

3.0 APPLICANT	
Company:	Contact Person:
Mailing Address:	Position Held:
	Phone:
	Fax:
	Email:

4.0 ENVIRONMENTAL PROFESSIONAL	
Company:	Contact Person:
Mailing Address:	Position Held:
	Phone:
	Fax:
	Email:

5.0 ACTIVITY	
5.1 Current Operating Status (select the most appropriate):	
Operating	Abandoned in Place ³ (attach approval)
Decommissioning in progress	Decommissioned ⁴
Closed	Not applicable (specify):

5.2 Petroleum Storage Tank (PST) Site				
Retail gas station	On-site fuelling tanks	Bulk fuel	Card lock	Other:
PTMAA or AMA Reference No.(s) ⁵ :				
Was a Petroleum Storage Tank Closure Report submitted to PTMAA?				

³ Where it is not practical to remove an underground tank, it may be left in place if permission is granted by the Authority Having Jurisdiction. The circumstances and conditions that may allow abandonment in place are listed in Article 4.3.16.2 of the Alberta Fire Code, but generally, if it is physically possible to remove the tank, it must be removed.

⁴ In this instance 'decommissioned' indicates that all operating infrastructure has been removed from the site.

⁵ Petroleum Tank Management Association of Alberta (PTMAA), or Alberta Municipal Affairs (AMA).

5.3 Approved Facility – Under the Environmental Protection and Enhancement Act (EPEA)		
Alberta Environment and Parks Approval No.(s):		
Approved Activity Types <i>(check all that apply)</i> :		
Chemical manufacturing plant	Metal manufacturing plant	Fertilizer manufacturing plant
Landfill	Oil refinery	Pesticide manufacturing plant
Petrochemical manufacturing plant	Pipeline	Power plant
Pulp and paper processing plant	Sulphur manufacturing or processing plant	Waste management facility
Wood treatment plant	Other (specify):	

5.4 Facility Under EPEA Code of Practice		
Code of Practice Activity Types <i>(check all that apply)</i> :		
Asphalt paving plant	Concrete producing pad	Landfill
Land treatment of soils containing hydrocarbons	Pesticides	Pipeline
Sand and gravel pit	Small incinerator	Other (specify):

5.5 Other Activities		
Authorized by:		
Other Activity Types <i>(check all that apply)</i> :		
Carwash	Drycleaner	Garage or Shop
Highway maintenance yard	Salvage, Wrecking or Storage Yard	Transportation Corridor or Roadway
Utility Corridor or Transformer	Other (specify):	

6.0 SUBSTANCE RELEASE SUMMARY				
Provide a detailed history of the substance ⁶ release into the environment:				
Substance	Release Date <i>(If release date unknown, indicate date of discovery)</i>	Activity Resulting in the Release	Volume of the Release <i>(If volume is unknown, estimate)</i>	Regulatory Agencies Contacted <i>(reference and attach any reports submitted)</i>

⁶ In this instance 'substance' means a substance that has been remediated to meet the requirements of *Alberta Tier 1 Soil and Groundwater Remediation Guidelines*, and is the subject of an application.

7.0 SITE ASSESSMENT AND REMEDIATION CHECKLIST

You must confirm that ALL the information has been submitted to the Department. Indicate the Report and Page number(s) where the information is documented. Where information is not provided, the application will be considered administratively incomplete and rejected. The site professional must ensure that all work is completed in accordance with the relevant guidelines or standards.

7.1 Preliminary Checklist

You must confirm that the information is complete. Where environmental site assessments(s) (ESA) are older than two years, you must confirm that the assessment has been reviewed and meets all requirements of the current Environmental Site Assessment Standard. For a Phase 2 ESA, where there are multiple reports for the same site, use the most recent assessment as the date of submission.

	Yes / No	Report Name(s)	Page #s
I have applied for and received an exemption from the Director for a Parcel of Land under Section 3(2.2) of the Remediation Regulation.			
A Phase 1 ESA was conducted within the last two years.			
Where the Phase 1 ESA is more than two years old, I have reviewed the information in the assessment, and confirm that it is still reflective of current conditions.			
A Phase 2 ESA was conducted in the last two years.			
Where the Phase 2 ESA is more than two years old, I have reviewed the information in the assessment, and confirm that it is still reflective of current conditions.			

