86								
87				25		100	0	
88								
89	27			26		100	0	
90								

Drilled By: Tervita

Drill Method: Sonic

Drill Date: 25/09/2013

Top of Casing Elevation: 516.34

FRANZ ENVIRONMENTAL INC.
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Borehole Log: BH13-06

Project No.: 2458-1302

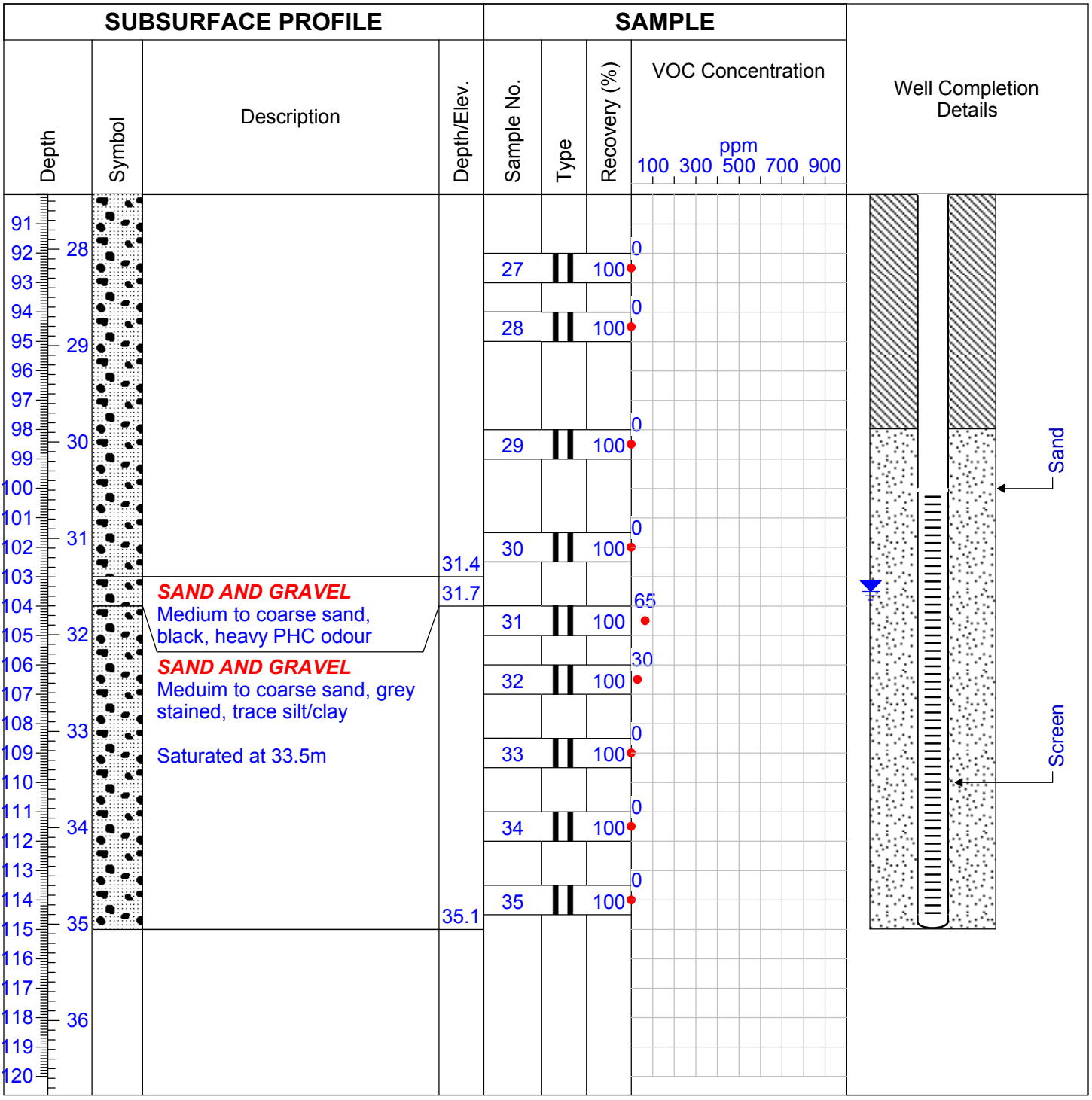
Project: Fireside Maintenance Camp

Client: PWGSC

Logged By: NR

Location: Fireside Maintenance Camp

Checked By: JD



Drilled By: Tervita

Drill Method: Sonic

Drill Date: 25/09/2013

Top of Casing Elevation: 516.34

Sheet: 4 of 4

FRANZ ENVIRONMENTAL INC.
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Borehole Log: BH13-07

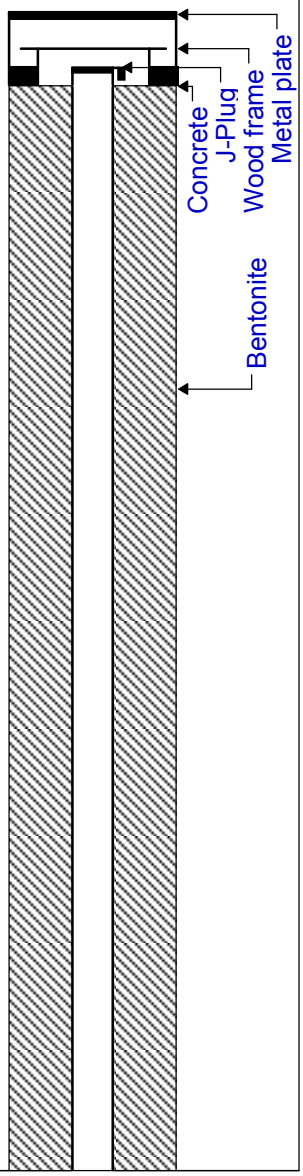
Project No.: 2458-1302

Project: Fireside Maintenance Camp

Client: PWGSC ***Logged By:*** NR

Location: Fireside Maintenance Camp ***Checked By:*** JD

SUBSURFACE PROFILE				SAMPLE				
Depth (ft / m)	Symbol	Description	Depth/Elev.	Sample No.	Type	Recovery (%)	VOC Concentration (ppm: 100 300 500 700 900)	Well Completion Details
0 / 0		Ground Surface	0.0					
0–4 / 0–1		***SAND AND GRAVEL*** Medium to coarse sand, trace silt/clay, brown, moist	1.2	01		100	40	
4–7 / 1–2		***SAND*** Fine to medium sand, trace silt/clay, brown, moist	2.3	02		100	10	
				03		100	10	
7–30 / 2–9		***SAND AND GRAVEL*** Medium to coarse sand, trace silt/clay, brown, moist Slightly moist to dry at 3.4m		04		100	0	
				05		100	0	
				06		100	0	
				07		100	0	
				08		100	0	
				09		100	0	
				10		100	0	
				11		100	0	



Drilled By: Tervita

Drill Method: Sonic

Drill Date: 25/09/2013

Top of Casing Elevation: 516.828m

FRANZ ENVIRONMENTAL INC.
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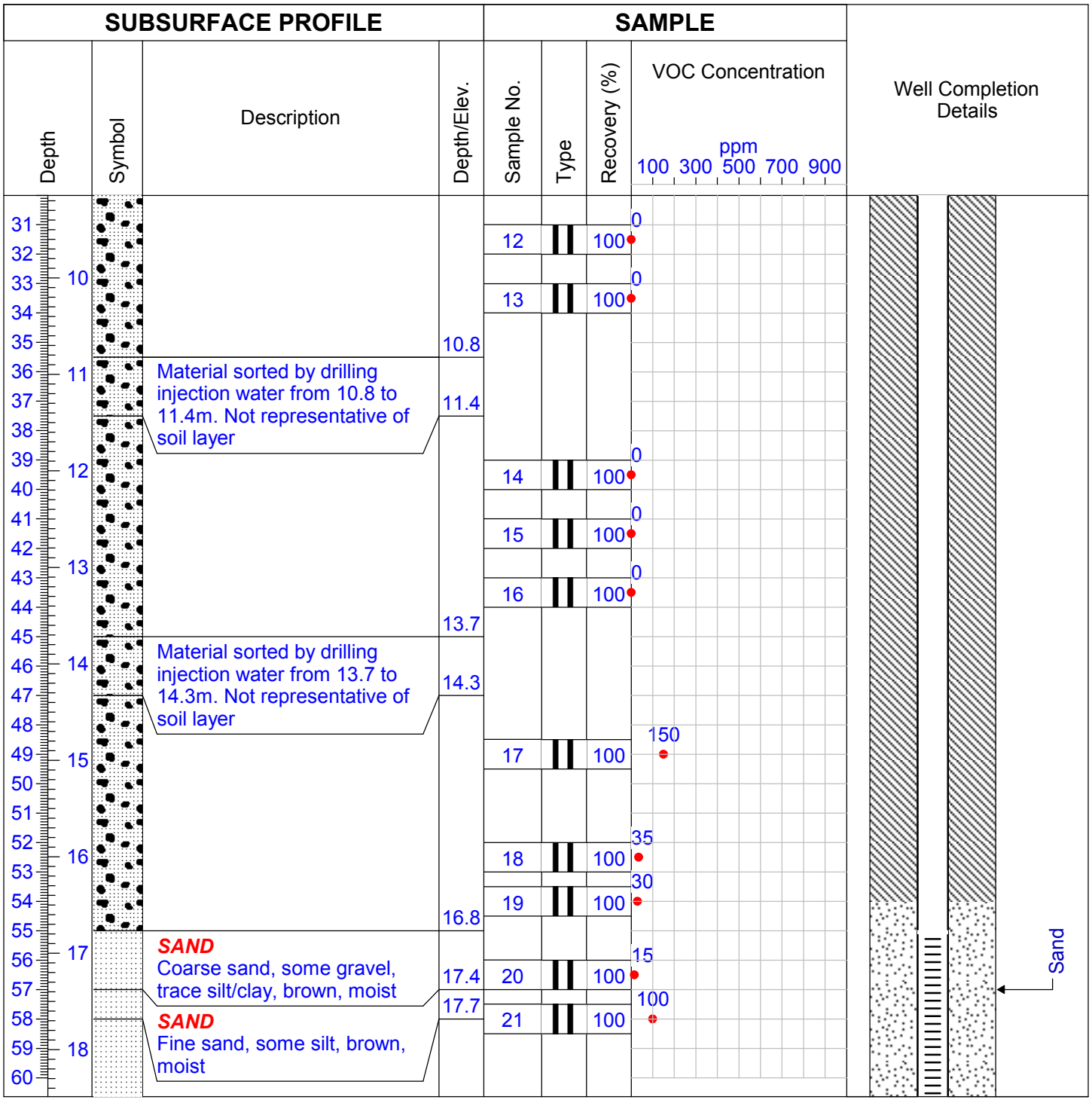
Borehole Log: BH13-07

Project No.: 2458-1302

Project: Fireside Maintenance Camp

Client: PWGSC **Logged By:** NR

Location: Fireside Maintenance Camp **Checked By:** JD



Drilled By: Tervita

Drill Method: Sonic

Drill Date: 25/09/2013

Top of Casing Elevation: 516.828m

FRANZ ENVIRONMENTAL INC.
CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

Borehole Log: BH13-07

Project No.: 2458-1302

Project: Fireside Maintenance Camp

Client: PWGSC

Logged By: NR

Location: Fireside Maintenance Camp

Checked By: JD

SUBSURFACE PROFILE

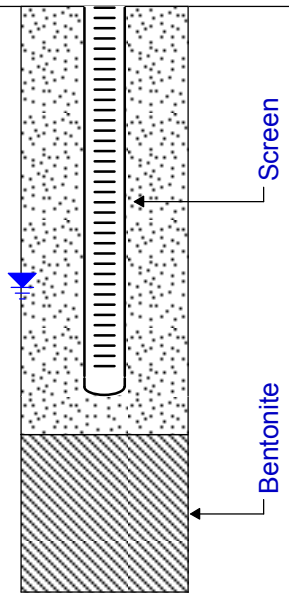
Depth	Symbol	Description	Depth/Elev.
19		***SAND*** Coarse sand, trace gravel, brown, moist Wet at 19.8m	
22.9			22.9

SAMPLE

Sample No.	Type	Recovery (%)	VOC Concentration (ppm)
22		100	30
23		100	30
24		100	30
25		100	0
26		100	0
27		100	0

VOC Concentration ppm: 100 300 500 700 900

Well Completion Details



Drilled By: Tervita

Drill Method: Sonic

Drill Date: 25/09/2013

Top of Casing Elevation: 516.828m

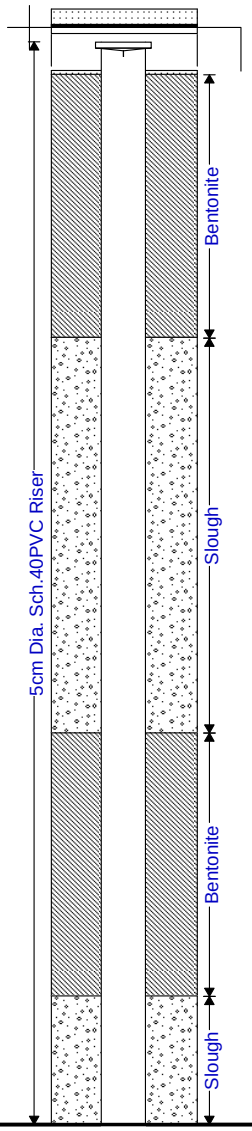
BOREHOLE/MONITORING WELL #: BH14-19

BOREHOLE LOG

Project No: 2458-1401
Project: Fireside Supplemental Drilling Investigation
Client: Public Works and Government Services Canada
Site Location: Fireside Maintenance Camp, KM 839 Alaska Highway, BC
Site ID: AD05

GS Elevation: 517.259 m amsl
TOC Elevation: 517.109 m amsl
Water Level: 31.439 m btoc
Water Level Elevation: 485.735 m amsl
Bottom of Well Depth: 32.988 m btoc

SUBSURFACE PROFILE				SAMPLE								
Depth (ft / m)	Symbol	Description	Elevations (m amsl)\ Depth (mbgs)	Sample ID	Type	Sample Symbol	Recovery	Blow Count	Combustible Vapour Reading (ppmv) (%LEL)	Submitted for Lab Analysis	Well Completion Details	Depth (m)
0 / 0		Ground Surface	0.00									0
1		***SAND AND GRAVEL*** Dry, frozen	0.00	BH14-19-01	BS			NA	10			
2 / 1		Trace pebbles from 1.2m to 1.8m										1
3		Light odour from 0 to 1.2m										
4				BH14-19-02	SS			22,28,23,21	10	X		
5			-1.83									
6 / 2		***FINE SAND AND GRAVEL*** Dry to moist	1.83	BH14-19-03	SS			13,16,16,16	5			2
7			-2.44									
8		***FINE SAND*** Moist, brown, trace gravel from 2.4m to 3m	2.44	BH14-19-04	SS			8,17,14,14	10			
9			-3.05									
10 / 3		Moist, brown, trace silt from 3.9m to 4.6m	3.05	BH14-19-05	BS			NA	15			3
11			-3.96									
12		Trace silt Moderate odour from 3.9m to 4.6m	3.96	BH14-19-06	SS			4,7,8,24	25			
13				BH14-19-07	SS			NA	10			
14 / 4												4
15												
16												
17 / 5		Light odour from 4.6m to 4.8m										5
18												
19			-5.79									
20 / 6		***FINE SAND AND GRAVEL*** Moist, brown	5.79	BH14-19-08	SS			25, 30 for 2"	35			6
21												
22				BH14-19-09	BS			NA	5			
23 / 7												7
24			-7.32									
25		***GRAVEL*** Moist, brown, trace pebbles	7.32	BH14-19-10	SS			26,30for5"	5			
26		***SAND AND GRAVEL*** Moist, brown										
27 / 8				BH14-19-11	BS			NA	20			8
28												
29			-8.84									
30 / 9		***COARSE SAND*** Moist, brown, trace pebbles	8.84	BH14-19-12	SS			19,30for 1"	5			9
31			-9.45									
32		***SAND AND GRAVEL*** Moist, brown	9.45									
33 / 10				BH14-19-13	BS			NA	5			10



Drilled By: Geotech
Drill Method: ODEX/Splitspoon
Drill Date: March 2 to 5, 2014

Logged By: J. Thomas/R. Samson/M. Jaud
Log Prepared By: L. Pereira
Checked By: J. Dewis

FRANZ ENVIRONMENTAL INC.
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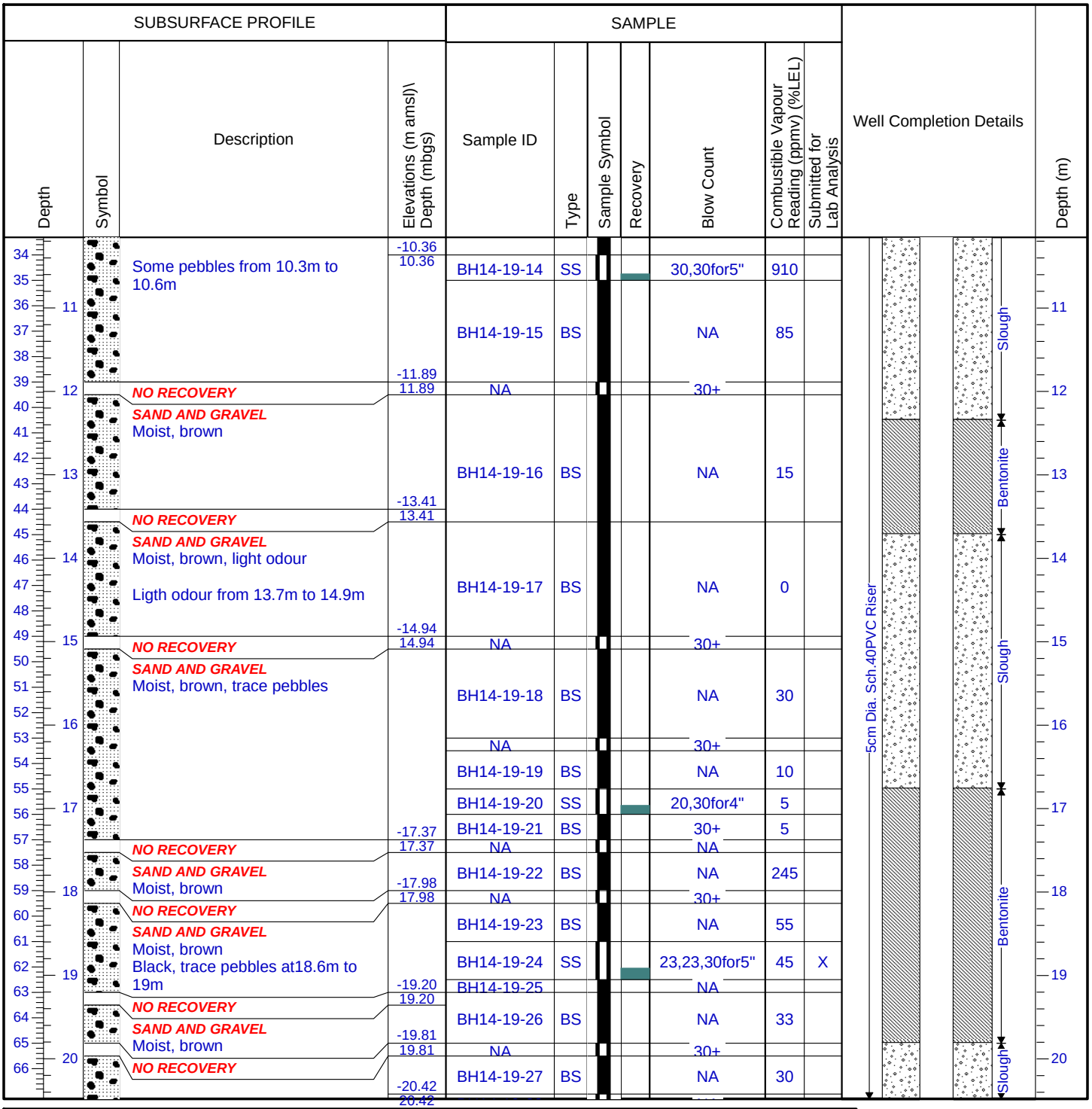
BOREHOLE/MONITORING WELL #: BH14-19

BOREHOLE LOG

Project No: 2458-1401
Project: Fireside Supplemental Drilling Investigation
Client: Public Works and Government Services Canada
Site Location: Fireside Maintenance Camp, KM 839 Alaska Highway, BC
Site ID: AD05

GS Elevation: 517.259 m amsl
TOC Elevation: 517.109 m amsl
Water Level: 31.439 m btoc
Water Level Elevation: 485.735 m amsl
Bottom of Well Depth: 32.988 m btoc



Drilled By: Geotech
Drill Method: ODEX/Splitspoon
Drill Date: March 2 to 5, 2014

Logged By: J. Thomas/R. Samson/M. Jaud
Log Prepared By: L. Pereira
Checked By: J. Dewis

Note: Any decisions/actions made by a third party based on this log are the sole responsibility of the third party.
Franz Environmental Inc. accepts no liability for third party decisions/actions made based on this log.

