PACIFIC CANBRIAM ENERGY LIMITED NORTHEAST BC FIELD OPERATIONS EMERGENCY RESPONSE PLAN

24 HOUR EMERGENCY LINE
1.877.269.2877

BCER 24 HOUR INCIDENT REPORTING LINE:
1.800.663.3456

SEPTEMBER 30, 2024

Information Page

Emergency Response Plan (ERP) Name	Pacific Canbriam Energy Limited Northeast BC Field Operations ERP Supplement	
ERP Manual	Version 1.0 of the Pacific Canbriam Energy Limited Northeast BC Field Operations ERP Supplement was completed in September 2022 and submitted to the British Columbia Energy Regulator for approval.	
Distribution and Maintenance	Pacific Canbriam Energy Limited 2100 215 2 Street SW Calgary, AB T2P 1M4	
Administrator	Behr Integrated Solutions 750 600 6 Avenue SW Calgary, AB T2P 0S5	Phone: 403.444.6940 https://behrintegrated.com
Manual Revisions	Version 1.0 – Completed September 30, 2022 Revision 1.1 – Completed September 30, 2023 Revision 1.2 – Completed October 31, 2023 Revision 1.3 – Completed September 30, 2024	
Next Scheduled Revision Date	September 30, 2025	
Map Revision Date	Maps finalized on various dates. Refer to area specific tabs.	
Current Operating Areas	▪ Altares / Farrell Creek ▪ Groundbirch ▪ Kobes	

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Emergency Response Plan
Acknowledgement Form

I hereby acknowledge that I have received a copy of the Pacific Canbriam Energy Limited – Northeast BC Field Operations ERP Supplement.

As a manual holder I understand that:

- I may receive periodic updates which I am responsible for incorporating into this Emergency Response Plan ensuring the document contains the most recently collected data.
- This manual contains confidential information and should be stored in a secure location at all times.
- I must notify Behr Integrated Solutions / Pacific Canbriam Energy Limited if this manual becomes damaged or lost.
- This manual will be returned to Behr Integrated Solutions if replaced or no longer valid.

To confirm your receipt of this manual, please complete the following information and return a signed copy of this letter by email to **erp.acknowledgement@behrintegrated.com**..

Name *(Please Print)*	Manual Number
Signature	Date

Emergency Response Plan
Document Status and Revision Form

This form is used to track any revisions made to this manual. All revisions are to be documented and provided to all manual holders.

Next Annual Review Date:		September 30, 2025			
Current Annual Review Date:		September 30, 2024			
ERP Revision Number	Distribution Date	Revised Sections	Annual Update Y or N	Date Inserted into ERP YYYY-MM-DD	Inserted By
--	Prior to 2022	Revision records have been archived.			
1.0	2022-09-30	Restructure of entire ERP document. All sections reviewed and updated.	Y		
1.1	2023-09-30	All sections reviewed and updated.	Y		
1.2	2023-10-31	Altares / Farrell Creek and Kobes / Groundbirch information amalgamated into one Field Supplement ERP.	N		
1.3	2024-09-30	All sections reviewed and updated.	Y		