7.2 Land Use and Soil Texture Selection

7.2.1 Site

What is the existing land use as defined in Alberta Tier 1 guidelines??	
Is there a proposed future land use that is different from the existing land use? If Yes, what is the confirmed end or future land use? (Attach supporting documentation)	
Is the remediated area within 30 metres of a more sensitive land use? If Yes, was the criteria of the more sensitive land use applied to a portion of the remediated area?	
Dominant soil texture type at site:	

Reference Document:	Page #(s)
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7.2.2 Other Impacted Parcels of Lands (off-site impacted area)

Were soil or groundwater criteria exceeded in any other parcel of land prior to remediation? -If No, proceed to Section 7.3	
What is the existing land use as defined in Alberta Tier 1 guidelines?	
Is there a proposed future land use that is different from the existing land use?	

⁷ Alberta Tier 1 Soil and Groundwater Remediation Guidelines (Alberta Tier 1 guidelines).

If Yes, what is the confirmed end or future land use? <i>(Attach supporting documentation)</i>	
Dominant soil texture type at off-site impacted areas:	
Reference Document:	Page #(s)

7.3 Guideline Selection				
Identify the remediation criteria used <i>(check all that apply)</i> :				
Tier 1	Tier 2 – Pathways and Receptor Exclusions	Tier 2 – Guideline Adjustments	Tier 2 – Site Specific Risk Assessment (SSRA)	
Identify the year the Alberta Tier 1 or Tier 2 guideline was published for the remediation criteria used ⁸ :				
Year:	Year:	Year:	Year:	
If Tier 2 was selected, complete the following table for affected exposure pathways ⁹ :				
Pathway	Exclusion	Adjustment	SSRA	Contaminant(s) of Potential Concern
Indoor Vapour Inhalation				
Protection of Groundwater for Potable Water Use				
Protection of Groundwater for Livestock Watering				
Protection of Groundwater for Irrigation				
Protection of Groundwater for Wildlife Watering				
Protection of Groundwater for Freshwater Aquatic Life				
Human Direct Contact				
Plants and Soil Invertebrate Direct Contact				
Nutrient and Energy Cycling				
Tier 2 evaluated using the Subsoil Salinity or Fertilizer Tool				
Other:	-	-		
Reference Document:				Page #(s)

⁸ The guidelines used in preparation of the application must be consistent with the date of application submission. If not, the application will be considered administratively incomplete and returned to the applicant without review.

⁹ A number of exposure pathways are mandatory and are ineligible for exclusion at Tier 2 regardless of whether they are operative. If used, they would require risk management for land and/or water use restrictions. Please refer to the current Alberta Tier 2 Soil and Groundwater Remediation Guidelines for information on exposure pathway exclusion. If these are included in the evaluation, the application will be considered administratively incomplete and rejected automatically.

7.4 Tier 2 Mandatory Evaluation	
Does the site have any conditions that require the mandatory use of current Alberta Tier 2 guidelines ¹⁰ ?	
If Yes, identify the conditions that require the Alberta Tier 2 approach:	Other? Specify:

7.5 Site Assessment Checklist			
<p>You must confirm that the Phase 2 ESA(s) meet the requirements of the Phase 2 Environmental Site Assessment Checklist, and have been submitted to the Department. Indicate the Report and Page number(s) where the information is documented. Where information is not provided, the application will be considered administratively incomplete and returned to the applicant without review. The site professional must ensure that all work is completed in accordance with the relevant guidelines or standards.</p>			
	Yes / No	Report Name(s)	Page #s
All scaled site maps have been provided as per the Phase 2 Environmental Site Assessment Checklist including: <ul style="list-style-type: none"> Existing land use for remediated area and adjacent properties; Surface and underground structures and utility corridors; Impacted area(s); Sampling locations and cross-sections outlining stratigraphic and hydrogeological features (as needed); and Confirmatory sampling locations 			
All surface water bodies located within 300 metres down-gradient or 100 metres up-gradient of the remediated area are clearly identified on the site map. ¹¹			
All buried utility corridor(s) on-site, or adjacent to the land, where the release was located are clearly identified on the site map.			
All contamination associated with the substance release has been fully delineated in the vertical and horizontal direction to the appropriate criteria.			
Contamination in the groundwater has been fully delineated in the vertical and horizontal direction to the appropriate criteria.			
Any contaminants that have potential to form free phase product were identified and fully delineated.			
All analytical results for CoPC associated with the substance release were identified and compared against the Alberta Tier 1 guidelines in a summary table.			
Borehole logs, monitoring wells and monitoring well installation was documented and included in the report.			