FRANZ ENVIRONMENTAL INC.
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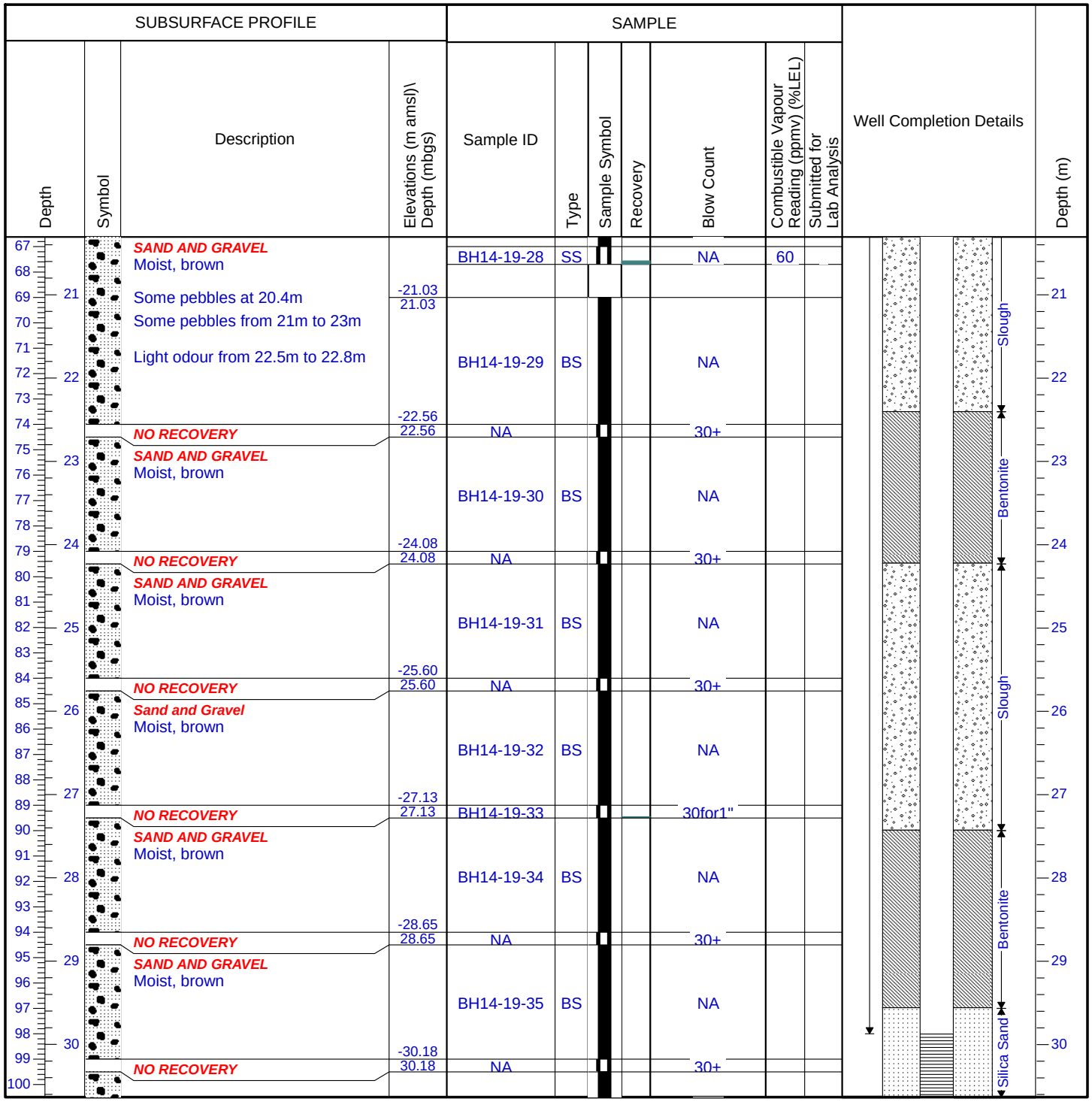
BOREHOLE/MONITORING WELL #: BH14-19

BOREHOLE LOG

Project No: 2458-1401
Project: Fireside Supplemental Drilling Investigation
Client: Public Works and Government Services Canada
Site Location: Fireside Maintenance Camp, KM 839 Alaska Highway, BC
Site ID: AD05

GS Elevation: 517.259 m amsl
TOC Elevation: 517.109 m amsl
Water Level: 31.439 m btoc
Water Level Elevation: 485.735 m amsl
Bottom of Well Depth: 32.988 m btoc



Drilled By: Geotech
Drill Method: ODEX/Splitspoon
Drill Date: March 2 to 5, 2014

Logged By: J. Thomas/R. Samson/M. Jaud
Log Prepared By: L. Pereira
Checked By: J. Dewis

FRANZ ENVIRONMENTAL INC.
♦ CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

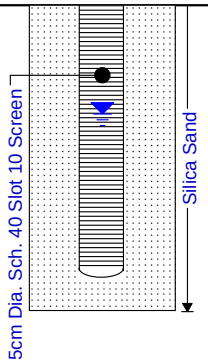
BOREHOLE/MONITORING WELL #: BH14-19

BOREHOLE LOG

Project No: 2458-1401
Project: Fireside Supplemental Drilling Investigation
Client: Public Works and Government Services Canada
Site Location: Fireside Maintenance Camp, KM 839 Alaska Highway, BC
Site ID: AD05

GS Elevation: 517.259 m amsl
TOC Elevation: 517.109 m amsl
Water Level: 31.439 m btoc
Water Level Elevation: 485.735 m amsl
Bottom of Well Depth: 32.988 m btoc

SUBSURFACE PROFILE				SAMPLE							Well Completion Details	
Depth	Symbol	Description	Elevations (m amsl)\ Depth (mbgs)	Sample ID	Type	Sample Symbol	Recovery	Blow Count	Combustible Vapour Reading (ppmv) (%LEL)	Submitted for Lab Analysis		Depth (m)
31		***FINE TO MEDIUM SAND AND GRAVEL*** Moist, brown at 30.3m		BH14-19-36	BS			NA				31
				BH14-19-37	SS			29,30for3"		X		
		Trace pebbles from 31.1m to 31.4m		BH14-19-38	BS			NA				
		Very wet at 31.7m	-31.70 31.70	BH14-19-39	SS			30,30for5"				
32				BH14-19-40	BS			NA				32
		Grey, trace pebbles from 32.3m to 32.2m	-32.31 32.31	BH14-19-41	SS			20,23,29,30		X		
33			-33.22 33.22									33
		End of Borehole										
34												34
35												35
36												36
37												37
38												38
39												39
40												40



Notes:
GS = Grab sample
SS = Splitspoon sample
BS = Bucket sample
TOC = Top of casing
m amsl = Metres above mean sea level
m bgs = Metres below ground surface
m btoc = Metres below top of casing
NA = Not Available

Drilled By: Geotech
Drill Method: ODEX/Splitspoon
Drill Date: March 2 to 5, 2014

Logged By: J. Thomas/R. Samson/M. Jaud
Log Prepared By: L. Pereira
Checked By: J. Dewis

FRANZ ENVIRONMENTAL INC.
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BOREHOLE/MONITORING WELL #: BH14-20

BOREHOLE LOG

Project No: 2458-1401
Project: Fireside Supplemental Drilling Investigation
Client: Public Works and Government Services Canada
Site Location: Fireside Maintenance Camp, KM 839 Alaska Highway, BC
Site ID: AD05

GS Elevation: 517.502 m amsl
TOC Elevation: 517.252 m amsl
Water Level: 19.584 m btoc
Water Level Elevation: 497.733 m amsl
Bottom of Well Depth: 23.867 m btoc

SUBSURFACE PROFILE				SAMPLE							Well Completion Details	
Depth (ft / m)	Symbol	Description	Elevations (m amsl)\ Depth (mbgs)	Sample ID	Type	Sample Symbol	Recovery	Blow Count	Combustible Vapour Reading (ppmv) (%LEL)	Submitted for Lab Analysis		Depth (m)
0 ft / 0 m		Ground Surface	0.00									0
		NOT OBSERVED Frozen	0.00									
			-1.52									
		MEDIUM TO COARSE SAND AND GRAVEL Dry, grey to brown, some large pebbles from 1.5m to 2.7m	1.52	BH14-20-01	GS			NA	30	X		
				BH14-20-02	GS			NA	5			
			-2.74									
		Dry to moist from 2.7m to 5.8m	2.74									
				BH14-20-03	GS			NA	70			
				BH14-20-04	GS			NA	360			
				BH14-20-05	GS			NA	25			
			-5.79									
		Moist from 5.5m to 8.1m	5.79									
				BH14-20-06	GS			NA	320	X		
				BH14-20-07	GS			NA	40			
			-8.08									
		Trace large pebbles from 8.1m to 8.8m	8.08	BH14-20-08	GS			NA	10			
				BH14-20-09	GS			NA	110			
				BH14-20-10	GS			NA	200			

Well Completion Details: 5cm Dia. Sch.40PVC Riser; Bentonite; Slough; Bentonite; Slough; Bentonite

Drilled By: Mudbay
Drill Method: Sonic
Drill Date: March 3, 2014

Logged By: F. Dane/A. Garnier/M. Jaud
Log Prepared By: L. Pereira
Checked By: J. Dewis

FRANZ ENVIRONMENTAL INC.
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BOREHOLE/MONITORING WELL #: BH14-20

BOREHOLE LOG

Project No: 2458-1401
Project: Fireside Supplemental Drilling Investigation
Client: Public Works and Government Services Canada
Site Location: Fireside Maintenance Camp, KM 839 Alaska Highway, BC
Site ID: AD05

GS Elevation: 517.502 m amsl
TOC Elevation: 517.252 m amsl
Water Level: 19.584 m btoc
Water Level Elevation: 497.733 m amsl
Bottom of Well Depth: 23.867 m btoc

SUBSURFACE PROFILE				SAMPLE								
Depth	Symbol	Description	Elevations (m amsl)\ Depth (mbgs)	Sample ID	Type	Sample Symbol	Recovery	Blow Count	Combustible Vapour Reading (ppmv) (%LEL)	Submitted for Lab Analysis	Well Completion Details	Depth (m)
11				BH14-20-10				NA				11
37			-11.58									
38		Grey from 11.6m to 11.8m	11.58	BH14-20-11	GS			NA	0			
39												
12												12
40												
41												
42												
13			-13.11									13
43			13.11									
44		Moist, brown, coarse sand, some large pebbles from 13.1m to 13.7m		BH14-20-12	GS			NA	180			
45			-13.72									
46			13.72	BH14-20-13	GS			NA	610			
14		Grey, trace fine sand from 13.7m to 14.6m										14
47				BH14-20-14	GS			NA	10			
48												
49												
15												15
50												
51			-15.54									
52		***MEDIUM TO COARSE SAND***	15.54									
53		Moist, brown		BH14-20-15	GS			NA	100			
16												16
54												
55			-16.76									
56		***MEDIUM TO COARSE SAND AND GRAVEL***	16.76									
17			-17.22	BH14-20-16	GS			NA	10			17
57		Moist, brown from 16.7m to 17.2m	17.22									
58		Orange to brown, trace silt from 17.2m to 17.9m		BH14-20-17	GS			NA	50			
59			-17.98									
18			17.98									18
60		Brown, coarse at 18.2m										
61												
62				BH14-20-18	GS			NA	75			
19			-19.05									19
63		Black staining, sticky	19.05									
64		Moderate odour from 19.2m to 20.1m		BH14-20-19	GS			NA	140			
65												
20												20
66				BH14-20-20	GS			NA	240			
67												
68												
69												
21												21
70												
71			-21.64									
			21.64									

Bentonite
Slough
Bentonite
Silica Sand

Drilled By: Mudbay
Drill Method: Sonic
Drill Date: March 3, 2014

Logged By: F. Dane/A. Garnier/M. Jaud
Log Prepared By: L. Pereira
Checked By: J. Dewis

FRANZ ENVIRONMENTAL INC.
♦ CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

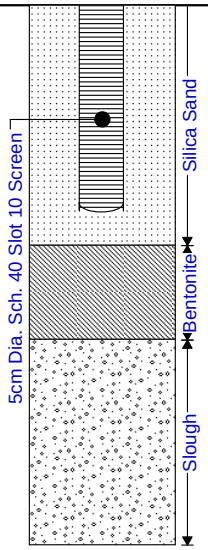
BOREHOLE/MONITORING WELL #: BH14-20

BOREHOLE LOG

Project No: 2458-1401
Project: Fireside Supplemental Drilling Investigation
Client: Public Works and Government Services Canada
Site Location: Fireside Maintenance Camp, KM 839 Alaska Highway, BC
Site ID: AD05

GS Elevation: 517.502 m amsl
TOC Elevation: 517.252 m amsl
Water Level: 19.584 m btoc
Water Level Elevation: 497.733 m amsl
Bottom of Well Depth: 23.867 m btoc

SUBSURFACE PROFILE				SAMPLE								
Depth	Symbol	Description	Elevations (m amsl)\ Depth (mbgs)	Sample ID	Type	Sample Symbol	Recovery	Blow Count	Combustible Vapour Reading (ppmv) (%LEL)	Submitted for Lab Analysis	Well Completion Details	Depth (m)
22		***COARSE SAND*** Moist, black, trace gravel, sticky Strong odour from 21.6m to 23.5m		BH14-20-21	GS			NA	670	X		22
23				BH14-20-22	GS			NA	680			23
		Wet, grey to brown	-23.47 23.47									
24		***MEDIUM TO FINE SAND*** Moderate odour from 22.5m to 24.1m	-24.08 24.08	BH14-20-23	GS			NA	20	X		24
		MEDIUM TO COARSE SAND AND GRAVEL Wet, brown small pebbles	-24.69 24.69	BH14-20-24	GS			NA	230			
25		***MEDIUM TO COARSE SAND*** Wet, brown	-25.15 25.15	BH14-20-25	GS			NA	20			25
		MEDIUM TO COARSE SAND AND GRAVEL Wet, brown	-25.91 25.91									
26		***FINE TO MEDIUM SAND*** Wet, brown		BH14-20-26	GS			NA	25			26
			-26.97 26.97									
27		End of Borehole										27
28												28
29												29
30												30
31												31
32												32



Notes:
GS = Grab sample
SS = Sonic sample
BS = Bucket sample
TOC = Top of casing
m amsl = Metres above mean sea level
m bgs = Metres below ground surface
m btoc = Metres below top of casing
NA = Not Available

Drilled By: Mudbay
Drill Method: Sonic
Drill Date: March 3, 2014

Logged By: F. Dane/A. Garnier/M. Jaud
Log Prepared By: L. Pereira
Checked By: J. Dewis

FRANZ ENVIRONMENTAL INC.
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SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-01

PAGE 1 OF 2

Drilling Contractor	Diverse Drilling Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Solid Stem Auger	Ground Surface Elev. (m)	833.925	Borehole Logged By:	YFW
Borehole Dia. (m)	0.15	Top of Casing Elev. (m)	n/a	Date Drilled:	2016 03 14
Pipe/Slotted Pipe Dia. (m)	none/none	Northing: 6616540.802	Easting: 604125.738	Log Typed By:	NDS

Drilling Legend
- Sample Interval
- Auger Flight

Water/NAPL Levels
- Water Level 1
- Water Level 2
- NAPL
- NAPL

Soil Vapour (ppm)
- ○ Reading within indicated scale
- ● Reading outside indicated scale

Depth in Metres	Soil Description	Stratigraphy Plot	Sample Interval Core Run	Sample Number	EC (uS/cm)	% Recovery	Soil Vapour (ppm) 10^1 10^2 10^3 10^4
0	SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, trace silt, dense, dry.			1-1	61		100
1	SAND, fine grained, reddish brown, loose, damp.			1-2 1-3*	132.3		25
	Below 1.2 m - brown/reddish brown.						
	SAND and GRAVEL, fine to coarse grained sand, fine gravel, rounded to subrounded, trace silt, loose, damp.						
2	Below 2.1 m - occasional coarse gravel.						
3	Below 3.0 m - trace coarse gravel.						
4							
	Below 4.6 m - some coarse gravel.						
5							
6	Below 6.1 m - occasional coarse gravel, moist.						
7							
	SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, brown, loose, moist.						
8							
9							
10							

SAND

BENTONITE

SLOUGH

NOTES
Bolded sample denotes sample analyzed. *denotes blind field duplicate. 1-3 is a blind field duplicate of 1-2.

QA YFW 2016 03 28 Print Date:2016-06-28

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-01

PAGE 2 OF 2

Drilling Contractor	Diverse Drilling Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Solid Stem Auger	Ground Surface Elev. (m)	833.925	Borehole Logged By:	YFW
Borehole Dia. (m)	0.15	Top of Casing Elev. (m)	n/a	Date Drilled:	2016 03 14
Pipe/Slotted Pipe Dia. (m)	none/none	Northing: 6616540.802	Easting: 604125.738	Log Typed By:	NDS

Drilling Legend
- Sample Interval
- Auger Flight

Water/NAPL Levels
- Water Level 1
- Water Level 2
- NAPL
- NAPL

Soil Description

Stratigraphy Plot | Sample Interval Core Run | Sample Number | EC (uS/cm) | % Recovery

Soil Vapour (ppm)
- ○ Reading within indicated scale
- ● Reading outside indicated scale

10^1 10^2 10^3 10^4

Depth in Metres	Soil Description	Sample Number	EC (uS/cm)	Soil Vapour (ppm)
10	SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, brown, loose, moist. *(continued)*			
	Below 10.7 m - some coarse gravel, moist.			
11		1-4	19.2	○ 25
		1-5	57.4	○ 25
12	Bottom of hole at 12.2 m.			
13				
14				
15				
16				
17				
18				
19				
20				

SLOUGH

NOTES
Bolded sample denotes sample analyzed. *denotes blind field duplicate. 1-3 is a blind field duplicate of 1-2.

QA YFW 2016 03 28 Print Date:2016-06-28

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-03

PAGE 1 OF 1

Drilling Contractor	Diverse Drilling Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Solid Stem Auger	Ground Surface Elev. (m)	833.545	Borehole Logged By:	YFW
Borehole Dia. (m)	0.15	Top of Casing Elev. (m)	n/a	Date Drilled:	2016 03 07
Pipe/Slotted Pipe Dia. (m)	none/none	Northing: 6616626.918	Easting: 604142.134	Log Typed By:	NDS

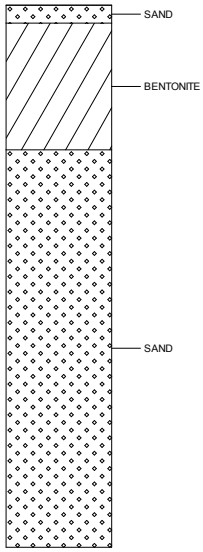
Drilling Legend
- Sample Interval
- Auger Flight

Water/NAPL Levels
- Water Level 1
- Water Level 2
- NAPL
- NAPL

Depth in Metres	Soil Description	Stratigraphy Plot	Sample Interval Core Run	Sample Number	EC (uS/cm)	% Recovery	Soil Vapour (ppm)
0	SAND, fine grained, trace gravel, fine, trace silt, light brown, loose, dry.			3-1	404		○ 25
1	Below 0.3 m - no gravel.						
	Below 1.5 m - damp.			3-2 3-3*	45		○ 25
2							
	Below 2.7 m - some gravel, fine to coarse.						
3	SAND and GRAVEL, fine to medium grained sand, fine gravel, brown, loose, damp.						
4							
	Bottom of hole at 4.6 m.						
5							
6							
7							
8							
9							
10							

Reading within indicated scale
Reading outside indicated scale

Soil Vapour (ppm): 10^1 10^2 10^3 10^4



NOTES
Bolded sample denotes sample analyzed. *denotes blind field duplicate. 3-3 is a blind field duplicate of 3-2.