Emergency Response Plan

Management of Change Request Form

Item 1. _____

Section Number: _____

Page Number: _____

Description of Change: _____

_____

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_____

Requested By: _____ Date: _____

Item 2. _____

Section Number: _____

Page Number: _____

Description of Change: _____

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_____

_____

_____

Requested By: _____ Date: _____

BEHR OFFICE USE

Received By: _____ Date: _____

Emergency Response Plan
Manual Distribution List

Manual No.	Recipient	Title	Location
Corporate – Confidential			
1	Paul Myers	President	2100 215 2 Street SW Calgary, AB T2P 1M4
2	Jeff Pakish	Manager, Production & Facilities	2100 215 2 Street SW Calgary, AB T2P 1M4
3	Steve Bernard	Manager, Drilling and Completions	2100 215 2 Street SW Calgary, AB T2P 1M4
4	Spare	Calgary Head Office	2100 215 2 Street SW Calgary, AB T2P 1M4
5	Nauman Rasheed	Chief Operating Officer	2100 215 2 Street SW Calgary, AB T2P 1M4
6	Zitin Lamba	Operations Manager	2100 215 2 Street SW Calgary, AB T2P 1M4
7	Spare	Calgary Head Office	2100 215 2 Street SW Calgary, AB T2P 1M4
8	Spare	Calgary Head Office	2100 215 2 Street SW Calgary, AB T2P 1M4
9	Spare	Calgary Head Office	2100 215 2 Street SW Calgary, AB T2P 1M4
Field Manuals – Confidential			
10	Drilling & Completions	b-72-A Warehouse	1 10628 Peck Lane Fort St. John, BC V1J 4H9
11	Drilling & Completions	b-72-A Warehouse	1 10628 Peck Lane Fort St. John, BC V1J 4H9
12	Drilling & Completions	b-72-A Warehouse	1 10628 Peck Lane Fort St. John, BC V1J 4H9
13	Drilling & Completions	b-72-A Warehouse	1 10628 Peck Lane Fort St. John, BC V1J 4H9
14	Drilling & Completions	b-72-A Warehouse	1 10628 Peck Lane Fort St. John, BC V1J 4H9
15	Drilling & Completions	b-72-A Warehouse	1 10628 Peck Lane Fort St. John, BC V1J 4H9
16	Jeleena Cawley	HSE Specialist	1 10628 Peck Lane Fort St. John, BC V1J 4H9
17	Spare	Fort St. John Office	1 10628 Peck Lane Fort St. John, BC V1J 4H9
18	Spare	Fort St. John Office	1 10628 Peck Lane Fort St. John, BC V1J 4H9
19	Steve Gonwick	Operations, Altares b-72-A Plant	1 10628 Peck Lane Fort St. John, BC V1J 4H9
20	Lyndon Toews	Operations, Altares b-72-A Plant	1 10628 Peck Lane Fort St. John, BC V1J 4H9
21	Control Room	b-24-H Altares Control Room	1 10628 Peck Lane Fort St. John, BC V1J 4H9

A **BOLD, RED,** manual number indicates the manual contains confidential data collected during the Public Involvement Process

Manual No.	Recipient	Title	Location
Field Manuals – Confidential (continued)			
22	Control Room	b-24-H Altares Control Room	1 10628 Peck Lane Fort St. John, BC V1J 4H9
23	Control Room	b-24-H Altares Control Room	1 10628 Peck Lane Fort St. John, BC V1J 4H9
24	Control Room	b-24-H Altares Control Room	1 10628 Peck Lane Fort St. John, BC V1J 4H9
25	Control Room	b-72-A Altares Control Room	1 10628 Peck Lane Fort St. John, BC V1J 4H9
26	Control Room	b-72-A Altares Control Room	1 10628 Peck Lane Fort St. John, BC V1J 4H9
27	Control Room	b-72-A Altares Control Room	1 10628 Peck Lane Fort St. John, BC V1J 4H9
28	Control Room	b-72-A Altares Control Room	1 10628 Peck Lane Fort St. John, BC V1J 4H9
29	Spare	Kobes Field Office	1 10628 Peck Lane Fort St. John, BC V1J 4H9
External Manuals			
30	BC Energy Regulator (BCER)	Security and Emergency Management Branch	Bag 2 Fort St. John, BC V1J 2B0
31 PDF	BC Energy Regulator (BCER)	Security and Emergency Management Branch	SFTP Site
32 PDF	Emergency Management & Climate Readiness (EMCR)	Manager	3235 Westwood Drive Prince George, BC V2N 1S4
33 PDF	WorkSafeBC	Regional Prevention Manager	Budd.phillips@worksafebc.com
34 PDF	Peace River Regional District	Protective Services Manager	prrd.dc@prrd.bc.ca
35	Hudson's Hope RCMP	NCO in Charge	10317 Gething Street Hudson's Hope, BC V0C 1V0
36	Halfway River First Nations	Fire Chief and the Manager of Emergency Services	PO Box 59 Wonowon, BC, V0C 2N0
Contractors			
Master	Behr Integrated Solutions	Emergency Management Consultants	750 600 6 Avenue SW Calgary, AB T2P 0S5