¹⁰ Alberta Tier 2 Soil and Groundwater Remediation Guidelines (Alberta Tier 2 guidelines).

¹¹ Distance to be measured from the leading edge of the remediated area.

Confirmatory sampling for soil and groundwater is included and meets all requirements of the Environmental Site Assessment Standard.			
Soil handling and analytical procedures followed requirements in Alberta Tier 1 guidelines.			

7.6 Tier 2 Evaluation Checklist

Complete for every pathway that was identified in Section 7.3. If only Tier 1 was identified in Section 7.3, proceed to Section 8

	Yes / No	Report Name(s)	Page #s
A Tier 2 risk assessment has been submitted and accepted by the Department (provide letter of acceptance with submission) ¹²			
Any of Protection of Groundwater for Potable Water Use, Protection of Groundwater for Irrigation, or Protection of Groundwater for Livestock Watering were evaluated at Tier 2.			
All of the potentially impacted water bearing formations cannot be considered domestic use aquifers (DUAs) as defined in the Alberta Tier 2 guidelines, appendix E.			
All potentially impacted water bearing zones are not suitable for Livestock Watering or Irrigation.			
There is a hydraulic barrier as defined in the Alberta Tier 2 guidelines, between the base of the contaminated area and a potential DUA.			
All CoPC in the top 4 meters meet Alberta Tier 1 guidelines or there is no Tier 1 exceedance of the Livestock Watering Pathway.			
Hydraulic conductivities and hydraulic gradients, where applicable were measured in a minimum of 3 sampling locations for each geological formation.			
The Vapour Inhalation pathway was evaluated using Tier 2 guidelines.			
All guideline adjustments followed requirements as outlined in Alberta Tier 2 guidelines and any other protocols or recommendations by the Director.			
All soil vapour sampling was conducted consistent with suggested operating procedures as outlined in the CCME Guidance Manual for Environmental Site Characterization in Support of Environmental and Human Health Risk Assessment, Volume 3 (2016, as amended).			
All soil vapour guidelines were developed consistent with the CCME Protocol for the Derivation of Soil Vapour Quality Guidelines for Protection of Human Exposure via Inhalation of Vapours (2014, as amended).			

¹² Tier 2 risk assessments require specialized review. Any review that is not already completed will be referred to a separate review by regulator specialists. Reports that have not already been submitted at the time of application will not be receive a high priority by the reviewer and can be delayed considerably as a result.

All toxicity reference values used in the development of guidelines are consistent with the Alberta Guidance for Selection of Toxicity Reference Values for Alberta Tier 1 and Tier 2 guidelines.			
The Alberta Tier 1 guidelines were applied to the human direct contact pathway ¹³			
The Alberta Tier 1 Soil Management Limit was applied to any Tier 2 evaluation that included adjustment or exclusion of the Tier 1 Plant and Soil Invertebrate Direct Contact, Nutrient and Energy Cycling or Wildlife Soil and Food Ingestion Pathways.			
The Alberta Tier 1 Soil and Groundwater Quality Guidelines for freshwater aquatic life were met for all CoPC.			
There is a minimum of 300 meters downgradient and 100 meters upgradient separation between the CoPC and the high water mark or floodway of the surface water body, as measured from the edge of the contaminated area that meets the Freshwater Aquatic Life Guidelines and the surface water body.			
No contaminant concentration exceeds the freshwater aquatic life or sediment quality guidelines as outlined in the Environmental Quality Guidelines for Alberta Surface Water (2018, as amended)			

¹³ Human Direct Contact cannot be excluded or adjusted at Tier 2 and requires a risk management plan.

