



PRELIMINARY DETERMINATION
(Pursuant to Section 44 of the *Environmental Management Act*)

I have made a Preliminary Determination that the site identified in Schedule A of this document **is not** a contaminated site.

This Preliminary Determination is qualified by the requirements and conditions specified in Schedule B.

The site does not have concentrations of the substances specified in Schedule C that exceed the applicable standards and criteria prescribed in the Contaminated Sites Regulation for determining whether a site is a contaminated site.

I have issued this Preliminary Determination based on a review of relevant information including the documents listed in Schedule D. I, however, make no representation or warranty as to the accuracy or completeness of that information.

This is to advise that I will consider submissions received 35 days after delivery of this Preliminary Determination before a Final Determination is made.

In accordance with the *Environmental Management Act*, I will notify persons with an interest in the subject site once a Final Determination is made.

This Preliminary Determination should not be construed as an assurance that there are no hazards present at the site.

April 2, 2019
Date Issued

J.A. Brooke
For Director, *Environmental Management Act*

Schedule A

The site covered by this Preliminary Determination is located at 1500 (Lot A) & 1504 (Lot 7) 32nd Street and 3202 (Lot 8) 16th Avenue, Vernon, British Columbia, which is more particularly known and described as:

Lot A District Lot 73 Osoyoos Division Yale District Plan KAP49269	018-167-209
Lot 7 Block 15 District Lot 73 Osoyoos Division Yale District Plan 225	012-583-251
Lot 8 Block 15 District Lot 73 Osoyoos Division Yale District Plan 225	012-583-260

The approximate centre of the site using the NAD (North American Datum) 1983 convention is:

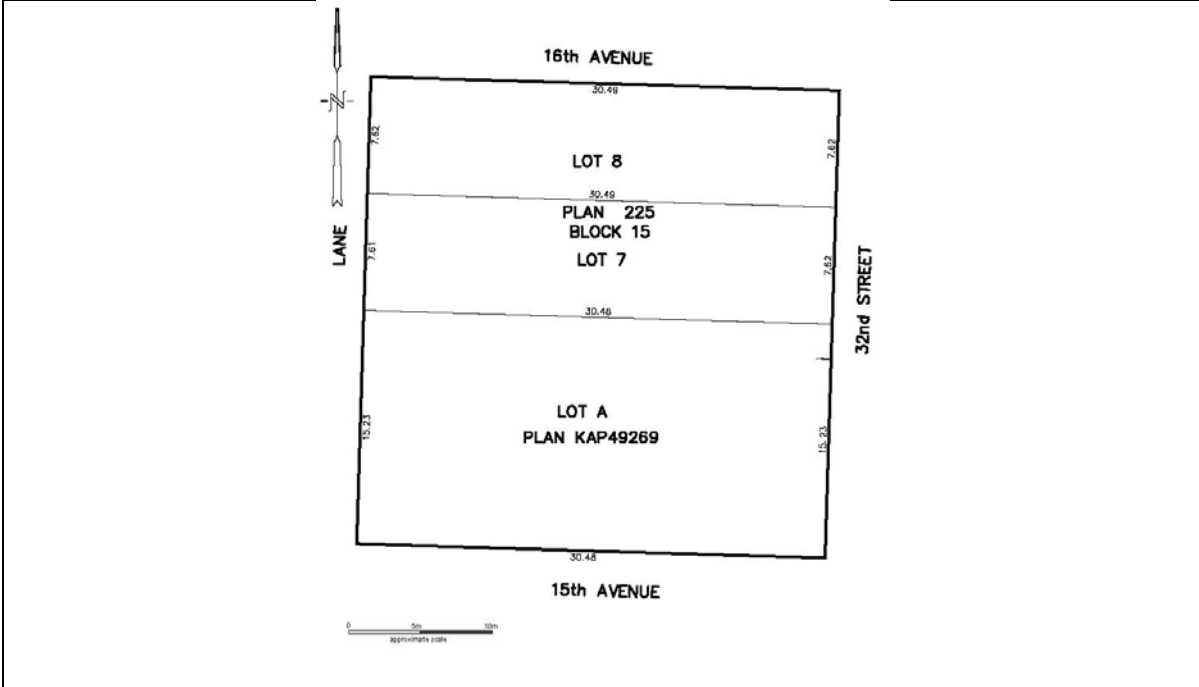
Latitude:	50°	15'	10.88"
Longitude:	119°	16'	26.43"