A **BOLD, RED,** manual number indicates the manual contains confidential data collected during the Public Involvement Process

1.0 Public Safety

1.1 Public Notification

Pacific Canbriam Energy Limited must make the information listed in the below table available to the public as soon as possible during an emergency

Information Disseminated to the Public at the Onset and During an Incident
To the affected public - immediately
▪ Type and status of incident. ▪ Location and proximity of the incident to people in the vicinity. ▪ Public protection measures to follow, evacuation direction, and any other emergency response measures to consider. ▪ Actions being taken to respond to the situation and time period anticipated. ▪ Contacts for additional information.
To the affected public - during
▪ Description of the products involved and their short term and long term affects. ▪ Effects the impact may have on people in the vicinity. ▪ Areas impacted by the incident. ▪ Actions the affected public should take if they experience adverse effects.
To the general public - during
▪ Type and status of incident. ▪ Location of the incident. ▪ Areas impacted by the incident. ▪ Description of the products involved. ▪ Contacts for additional information. ▪ Actions being taken to respond to the situation and time period anticipated.

Refer to the *Pacific Canbriam Energy Limited Corporate Emergency Response Plan* for additional procedures.

1.2 Isolation of the HPZ

Establishing and managing manned roadblocks in order to prohibit unauthorized entry into the response zones may become necessary during a sour gas release that could potentially jeopardize public safety.

Isolation of the HPZ (roadblocks) will be required to properly protect the public. This may include:

Roads

- Roadblock personnel may set up roadblocks on lease roads, public roads and provincial highways to protect the public from entering into the HPZ.
- Contact the RCMP immediately to advise of the roadblocks on public roads and provincial highways.
- The Ministry of Transportation will also need to be notified of any road closures on provincial roadways. RCMP are responsible for contacting Transport Canada.
- Roadblocks will be set up bordering the HPZ, if there is not a safe place for motorists to turn around at the established roadblock, Roadblock personnel will also be stationed along the roadway and at the detour point (if applicable) to assist motorists traveling around the HPZ.

Trails

- If applicable, access to trails may be restricted by roadblock personnel and / or municipal or provincial personnel.
- Signage may be used during sour operations to alert those in the area that they will be entering an Emergency Planning Zone.

Railroads

- If applicable, CN, CPKC or private railroad companies will need to be notified of the situation and will stop or relocate rail traffic.

Rivers

- If applicable, rivers may need to be monitored to ensure that recreational users do not travel into the HPZ.
- This may be accomplished by working with municipal, provincial or private companies as well as Transport Canada.
- Signage may be used during sour operations to alert those in the area that they will be entering an Emergency Planning Zone.
- Rovers may be assigned to monitor the river at the edge of the HPZ and boat launches outside of the HPZ during an emergency situation.

Air

- Notification of the BCER to issue a Notice to Airmen (NOTAM) to advise pilots of airspace restrictions above the HPZ may also be required.
- NOTAM may be requested at a Level 2 and 3 Emergency.

Level 1 Emergency
In the case of a well site emergency, the entrance into the well site shall be isolated during a Level 1 Emergency with a roadblock. Additional roadblocks may be established as required. Persons allowed entry into the area shall be briefed on the existing conditions and are equipped with the appropriate Personal Protective Equipment (PPE).

Level 2 or 3 Emergency
In the case of a well site emergency, the HPZ shall be isolated during a Level 2 or 3 Emergency as directed by the Incident Commander. If the incident impacts provincial highways the RCMP shall be notified to provide assistance. The RCMP will notify the Ministry of Transportation and Transport Canada for a coordinated response, as required.