8.2 Remediation Process				
Date remediation of the substance(s) started:				
Date remediation of the substance(s) completed:				
Remediation method(s) used to treat the release:				
Was any soil treated on-site?				
Was any groundwater treated on-site?				
Was any contaminated soil or water removed from, or placed in any other location outside of the remediated area that is not a waste management facility?				
Complete the following table for any soil or water removed from, or placed in any other location outside of the remediated area that is not a waste management facility¹⁴:				
Final location of contaminated soil or groundwater removed from the remediated area:	Contaminant Concentration		Quantity or volume of contaminated material	
	Soil (mg/kg)	Groundwater (mg/L)	Soil (tonnes)	Groundwater (m ³)
Complete the following table for any soil or water taken to a waste management facility:				
Waste Management Facility:			Quantity or volume of contaminated material	
Name	Location	Authorization Number	Soil (tonnes)	Groundwater (m ³)
Was any soil imported to the remediated area during remediation activities? – If Yes, attach information including source, volume and analytical results demonstrating that the replacement soil was not contaminated.				
Reference Document:				Page #(s)

¹⁴ Contaminated soil and/or groundwater must be disposed of at an authorized waste management facility. Movement to any other location is not permitted.

8.3 Confirmation of Remediation			
	Yes / No	Report Name(s)	Page #s
A Confirmatory Sampling Report has been submitted that meets the requirements of Alberta's Environmental Site Assessment Standard (2016, as amended)			
The confirmatory sampling report confirms that the entire substance release meets the Alberta Tier 1 or Alberta Tier 2 Soil and Groundwater Quality Remediation objectives.			

9.0 Risk Management Plan (RMP) Under the Exposure Control Option			
	Yes / No	Report Name(s)	Page #s
A RMP has been previously submitted to the department that meets the requirements of the Alberta Exposure Control Guide (2017, as amended) and the Alberta Risk Management Plan Guide (2018 as amended).			
The RMP has been accepted by the Director ¹⁵ .			
The RMP include letters of no objection from all third parties.			
The RMP does not include any land use restrictions for any property considered residential or agricultural land use by the Alberta Tier 1 land use definition.			
The RMP includes at least 1 metre of surficial material that meets the appropriate Alberta Tier 1 or Tier 2 guidelines.			
The RMP does not include requirements to manage any CoPC concentrations that exceed 10 times the Alberta Tier 1 soil or groundwater criteria for Vapour Inhalation, Human Direct Contact, or Direct Contact for Potable Water Use. Or The RMP includes lines of evidence accepted by the Director to demonstrate that concentrations are not sufficient to result in acute or subchronic exposure or toxicity in the event of a failure of the RMP.			
The RMP does not include any restrictions to use of a domestic use aquifer or there are already administrative restrictions in place through municipal bylaws or public dispositions.			
The RMP includes a minimum of 1 metre of surficial material that meets the Alberta Tier 1 guidelines across the entire risk managed area.			
The concentration of any CoPC is not above Alberta Tier 1 soil or groundwater management limits for any area that is under risk management.			
The RMP does not include any requirements for engineered controls requiring ongoing management, maintenance or monitoring.			
DNAPL or LNAPL is not present on any area where there is infrastructure present or where buildings could be constructed.			
Risk management of the soil vapour pathway does not include any building requirements, restrictions, or infrastructure requirements that are not already part of the building code for all parcel(s) of land in the risk managed area.			
The RMP does not include any monitoring requirements on low density residential or agricultural land.			

¹⁵ Acceptance of any attached risk management plan is a requirement before submission of the Site-based Remediation Certificate application. If the risk management plan is not already submitted and accepted, the application cannot be processed and will be rejected as administratively incomplete.

The concentration of all CoPC are below Alberta surface water and sediment quality guidelines within 10 metres of the surface water body. For further information, refer to the Environmental quality guidelines for Alberta surface water.			
Failure of the RMP does not result in sudden and immediate exposure to aquatic, terrestrial or human receptors.			
The RMP does not require ongoing land use restrictions or all land use restrictions are included in the land use bylaw, municipal development plan, area structure plan, or area redevelopment plan for all areas in question.			
Risk management does not include any CoPC concentrations that are considered hazardous waste.			
Risk management is not required for any CoPC that is known to biomagnify or bioaccumulate.			
CoPC concentrations are not sufficient in soil or groundwater to change physical or chemical properties of the soil or sediment.			