QA YFW 2016 03 28 Print Date:2016-06-28

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-13

PAGE 1 OF 1

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	833.470	Borehole Logged By:	SJWM
Borehole Dia. (m)	0.15	Top of Casing Elev. (m)	n/a	Date Drilled:	2016 06 01
Pipe/Slotted Pipe Dia. (m)	none/none	Northing: 6616635.724	Easting: 604183.965	Log Typed By:	NDS

Drilling Legend
- Sample Interval
- Vibrasonic
- Split Spoon

Water/NAPL Levels
- Water Level 1
- Water Level 2
- NAPL
- NAPL

Soil Vapour (ppm)
- ○ Reading within indicated scale
- ● Reading outside indicated scale

Depth in Metres	Soil Description	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm)
0	SAND and GRAVEL, fine to medium grained sand, fine gravel, angular to subangular, brown, loose, damp. Between 0.3 m and 0.5 m - hydrocarbon-like odour.				16 10 6	100 56	
1	SAND, fine grained, some gravel, coarse, rounded, trace silt, brown, loose, moist.			13-01		100	
	Below 1.5 m - no silt, no gravel.				1 7 12	56	
2				13-02		100	
					12 30 33		
3	SAND and GRAVEL, fine to medium grained sand, fine and coarse gravel, subrounded to rounded, some cobbles, rounded, loose, damp.			**13-03** ***13-04**	21 26 25		220
4							
5	Between 4.9 m and 5.2 m - dry.						
6					9 9 8		
7				13-05			
8				**13-06**			20
	Bottom of hole at 8.1 m.						
9							
10							

BENTONITE

NOTES
Bolded sample denotes sample analyzed. *denotes blind field duplicate.
13-04 is a blind field duplicate of 13-03.

QA SJWM 2016 06 24 Print Date:2016-07-14

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-14

PAGE 1 OF 1

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	833.567	Borehole Logged By:	SJWM/ST
Borehole Dia. (m)	0.15	Top of Casing Elev. (m)	n/a	Date Drilled:	2016 06 01
Pipe/Slotted Pipe Dia. (m)	none/none	Northing: 6616636.997	Easting: 604176.849	Log Typed By:	NDS

Drilling Legend
- Sample Interval
- Vibrasonic

Water/NAPL Levels
- Water Level 1
- Water Level 2
- NAPL
- NAPL

Soil Description

Depth in Metres | Stratigraphy Plot | Sample Interval Core Run | Sample Number | Blow Count | % Recovery | Soil Vapour (ppm)

- Reading within indicated scale
- Reading outside indicated scale

Soil Vapour (ppm): 10^1 10^2 10^3 10^4

0 SAND and GRAVEL, subangular, trace cobbles, brown, loose, damp.

1 Between 1.2 m and 1.8 m - increased sand.

2 **14-01** — % Recovery: 80 — Soil Vapour: 40

3 % Recovery: 100

4 BENTONITE

5 Between 5.2 m and 5.5 m - increased cobbles, rounded, moist.
Below 5.5 m - damp.

6 Below 6.1 m - some cobbles, trace silt. 14-02 — % Recovery: 100

7

8 **14-03** — Soil Vapour: 30

Bottom of hole at 8.5 m.

9

10

NOTES
Bolded sample denotes sample analyzed.

QA SJWM 2016 06 24 Print Date:2016-07-14

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-16

PAGE 1 OF 2

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	834.339	Borehole Logged By:	SJWM/ST
Borehole Dia. (m)	0.15	Top of Casing Elev. (m)	n/a	Date Drilled:	2016 06 02
Pipe/Slotted Pipe Dia. (m)	none/none	Northing: 6616536.171	Easting: 604207.556	Log Typed By:	NDS

Drilling Legend
Sample Interval
Vibrasonic

Water/NAPL Levels
Water Level 1
Water Level 2
NAPL
NAPL

Reading within indicated scale
Reading outside indicated scale

Soil Vapour (ppm)

Depth in Metres	Soil Description	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm)
0	SAND and GRAVEL, subangular, trace cobbles, grey, damp.						
1	SAND, trace gravel, trace silt, red/brown, mottled, damp. Below 0.9 m - brown, no mottling, hydrocarbon-like odour.						
2	SAND and GRAVEL, subangular, trace cobbles, brown, damp.			**16-01**			90
3							
4				16-02			
5							
6	SAND and GRAVEL, subangular, trace cobbles, trace silt, brown, damp.					100	
7	Between 7.6 m and 7.9 m - increased silt, dry.					100	
8	Between 8.2 m and 8.8 m - oxidized seams.			**16-03**			250
9	Between 8.8 m and 9.1 m - increased silt, dry.					100	
10							

BENTONITE

NOTES
Bolded sample denotes sample analyzed. Borehole drilled to 6.1 m on 2016 06 01.

QA SJWM 2016 06 24 Print Date:2016-07-14

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-16

PAGE 2 OF 2

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	834.339	Borehole Logged By:	SJWM/ST
Borehole Dia. (m)	0.15	Top of Casing Elev. (m)	n/a	Date Drilled:	2016 06 02
Pipe/Slotted Pipe Dia. (m)	none/none	Northing: 6616536.171	Easting: 604207.556	Log Typed By:	NDS

Drilling Legend
Sample Interval
Vibrasonic

Water/NAPL Levels
Water Level 1
Water Level 2
NAPL
NAPL

Depth in Metres	Soil Description	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm) 10^1 10^2 10^3 10^4 (○ Reading within indicated scale, ● Reading outside indicated scale)	
10	SAND and GRAVEL, subangular, trace cobbles, trace silt, brown, damp. *(continued)*							
11						100		BENTONITE
12				16-04				
	Bottom of hole at 12.2 m.							
13								
14								
15								
16								
17								
18								
19								
20								

NOTES
Bolded sample denotes sample analyzed. Borehole drilled to 6.1 m on 2016 06 01.

QA SJWM 2016 06 24 Print Date:2016-07-14

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-18

PAGE 1 OF 2

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	833.910	Borehole Logged By:	SJWM
Borehole Dia. (m)	0.15	Top of Casing Elev. (m)	n/a	Date Drilled:	2016 06 02
Pipe/Slotted Pipe Dia. (m)	none/none	Northing: 6616524.491	Easting: 604229.706	Log Typed By:	NDS

Drilling Legend
- Sample Interval
- Vibrasonic

Water/NAPL Levels
- Water Level 1
- Water Level 2
- NAPL
- NAPL

Depth in Metres | Soil Description | Stratigraphy Plot | Sample Interval Core Run | Sample Number | Blow Count | % Recovery | Soil Vapour (ppm)

Soil Vapour (ppm): ○ Reading within indicated scale; ● Reading outside indicated scale; 10^1 10^2 10^3 10^4

0 SAND and GRAVEL, fine to medium grained sand, fine gravel, subangular to subrounded, brown, loose, damp, hydrocarbon-like odour.
Between 0.5 m and 0.6 m - increased fine grained sand, some silt, red/brown, mottled, dense.
Below 0.6 m - trace cobbles, grey.

1

2 **18-01** ○ 200

3 Below 3.1 m - some cobbles, brown, dry to damp.

4

5 BENTONITE

6 18-02
Below 6.1 m - increased gravel, increased cobbles, dark brown, wet.
100

7

8 **18-03** ***18-04** ○ 15

9 Below 9.1 m - increased sand, brown, moist.
100

10

NOTES
Bolded sample denotes sample analyzed. *denotes blind field duplicate.
18-04 is a blind field duplicate of 18-03.

QA SJWM 2016 06 24 Print Date:2016-07-14

SNC·LAVALIN	Client **Public Works and Gov't Services Canada**	**Borehole No. : BH16-18**
	Location **Fireside Maintenance Camp, BC**	PAGE 2 OF 2

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	833.910	Borehole Logged By:	SJWM
Borehole Dia. (m)	0.15	Top of Casing Elev. (m)	n/a	Date Drilled:	2016 06 02
Pipe/Slotted Pipe Dia. (m)	none/none	Northing: 6616524.491	Easting: 604229.706	Log Typed By:	NDS

Drilling Legend: Sample Interval; Vibrasonic

Water/NAPL Levels: Water Level 1; Water Level 2; NAPL; NAPL

Reading within indicated scale; Reading outside indicated scale

Depth in Metres	Soil Description	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm) 10^1 10^2 10^3 10^4	
10	SAND and GRAVEL, fine to medium grained sand, fine gravel, subangular to subrounded, brown, loose, damp, hydrocarbon-like odour. *(continued)* Between 10.1 m and 10.4 m - dark grey.			18-05			410	
11	GRAVEL, coarse, rounded to subrounded, some sand, some cobbles, wet, hydrocarbon-like odour, sheen.					100		
12	SAND, fine to medium grained, brown, loose, wet, hydrocarbon-like odour.					100		
13	SAND and GRAVEL, fine to coarse grained sand, fine and coarse gravel, subrounded to subangular, loose, wet.					100		
14				18-06			0	
15	Below 14.6 m - increased gravel. Bottom of hole at 15.2 m.							BENTONITE
16								
17								
18								
19								
20								

NOTES
Bolded sample denotes sample analyzed. *denotes blind field duplicate.
18-04 is a blind field duplicate of 18-03.

QA SJWM 2016 06 24 Print Date:2016-07-14

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-19

PAGE 1 OF 2

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	833.844	Borehole Logged By:	SJWM
Borehole Dia. (m)	0.15	Top of Casing Elev. (m)	n/a	Date Drilled:	2016 06 02
Pipe/Slotted Pipe Dia. (m)	none/none	Northing: 6616516.895	Easting: 604236.276	Log Typed By:	NDS

Drilling Legend
- Sample Interval
- Vibrasonic

Water/NAPL Levels
- Water Level 1
- Water Level 2
- NAPL
- NAPL

Depth in Metres | Soil Description | Stratigraphy Plot | Sample Interval Core Run | Sample Number | Blow Count | % Recovery | Soil Vapour (ppm)

Soil Vapour (ppm): ○ Reading within indicated scale; ● Reading outside indicated scale; 10^1 10^2 10^3 10^4

0 SAND and GRAVEL, fine to medium grained sand, fine gravel, subangular to subrounded, loose, damp.

Below 0.5 m - wood inclusions, black, hydrocarbon-like odour.

SAND, brown, mottled red/brown, dense, damp.

1 SAND and GRAVEL, fine to medium grained sand, fine and coarse gravel, rounded to subrounded, some fine subangular gravel, brown, loose, dry, hydrocarbon-like odour.

2 **19-01** ○ 35

3

Below 3.7 m - no odour.

4 19-02

Below 4.3 m - dry to damp.

5 BENTONITE

6

Below 6.1 m - increased gravel, dark brown, hydrocarbon-like odour.

SAND, fine to coarse grained, some gravel, fine, subangular, dark brown, loose, moist, hydrocarbon-like odour.

7

8 **19-03** ● 0

Below 8.2 m - wet.

SAND and GRAVEL, fine to coarse grained sand, fine and coarse gravel, subrounded to subangular, some cobbles, brown, loose, wet.

9 **19-04** ○ 15

10

NOTES
Bolded sample denotes sample analyzed.

QA SJWM 2016 06 24 Print Date:2016-07-14

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-19

PAGE 2 OF 2

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	833.844	Borehole Logged By:	SJWM
Borehole Dia. (m)	0.15	Top of Casing Elev. (m)	n/a	Date Drilled:	2016 06 02
Pipe/Slotted Pipe Dia. (m)	none/none	Northing: 6616516.895	Easting: 604236.276	Log Typed By:	NDS

Drilling Legend
- Sample Interval
- Vibrasonic

Water/NAPL Levels
- Water Level 1
- Water Level 2
- NAPL
- NAPL

Depth in Metres	Soil Description	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm) 10^1 10^2 10^3 10^4	
10	SAND and GRAVEL, fine to coarse grained sand, fine and coarse gravel, subrounded to subangular, some cobbles, brown, loose, wet. *(continued)*							BENTONITE
	Bottom of hole at 10.7 m.							
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

○ Reading within indicated scale
● Reading outside indicated scale

NOTES
Bolded sample denotes sample analyzed.

QA SJWM 2016 06 24 Print Date:2016-07-14

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-21

PAGE 1 OF 1

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	833.482	Borehole Logged By:	SJWM/ST
Borehole Dia. (m)	0.10	Top of Casing Elev. (m)	n/a	Date Drilled:	2016 06 03
Pipe/Slotted Pipe Dia. (m)	none/none	Northing: 6616390.749	Easting: 604273.001	Log Typed By:	NDS

Drilling Legend
- Sample Interval
- Vibrasonic

Water/NAPL Levels
- Water Level 1
- Water Level 2
- NAPL
- NAPL

Soil Description

Stratigraphy Plot | Sample Interval Core Run | Sample Number | Blow Count | % Recovery

Soil Vapour (ppm)
- ○ Reading within indicated scale
- ● Reading outside indicated scale

10^1 10^2 10^3 10^4

Depth in Metres	Soil Description	Sample Number	Soil Vapour (ppm)
0	SAND and GRAVEL, subangular, some silt, dark brown, loose, some organics, organic odour.		
	SAND, trace gravel, subangular, brown, loose, damp to moist.		
1	SAND and GRAVEL, subangular, trace cobbles, trace silt, brown.	21-01	20
2	Between 1.8 m and 2.1 m - pockets of oxidation.		
		21-02	20
3	At 3.0 m - increased cobbles.		
	Bottom of hole at 3.1 m.		
4			
5			
6			
7			
8			
9			
10			

BENTONITE

NOTES
Bolded sample denotes sample analyzed.

QA SJWM 2016 06 24 Print Date:2016-07-14

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-22

PAGE 1 OF 1

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	833.846	Borehole Logged By:	SJWM/ST
Borehole Dia. (m)	0.10	Top of Casing Elev. (m)	n/a	Date Drilled:	2016 06 03
Pipe/Slotted Pipe Dia. (m)	none/none	Northing: 6616485.032	Easting: 604243.095	Log Typed By:	NDS

Drilling Legend
- Sample Interval
- Vibrasonic

Water/NAPL Levels
- Water Level 1
- Water Level 2
- NAPL
- NAPL

Reading within indicated scale
Reading outside indicated scale

Depth in Metres	Soil Description	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm) 10^1 10^2 10^3 10^4	
0	SAND and GRAVEL, subangular, trace silt, brown, loose, damp.							
1	Between 1.2 m and 1.3 m - black staining, hydrocarbon-like odour.		22-01				85	BENTONITE
2	Bottom of hole at 1.5 m.							
3								
4								
5								
6								
7								
8								
9								
10								

NOTES
Bolded sample denotes sample analyzed.

QA SJWM 2016 06 24 Print Date:2016-07-14

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-24

PAGE 1 OF 1

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	833.688	Borehole Logged By:	SJWM
Borehole Dia. (m)	0.10	Top of Casing Elev. (m)	n/a	Date Drilled:	2016 06 03
Pipe/Slotted Pipe Dia. (m)	none/none	Northing: 6616462.601	Easting: 604263.572	Log Typed By:	NDS

Drilling Legend
- Sample Interval
- Vibrasonic

Water/NAPL Levels
- Water Level 1
- Water Level 2
- NAPL
- NAPL

Depth in Metres	Soil Description	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm) 10^1 10^2 10^3 10^4	
0	SAND and GRAVEL, subangular, brown, loose, damp, trace organics (rootlets).							
1	Below 0.6 m - increased sand, light brown.			**24-01**			○ 15	BENTONITE
	Bottom of hole at 1.5 m.							
2								
3								
4								
5								
6								
7								
8								
9								
10								

○ Reading within indicated scale
● Reading outside indicated scale

NOTES
Bolded sample denotes sample analyzed.

QA SJWM 2016 06 24 Print Date:2016-07-14

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-28

PAGE 1 OF 1

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	833.446	Borehole Logged By:	SJWM
Borehole Dia. (m)	0.10	Top of Casing Elev. (m)	n/a	Date Drilled:	2016 06 03
Pipe/Slotted Pipe Dia. (m)	none/none	Northing: 6616609.297	Easting: 604098.067	Log Typed By:	NDS

Drilling Legend
- Sample Interval
- Vibrasonic

Water/NAPL Levels
- Water Level 1
- Water Level 2
- NAPL
- NAPL

Reading within indicated scale
Reading outside indicated scale

Depth in Metres	Soil Description	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm) 10^1 10^2 10^3 10^4
0	SAND and GRAVEL.						
	SAND, fine to medium grained, dense, damp, some black inclusions. Below 0.5 m - red/brown, no black inclusions. Below 0.8 m - brown.			28-01			
2	SAND and GRAVEL, fine to medium grained sand, fine to coarse gravel, subangular to subrounded, trace cobbles, loose, damp.						
3	Below 3.4 m - trace rusty inclusions.			28-02			
4.6	Bottom of hole at 4.6 m.						

BENTONITE

NOTES
Bolded sample denotes sample analyzed.

QA SJWM 2016 06 24 Print Date:2016-07-14

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-32

PAGE 1 OF 1

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	833.122	Borehole Logged By:	ST
Borehole Dia. (m)	0.10	Top of Casing Elev. (m)	n/a	Date Drilled:	2016 06 03
Pipe/Slotted Pipe Dia. (m)	none/none	Northing: 6616579.543	Easting: 604290.464	Log Typed By:	NDS

Drilling Legend
- Sample Interval
- Vibrasonic

Water/NAPL Levels
- Water Level 1
- Water Level 2
- NAPL
- NAPL

Soil Description

Stratigraphy Plot | Sample Interval Core Run | Sample Number | Blow Count | % Recovery

Soil Vapour (ppm)
- ○ Reading within indicated scale
- ● Reading outside indicated scale

10^1 10^2 10^3 10^4

Depth in Metres	Soil Description	Sample Number	% Recovery	Soil Vapour (ppm)
0	SAND and GRAVEL, trace silt, red/brown, loose, damp.		100	
	Below 0.5 m - grey.			
	Below 0.8 m - black staining, asphalt-like odour.	**32-01**		450
1	SAND, trace gravel, trace silt, brown, loose, damp to wet, trace organics.			
	SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, subangular to subrounded, some cobbles, brown, loose, damp.			
2				
				30
	SAND and GRAVEL, concrete fragments, subangular, grey/white, loose, dry.	**32-02**		
3	Bottom of hole at 3.1 m.			
4				
5				
6				
7				
8				
9				
10				

BENTONITE

NOTES
Bolded sample denotes sample analyzed.

QA SJWM 2016 06 24 Print Date:2016-07-14

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-33

PAGE 1 OF 1

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	833.376	Borehole Logged By:	SJWM
Borehole Dia. (m)	0.10	Top of Casing Elev. (m)	n/a	Date Drilled:	2016 06 03
Pipe/Slotted Pipe Dia. (m)	none/none	Northing: 6616561.445	Easting: 604294.194	Log Typed By:	NDS

Drilling Legend
- Sample Interval
- Vibrasonic

Water/NAPL Levels
- Water Level 1
- Water Level 2
- NAPL
- NAPL

Soil Description

Stratigraphy Plot | Sample Interval Core Run | Sample Number | Blow Count | % Recovery

Soil Vapour (ppm)
- ○ Reading within indicated scale
- ● Reading outside indicated scale

10^1 10^2 10^3 10^4

Depth in Metres

0 SAND and GRAVEL, fine to medium grained sand, fine and coarse gravel, subangular to subrounded, black, loose, damp, hydrocarbon-like odour. — **33-01** *33-02

SAND, fine grained, grey, dense, damp, hydrocarbon-like odour.

1 Below 0.8 m - brown, no odour.

SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, subangular to subrounded, some cobbles, brown, damp.

2 Below 1.8 m - increased sand.

Between 2.4 m and 2.7 m - some rusty inclusions. — **33-03**

3 Bottom of hole at 3.1 m.

BENTONITE

4 5 6 7 8 9 10

NOTES
Bolded sample denotes sample analyzed. *denotes blind field duplicate.
33-02 is a blind field duplicate of 33-01.