Roadblock Units can be staffed by:
- Safety Company (contractor).
- Company personnel.
- Local Authority Mutual Aid, upon request.

Roadblock Teams stationed at the roadblock locations should be equipped with the appropriate Personal Protective Equipment (PPE) including:
- Self contained breathing apparatus (SCBA).
- H_2S / SO_2 detector and high visibility vests.

Refer to the *Pacific Canbriam Energy Limited Corporate Emergency Response Plan* for additional procedures.

1.3 Evacuation

The purpose of an evacuation is the removal of people from the HPZ to reduce the risk of exposure to H_2S / SO_2 or an explosive mixtures cloud. The BCER must be notified of an evacuation of people within the HPZ.

In the event of a hazardous material incident where evacuation needs to take place, local emergency services and municipalities shall be notified immediately to advise them of the situation so that they can take appropriate safety precautions for their personnel who may travel into the HPZ.

First responders may commence evacuation procedures without the authority of Pacific Canbriam Energy Limited, the BCER, or the local and provincial disaster services. It is imperative that police, fire and emergency medical services are advised of the situation immediately and apprised of the evacuation procedures (if any) or shelter in place procedures.

Evacuation Criteria
Criteria to consider that may cause Pacific Canbriam Energy Limited to initiate evacuation procedures include:

- Level of emergency.
- Conditions at the wellsite and if they are likely to escalate to a more serious situation.
- Residents sensitivities and / or medical conditions.
- The levels of H_2S reaching the public outside the HPZ.

A Level 2 Emergency dictates mandatory evacuation of all public from the HPZ. Evacuation of members of the public outside the HPZ is mandatory when H_2S levels reach 10 ppm - if safe to do so.

Evacuation – Level 1 Emergency

- At a Level 1 Emergency, evacuation is a voluntary action, however transients found within the HPZ including itinerant workers and recreational users should be advised to evacuate due to their inability to safely shelter.
- The Telephone Unit will notify any members of the public listed as having special needs (if applicable), any known transients, and other area operators within the HPZ.
- All information regarding evacuees requiring evacuation assistance will be forwarded to the Rover / Evacuation Unit Leader.
- If a publicly used facility, including schools and hospitals, is located within the HPZ Rovers will be dispatched to the facility at a Level 1 Emergency to assist with early evacuation. A large number of people requiring assistance with transportation may cause the need to deviate from normal evacuation procedures.
- Rovers may be dispatched during a Level 1 Emergency to search the HPZ for transients, recreational users and Trappers / Guides.

Evacuation – Level 2 Emergency

- At a Level 2 Emergency, evacuation of all people including transients and other area users, public facilities and places of commercial activities within the HPZ is mandatory.
- Pacific Canbriam Energy Limited shall initiate evacuation procedures.
- The Telephone Unit will notify all people (residents, transients and other area operators) in the HPZ and advise them of the immediate mandatory evacuation.
- Any new information regarding evacuees requiring evacuation assistance will be forwarded to the Rover / Evacuation Unit Leader.
- Evacuation will be prioritized based on distance from release or other factors where appropriate.

Evacuation – Level 3 Emergency

- If the evacuation of the HPZ has not been completed at a Level 3 Emergency, any people who have not been evacuated will be notified to shelter in place. Necessary instructions for sheltering in place will be provided in the event that evacuation is not possible.
- If a hazardous plume has been ignited and it is relatively certain the plume will stay ignited, those evacuees who were asked to shelter in place will be called and notified to evacuate the area to the Reception Centre.
- Any new information regarding evacuees requiring evacuation assistance will be forwarded to the Rover / Evacuation Unit Leader.

Evacuation Procedure – By Land

- The Incident Commander will determine the safest route(s) to evacuate the area by road.
- This decision may be based on the location of the asset, wind direction and speed.
- Additional transportation may need to be arranged to evacuate public facilities where large numbers of people can be anticipated.
- Evacuation routes are provided to the Roadblock Unit, Telephone Unit and Rover / Evacuation Unit Leader.
- Rovers will be assigned to patrol the area searching for transients, including trappers, guides / outfitters and recreational users.
- During sour operations one or more evacuation vehicle must be available 24 hours a day, with at least one driver onsite who is not required to assist in well control operations.

