Preliminary Screening Report Form

Preliminary screener: MVLWB **Reference / File number: MV2014X0011** **TITLE: Decommissioning and Reclamation of Gas Plant and Association Sites - Pointed Mountain** **ORGANIZATION: Apache Canada Ltd.** **MEETING DATE: February 3, 2016**	**EIRB** **Reference number:**

Type of Development: (CHECK ALL THAT APPLY)

- ☐ New
- ☒ Amend, EIRB Ref. #
- ☒ Requires permit, licence, or authorization
- ☐ Does not require permit, licence, or authorization

Project Summary

General:

- Decommission and dismantle all remaining facilities, remediate any impacts to land and water, and reclaim all project sites to achieve final closure.
- Project work will be conducted between January and October
- Additional assessment and delineation of contamination will take place and a revised Remediation Plan will be submitted for approval prior to commencing remediation work.
- A winter access road will be constructed.
- On-site disposal of wastes from site decommissioning and remediation will consist of:
  - Downhole disposal of impacted liquids (pending successful integrity tests and licensing of the existing disposal well);
  - On-site treatment of contaminated soil; and
  - Off-site disposal of remaining wastes.

Camp:

- A 49-person camp is proposed.
- The camp will be located near the Airstrip Site.
- Sewage: sludge will be hauled offsite for disposal at a licenced facility; liquids will be pumped out to a pre-existing septic field.
- Camp burnable waste will be incinerated onsite and ash will be disposed of off-site; other domestic waste will be disposed of off-site;
- Camp water will come from three existing groundwater wells and by truck from Fort Liard.

Fuel:

- One 37,000L tank of diesel
- One 4500L tank of gasoline

Equipment (or similar):

- Service rig (1)
- Cement trucks (2)
- Vacuum truck (1)
- Pressure truck (1)
- Water truck (3)
- Ambulance vehicle (1)
- Wireline truck (1)
- Borehole logging truck (1)
- Tandem trucks (4)
- Pickup Trucks (10)
- Side by Side ATV (4)
- ATV (2)
- Welding truck (1)
- Hydrovac Unit (1)
- D6 Dozer (1)
- D3 Dozer (1)
- Track hoe (1)
- Rubber tired hoe (1)
- Environmental drill rig (2)
- Small boat (1)
- Low boy trailer (4)
- 5T Flatbed truck (1)
- 5T Fuel truck (1)
- Camp trailer units (10)
- Bombardier snow cat or similar for clearing snow and travelling unplowed areas (1);
- Steamer truck (1); and
- Grader.

This preliminary screening report combines the preliminary screening completed on June 5, 2014 for the original Permit application, and the preliminary screening completed on February 3, 2016 for the amendment application. The amendment application included work in the winter season (January -April, as well as additional equipment).

Scope

This Permit entitles Apache Canada Ltd. to conduct the following land-use activities for the decommissioning and reclamation of the Pointed Mountain Gas Plant, associated well-sites and infrastructure, including;

i. Establish a temporary camp;
ii. Use heavy equipment;
iii. Fuel storage;
iv. Bridge construction;
v. Road maintenance; and
vi. Clearing of vegetation.

Land Use Eligibility - Section 18 Mackenzie Valley Land Use Regulations

Type of Disposition Disposition Number(s)

☐ Mineral Claims
☐ Prospecting Permit (s)
☐ Mineral Leases
☐ Oil and Gas: EL/SDL/PL
☐ Quarry Permit
☐ Timber Permit
☐ Other:

Principal Activities (*related to scoping)*
(CHECK ALL THAT APPLY)

☒ Construction
☐ Installation
☒ Maintenance
☐ Expansion
☒ Operation
☒ Repair
☒ Research
☒ Water Intake
☒ Other: Remediation

☐ Exploration
☒ Industrial
☐ Recreation
☐ Municipal
☐ Quarry
☒ Linear / Corridor
☒ Sewage

☒ Decommissioning
☒ Abandonment
☐ Aerial
☐ Harvesting
☒ Camp
☐ Scientific/
☒ Solid Waste

Principal Development Components (*related to scoping*)