QA SJWM 2016 06 24 Print Date:2016-07-14

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-34

PAGE 1 OF 1

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	833.324	Borehole Logged By:	ST
Borehole Dia. (m)	0.10	Top of Casing Elev. (m)	n/a	Date Drilled:	2016 06 03
Pipe/Slotted Pipe Dia. (m)	none/none	Northing: 6616554.677	Easting: 604293.115	Log Typed By:	NDS

Drilling Legend
- Sample Interval
- Vibrasonic

Water/NAPL Levels
- Water Level 1
- Water Level 2
- NAPL
- NAPL

Soil Vapour (ppm)
- ○ Reading within indicated scale
- ● Reading outside indicated scale

Depth in Metres	Soil Description	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm) 10^1 10^2 10^3 10^4
0	SAND and GRAVEL, subangular, damp, black staining, hydrocarbon-like odour.					100	
	SAND, grey, damp, trace rootlets, pockets of oxidation.			**34-01** *34-02			○ 320
1	SAND and GRAVEL, subangular, brown, loose, damp, pockets of oxidation.						
2	SAND and GRAVEL, trace silt, grey/white, dry.						
	SAND and GRAVEL, coarse grained sand, subangular, brown, loose, damp.					100	○ 10
3	Below 2.9 m - increased sand, fine to coarse grained.			**34-03**			
	Bottom of hole at 3.1 m.						
4							
5							
6							
7							
8							
9							
10							

BENTONITE

NOTES
Bolded sample denotes sample analyzed. *denotes blind field duplicate.
34-02 is a blind field duplicate of 34-01.

QA SJWM 2016 06 24 Print Date:2016-07-14

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-35

PAGE 1 OF 1

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	833.459	Borehole Logged By:	SJWM
Borehole Dia. (m)	0.10	Top of Casing Elev. (m)	n/a	Date Drilled:	2016 06 03
Pipe/Slotted Pipe Dia. (m)	none/none	Northing: 6616550.508	Easting: 604286.379	Log Typed By:	NDS

Drilling Legend
- Sample Interval
- Vibrasonic

Water/NAPL Levels
- Water Level 1
- Water Level 2
- NAPL
- NAPL

Reading within indicated scale
Reading outside indicated scale

Depth in Metres	Soil Description	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm) 10^1 10^2 10^3 10^4
0	SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, subangular to subrounded, brown, loose, damp to moist.			35-01			
	Below 0.2 m - black staining, asphalt-like odour.						
1	SAND, fine to medium grained, grey, dense.						
	SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, subangular to subrounded, some cobbles, loose, damp.			35-02			
2							
	Between 2.4 m and 2.5 m - grey, very dense, dry.			35-03			
3	Bottom of hole at 3.1 m.						
4							
5							
6							
7							
8							
9							
10							

BENTONITE

NOTES
Bolded sample denotes sample analyzed.

QA SJWM 2016 06 24 Print Date:2016-07-14

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-36

PAGE 1 OF 1

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	833.138	Borehole Logged By:	ST
Borehole Dia. (m)	0.10	Top of Casing Elev. (m)	n/a	Date Drilled:	2016 06 03
Pipe/Slotted Pipe Dia. (m)	none/none	Northing: 6616550.240	Easting: 604297.445	Log Typed By:	NDS

Drilling Legend
- Sample Interval
- Vibrasonic

Water/NAPL Levels
- Water Level 1
- Water Level 2
- NAPL
- NAPL

Reading within indicated scale
Reading outside indicated scale

Depth in Metres	Soil Description	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm) 10^1 10^2 10^3 10^4
0	SAND and GRAVEL, subangular, loose, damp, black staining.					100	
	SAND, trace silt, brown, grey oxidation, loose, damp. Below 0.5 m - no grey oxidation.			**36-01**			480
1	SAND and GRAVEL, subangular, trace silt, brown, loose, damp.			36-02			
2				**36-03**			10
3	Bottom of hole at 3.1 m.						
4							
5							
6							
7							
8							
9							
10							

BENTONITE

NOTES
Bolded sample denotes sample analyzed.

QA SJWM 2016 06 24 Print Date:2016-07-14

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-38

PAGE 1 OF 4

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	833.538	Borehole Logged By:	SJWM
Borehole Dia. (m)	0.15	Top of Casing Elev. (m)	833.453	Date Drilled:	2016 06 05
Pipe/Slotted Pipe Dia. (m)	0.05/0.05	Northing: 6616518.866	Easting: 604167.813	Log Typed By:	NDS

Drilling Legend
Sample Interval
Vibrasonic

Water/NAPL Levels
Water Level 1
Water Level 2
NAPL
NAPL

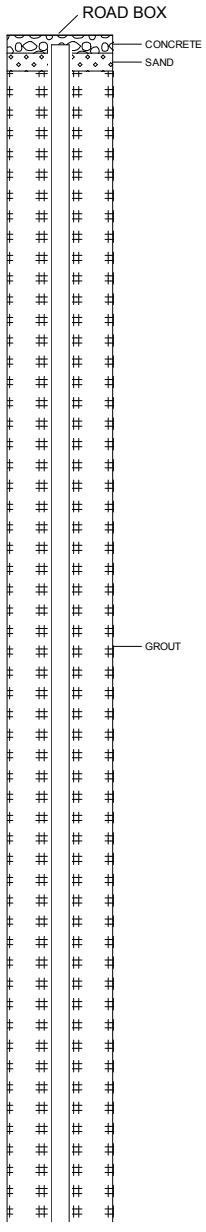
Reading within indicated scale
Reading outside indicated scale

Solid PVC
Slotted PVC

Well Name 1: IW16-38

Depth in Metres	Soil Description	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm)
0	SAND and GRAVEL, fine to medium grained sand, fine gravel, subangular to subrounded, black, loose, wet, hydrocarbon-like odour. Below 0.3 m - brown.					100	
1	SAND, fine grained, brown, mottled dark grey, dense, moist to wet, hydrocarbon-like odour.			38-01			240
2	SAND and GRAVEL, fine to medium grained sand, fine and coarse gravel, subangular to rounded, brown, loose, damp. Below 2.4 m - some cobbles.			38-02		80	
3							
4							
5				38-03			
6							
7							150
8				38-04			
9	SAND, fine to medium grained, trace gravel, fine, subrounded to rounded, brown, loose, damp.						
10	SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, subangular to subrounded, brown, loose, moist to wet, trace rusty inclusions.						

Soil Vapour (ppm): 10^1 10^2 10^3 10^4



NOTES
Bolded sample denotes sample analyzed. *denotes blind field duplicate.
38-11 is a blind field duplicate of 38-10.

QA SJWM 2016 06 24 Print Date:2016-07-14

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-38

PAGE 2 OF 4

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	833.538	Borehole Logged By:	SJWM
Borehole Dia. (m)	0.15	Top of Casing Elev. (m)	833.453	Date Drilled:	2016 06 05
Pipe/Slotted Pipe Dia. (m)	0.05/0.05	Northing: 6616518.866	Easting: 604167.813	Log Typed By:	NDS

Drilling Legend
- Sample Interval
- Vibrasonic

Water/NAPL Levels
- Water Level 1
- Water Level 2
- NAPL
- NAPL

Reading within indicated scale
Reading outside indicated scale

Solid PVC
Slotted PVC

Well Name 1: IW16-38

Depth in Metres	Soil Description	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm) 10^1 10^2 10^3 10^4
10	SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, subangular to subrounded, brown, loose, moist to wet, trace rusty inclusions. *(continued)*						
11				38-05			
12						100	
13							
14							
15						100	
16							
17							
18	Below 18.2 m - increased cobbles, red/brown, wet.					100	
19							
20							

ROAD BOX

GROUT

NOTES
Bolded sample denotes sample analyzed. *denotes blind field duplicate.
38-11 is a blind field duplicate of 38-10.

QA SJWM 2016 06 24 Print Date:2016-07-14

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-38

PAGE 3 OF 4

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	833.538	Borehole Logged By:	SJWM
Borehole Dia. (m)	0.15	Top of Casing Elev. (m)	833.453	Date Drilled:	2016 06 05
Pipe/Slotted Pipe Dia. (m)	0.05/0.05	Northing: 6616518.866	Easting: 604167.813	Log Typed By:	NDS

Drilling Legend: Sample Interval; Vibrasonic

Water/NAPL Levels: Water Level 1; Water Level 2; NAPL; NAPL

Reading within indicated scale; Reading outside indicated scale

Solid PVC; Slotted PVC

Well Name 1: IW16-38

Depth in Metres	Soil Description	Stratigraphy Plot	Sample Interval Core Run	Sample Number	Blow Count	% Recovery	Soil Vapour (ppm) 10^1 10^2 10^3 10^4
20	SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, subangular to subrounded, brown, loose, moist to wet, trace rusty inclusions. *(continued)*						
21	Below 20.7 - increased sand, decreased cobbles, brown, damp.			38-06		100	
22							
23	Between 22.4 m and 22.5 m - sand seam, medium grained, orange, damp.			38-07		100	
24	Between 23.9 m and 24.4 m - dry.						
25							
26				38-08		100	
27	Between 26.7 m and 26.8 m - dry.						
28							
29				38-09			
30							

ROAD BOX

GROUT

NOTES
Bolded sample denotes sample analyzed. *denotes blind field duplicate.
38-11 is a blind field duplicate of 38-10.

QA SJWM 2016 06 24 Print Date:2016-07-14

SNC·LAVALIN

Client
Public Works and Gov't Services Canada

Location
Fireside Maintenance Camp, BC

Borehole No. : BH16-38

PAGE 4 OF 4

Drilling Contractor	Geotech Drilling Services Ltd.	Date Monitored	n/a	Project Number:	636200
Drilling Method	Vibratory Sonic	Ground Surface Elev. (m)	833.538	Borehole Logged By:	SJWM
Borehole Dia. (m)	0.15	Top of Casing Elev. (m)	833.453	Date Drilled:	2016 06 05
Pipe/Slotted Pipe Dia. (m)	0.05/0.05	Northing: 6616518.866	Easting: 604167.813	Log Typed By:	NDS

Drilling Legend
- Sample Interval
- Vibrasonic

Water/NAPL Levels
- Water Level 1
- Water Level 2
- NAPL
- NAPL

Soil Description

Depth in Metres | Stratigraphy Plot | Sample Interval Core Run | Sample Number | Blow Count | % Recovery | Soil Vapour (ppm)

- Reading within indicated scale
- Reading outside indicated scale

Soil Vapour (ppm): 10^1 10^2 10^3 10^4

- Solid PVC
- Slotted PVC

Well Name 1: IW16-38

30 SAND and GRAVEL, fine to coarse grained sand, fine to coarse gravel, subangular to subrounded, brown, loose, moist to wet, trace rusty inclusions. *(continued)*
Below 30.5 m - dark grey, hydrocarbon-like odour.

31 Below 31.1 m - increased sand, black, moist to wet, hydrocarbon-like odour.

32

33

Bottom of hole at 33.5 m.

34

35

36

37

38

39

40

100

*38-11

560

ROAD BOX
GROUT
BENTONITE
IW16-38
SAND

NOTES
Bolded sample denotes sample analyzed. *denotes blind field duplicate.
38-11 is a blind field duplicate of 38-10.

QA SJWM 2016 06 24 Print Date:2016-07-14

APPENDIX B

Geotechnical Investigations

MECHANICAL SIEVE ANALYSIS

Sample No. **BH16-13-01** Date Sampled **01-Jun-16** By **ST** of **SNC-Lavalin Inc.**

Location **Fireside** Sample Type **Bag** Natural Moisture **15.3** %

Description **Silty, clayey, sandy, trace gravel.** Tech **KB/AN**

Specifications

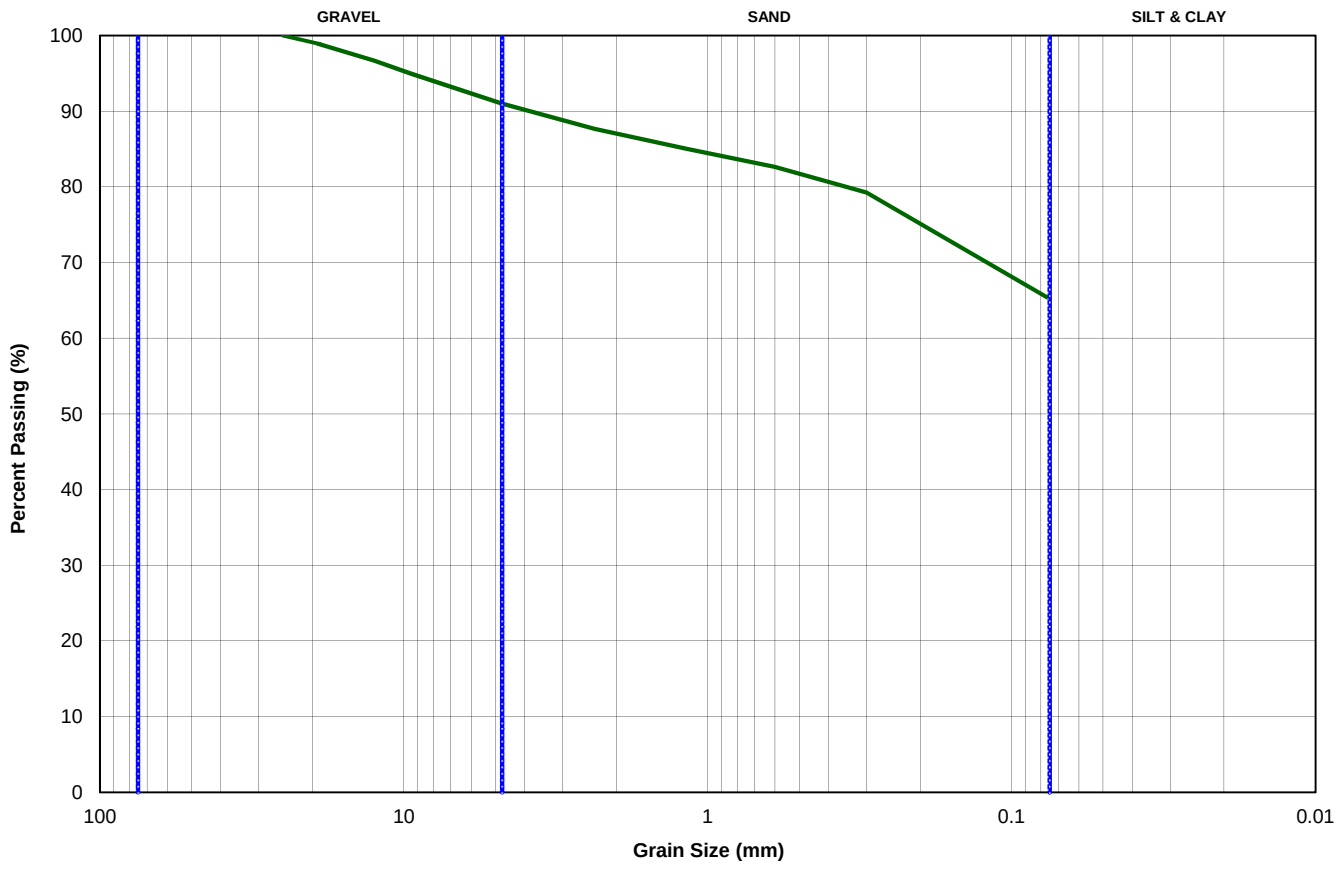
Comments

Fracture **N/A** Method **A**

Sieve Results

Sieve mm	25	19	12.5	9.5	4.75	2.36	1.18	0.600	0.300	0.075
% Passing	100.0	98.9	96.7	95.0	91.0	87.7	85.0	82.6	79.2	65.2

By Type Gravel = **9.0%** Sand = **25.8%** Silt & Clay = **65.2%**



SNC·LAVALIN

Client **Public Works & Government Services** Date **16-Jun-16**

Project **2016 Materials Testing** File No. **636200**

Location **Fireside, British Columbia** Sample No. **BH16-13-01**

MECHANICAL SIEVE ANALYSIS

Sample No. **BH16-13-02** Date Sampled **01-Jun-16** By **ST** of **SNC-Lavalin Inc.**

Location **Fireside** Sample Type **Bag** Natural Moisture **20.0** %

Description **Silt and clay, some sand, trace gravel.** Tech **KB/AN**

Specifications

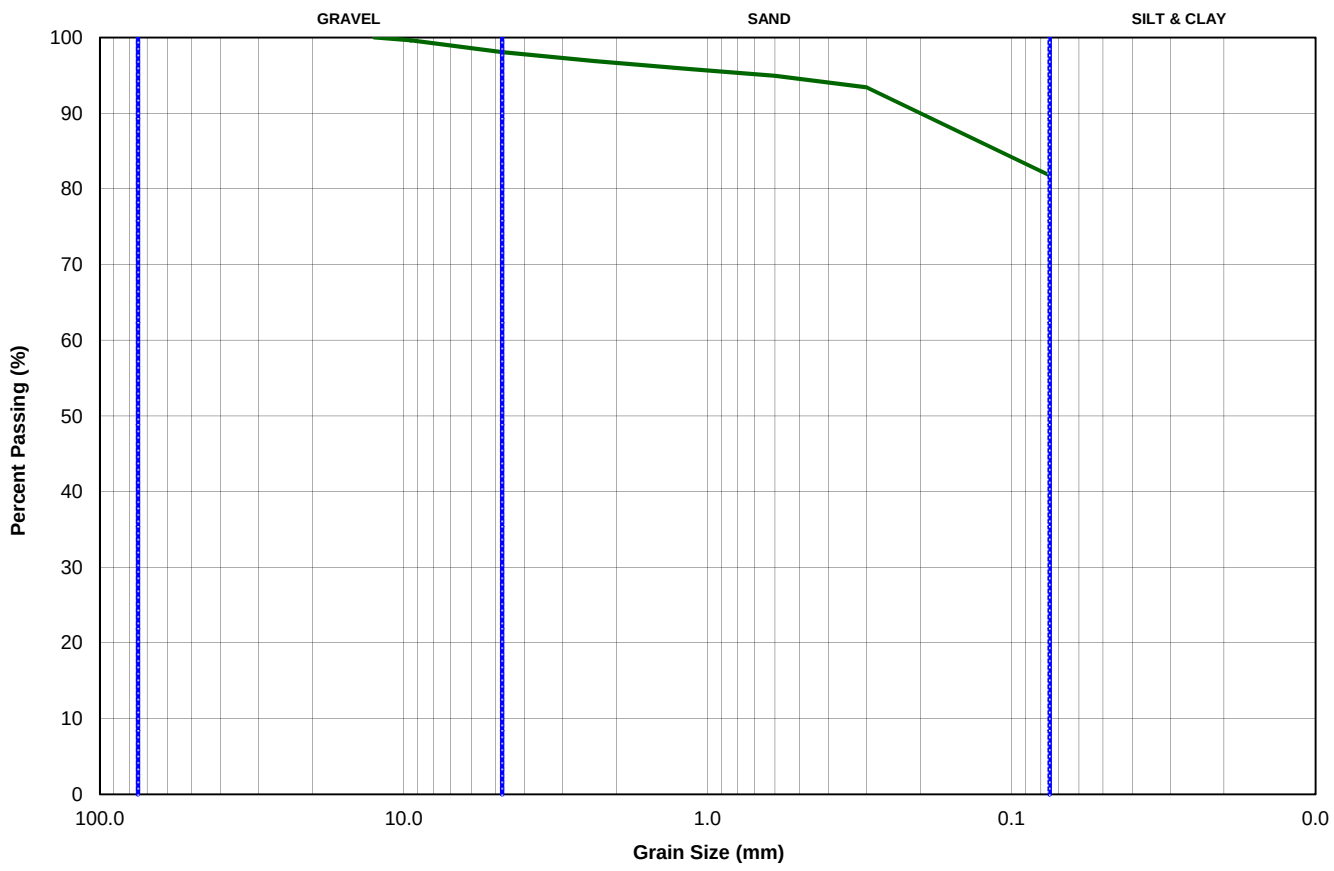
Comments

Fracture	Method
N/A	**A**

Sieve Results

Sieve mm	12.5	9.5	4.75	2.36	1.18	0.600	0.300	0.075
% Passing	100.0	99.6	98.1	96.9	95.9	94.9	93.4	81.8