Evacuation Procedures – By Helicopter

- Helicopters may be required to assist in the search and rescue of people within the HPZ.
- Helicopters may also be used during an emergency to track the plume in order to aid in the evacuation of people within the HPZ.
- Communication with the Air Quality Monitoring Unit is imperative in order to prevent sending the helicopter into a plume.
- The helicopter is to be equipped with loud hailers and / or loudspeaker to notify occupants within the HPZ of the emergency and advise them to evacuate the area.
- Helicopters will be provided the radio frequency to use for the emergency at the time of initial contact, as well as, the latitude / longitude coordinates of the Helispots and Reception Centres.

- Pacific Canbriam Energy Limited may wish to activate the helicopter(s) at a Level 1 Emergency if conditions at the emergency site are deteriorating quickly, or if there is a large number of trapped residents, transients, recreational users and other area operators.
- At a Level 2 Emergency, helicopters may be activated to search for and evacuate people in the area to designated emergency evacuation pick up points, or Helispots.

Evacuation outside the HPZ

The public outside of the HPZ must be notified and evacuated in accordance with criteria in *Table 2* of the *BCER Emergency Response Plan Requirements* (*Air Monitoring* Section) and in conjunction with the local authority for the area. As a minimum, notification, and evacuation beyond the HPZ is based on monitored levels of H_2S and SO_2, which includes levels of H_2S reaching the public outside the HPZ at 10 ppm.

- Residents / occupants of an HPZ who are downwind of the asset will be evacuated first. Pacific Canbriam Energy Limited will provide air monitoring at the nearest downwind unevacuated residence.
- If air monitoring results indicate the plume to be outside of the HPZ, evacuation would be provided on a priority basis.
- Residents upwind of the emergency location but within the HPZ would be evacuated on a lower priority basis.
- Evacuation area will be expanded where H_2S and SO_2 exceed evacuation levels or health effects are apparent by monitoring.
- Broadcast media (radio, television) will be used to notify residents outside the HPZ in the event that immediate evacuation of the area must take place.
- Pacific Canbriam Energy Limited along with the local authority will coordinate their respective emergency plans with each other. The local authority may enact their Municipal Disaster Response Plan to deal with the emergency.
- Local disaster services and mutual aid partners (if applicable) will assist in the notification and evacuation of people located in the area outside of the HPZ, in campgrounds, or other transient areas.
- Air quality monitoring information will be made available to the public on a regular basis throughout the duration of the emergency.
- Evacuees will be informed of the best route to their designated Reception Centre and this route must be recorded.
- Evacuees must check in at the Reception Centre.

Prolonged Evacuation

If the problem cannot be readily corrected and evacuees are required to be away from the area for an extended period of time, Pacific Canbriam Energy Limited if required, will:

- Provide assistance in arranging their food and temporary accommodation.
- Provide area security.
- Arrange relief for all responders if the evacuation remains in effect for over eight hours.

Return of Evacuees

Once the emergency is over, the decision to permit the return of persons shall be made by the Incident Commander, in consultation with the BCER and local and provincial disaster services.

1.4 Shelter in Place

Shelter in place is the practice of going or remaining indoors during a sudden outdoor release of a hazardous substance. Shelter in place has been demonstrated to be the most effective response to a substance release by creating a buffer between you and any hazard that may be in the outside air. Shelter in place is recommended as a protection measure of short duration, ranging from several minutes to half an hour. The goal of shelter in place is to reduce the movement of air into and within the home until the hazard has passed. It is based on using a building that is constructed to withstand severe winter weather conditions.

An event such as a fire, motor vehicle incident, train derailment, industrial incident, or a natural disaster may cause a substance release. As a result, emergency responders may request that residents shelter in place. If the situation warrants, specific instructions for taking shelter in the home will be given. Shelter in place may protect against any H_2S contaminated air outside and reduce the amount to which people may be exposed.