☒ Access Road
  ☒ construction
  ☒ abandonment/removal
  ☒ modification e.g., widening, straightening
☒ Automobile, Aircraft or Vessel Movement
☐ Blasting
☐ Building
☒ Burning
☐ Burying
☐ Channelling
☒ Cut and Fill
☒ Cutting of Trees or Removal of Vegetation
☐ Dams and Impoundments
  ☐ construction
  ☐ abandonment/removal
  ☐ modification
☐ Ditch Construction
☐ Drainage Alteration
☐ Drilling other than Geoscientific
☐ Ecological Surveys
☒ Excavation
☐ Explosive Storage
☒ Fuel Storage
☒ Topsoil, Overburden or Soil
  ☒ fill
  ☒ disposal
  ☒ removal
  ☒ storage

☒ Waste Management
  ☒ disposal of hazardous waste
  ☒ waste generation
  ☒ sewage
  ☒ disposal of sewage
☐ Geoscientific Sampling
☐ Trenching
☐ Diamond drill
☐ Borehole core sampling
☐ Bulk soil sampling
  ☐ gravel
  ☐ hydrological Testing
☒ Site Restoration
  ☐ fertilization
  ☐ grubbing
  ☐ planting/seeding
  ☐ reforestation
  ☐ scarify
  ☐ spraying
  ☒ re-contouring
☐ Slashing and removal of vegetation
☒ Soil Testing
☒ Stream Crossing/Bridging
☐ Tunnelling/Underground
☒ Other: Air emissions (equipment)

NTS topographic map sheet numbers:
95B

Latitude / longitude and UTM system:
Min: 60° 11' 19" N 123° 39' 18" W
Max: 60° 27' 30" N 123° 55' 10" W
Nearest community and water body:
Nearest Community is Fort Liard.
Nearest Waterbodies are Fisherman Lake, Kotaneelee River, Liard River.

Land Status (*consultation information*)

☐ Free Hold/Private ☒ Commissioners/Territorial Lands ☐ Federal Crown Land ☐ Municipal Land

Transboundary/Transregional Implications

☐ British Columbia ☐ Alberta ☐ Saskatchewan ☐ Yukon
☐ Nunavut ☐ National Park ☐ Inuvialuit Settlement Region
☐ Wek'èezhìi ☐ Gwich'in ☐ Sahtu

Type of transboundary implication: ☐ Impact / Effect ☐ Development

☐ Public concern: _____
(Describe.)

Physical - Chemical Effects

Impact **1) Ground Water**	***Mitigation***	***Location of condition***
☐ water table alteration		
☒ water quality changes	Previously installed groundwater monitoring wells will be used to model the flow of contaminants. Additional monitoring wells may be installed. Geochemical and contaminant transport modelling will help define if a groundwater trench may be required to prevent groundwater contamination from migrating off-site. The Proponent has proposed to dispose of contaminated groundwater in a pre-existing injection well on-site. The LUP requires a summary of monitoring activities as part of the Remediation Plan. Groundwater may be impacted by heavy equipment use, on-site fuel storage, and the transportation of excavated contaminated soils and waste materials for disposal off-site. Potential ground water quality impacts are mitigated through land use permit conditions and will be addressed in the Spill Contingency Plan.	Sections 26(1)(*f*), (*g*), (*m*), (*q*)
☒ infiltration changes	Changes to infiltration may be caused by re-sloping, re-contouring and infilling. Mitigations include requiring sediment and erosion control measures within the Remediation Plan. The Remediation Plan will include plans for the decommissioning of roads and restoration of natural drainages impacted by road crossings. Conditions also require monitoring plans (including post-remediation monitoring) to check that surface and groundwater and other environmental receptors are not impacted.	Section 26(1)(f)(*q)*
☐ other:		
☐ N/A		

Impact **2) Surface Water**	***Mitigation***	***Location of condition***
☐ flow or level changes		

☒ water quality changes	Surface water may be impacted by heavy equipment use, on-site fuel storage, and the transportation of excavated contaminated soils and waste materials for disposal off-site. Contaminated surface water will be collected and disposed of in the injection well. Potential surface water quality impacts are mitigated through land use permit conditions and will be addressed in the Spill Contingency Plan. The LUP requires a summary of monitoring activities as part of the Remediation Plan. Ice and snow bridges must be constructed of ice and snow only and material must not be stored on the ice stream.	Sections 26(1)(*f*), (*g*), (*m*), (*q*)
☐ water quantity changes		
☒ drainage pattern changes	Changes to drainage may be caused by the excavation of contaminated soil, and resloping of remediated sites. Mitigations include requiring sediment and erosion control measures within the Remediation Plan. The Remediation Plan will include plans for the decommissioning of roads and restoration of natural drainages impacted by road crossings.	Sections 26(1)(*d*), (*f*),(*q*)
☐ temperature		
☐ wetland changes/loss		
☐ other:		
☐ N/A		