By Type Gravel = **1.9%** Sand = **16.3%** Silt & Clay = **81.8%**



SNC·LAVALIN

Client **Public Works & Government Services** Date **16-Jun-16**

Project **2016 Materials Testing** File No. **636200**

Location **Fireside, British Columbia** Sample No. **BH16-13-02**

MECHANICAL SIEVE ANALYSIS

Sample No. **BH16-13-03/04** Date Sampled **01-Jun-16** By **ST** of **SNC-Lavalin Inc.**

Location **Fireside** Sample Type **Bag** Natural Moisture **5.7** %

Description **Gravel, sandy, trace silt and clay.** Tech **KB/AN**

Specifications

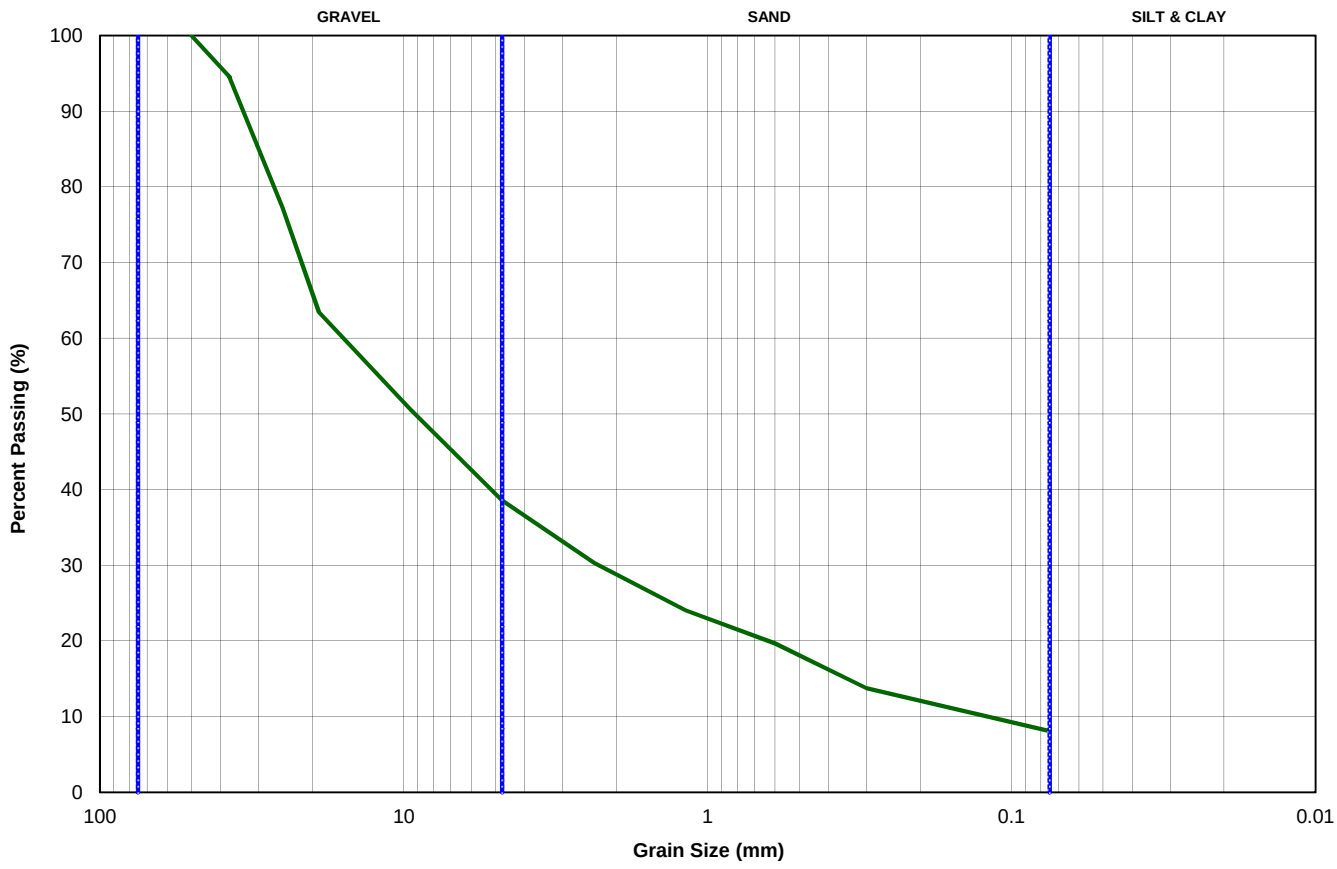
Comments

Fracture **N/A** Method **A**

Sieve Results

Sieve mm	50	37.5	25	19	9.5	4.75	2.36	1.18	0.600	0.300	0.075
% Passing	100.0	94.5	77.2	63.4	50.6	38.6	30.3	24.0	19.7	13.7	8.1

By Type Gravel = **61.4%** Sand = **30.5%** Silt & Clay = **8.1%**



SNC·LAVALIN

Client **Public Works & Government Services** Date **16-Jun-16**

Project **2016 Materials Testing** File No. **636200**

Location **Fireside, British Columbia** Sample No. **16-13-03/04**

MECHANICAL SIEVE ANALYSIS

Sample No. **BH16-13-05** Date Sampled **01-Jun-16** By **ST** of **SNC-Lavalin Inc.**

Location **Fireside** Sample Type **Bag** Natural Moisture **1.6** %

Description **Sand, gravelly, some silt and clay.** Tech **KB/AN**

Specifications

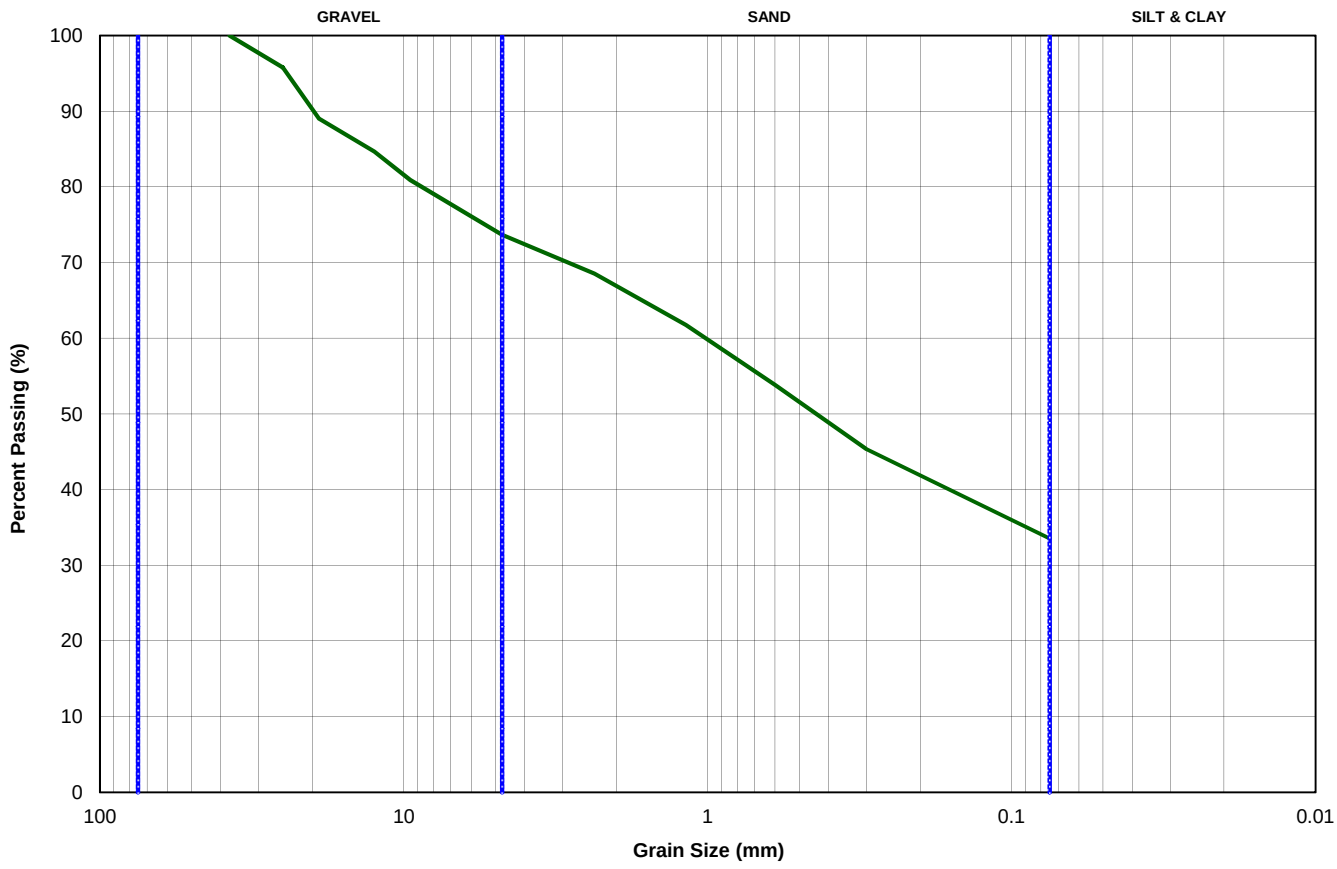
Comments

Fracture **N/A** Method **A**

Sieve Results

Sieve mm	37.5	25	19	12.5	9.5	4.75	2.36	1.18	0.600	0.300	0.075
% Passing	100.0	95.8	89.0	84.7	80.9	73.7	68.5	61.7	53.9	45.3	33.5

By Type Gravel = **26.3%** Sand = **40.2%** Silt & Clay = **33.5%**



SNC·LAVALIN

Client **Public Works & Government Services** Date **16-Jun-16**

Project **2016 Materials Testing** File No. **636200**

Location **Fireside, British Columbia** Sample No. **BH16-13-05**

MECHANICAL SIEVE ANALYSIS

Sample No. **BH16-13-06** Date Sampled **01-Jun-16** By **ST** of **SNC-Lavalin Inc.**

Location **Fireside** Sample Type **Bag** Natural Moisture **2.1** %

Description **Gravel and sand, trace silt and clay.** Tech **KB/AN**

Specifications

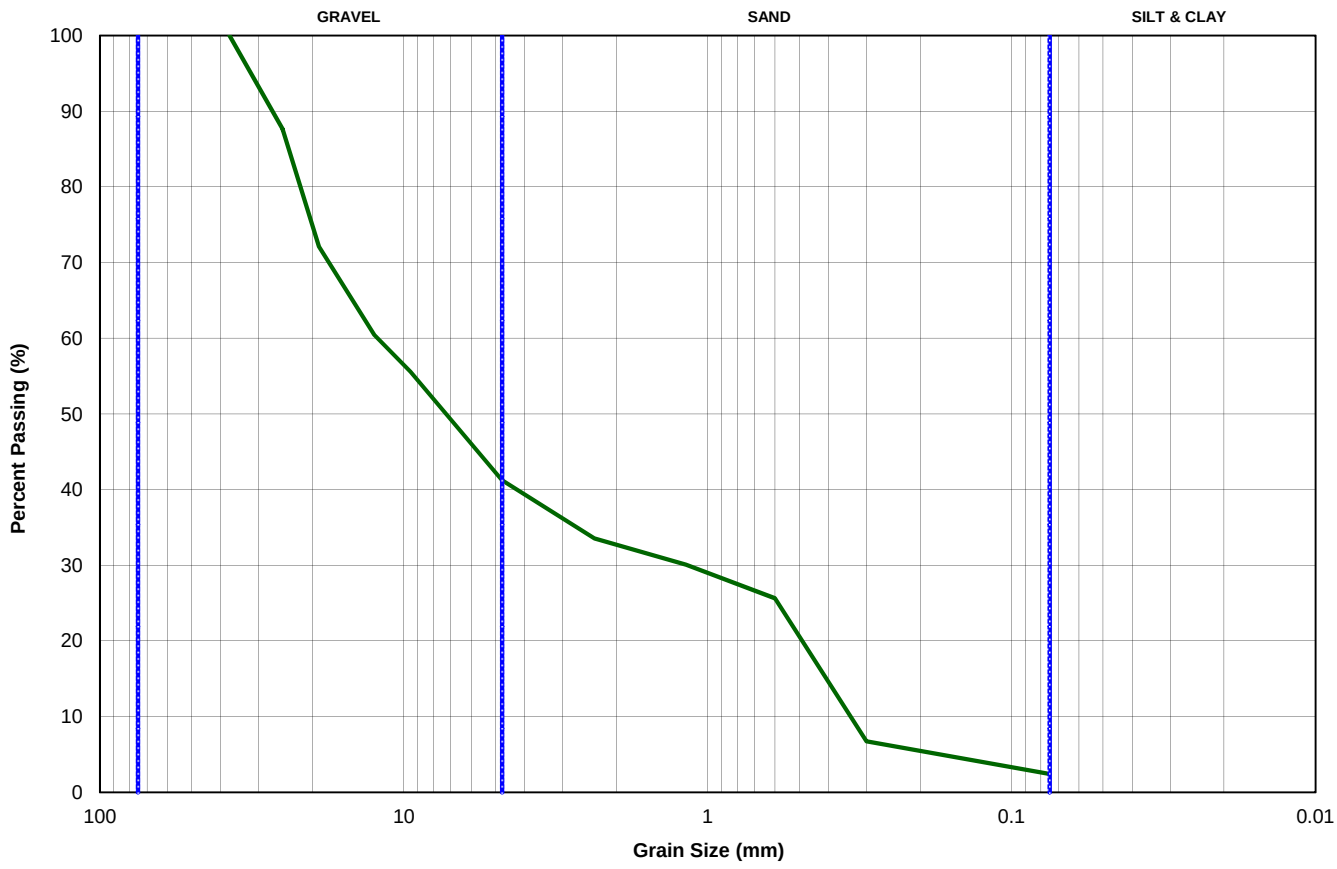
Comments

Fracture **N/A** Method **A**

Sieve Results

Sieve mm	37.5	25	19	12.5	9.5	4.75	2.36	1.18	0.600	0.300	0.075
% Passing	100.0	87.5	72.1	60.4	55.6	41.2	33.5	30.1	25.6	6.7	2.4

By Type Gravel = **58.8%** Sand = **38.8%** Silt & Clay = **2.4%**



SNC·LAVALIN

Client **Public Works & Government Services** Date **16-Jun-16**

Project **2016 Materials Testing** File No. **636200**

Location **Fireside, British Columbia** Sample No. **BH16-13-06**

MECHANICAL SIEVE ANALYSIS

Sample No. **BH16-16-01** Date Sampled **01-Jun-16** By **ST** of **SNC-Lavalin Inc.**

Location **Fireside** Sample Type **Bag** Natural Moisture **2.5** %

Description **Gravel and sand, trace silt and clay.** Tech **KB/AN**

Specifications

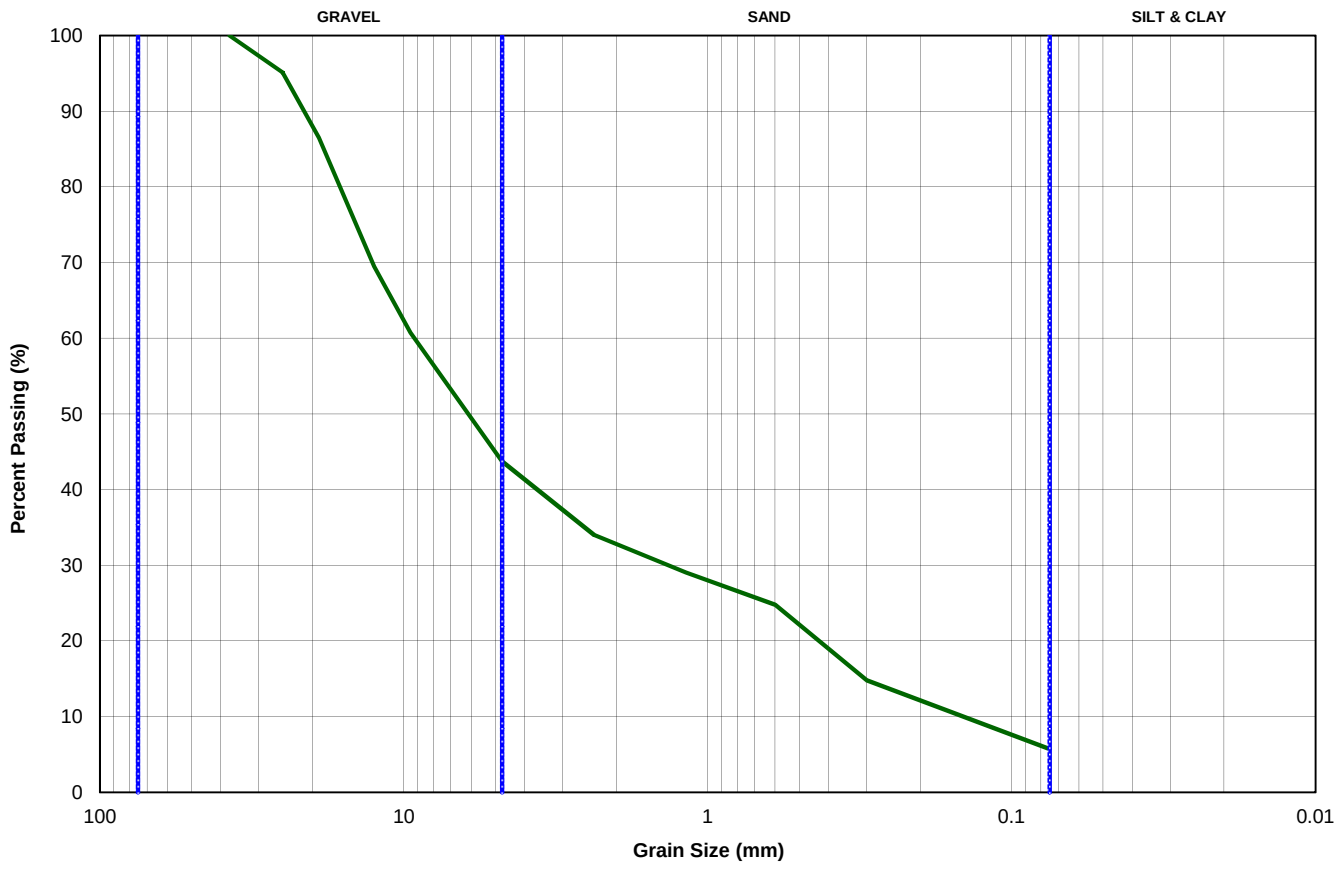
Comments

Fracture **N/A** Method **A**

Sieve Results

Sieve mm	37.5	25	19	12.5	9.5	4.75	2.36	1.18	0.600	0.300	0.075
% Passing	100.0	95.1	86.5	69.5	60.7	43.7	34.0	29.0	24.8	14.8	5.7

By Type Gravel = **56.3%** Sand = **38.0%** Silt & Clay = **5.7%**



SNC·LAVALIN

Client **Public Works & Government Services** Date **16-Jun-16**

Project **2016 Materials Testing** File No. **636200**

Location **Fireside, British Columbia** Sample No. **BH16-16-01**

MECHANICAL SIEVE ANALYSIS

Sample No. **BH16-16-02** Date Sampled **01-Jun-16** By **ST** of **SNC-Lavalin Inc.**