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Site Plan – 1500 & 1504 32nd Street and 3202 16th Avenue, Vernon



Location Map – 1500 & 1504 32nd Street and 3202 16th Avenue, Vernon



April 2, 2019
Date Issued

Site Identification Number 2599
Version 8.0 R

J.A. Brooke
For Director, *Environmental Management Act*
3 of 7

Schedule B

Requirements and Conditions

1. Any changes in land, vapour, water uses must be promptly identified by the responsible person in a written submission to the Director. An application for an amendment or new Determination of Contaminated Site may be necessary. The uses to which this condition applies are described in Schedule C and in the site investigation documents listed in Schedule D.

The documents listed in Schedule D indicate that vapour attenuation factors were applied to meet Contaminated Sites Regulation numerical standards at the site. These vapour attenuation factors were selected based on assumptions about the structures, locations and depths of buildings and trenches existing or expected at the site. These assumptions include the following:

- (a) The current Site building has a concrete foundation with a sub-grade slab;
- (b) Future buildings erected on the Site must be built with a concrete foundation and a concrete floor slab on the lowest level.

Any inconsistencies that arise between the structures, locations and depths of proposed buildings at the site and the range of structures, locations and depths of buildings assumed in the selection of vapour attenuation factors in the documents listed in Schedule D must be promptly identified by the responsible person in a written submission to the Director. An application for an amendment or new Determination of Contaminated Site may be necessary.

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Site Identification Number 2599
Version 8.0 R



J.A. Brooke
For Director, *Environmental Management Act*
4 of 7

Schedule C

Substances and Uses

Substances evaluated in soil for residential low density land soil use:

To meet numerical standards prescribed for defining whether a site is contaminated:

acenaphthene	83-32-9	ethylbenzene	100-41-4
aluminum	7429-90-5	fluoranthene	206-44-0
antimony	7440-36-0	fluorene	86-73-7
anthracene	120-12-7	HEPHs	NA
arsenic	7440-38-2	indeno(1,2,3-cd)pyrene	193-39-5
barium	7440-39-3	iron	7439-89-6
benz(a)anthracene	56-55-3	lead	7439-92-1
benzene	71-43-2	LEPHs	NA
benzo(a)pyrene	50-32-8	lithium	7439-93-2
benzo(b&j)fluoranthenes	205-99-2 205-82-3	manganese	7439-96-5
benzo(k)fluoranthene	207-08-9	mercury	7439-97-6
beryllium	7440-41-7	methyl tert-butyl ether(MTBE)	1634-04-4
boron	7440-42-8	methylnaphthalene, 1-	90-12-0
bromodichloromethane	75-27-4	methylnaphthalene, 2-	91-57-6
bromoform	75-25-2	molybdenum	7439-98-7
cadmium	7440-43-9	naphthalene	91-20-3
carbon tetrachloride	56-23-5	nickel	7440-02-0
chlorobenzene	108-90-7	phenanthrene	85-01-8
chloroform	67-66-3	pyrene	129-00-0
chloronaphthalene,2-	91-58-7	selenium	7782-49-2
chromium	7440-47-3	silver	7440-22-4
chrysene	218-01-9	strontium	7440-24-6
cobalt	7440-48-4	styrene	100-42-5
copper	7440-50-8	tetrachloroethane, 1,1,2,2-	79-34-5
dibenz(a,h)anthracene	53-70-3	tetrachloroethylene	127-18-4
dibromochloromethane (DBCM)	124-48-1	thallium	7440-28-0
dibromomethane,1,2-	106-93-4	tin	7440-31-5
dichlorobenzene, 1,2-	95-50-1	toluene	108-88-3
dichlorobenzene, 1,3-	541-73-1	trichloroethane, 1,1,1-	71-55-6