Impact **3) Noise**	***Mitigation***	***Location of condition***
☒ noise in/near water	Noise in and near water will temporarily increase as a result of vehicle movement and construction activities. Standard noise suppression devices will be used on heavy equipment. No additional mitigation. Use of vehicles and equipment will create noise on ice surfaces. No mitigation.	
☒ noise increase	Short duration. Noise will temporarily increase as a result of vehicle movement and remediation activities. Standard noise suppression devices will be used on heavy equipment. No additional mitigation.	
☐ other:		
☐ N/A		

Impact **4) Land**	***Mitigation***	***Location of condition***
☐ geologic structure changes		
☒ soil contamination	Project activities will delineate and remediate soils contaminated by historic activities. Contaminated soil will be treated on-site or transported to an approved disposal facility. The LUP requires a summary of monitoring activities and risk management activities as part of the Remediation Plan. Soil may be impacted by heavy equipment use, on-site fuel storage, and the transportation of excavated contaminated soils and waste materials for disposal off-site. Potential soil impacts are mitigated through land use permit conditions and will be addressed in the Spill Contingency Plan.	Section 26(1) (*m*), (*q*)
☐ buffer zone loss		
☒ soil compaction and settling	Heavy equipment and vehicle movements have the potential to increase localized soil compaction and settling. The majority of remediation activities will take place on a previously disturbed footprint. Mitigations include requiring sediment and erosion control measures within the Remediation Plan.	Section 26(1) (*d*),(*f*), (*q*)

	Portages along the winter roads may experience compaction from vehicle and equipment traffic. No traffic will be allowed to travel on portages with less than 10cm of snow.	
☒ destabilization/erosion	Erosion/sedimentation may increase as a result of heavy equipment operation and excavations. Standard prevention techniques and established erosion and sediment control measures will apply. Run-off resulting from precipitation will be avoided by landscaping and burning work areas and excavations to redirect run-off and avoid ponding. Mitigations include requiring sediment and erosion control measures within the Remediation Plan.	Section 26(1) (*f*), (*q*)
☐ permafrost regime alteration		
☐ explosives/scarring		
☐ other:		
☐ N/A		

Impact	***Mitigation***	***Location of condition***
5) Non-renewable natural resources		
☐ resource depletion		
☐ other:		
☒ N/A		

Impact	***Mitigation***	***Location of condition***
6) Air/climate/atmosphere		
☒ other: Emissions	There will be some emissions from vehicles and other equipment. This will be minimal, short term, and reversible as the vehicles should meet the standards for emissions. The incineration of solid waste can release dioxins, furans, and mercury into the atmosphere. Mitigation will include incineration management strategies that meet Canada-wide Standards (CWS) for Dioxins and Furans (CCME 2001) and Mercury Emissions (CCME 2000).	Section 26(1)(*i*)
☒ other: Excessive dust	If required, water will be used as a dust suppressant.	
☐ N/A		

BIOLOGICAL ENVIRONMENT

Impact	***Mitigation***	***Location of condition***
1) Vegetation		
☐ species composition		
☒ species introduction	Invasive species could be introduced via equipment brought into the project area. The Proponent will ensure that equipment is cleaned prior to arrival on site and between installations within the project area.	
☒ toxin/heavy accumulation	Debris, hazardous waste and contaminated soil that cannot be treated on-site will be transported by truck across the Liard River to the waste processing facility in Fort Nelson BC.	
☒ other: clearing	Vegetation will be cleared to create access trails 3-4 m wide for equipment access. Clearing could result in increased run off and release of contaminated sediments. A maximum of one hectare will be cleared, with half of the clearing to occur on previously cleared land. Slashed vegetation will be used to cover access trails following use to minimize erosion and promote regrowth. Mitigations include requiring sediment and erosion control measures within the Remediation Plan.	Section 26(1)(*n*),(*q*)
☒ other: forest fires	Project work will occur during forest fire season. Mitigation includes requiring firefighting equipment on site.	Section 26(1)(*n*)
☐ N/A		