Location **Fireside** Sample Type **Bag** Natural Moisture **1.7** %

Description **Gravel, sandy, trace silt and clay.** Tech **KB/AN**

Specifications

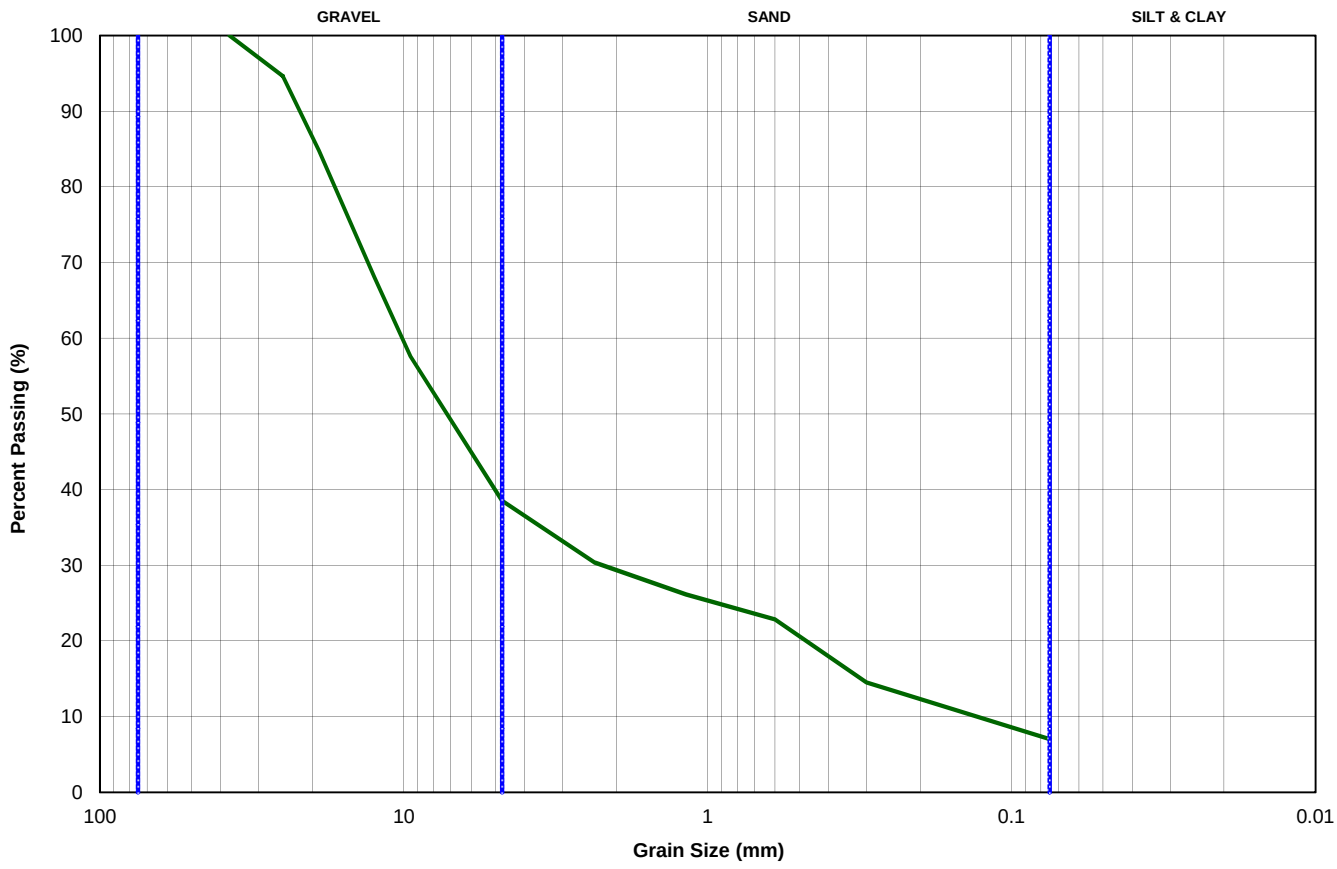
Comments

Fracture **N/A** Method **A**

Sieve Results

Sieve mm	37.5	25	19	12.5	9.5	4.75	2.36	1.18	0.600	0.300	0.075
% Passing	100.0	94.6	84.8	68.1	57.6	38.5	30.4	26.2	22.8	14.5	7.0

By Type Gravel = **61.5%** Sand = **31.5%** Silt & Clay = **7.0%**



SNC·LAVALIN

Client **Public Works & Government Services** Date **16-Jun-16**

Project **2016 Materials Testing** File No. **636200**

Location **Fireside, British Columbia** Sample No. **BH16-16-02**

MECHANICAL SIEVE ANALYSIS

Sample No. **BH16-16-03** Date Sampled **01-Jun-16** By **ST** of **SNC-Lavalin Inc.**

Location **Fireside** Sample Type **Bag** Natural Moisture **1.5** %

Description **Gravel, sandy, trace silt and clay.** Tech **KB/AN**

Specifications

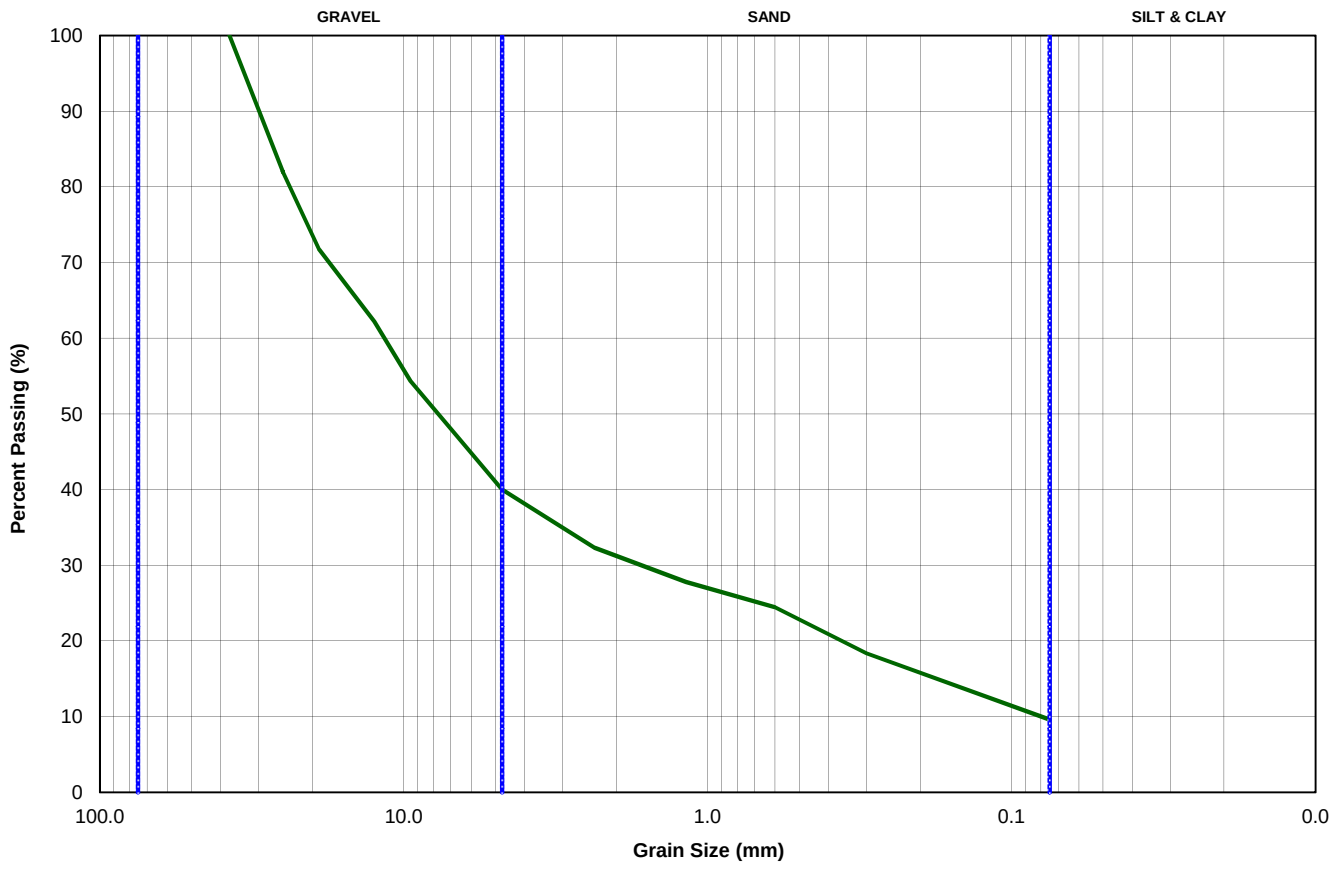
Comments

Fracture **N/A** Method **A**

Sieve Results

Sieve mm	37.5	25	19	12.5	9.5	4.75	2.36	1.18	0.600	0.300	0.075
% Passing	100.0	82.0	71.7	62.2	54.3	40.0	32.3	27.8	24.4	18.4	9.6

By Type Gravel = **60.0%** Sand = **30.4%** Silt & Clay = **9.6%**



SNC·LAVALIN

Client **Public Works & Government Services** Date **16-Jun-16**

Project **2016 Materials Testing** File No. **636200**

Location **Fireside, British Columbia** Sample No. **BH16-16-03**

MECHANICAL SIEVE ANALYSIS

Sample No. **BH16-16-04** Date Sampled **01-Jun-16** By **ST** of **SNC-Lavalin Inc.**

Location **Fireside** Sample Type **Bag** Natural Moisture **2.4** %

Description **Gravel, sandy, trace silt and clay.** Tech **KB/AN**

Specifications

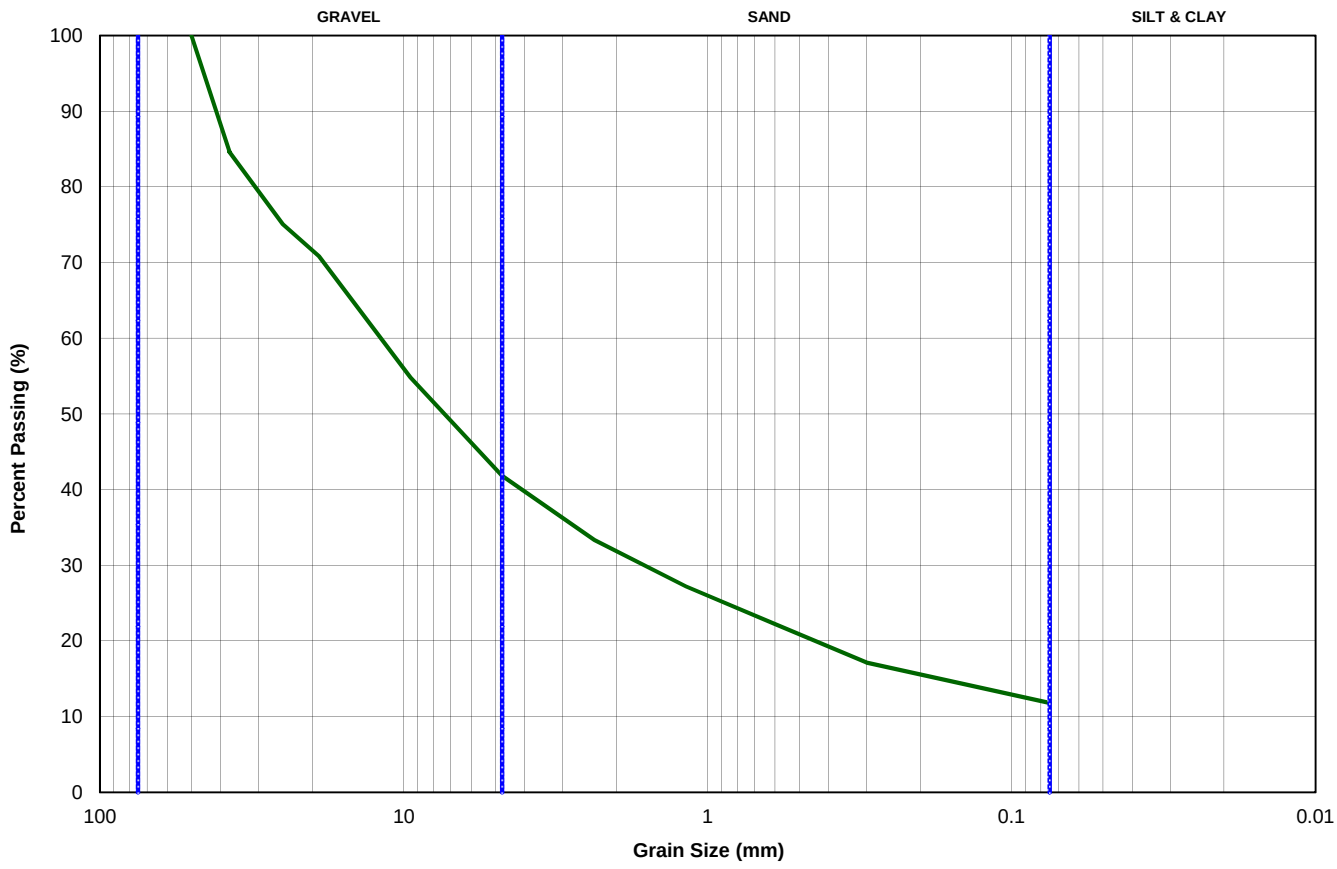
Comments

Fracture **N/A** Method **A**

Sieve Results

Sieve mm	50	37.5	25	19	9.5	4.75	2.36	1.18	0.600	0.300	0.075
% Passing	100.0	84.6	75.1	70.9	54.8	41.8	33.3	27.2	22.2	17.1	11.8

By Type Gravel = **58.2%** Sand = **30.0%** Silt & Clay = **11.8%**



SNC·LAVALIN

Client **Public Works & Government Services** Date **16-Jun-16**

Project **2016 Materials Testing** File No. **636200**

Location **Fireside, British Columbia** Sample No. **BH16-16-04**

MECHANICAL SIEVE ANALYSIS

Sample No. **BH16-28-01** Date Sampled **03-Jun-16** By **ST** of **SNC-Lavalin Inc.**

Location **Fireside** Sample Type **Bag** Natural Moisture **21.4** %

Description **Sand, silty, clayey, trace gravel.** Tech **KB/AN**

Specifications

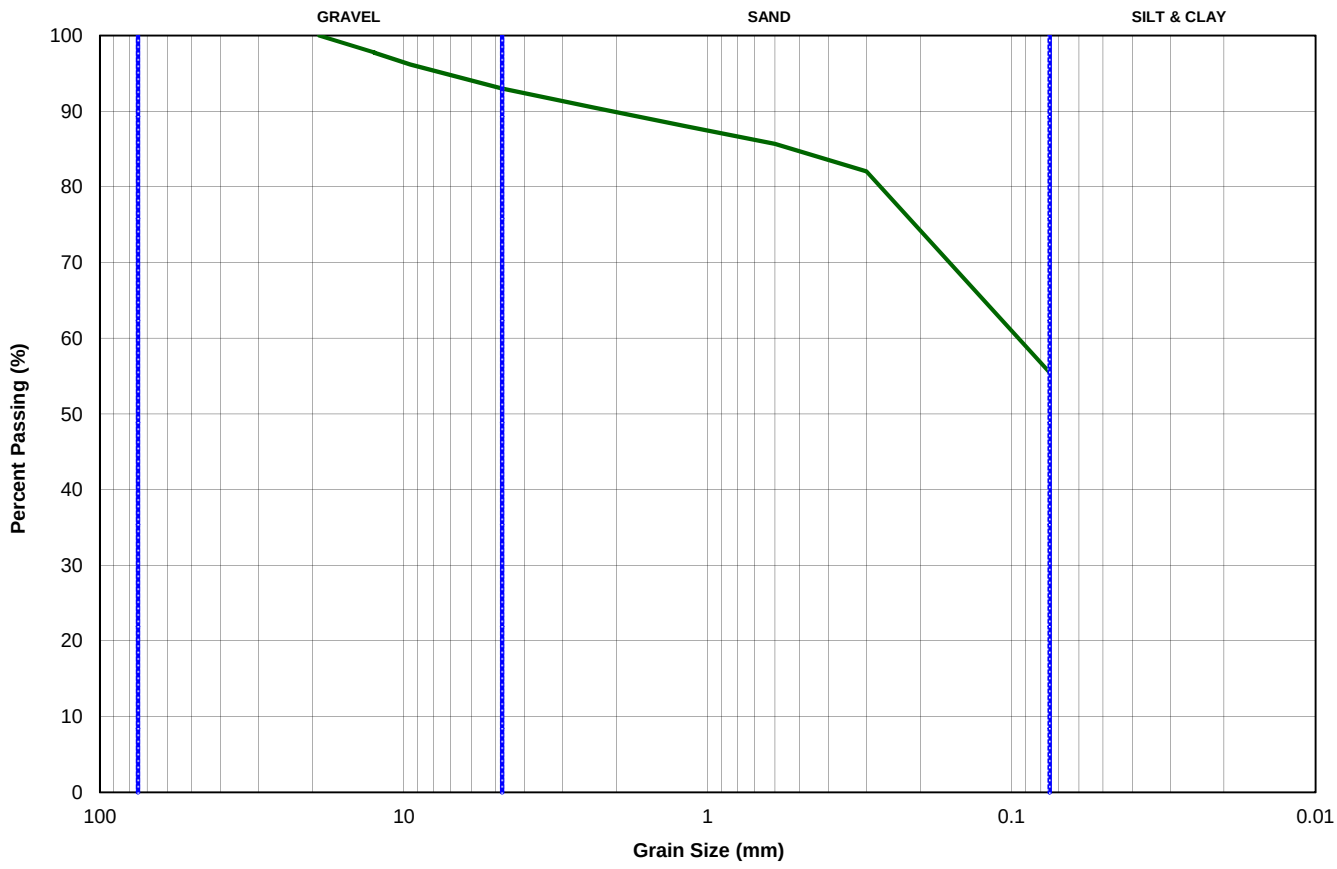
Comments

Fracture **N/A** Method **A**

Sieve Results

Sieve mm	19	12.5	9.5	4.75	2.36	1.18	0.600	0.300	0.075
% Passing	100.0	97.8	96.2	93.0	90.5	88.0	85.7	82.0	55.5

By Type Gravel = **7.0%** Sand = **37.5%** Silt & Clay = **55.5%**



SNC·LAVALIN

Client **Public Works & Government Services** Date **16-Jun-16**

Project **2016 Materials Testing** File No. **636200**

Location **Fireside, British Columbia** Sample No. **BH16-28-01**

MECHANICAL SIEVE ANALYSIS

Sample No. **BH16-28-2** Date Sampled **03-Jun-16** By **ST** of **SNC-Lavalin Inc.**

Location **Fireside** Sample Type **Bag** Natural Moisture **2.8** %

Description **Sand and gravel, trace silt and clay.** Tech **KB/AN**

Specifications

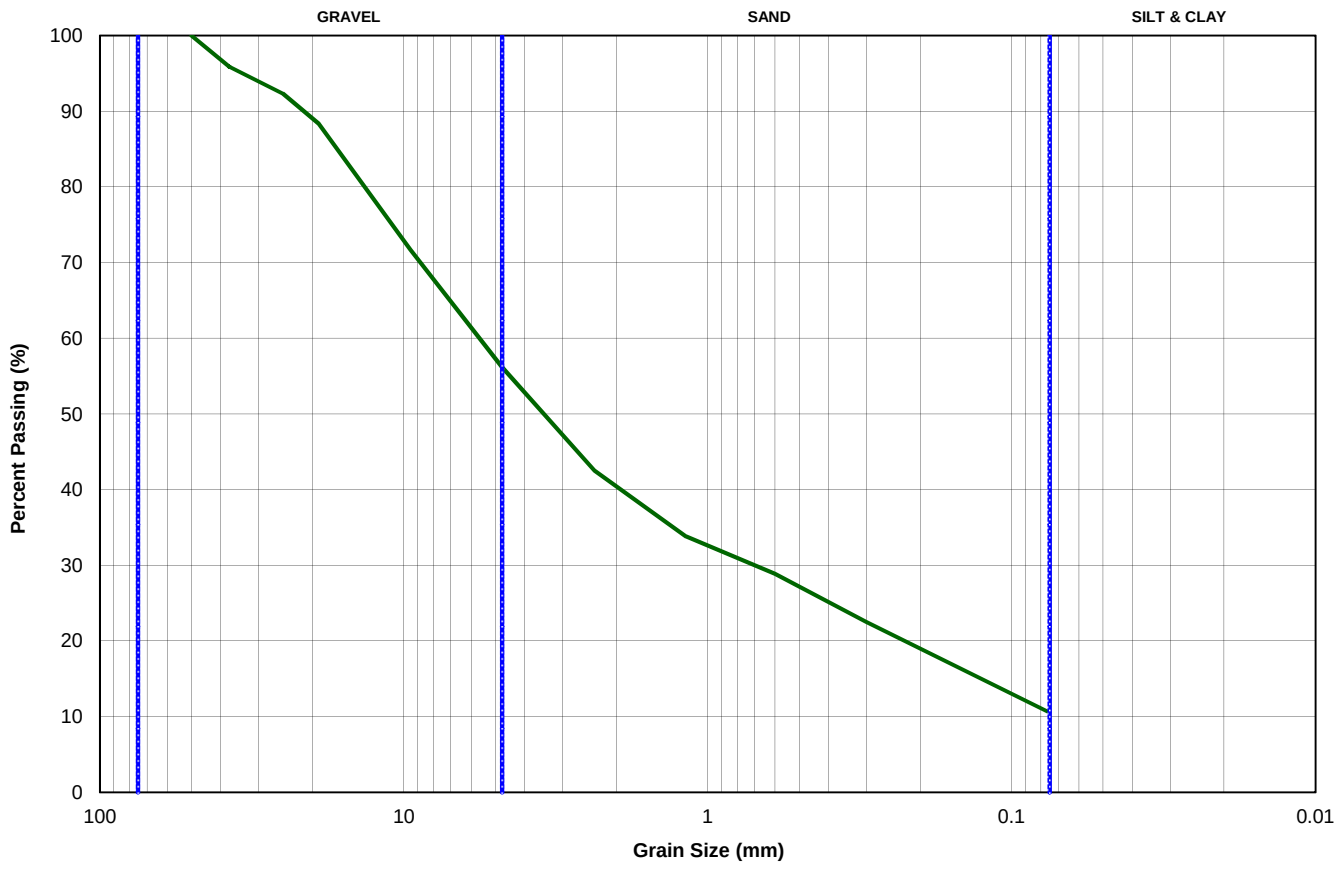
Comments

Fracture **N/A** Method **A**

Sieve Results

Sieve mm	50	37.5	25	19	9.5	4.75	2.36	1.18	0.600	0.300	0.075
% Passing	100.0	95.9	92.3	88.3	71.7	56.1	42.5	33.8	28.8	22.5	10.5