10.0 REMEDIATION CERTIFICATE			
		Report Name(s)	Page #s
Total area of land remediated (m ²):			
Minimum depth to top of remediated zone (metres below ground surface):			
Maximum depth at base of remediated zone (metres below ground surface):			
Have any remediation or reclamation certificates been issued on the same site? – If Yes, list the remediation certificate numbers, and the date(s) issued:			
Remediation or Reclamation Certificate Number		Date Issued	

11.0 REQUIRED ATTACHMENTS	
The Applicant must submit all of the following:	
a)	<p>The Site-based Remediation Certificate Application and Appendix A</p> <ul style="list-style-type: none"> • Section 12.0 must be signed by a member of a professional regulatory organization, and, • Section 13.0 must be signed by the Applicant.
b)	<p>A description* and a map*, showing:</p> <ul style="list-style-type: none"> • the substance that is the subject of this application; • the legal boundaries of the land where the remediated area is located; • the legal boundaries of the site including all associated infrastructure; • the legal boundaries and the legal surveyed coordinates of the remediated areas; • the extent, depth and concentration of the substance on the land where the remediated area is located prior to the remediation of the substance, showing whether the substance was present within or outside the remediated area; • surface water bodies and water wells that are within the remediated area or are within 1000 metres from the edge of the remediated area; • domestic use aquifers, and any other aquifers that were considered in the development of the remediation procedures; and • residences or occupied buildings and utility corridors, including pipelines and conduits that are on the land where the remediated areas are located and on all land immediately adjacent to that land.
c)	<p>A land survey* prepared by a registered Alberta land surveyor showing the boundaries of the remediated area.</p>
d)	<p>A diagram*, including cross-sections, showing the top of remediation and the base of remediation within all remediated areas. The diagram must include the maximum depth of the base of remediation for the remediated areas.</p>
e)	<p>A copy of the certificate of title* for each parcel of land where the site and all parcels of land off the site that constitute the remediated area is located.</p>
f)	<p>Copies of reports* including:</p> <ul style="list-style-type: none"> • all Phase 1 Environmental Site Assessment (ESA) reports. Must include a current Phase 1 ESA for the entire site showing the conditions for the site at the time of submission of the application; • a detailed Phase 2 ESA showing: (a) an assessment of all contaminants of potential concern (CoPC) and APEC associated with all substances stored, used or released in connection with an activity, consistent with the Environmental Site Assessment Standard, and (b) a complete delineation of all CoPC and APEC for all substances released in association with the site, which is consistent with the Environmental Site Assessment Standard, including delineation of any APEC that may extend past the legal land description of the site; and • all reports made to Alberta Environment and Parks, the Alberta Energy Regulator or any other government body about the release of the substance(s). a Phase 1 ESA report, if applicable;
g)	<p>The Remediation report.* For details on the required contents of the Remediation Report, see the Alberta Environmental Site Assessment Standard.</p>
h)	<p>A copy of the Risk Management Plan*, if applicable. The Risk Management Plan must have been submitted and accepted or waived by the Director or inspector prior to this application.</p>

* **Required attachments.** List and reference all required attachments in Appendix A.

12.0 ENVIRONMENTAL PROFESSIONAL DECLARATION

1. This Declaration is made in conjunction with an application for a Site-based Remediation Certificate. The "Application" made by _____ (name of applicant) for the following land(s): _____ (insert legal land description)
2. I am a practicing professional member of the _____, which is a regulated professional organization (the "Professional Organization"). I have a minimum of five years verifiable experience in remediation or reclamation relevant to the Competencies Table contained in the *Competencies for Remediation and Reclamation Advisory Committee's Recommendations Report* (AENV 2006).
3. As a member of the Professional Organization, I have the ability to sign off on Remediation Certificate Applications as defined by Alberta Environment and Parks and am authorized by the applicant to prepare and/or submit the attached report(s) or document(s), listed in Appendix A (the "Professional Reports").
4. To the best of my knowledge and the best of my professional ability, recognizing the standard of care expected of a reasonable professional doing this work, it is my professional opinion that all the information contained in the Professional Report(s) is accurate and complete, and contains all the relevant information for the purposes of this Application.
5. The results reported in the Professional Report(s) are consistent with all current and applicable Provincial criteria, standards, and guidelines for remediation or reclamation.
6. The Professional Report(s), including all attachments, data and supplemental information, were prepared by me, or under my direct supervision, or were prepared by a third party and has been reviewed and accepted by me; and was prepared in accordance with an appropriate quality assurance/quality control system that ensured qualified personnel properly gathered and evaluated all the information contained in and underlying the Professional Reports. All the information submitted is, to the best of my knowledge, true, accurate and complete.
7. I carry, or my employer _____ carries, professional liability insurance (errors and omissions). This insurance will be maintained for the specified liability period.
8. I am aware that it is an offense under Section 227 of the *Environmental Protection and Enhancement Act* to provide, false, misleading or inaccurate information and that there are significant fines for committing these offences, including the possibility of imprisonment. See the applicant declaration for the relevant sections.