Shelter in place is not a viable option for recreational users or transients, due to their inability to safely shelter.

Shelter in place must be considered the primary protective measure in limited circumstances when:

- There is not enough time or warning to safely evacuate the public that may be at risk.
- Residents are waiting for evacuation assistance.
- The public would be at higher risk if evacuated.
- Buildings are considered to be within or near to toxic or explosive gas plumes.
- Escape routes traverse the hazards.
- There is a sour gas release of limited duration (eg. due to a pipeline rupture).
- The location of the release has not been identified.
- Duration of release is short term.

Shelter in Place Instructions

These instructions should be provided to anyone who cannot or should not evacuate.

- Immediately gather everyone indoors and stay there.
- Close and lock all windows and outside doors – if possible, tape the gaps around the door frames.
- Extinguish indoor wood burning fires - if possible, close the damper.
- Turn off appliances or equipment that either uses inside air, blows out inside air or sucks in outside air, such as:
  - Stoves
  - Fireplaces
  - Clothes dryers
  - Air conditioners
  - Bathroom and kitchen fans
  - Built in vacuum systems
- Turn off heat and hot water pilot lights.
- Do not smoke or have open flame.

- Leave all inside doors open.
- Wait in an interior upstairs room for further instructions.
- Avoid using the telephone, except for emergencies, so that you can be contacted by emergency personnel.

  The responder should ask if emergency services have been notified so that a coordinated response can be conducted.

- Stay tuned to local radio for possible information updates or for further instructions.
- Even if you see people outside do not leave until told to do so.
- If you are unable to follow these instructions, please notify company emergency response personnel.
- After the hazardous substance has passed through the area you will receive an all clear message from emergency response personnel along with instructions to:
  - Ventilate your building by opening all windows and doors.
  - Turn on fans, turn up thermostats, and furnace circulating fans.
  - Once the building is completely ventilated return all equipment to normal.

If warranted, Pacific Canbriam Energy Limited personnel shall carry out notification of residents outside of the HPZ in consultation with the Incident Commander, the BCER and the local authority. All people within the HPZ need to be informed of the emergency situation and given instructions on in place sheltering and / or evacuation procedures.

2.0 Mutual Aid

Mutual Aid among industries and government agencies allow for sharing of personnel and equipment, which enhances response capabilities.

A wide range of emergencies may occur that have an impact on neighbouring stakeholders. In this event, multiple parties may want to provide assistance during the emergency.

It must be agreed upon prior to any type of third party response that Pacific Canbriam Energy Limited will remain the primary emergency responder, and that any assistance provided by third parties must be under the supervision of a Pacific Canbriam Energy Limited representative. Furthermore, the party providing mutual aid must comply with all applicable Pacific Canbriam Energy Limited policies and applicable government regulations.

2.1 Municipal Mutual Aid

During an incident, the regional district and provincial health authority will be notified, via telephone or in person, of the situation and kept apprised of decisions to evacuate, shelter in place, etc. The Incident Commander may contact mutual aid partners or assign another responder to do so. Municipalities may provide assistance, where capable and as required, to assist with the coordination and administration of a reception centre, assist with evacuations and roadblocks, establishing the respective command centre, arranging temporary accommodations and HPZ public notifications.

Each Regional District has a formal Emergency Management Plan which outlines the measures and sources of assistance that can be obtained to support emergency response efforts within their jurisdiction. Upon request from the BCER, the Regional District may address emergency response capabilities, expectations, and preparedness. If required, the Regional District may activate their emergency plan in order to achieve any of the following:

- Dispatch representative(s) to the BCER's PREOC, if established.
- Ensure notification of endangered area residents.
- Coordinate Emergency Social Services (ESS).
- If necessary, declare a State of Emergency.
- Assist in public information service.