Impact **2) Wildlife and Fish**	*Mitigation*	*Location of condition*
☒ effects on rare, threatened or endangered species	Remediation activities will include disturbances such as clearing vegetation, stripping contaminated soil, dewatering artificial ponds, and on-site soil remediation. Several species listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and under the Species at Risk Act (SARA) may occur in the project area. The LUP contains conditions for wildlife habitat protection and for caribou disturbance. Mitigations include requiring measures to mitigate impacts to species habitats for each species identified as At Risk or May Be At Risk to be included in the Remediation Plan. Control measures and contingency plans to mitigate potential adverse effects to adjacent receptors such as vegetation and wildlife are also required in the Remediation Plan. Sediment and erosion control measures are required in the Remediation Plan.	Section 26(1)(*h),(q*)
☐ fish population changes		
☐ waterfowl population changes		
☒ breeding disturbance	Remediation activities will include disturbances such as clearing vegetation, stripping contaminated soil, dewatering artificial ponds, and on-site soil remediation. Project activities will take place during breeding season for birds, waterfowl, and other wildlife and fish. The LUP contains conditions for wildlife habitat protection and migratory bird disturbance. Control measures and contingency plans to mitigate potential adverse effects to adjacent receptors such as vegetation and wildlife are required in the Remediation Plan.	Section 26(1)(*h),(q*)
☐ population reduction		
☐ species diversity change		
☐ health changes		
☒ behavioural changes	Sensory disturbances such as noise and light, the presence of garbage and other attractants, and impacts to habitats could affect wildlife behaviour. The LUP contains conditions for wildlife habitat protection and migratory bird disturbance. The Waste Management Plan includes measures to avoid negative impacts on wildlife.	Sections 26(1)(*h*),(*i*),(*q*)
☒ habitat changes / effects	Vegetation clearing may impact habitat. Care will be taken to minimize damage to habitat and disturbance to resident species. Efforts will be made to develop on previously disturbed land and limit the project footprint.	Sections 26(1)(*h),(n)(q*)
☐ game species effects		
☒ toxins/ heavy metals	Clearing and excavations could result in increased run off and release of contaminated sediments. Contaminated sediments entering watercourses and wetlands could negatively impact wildlife and fish. Sediment and erosion control measures are required in the Remediation Plan. Artificial ponds that currently contain contaminated water will be drained and water will be treated. Contaminated soil that cannot be treated on-site will be removed for off-site disposal.	Section 26(1)(*q)*
☐ forestry changes		
☐ agricultural changes		
☐ other:		
☐ N/A		

Interacting Environment

Impact **1) Habitat and Communities**	*Mitigation*	*Location of condition*
☐ predator-prey		
☐ wildlife habitat/ecosystem composition changes		
☒ reduction/removal of keystone or endangered	Several species listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and under the Species at Risk Act (SARA)	Section 26(1)(*h),(q*)

species	may occur in the project area. The LUP contains conditions for wildlife habitat protection and for caribou disturbance. Mitigations include requiring measures to mitigate impacts to species habitats for each species identified as At Risk or May Be At Risk to be included in the Remediation Plan.	
☐ removal of wildlife corridor or buffer zone		
☐ other:		
☐ N/A		

Impact	***Mitigation***	***Location of condition***
2) Social and Economic		
☐ planning/zoning changes or conflicts		
☐ increase in urban facilities or services use		
☐ rental house		
☐ airport operations/capacity changes		
☒ human health hazard	Remediation workers may be exposed to toxins and other hazards during project activities. Proponent will have appropriate health and safety plans in place and emergency equipment on-site.	
☐ impair the recreational use of water or aesthetic quality		
☐ affect water use for other purposes		
☐ affect other land use operations		
☐ quality of life changes		
☐ public concern		
☐ other:		
☐ N/A		

Impact	***Mitigation***	***Location of condition***
3) Cultural and Heritage		
☐ effects to historic property		
☐ increased economic pressure on historic properties		
☐ change to or loss of historic resources		
☒ change to or loss of archaeological resources	There are numerous recorded archaeological sites in close proximity to the remediation area, particularly the Plant Site. The LUP requires that an archaeological impact assessment be conducted prior to ground disturbing activities in close proximity (i.e. within 150 m) of any of the recorded archaeological sites, and that appropriate mitigation measures be designed in consultation with the Prince of Wales Northern Heritage Centre.	Section 26(1)(*j*)
☐ increased pressure on archaeological sites		
☒ change to or loss of aesthetically important sites	Fisherman Lake and the area surrounding it is a glacial refugium and functions as a biodiversity hotspot with a high diversity of plants and	

animals, rare species, unique species. The area has been classified as an Important Wildlife Area by Environment and Natural Resources. The area has a high density of archaeological sites, demonstrating its importance as a historic traditional use area.