By Type Gravel = **43.9%** Sand = **45.6%** Silt & Clay = **10.5%**



SNC·LAVALIN

Client **Public Works & Government Services** Date **16-Jun-16**

Project **2016 Materials Testing** File No. **636200**

Location **Fireside, British Columbia** Sample No. **BH16-28-2**

MECHANICAL SIEVE ANALYSIS

Sample No. **BH16-28-03** Date Sampled **03-Jun-16** By **ST** of **SNC-Lavalin Inc.**

Location **Fireside** Sample Type **Bag** Natural Moisture **2.0** %

Description **Gravel, sandy, trace silt and clay.** Tech **KB/AN**

Specifications

Comments

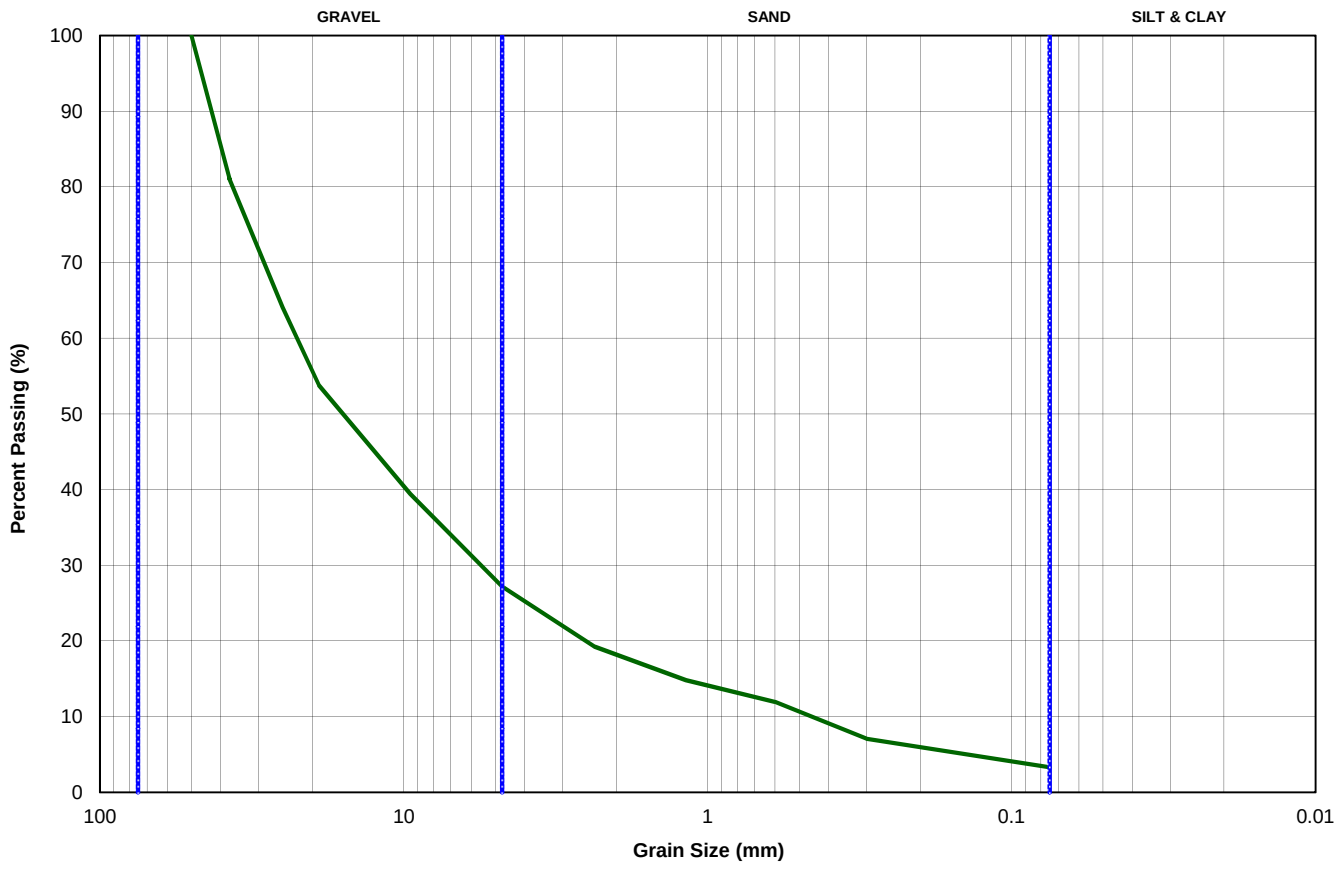
Fracture Method

N/A **A**

Sieve Results

Sieve mm	50	37.5	25	19	9.5	4.75	2.36	1.18	0.600	0.300	0.075
% Passing	100.0	81.1	64.1	53.8	39.4	27.2	19.3	14.8	11.9	7.0	3.3

By Type Gravel = **72.8%** Sand = **23.9%** Silt & Clay = **3.3%**



SNC·LAVALIN

Client **Public Works & Government Services** Date **16-Jun-16**

Project **2016 Materials Testing** File No. **636200**

Location **Fireside, British Columbia** Sample No. **BH16-28-03**

Sieve Analysis Summary

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Soil classification (by type)			Sieve Analysis (% passing)											
				Gravel %	Sand %	Silt & Clay %	50 mm %	37.5 mm %	25 mm %	19 mm %	12.5 mm %	9.5 mm %	4.75 mm %	2.36 mm %	1.18 mm %	0.6 mm %	0.3 mm %	0.075 mm %
BH16-13	BH16-13-01	2016 06 01	0.9 - 1.1	9	25.8	65.2	100	100	100	98.9	-	95	91	87.7	85	82.6	79.2	65.2
	BH16-13-02	2016 06 01	2.0 - 2.1	1.9	16.3	81.8	100	100	100	100	100	99.6	98.1	96.9	95.9	94.9	93.4	81.8
	BH16-13-03/04	2016 06 01	3.0 - 3.2	61.4	30.5	8.1	100	94.5	77.2	63.4	-	50.6	38.6	30.3	24	19.7	13.7	8.1
	BH16-13-05	2016 06 01	6.4 - 6.6	26.3	40.2	33.5	100	100	95.8	89	84.7	80.9	73.7	68.5	61.7	53.9	45.3	33.5
	BH16-13-06	2016 06 01	7.9 - 8.1	58.8	38.8	2.4	100	100	87.5	72.1	60.4	55.6	41.2	33.5	30.1	25.6	6.7	2.4
BH16-16	BH16-16-01	2016 06 01	1.8 - 2.0	56.3	38	5.7	100	100	95.1	86.5	69.5	60.7	43.7	34	29	24.8	14.8	5.7
	BH16-16-02	2016 06 01	4.0 - 4.1	61.5	31.5	7	100	100	94.6	84.8	68.1	57.6	38.5	30.4	26.2	22.8	14.5	7
	BH16-16-03	2016 06 01	8.1 - 8.2	60	30.4	9.6	100	100	82	71.7	62.2	54.3	40	32.3	27.8	24.4	18.4	9.6
	BH16-16-04	2016 06 01	11.9 - 12.0	58.2	30	11.8	100	84.6	75.1	70.9	-	54.8	41.8	33.3	27.2	22.2	17.1	11.8
BH16-28	BH16-28-01	2016 06 03	0.5 - 0.6	7	37.5	55.5	100	100	100	100	97.8	96.2	93	90.5	88	85.7	82	55.5
	BH16-28-02	2016 06 03	3.0 - 3.2	43.9	45.6	10.5	100	95.9	92.3	88.3	-	71.7	56.1	42.5	33.8	28.8	22.5	10.5
	BH16-28-03	2016 06 03		72.8	23.9	3.3	100	81.1	64.1	53.8	-	39.4	27.2	19.3	14.8	11.9	7	3.3

Standard Penetration Test Summary

Sample Location	Sample Date (yyyy mm dd)	Depth Interval (m)	SPT Info	
			Blow Counts	N (uncorrected)
BH16-12	2016 03 11	5.5 - 6.0	9/10/14	24
	2016 03 11	7.0 - 7.6	9/9/12	21
	2016 03 11	8.5 - 9.1	10/15/18	33
	2016 03 11	10.1 - 10.7	9/11/17	28
	2016 03 12	14.6 - 15.2	28/27/29	56
	2016 03 12	16.2 - 16.8	19/26/26	52
	2016 03 12	20.7 - 21.3	17/31/35	66
	2016 03 12	25.3 - 25.9	16/32/51	83
	2016 03 12	28.3 - 30.0	10/15/16	31
BH16-96	2016 06 01	0.5 - 0.9	16/10/6	16
	2016 06 01	1.5 - 2.0	1/7/12	19
	2016 06 01	2.3 - 2.7	12/30/33	63
	2016 06 01	3.0 - 3.5	21/26/25	51
	2016 06 01	6.1 - 6.6	9/9/8	17

APPENDIX C

Groundwater Information

Table 2
Groundwater Elevation Trends
Fireside Maintenance Yard
KM 839, Alaska Highway, BC

Monitoring Well Information Summary				PGL Monitoring Dates												Franz Monitoring Dates	
				19-Aug-06		22-Aug-07		06-Oct-08		19-Oct-09		08-Sep-10		16-Sep-11		2012	
AEC ID	Station ID	Elevation - Top of Casing (m)	Elevation - Ground (m)	Depth to Water (below top of casing) (m)	Elevation - Water (m)	Depth to Water (below top of casing) (m)	Elevation - Water (m)	Depth to Water (below top of casing) (m)	Elevation - Water (m)	Depth to Water (below top of casing) (m)	Elevation - Water (m)	Depth to Water (below top of casing) (m)	Elevation - Water (m)	Depth to Water (below top of casing) (m)	Elevation - Water (m)	Depth to Water (below top of casing) (m)	Elevation - Water (m)
AEC 1	BH-112	518.303	517.475	Dry (DTB 12.70)	-	Dry (DTB 12.70)	-	Dry (DTB 12.70)	-	-	-	Dry (DTB 12.70)	-	Dry (DTB 12.70)	-	Dry (DTB 12.70)	-
	BH-113	518.401	517.467	23.45	494.951	20.665	497.736	21.169	497.232	20.54	497.861	20.813	497.588	Dry (DTB 24.14)	-	Dry (DTB 24.14)	-
AEC 2	BH-118	518.143	517.292							16.165	501.978	16.535	501.608	19.254	498.889	Dry (DTB 19.46)	-
	BH-120	517.94	518.021							28.171	490.131	28.646	489.656	Dry (DTB 29.68)	-	Dry (DTB 29.68)	-
AEC 3	BH-119	518.302	517.413							15.299	502.641	15.872	502.068	Dry (DTB 17.90)	-	Dry (DTB 17.90)	-

Notes:
Elevations measured in meters above sea level, based on surveys completed by All-North Consultants Ltd.
DTB = Depth to Bottom
BH M = Monitoring Well
- = Not measured

MONITORING REPORT

SNC·LAVALIN

Project No.: 636200
Date: 2014-10-29
Observer: AT, MLC
Weather: -5°C Cloudy
Time: 13:45:00
Approved by:

Public Works and Gov't Services Canada
Fireside Maintenance Camp
BC

Monitoring Well No.	Reference Elevation[1] (m)	Depth to NAPL[2] (m)	Apparent NAPL Thickness[3] (mm)	Depth to Water (m)	Potentiometric Elevation[3] (m)	Depth to Bottom (m)	Calculated Vapour Conc.[4] (ppm)	Time	Comments
BH13-04	517.421	-	0	31.596	485.83	32.78	0	13:45	
BH13-05	517.292	-	0	19.810	497.48	23.51	35	11:35	
BH13-06	517.225	-	0	29.798	487.43	35.21	0	12:25	
BH13-08	517.211	-	0	31.678	485.53	33.95	0	13:58	
BH14-09	517.064	-	0	29.885	487.18	31.92	0	12:42	
BH14-10	517.093	-	0	29.256	487.84	34.08	15	12:15	
BH14-11	517.343	-	0	29.427	487.92	32.15	0	12:34	
BH14-12	517.164	-	0	31.770	485.39	34.05	0	13:49	
BH14-13	517.337	-	0	20.380	496.96	23.15	10	12:54	
BH14-14	516.430	-	0	9.579	506.85	11.26	0	13:20	
BH14-15	517.117	-	0	21.125	495.99	27.51	15	13:35	
BH14-16	516.426	-	0	2.901	513.53	3.59	0	13:06	
BH14-18	517.196	-	0	22.044	495.15	24.31	300	13:41	
BH14-19	517.109	-	0	30.752	486.36	32.97	0	12:08	
BH14-20	517.252	-	0	18.420	498.83	23.88	80	11:19	
BH14-22	517.003	-	0	17.100	499.90	21.26	5	14:20	
BH14-23	517.552	-	0	17.925	499.63	20.60	0	11:28	
BH14-24	516.802	-	0	16.826	499.98	20.89	0	13:27	
BH14-25	517.274	-	0	13.503	503.77	14.30	30	11:43	
BH14-26	517.425	-	0	31.860	485.57	33.08	0	14:08	
BH14-27	517.253	-	0	10.301	506.95	13.78	5	11:54	
BH14-28	517.228	-	0	16.857	500.37	19.87	0	12:01	

[1] Reference Elevation is a mark on the rim of the monitoring well standpipe surveyed with respect to Datum.

[2] Non-Aqueous Phase Liquid

3 NAPL specific gravity assumed to be 0.8

[4] 1% LEL is approximately equivalent to 110 ppm.

MONITORING REPORT

SNC·LAVALIN

Project No.: 636200
Date: 2016-03-06
Observer: LM
Weather: 10°C Sunny
Time: 11:00:00
Approved by:

Public Works and Gov't Services Canada
Fireside Maintenance Camp
BC

Monitoring Well No.	Reference Elevation[1] (m)	Depth to NAPL[2] (m)	Apparent NAPL Thickness[3] (mm)	Depth to Water (m)	Potentiometric Elevation[3] (m)	Depth to Bottom (m)	Calculated Vapour Conc.[4] (ppm)	Time	Comments
BH112M	518.303	-	0	12.700	505.60	12.71	150	12:05	
BH113M	518.401	-	-	-	-	24.11	225	12:20	Dry
BH119M	518.302	-	0	29.615	488.69	29.68	5	14:00	
BH13-06	517.225	-	0	31.247	485.98	35.20	300	14:30	
BH14-10	517.093	-	0	32.043	485.05	34.05	150	14:50	
BH14-11	517.343	-	0	30.988	486.36	31.17	50	15:15	
BH14-18	517.196	-	0	24.175	493.02	24.27	150	12:30	
BH14-20	517.252	-	0	20.941	496.31	23.83	150	11:30	
BH14-25	517.274	-	0	14.303	502.97	14.39	50	16:18	
Monitored on March 14									
MW16-12D	833.738	-	0	26.135	807.60	31.05	25	13:10	

[1] Reference Elevation is a mark on the rim of the monitoring well standpipe surveyed with respect to Geodetic Datum.

[2] Non-Aqueous Phase Liquid

3 NAPL specific gravity assumed to be 0.8

[4] 1% LEL is approximately equivalent to 110 ppm.

APPENDIX D

Soil Treatment Facility Construction and Design Specifications

1.1 Soil Treatment Facility Construction and Design Specifications

1.1.1 Site Preparation and Siting

The proposed STFs have been located based on a preliminary site walkover carried out in May 2016 at the JJJ gravel pit, located approximately 5 km east of Fireside, BC (Drawing 636200-300, Attachment 1). The access to the gravel pit is via a short and moderately steep gravel road leading north from Highway 97 (Photograph 1, Attachment 2). The suitability of this access road to the gravel pit and proposed STF locations by loaded gravel trucks and heavy equipment requires confirmation by the contractor.

Three STFs are proposed for the JJJ gravel pit to accommodate soil excavated from the Fireside Maintenance Camp. Drawings 636200-301 and 636200-302 (Attachment 1) show the general site configuration and locations of the STFs, respectively. The three STF locations are proposed in the East Clearing at the JJJ gravel pit.

The proposed STFs in the East Clearing, are accessed by an existing trail that will require upgrading to allow access by light vehicles and the heavy equipment required to develop and operate the STFs (Photograph 2, Attachment 2). The topography in this area is generally level with moderate slopes and some earthwork will be required as part of the field fitting (siting) of the STFs and to prepare the subgrade to design specifications stated in Section 1.2. Photographs 3 and 4 (Attachment 2) show the current conditions in the East Clearing.

The selected contractor is responsible for final selection of STF locations and may propose alternatives. The contractor is encouraged to evaluate the most practical and cost effective placements for the construction of the STFs in the East Clearing in consideration of existing site constraints and to minimize placement of materials in restricted air flow areas (i.e., significant depressions). Proposed alternative locations must have an equivalent surface area as provided by the proposed STFs.

The contractor will be responsible for ensuring road access suitable for light vehicles and heavy equipment is available for the proposed STFs, or for alternative locations.

The construction and design elements related to site preparation are outlined below:

1. Upgrade, as necessary, the main access to the Triple J Gravel Pit to allow for loaded gravel trucks and access by heavy equipment necessary to construct the STFs.
2. Upgrade the trail to the East Clearing to allow for loaded gravel trucks and access by heavy equipment necessary to construct the STFs. Gravel maybe locally available at the Triple J gravel pit, if and as necessary.
3. Carry out necessary site preparations (cut and fill, soil re-location, etc.) to ensure design specifications for subgrade are achievable. The contractor should include costs for any survey activities they consider necessary to support site preparation. Any site preparations must not result in unstable geotechnical conditions, nor exacerbate existing conditions, that could have the potential to impact the STF design specifications, operability, or access over the long term. The contractor must include a geotechnical evaluation if this is not considered achievable.
4. Restore / upgrade road access suitable for light vehicles and heavy equipment to all STF locations, including if roads are re-located as part of field fitting STFs (siting).

1.2 Soil Treatment Facility Design and Construction

Three STF's are proposed with approximate dimensions of 64 m x 44 m each for the effective treatment surface area. The proposed STF dimensions reflect typical maximum liner sizes that do not require field fusing and provide relative ease of handling. Alternative sizing can be considered if presented by the contractor following the contractor site visit and evaluation of siting constraints. However, similar combined total surface areas for effective treatment must be maintained to ensure STF capacity for excavated soils.

Although the target for duration of treatment of soils is less than or equal to three years, a conservative liner system lifetime of greater than 10 years is required to provide flexibility in soil management at the site. The selected materials are expected to meet the temporal objectives and be compatible with the anticipated adverse climate, including temperatures ranging between approximately +35°C to -50°C. Any alternative materials proposed must meet these objectives.

Leachate collection is limited only to liquids that may be generated during the mineralization of the hydrocarbon contaminants and that which may be inadvertently introduced during operation and aeration events. For this reason, no surface water flow diversion or control measures are considered necessary at this time outside of the liner system itself.

Drawing 636200-302 (Attachment 1) shows the general site configuration and positions of the proposed STFs. Drawing 636200-303 shows the STF design and related specifications that apply to all proposed STFs. The following summarizes the construction and design specifications related to each of the three proposed STFs.