April 2, 2019

Date Issued

Site Identification Number 2599

Version 8.0 R



J.A. Brooke
For Director, *Environmental Management Act*
5 of 7

dichlorobenzene, 1,4-	106-46-7	trichloroethane, 1,1,2-	79-00-5
dichloroethane, 1,1-	75-34-3	trichloroethylene	79-01-6
dichloroethane, 1,2-	107-06-2	trichlorofluoromethane	75-69-4
dichloroethylene, 1,1-	75-35-4	tungsten	7440-33-7
dichloroethylene (cis), 1,2-	156-59-2	uranium	7440-61-1
dichloroethylene (trans), 1,2-	156-60-5	vanadium	7440-62-2
dichloromethane	75-09-2	vinyl chloride	75-01-4
dichloropropane, 1,2-	78-87-5	VPHs	NA
dichloropropene, 1,3- (cis + trans)	542-75-6	xylenes	1330-20-7
		zinc	7440-66-6

Substances evaluated in vapour for residential land vapour use:

To meet numerical standards prescribed for defining whether a site is contaminated:

benzene	71-43-2	ethylbenzene	100-41-4
butadiene, 1,3-	106-99-0	isopropylbenzene	98-82-8
bromodichloromethane (BDCM)	75-27-4	methyl isobutyl ketone (MIBK)	108-10-1
bromoform	75-25-2	methyl tert-butyl ether (MTBE)	1634-04-4
bromomethane	74-83-9	methylcyclohexane	108-87-2
carbon tetrachloride	56-23-5	naphthalene	91-20-3
chlorobenzene	108-90-7	n-decane	124-18-5
chloroethane	75-00-3	n-hexane	110-54-3
chloroform	67-66-3	styrene	100-42-5
chloromethane	74-87-3	tetrachloroethane, 1,1,2,2-	79-34-5
dibromochloromethane (DBCM)	124-48-1	tetrachloroethylene	127-18-4
dibromoethane, 1,2-	106-93-4	toluene	108-88-3
dichlorobenzene, 1,2-	95-50-1	trichloroethane, 1,1,1-	71-55-6
dichlorobenzene, 1,3-	541-73-1	trichloroethane, 1,1,2-	79-00-5
dichlorobenzene, 1,4-	106-46-7	trichloroethylene	79-01-06
dichloroethane, 1,1-	75-34-3	trichlorofluoromethane	75-69-4
dichloroethane, 1,2-	107-06-2	trimethylbenzene, 1,2,4-	95-63-6
dichloroethylene, 1,1-	75-35-4	trimethylbenzene, 1,3,5-	108-67-8
dichloroethylene, 1,2- cis	156-59-2	vinyl bromide	593-60-2
dichloroethylene, 1,2- trans	156-60-5	vinyl chloride	75-01-4
dichloropropane, 1,2-	78-87-5	VPH	NA
dichloropropene, 1,3- (cis+trans)	542-75-6	xylenes, total	1330-20-7

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Version 8.0 R



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For Director, *Environmental Management Act*

6 of 7

Schedule D

Documents

- *Addendum – Response to Stage 1 Findings of Random Performance Assessment CSAP PA reference #: PA 18-040*, Philip Lowery, McElhanney Consulting Services Ltd., March 12, 2019;
- *Summary of Site Condition*, Philip Lowery, McElhanney Consulting Services Ltd., March 12, 2019;
- *1500 32nd Street, Vernon, BC Response to CSAP Review of Preliminary Site Investigation*, Warren Grafton, Western Water Associates LTD, September 20, 2018;
- *Technical Memo – Hydrogeological Assessment, 1500 32nd Street, Vernon, BC*, Warren Grafton & Douglas Geller, Western Water Associates LTD, September 12, 2018;
- *1500 32 Street, Vernon, BC, Stage 2 Preliminary Site Investigation*, Warren Grafton & Bryer Manwell, Western Water Associates LTD., June 19, 2018;
- *Stage 1 Preliminary Site Investigation (PSI) Update, 1500 32nd Street, Vernon, BC*, Warren Grafton, Western Water Associates LTD, June 18, 2018;
- *Stage 1 Preliminary Site Investigation, 1500 32 Street, Vernon, BC*, Warren Grafton & Douglas Geller, Western Water Associates LTD, September 15, 2017; and,
- *Environmental Audit of the Decommissioned Service Station in Vernon, British Columbia ss 1832*, Michael Goldstein, Soilcon Laboratories Ltd., March 3, 1992.

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7 of 7