SIGNATURE:

DATE:

POSITION:

REGISTRATION NUMBER:

13.0 APPLICANT DECLARATION

This Declaration must be signed by the Applicant (consultant signatures are NOT acceptable).

I, _____ of _____ (Applicant) declare that,

This application for a Site-based Remediation Certificate was prepared and completed under my direction. Based on my inquiries of the person or persons who managed the application components required to complete this application the information is, to the best of my knowledge and belief, true, accurate and complete;

- We carried out a Phase 1 Environmental Site Assessment, and/or Phase 2 Environmental Site Assessment (copy attached if not previously submitted to Alberta Environment and Parks).
- We remediated the substance(s) specified in our application within the remediated area and the remediated zone to meet the *Alberta Tier 1 Soil and Groundwater Remediation Guidelines* (Alberta Environment 2007, as amended) or *Alberta Tier 2 Soil and Groundwater Remediation Guidelines* (Alberta Environment 2007, as amended) for the appropriate land use;
- We contacted the affected third parties to determine if, and how, they wanted their land remediated for the substance in this application. We have attached evidence of reporting to all affected third parties and, where required, letters of no objection for any Risk Management Plan or a record of the objection to risk management.
- The appropriate professional declarations have been completed and signed by the professional members who conducted and supervised the work; and
- I consent to an audit of the remediated area if a remediation certificate is issued.

I also declare that, to the best of my knowledge, all of the information contained within this Application is accurate and includes a complete representation of all the information that is required to be submitted in the Site-based Remediation Certificate application. I am aware that it is an offense under Section 227 of the *Environmental Protection and Enhancement Act* to provide, false, misleading or inaccurate information and that there are significant fines for committing these offences, including the possibility of imprisonment, the relevant sections which read as follows:

Offences s.227 A person who

- (a) knowingly provides false or misleading information pursuant to a requirement under this Act to provide information,
- (b) provides false or misleading information pursuant to a requirement under this Act to provide information,
- (c) fails to provide information as required under this Act, except under section 110(3).

Penalties s.228(1) A person who commits an offence referred to in section 60, 87, 108(1), 109(1) or 227(a), (d), (f) or (h) is liable

- (a) in the case of an individual, to a fine of not more than \$100 000 or to imprisonment for a period of not more than 2 years or to both fine and imprisonment, or
- (b) in the case of a corporation, to a fine of not more than \$1 000 000.

(2) A person who commits an offence referred to in section 61, 67, 75, 76, 79, 88, 108(2), 109(2), 110(1) or (2), 111, 112, 137, 148, 149, 155, 157, 163, 169, 170, 173, 176, 188, 191, 192, 209, 227(b), (c), (e), (g) or (i) or 251 is liable

- (a) in the case of an individual, to a fine of not more than \$50 000, or
- (b) in the case of a corporation, to a fine of not more than \$500 000.

SIGNATURE:

DATE:

NAME:

POSITION:

Payment must be submitted in the amount of \$1,000 together with **one** copy of the following documents:

- Cover letter
- Application Package including the application form and all documents listed in Section 11.0

Applications not accompanied with the fee will be refused and returned to the Applicant. Acceptable methods of application fee submission are by cheque (made payable to the Minister of Finance), Visa, or MasterCard.

Only one copy of the application is required. Electronic submissions are required. As much as possible, make sure all information is on standard 8.5" x 11" paper.

For all lands send the application to:

Remediation Certificates
Alberta Environment and Parks
Regulatory Approvals Centre
Petroleum Plaza South Tower, Fifth Floor
9915-108 Street
Edmonton Alberta T5K 2G8

For electronic submissions: RAC.environment@gov.ab.ca (Indicate "Remediation Application" in the subject line of the email).