1. The subgrade of the STF footprint is to be contoured to one corner of the proposed biocell allowing for STF drainage. No protruding angular coarse fragments or debris should be visible upon deployment of the liner system.
2. Berms and access ramp shall be constructed using locally available materials (e.g., subsoils and/or pit run sand and gravel) and the design includes a level top surface for ease of accessibility and for geotechnical stability. An earthern ramp (maximum 3:1 slope) shall be constructed adjacent the gate to facilitate equipment access during loading and operation of the biocell.
3. Liner system specifications in order of deployment (estimated minimum liner size of 70 m x 50 m to accommodate berm coverage):
    a. Base non-woven geotextile (12 ounce/yard)) for liner protection against abrasion.
    b. Continuous (seamless) 30 mil (or greater) oil resistant (OR) geosynthetic base liner. The minimum liner lifetime is 10 years (i.e., Layfield 6000 series or approved equivalent).
    c. Upper non-woven geotextile (12 ounce/yard) for liner protection against abrasion.
    d. Placement of a 300 mm thick drainage and protection layer using pea gravel or well graded sand and gravel (<75 mm diameter, 2% or less passing No. 200 sieve by weight, and no angular particles in the fraction coarser than the #4 sieve). The material must be of suitable environmental quality and the grain size distribution approved by the Department Representative prior to placement. Alternative materials would require grain size testing and advance approval by the Department Representative. This lift must extend to top of berm to key in / secure liner, with a minimum thickness of 100 mm on top of the berm.
    e. Installation of a near continuous sacrificial visual indicator layer using plywood (4ft x 8ft x ½" thick sheets) to protect against over-excavation and liner damage during aeration events.
    f. Following placement of contaminated soils, secure a continuous (seamless) oil resistant reinforced polyethylene (OR RPE) ultra violet resistant cover liner (or approved equivalent) over placed soils. The estimated liner lifetime minimum requirement is 5 to 10 years. The cover liner should be installed extending a minimum of 0.5 m to 1 m down the outside of the earthen berm. The cover liner must be secured in place (perimeter and interior) using easily removable weights (e.g., tires, lumber, etc.). The cover is estimated at 55 m x 75 m to accommodate the height of placed soil and to extend laterally beyond the top of the berms.
4. Prior to placement of soils, clean gravel (<5% passing 75 µm sieve) is to be backfilled around a monitoring port in the low corner of the STF to allow for accumulation and management of potential leachate. The minimum thickness of gravel is 1.2 m with dimensions approximately 5 m x 5 m. A 300 mm diameter PVC pipe (schedule 80 or thicker) with affixed removable top cap and secured bottom cap is to be placed within the gravel backfill. The PVC pipe is to extend a minimum of 0.3 m above placed soils / gravel. PVC pipe requires its slotted (0.010") interval to extend from the base up to a height of 1 m.

5. An estimated 19,850 m^3 of contaminated soil requires placement within the STFs. Precautions must be taken to avoid damage to the liner during loading. Any damages caused by construction or loading activities will be the responsibility and at expense of the contractor to repair or replace the liner. The actual depth may vary depending on final soil volume estimates for treatment. Placed soil should not exceed the height of the berm at its edges and must be crowned to the maximum height to encourage runoff to the margins of the STF. The maximum height of placed soil shall not exceed approximately 3.0 m.
6. Provide and install a 2 m high chain link fence around the perimeter of the berm to discourage public and wildlife access. A two panel swinging lockable gate (6 m minimum width) is required to permit access of the heavy equipment required to load and treat soils. Utility locates will be required prior to ground disturbance.

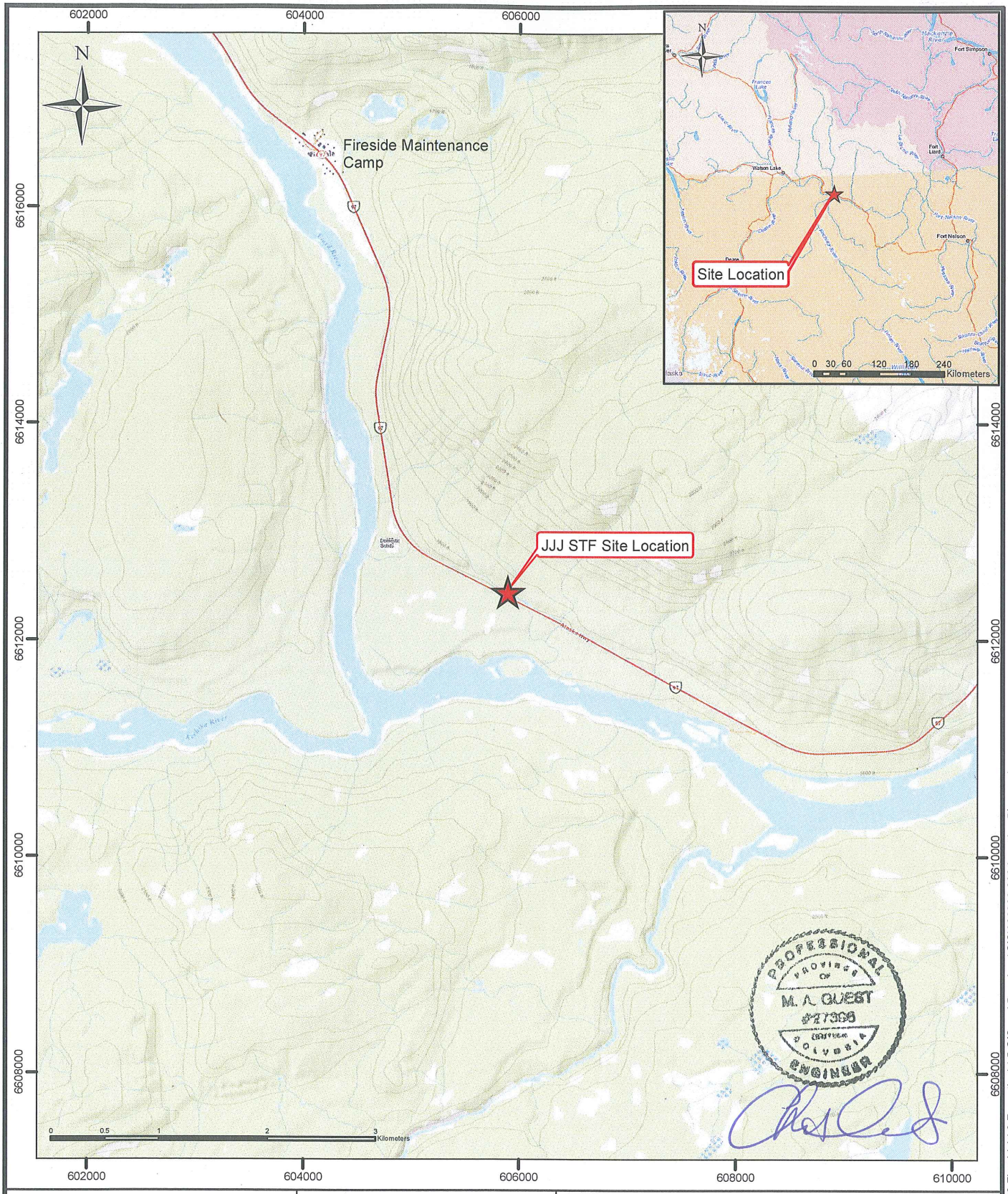
The design outlined above is in general accordance with applicable federal guidance[1] and best practices in British Columbia based on the BC Ministry of Environment (MoE) Protocol 15[2].

Instructions for costing in relation to design elements are provided in Appendix 2.

[1] Federal Guidelines for Landfarming Petroleum Hydrocarbon Contaminated Soils, March 2006 (editorial update 2013).
[2] Protocol 15 – Soil Treatment Facility Design and Operation for Bioremediation of Hydrocarbon Contaminated Soil, dated July 17, 2012.

ATTACHMENT 1

Drawings



LEGEND

★ Site Location

<BOL>Notes:</BOL>
1. Intended for Illustration purposes only.
2. Original in colour.

<BOL>References:</BOL>

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri

SNC·LAVALIN

CLIENT NAME:	PROJECT LOCATION:
Public Works and Government Services Canada	Triple J Gravel Pit Soil Treatment Facility, Km 839 Alaska Highway, Fireside, B.C.

Location Plan

BY: DRB	DATE: 2016/08/03	SCALE: 1:50,000	REF No: 636200-300 REV: 0
CHK'D: MG	PROJ COORD SYS: NAD 1983 UTM Zone 9N		

MXD Path: P:\Current Projects\PWGSC\636200 Fireside\4.0 Execution\4.5 GIS and Drawings\GIS\636200-300-Location Plan.mxd

Project Path: \\Sli2606\projects\Current Projects\PWGSC\636200 Fireside\4.0 Execution\4.5 GIS and Drawings\Exports\PDF

LEGEND

0 50 100 200 METRES

- TOE SLOPE/EDGE OF CLEARING (APPROX.)
- GRAVEL PILE (w/ HEIGHT)
- TREELINE (APPROX.)

NOTES

1. ORIGINAL DRAWING IN COLOUR.
2. LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED PRIOR TO INTRUSIVE WORK. NOT ALL UTILITIES MAY BE SHOWN.
3. GRAVEL PILE LOCATIONS AND SIZE ARE APPROXIMATE ONLY.

REFERENCE DRAWINGS

IMAGERY	1969	GOOGLE EARTH
DWG. NO.	DATE	DESCRIPTION

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHK
0	2016-07-07	INTERNAL REVIEW	DRB	TM

SNC·LAVALIN

CLIENT NAME: PUBLIC WORKS AND GOVERMENT SERVICES CANADA

PROJECT LOCATION: TRIPLE J GRAVEL PIT SOIL TREATMENT FACILITY, KM 839 ALASKA HIGHWAY, FIRESIDE, B.C.

TITLE: **SITE PLAN**

DWN BY: DRB	SCALE: 1:4,000	DATE: 2016-07-05	DWG No: REV.: 0
CHK'D: TM	PLOT: 20160809.1119	CADFILE: 636200R7	636200-301

PATH: P:\CURRENT PROJECTS\PWGSC\636200 FIRESIDE\4.0 EXECUTION\4.5 GIS AND DRAWINGS\CAD\636200R7.DWG

LEGEND

5 25 METRES 100

- TOE SLOPE/EDGE OF CLEARING (APPROX.)
- GRAVEL PILE (w/ HEIGHT)
- TREE LINE (APPROX.)
- PROPOSED SOIL TREATMENT FACILITY (STF) LOCATION

NOTES

1. ORIGINAL DRAWING IN COLOUR.
2. LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED PRIOR TO INTRUSIVE WORK. NOT ALL UTILITIES MAY BE SHOWN.
3. GRAVEL PILE LOCATIONS AND SIZE ARE APPROXIMATE ONLY.

REFERENCE DRAWINGS

IMAGERY	1969	GOOGLE EARTH
DWG. NO.	DATE	DESCRIPTION

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHK
0	2016-07-21	ISSUED TO CLIENT	PES	MG

SNC·LAVALIN

CLIENT NAME: PUBLIC WORKS AND GOVERMENT SERVICES CANADA

PROJECT LOCATION: TRIPLE J GRAVEL PIT SOIL TREATMENT FACILITY, KM 839 ALASKA HIGHWAY, FIRESIDE, B.C.

TITLE:

PROPOSED SOIL TREATMENT FACILITY LOCATIONS

DWN BY: DRB	SCALE: 1:2,500	DATE: 2016-07-05	DWG No: 636200-302 REV.: 0
CHK'D: TM	PLOT: 20160810.1358	CADFILE: 636200X01	

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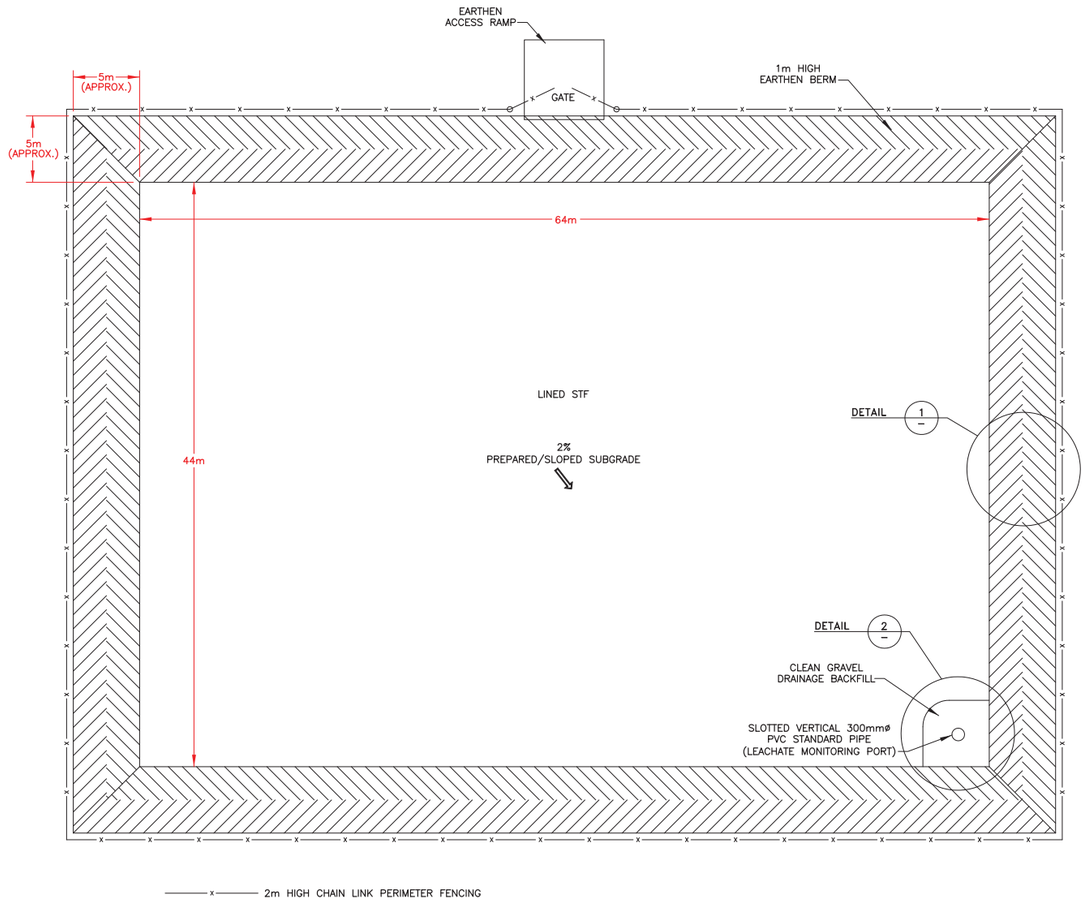
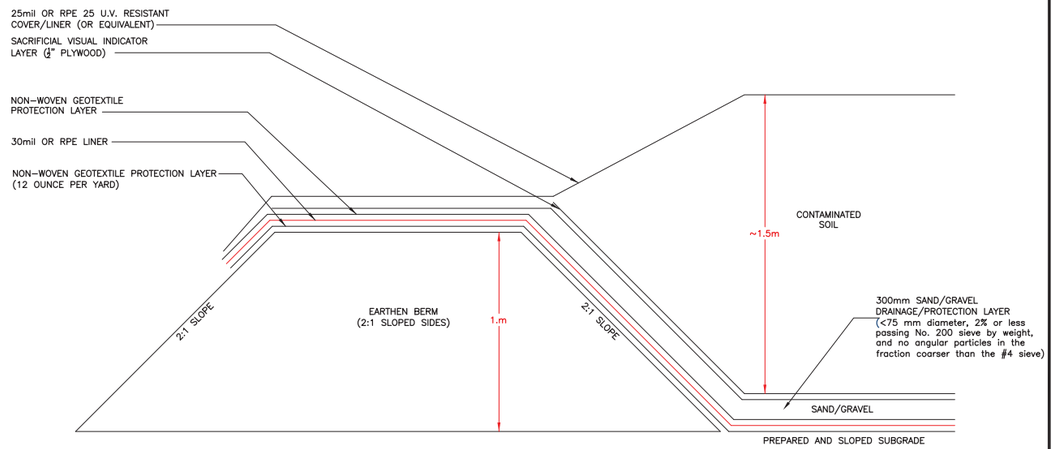


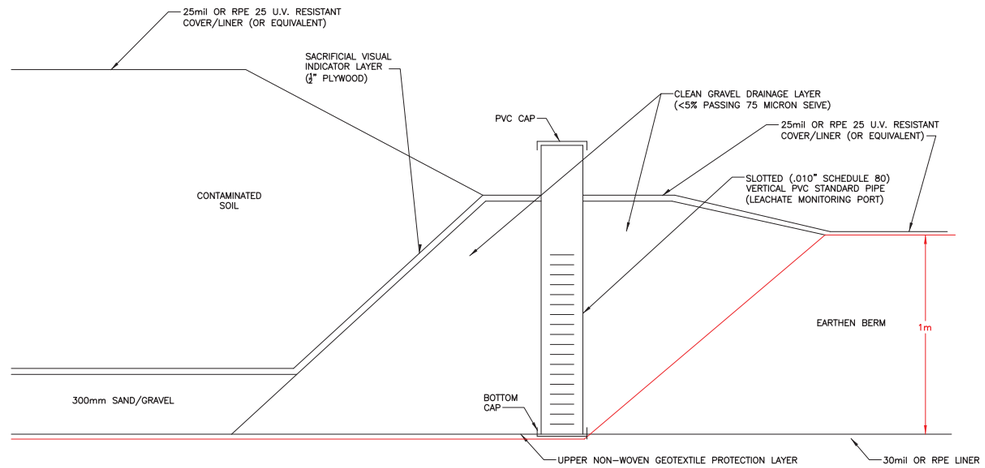
NOTES:

1) PREPARED SUBGRADE TO BE FREE OF PROTRUSIONS (ANGULAR COARSE FRAGMENTS, DEBRIS, ETC.) PRIOR TO CONTRUCTION OF STF.

2) DESIGN SPECIFICATIONS APPLY TO ALL THREE PROPOSED STFS. ORIENTATION OF STFS TO REFLECT SITING CONSIDERATIONS. LEACHATE COLLECTION SYSTEM LOCATION TO BE CONSTRUCTED IN MOST SUITABLE CORNER IN CONSIDERATION OF SITE PREPARATION AND TOPOGRAPHY. SECOND NOTE: EARTHEN ACCESS RAMP AND GATE LOCATIONS TO BE CONSTRUCTED TO PROVIDE EASE OF ACCESS AND TO MINIMIZE INTERFERENCE WITH EXISTING ROADWAYS AND IF NECESSARY, RE-LOCATED ROADWAYS.



DETAIL 1
N.T.S.



NOTE: IT IS CRITICAL THAT THE BOTTOM LINER HAVE NO TENSILE FORCE IN CORNER OF LEACHATE MONITORING SUMP FOLLOWING INSTALLATION.

DETAIL 2
N.T.S.

LEGEND

NOTES

1. ORIGINAL DRAWING IN COLOUR.
2. LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED ON SITE. NOT ALL UTILITIES MAY BE SHOWN.

REFERENCE DRAWINGS

DWG. NO.	DATE	DESCRIPTION
–	–	–

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHK
0	–	–	–	–

SNC·LAVALIN

CLIENT NAME: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

PROJECT LOCATION: TRIPLE J GRAVEL PIT SOIL TREATMENT FACILITY, km839 ALASKA HIGHWAY, FIRESIDE, B.C.

TITLE:

SOIL TREATMENT FACILITY DESIGN SPECIFICATIONS

DWN BY: PRT	SCALE: AS SHOWN	DATE: 2016-07-05	DWG No: 635031-303 REV.: 0
CHK'D: TM	PLOT: 20160803.1423	CADFILE: 636200R6	

PATH: P:\CURRENT PROJECTS\PWGSC\636200 FIRESIDE\4.0 EXECUTION\4.5 GIS AND DRAWINGS\CAD\636200R6.DWG

ATTACHMENT 2

Photographs

Photograph 1: View looking northeast at access road from near its junction with Highway 97. Note steep gradients ranging between approximately 10% to 15%.

Photograph 2: View looking east at trail access to East Clearing and proposed STF Locations.

Photograph 3: Panoramic view ranging from northeast to east of East Clearing at Triple J Pit. Proposed STF locations.

Photograph 4: View looking west at proposed location of STFs. Note gentle sloping topography and adjacent slopes in photograph right.