The remediation of the area as a whole, as proposed by the Proponent, is expected to outweigh short-term negative impacts caused by remediation activities.

☐ effects to aboriginal lifestyle

☐ other:

☐ N/A

- Pursuant to Schedule 4.1 of the **Northwest Territory Métis Nation** (NWTMN) Interim Measures Agreement, the MVLWB determined that written notice was given to the NWTMN and that a reasonable period of time was allowed for NWTMN to make representations with respect to the application.

- Pursuant to section 27, paragraphs (a) and (b) of the **Dehcho First Nations** (DCFN) Interim Measures Agreement, the MVLWB has determined that written notice was given to the DCFN, and that a reasonable period of time was allowed for DCFN to make representations with respect to the application.

AANDC
Acho Koe Dene First Nation
CanNor NWT Region
Deh Cho Land Use Planning Committee
Deh Gah Got'ie Dene Council
Dehcho First Nations
Dene Nation
Dene Tha' First Nation
Ecology North
Enterprise Settlement
Environment Canada
Fisheries and Oceans Canada
Fort Providence Metis Council #57
Fort Providence Resource Management Board
GNWT - Department of Transportation
GNWT - Environment and Natural Resources
GNWT – Health
GNWT – ITI
GNWT – Lands
GNWT – MACA
GNWT - Prince of Wales Northern Heritage Centre
Gov of Canada
Gov of the NWT
Hamlet of Fort Liard
Hamlet of Fort Providence
Hay River Metis Council
Ka'a'gee Tu First Nation
Katlodeeche First Nation
Liidlii Kue First Nation (Ft Simpson)
Mackenzie Valley Environmental Impact Review Board
Nahanni Butte First Nation
Nahendeh Land & Environmental Services
National Energy Board
North Slave Metis Alliance
Northwest Territory Metis Nation
NWT Metis Nation
Parks Canada
Pehdzeh Ki First Nation
Pembina Institute
Sambaa Ke Dene Band
Snap Lake Environmental Monitoring Agency - SLEMA
Tlicho Lands Protection Department
Town of Hay River
Transport Canada
TthedzehK?edeli First Nation
Village of Fort Simpson
West Point First Nation
Workers' Safety and Compensation Commission

Reasons For Decision
(List all reasons and supporting rationales for preliminary screening decision)

DECISION

The Mackenzie Valley Land and Water Board (the Board) is satisfied that the preliminary screening of Application MV2014X0011, Apache Canada Ltd., Decommissioning and Reclamation of Gas Plant and Association Sites - Pointed Mountain has been completed in accordance with section 125 of the *Mackenzie Valley Resource Management Act* (MVRMA).

The Board is satisfied that communities and First Nations affected by the Application have been notified and provided adequate time to provide comment on the Application as required by land claim and self government agreements, the MVRMA, policy directions relating to Interim Measures Agreements, and any other applicable legislation and agreements.

Having reviewed all relevant evidence on the Public Registry, including the submissions of the Applicant, the written comments received by the Board and any Staff Reports prepared for the Board, the Board has decided that in its opinion:

- The proposed development will not have a significant adverse impact on the environment; and
- The proposed development is not a cause of public concern.

The Board is also of the opinion that the Application can proceed through the regulatory process and that any impacts of the development on the environment can be mitigated through the imposition of the terms and conditions in the attached Land Use Permit.

As a result, the Board, having due regard to the facts and circumstances, the merits of the submissions made to it, and to the purpose, scope, and intent of the MVRMA and the Mackenzie Valley Land Use Regulations, has decided that this Land Use Permit be issued subject to the terms and conditions contained therein.

	Preliminary Screening Decision
☒	**Outside Local Government Boundaries**
☐	The development proposal might have a significant adverse impact on the environment, *refer it to the EIRB*.
☒	*Proceed with regulatory process and/or implementation.*
☐	The development proposal might have public concern, *refer it to the EIRB*.
☒	*Proceed with regulatory process and/or implementation.*
☐	**Wholly Within Local Government Boundaries**
☐	The development proposal is likely to have a significant adverse impact on air, water or renewable resources, *refer it to the EIRB*.
☐	*Proceed with regulatory process and/or implementation*.
☐	The development proposal might have public concern, *refer it to the EIRB*.
☐	*Proceed with regulatory process and/or implementation*.

Preliminary Screening Organization

Mackenzie Valley Land and Water Board

February 3, 2016

Signatures