Peace River Regional District	
24 Hour Number	250.784.3200 or 800.670.7773
Primary Emergency Contact	Kevin Clarkson, General Manager Community Services Bus: 250.784.3218 Cell: 250.219.3000 Email: Kevin.Clarkson@prrd.bc.ca
Secondary Emergency Contact	On Duty EOC Director 250.784.4837
Main Office:	250.784.3200 Fort St. John Branch: 250.785.8084
Address:	1981 Alaska Avenue Dawson Creek, BC V1G 4H8

Roles & Responsibilities

Peace River Regional District

1981 Alaska Avenue, Box 810, Dawson Creek, BC V1G 4H8
Tel: (250) 784-3200 Fax: (250) 784-3201 www.prrd.bc.ca

Local Authority (Regional District)

Peace River Regional District has a formal Emergency Management Plan which outlines the measures and sources of assistance that can be obtained to support emergency response efforts within their jurisdiction. Upon request from the Oil and Gas Commission (OGC), the Regional District may address emergency response capabilities, expectations and preparedness. If required, the Regional District may activate their emergency plan in order to achieve any of the following:

- Dispatch representative(s) to the OGC's Emergency Operations Centre (EOC), if established
- Provide support to ensure notification of endangered area residents.
- Provide support to coordinate and deliver emergency social services to evacuated residents
- If necessary, declare a State of Local Emergency and issue an evacuation Alert, Order and Rescind
- Assist in a public information service (joint OGC, Industry, local government)
- Provide building re-entry procedures.

Revised October 27, 2010

Consultation Details

The information above was confirmed / revised on May 17, 2024 by Mike Watkins.

Halfway River First Nation	
24 Hour Number	250.329.8911
Primary Emergency Contact	Chris Lalonde, Fire Chief and the Manager of Emergency Services Bus: 250.772.5058
Main Office:	250.772.5058
Address:	PO Box 59 Wonowon, BC V0C 2N0
Consultation Details	
The information above was confirmed / revised on July 15, 2024 by Brieanna, Reception.	

2.2 Industry Mutual Aid

Contract Operators and/or local industry operators may provide assistance in an emergency situation. Written or verbal mutual aid understandings may be established allowing for the sharing of resources.

Local industry operators may assist with the coordination and administration of roadblocks, manning equipment used during the response effort and/or filling additional response roles as dictated by the needs of the response effort. Mutual aid responders should be in support roles only and should not fill a command or control role in the response.

Assistance to/from local industry will be based on operational availability. Personnel, equipment or other resources may be supplied without disrupting operations at the time of the emergency response. Mutual aid response will be based on a 'Best Efforts' response.

All Emergency Response personnel have the 'Right to Refuse Unsafe Work', Life Safety is our #1 priority. Mutual Aid Emergency Responders must immediately notify their supervisor upon receiving a Mutual Aid request & limit personal and corporate risk exposure when reacting to a mutual aid request. Corporate liability should not be increased due to a Mutual Aid response.

All Emergency Response personnel must react within their capabilities and trained competencies. If another Area Operator provides assistance, the principal behind this assistance should remain as follows:

- Companies or individuals providing assistance are to provide the support outside the lease boundary. The focus will be to provide the manpower and support required for roadblock crews, rovers, resident contact, and evacuation co-ordination as required by Pacific Canbriam Energy Limited requesting the assistance.
- Third party responders will report to the Incident Commander or other coordinating position in the area.
- Individuals providing assistance retain the right to withdraw the assistance should his/her personal safety be jeopardized.

2.3 Third Party Emergencies

For emergencies involving third parties, Pacific Canbriam Energy Limited will respond with the procedures most appropriate to the event in the *Immediate Actions* Section.

Where Pacific Canbriam Energy Limited has a legal obligation to respond, they shall respond immediately in accordance with this ERP to the extent required by law.

Where Pacific Canbriam Energy Limited has no legal duty to respond to a third party emergency, (but where public perception or the name of Pacific Canbriam Energy Limited is involved in any way, or a definite threat exists to people or the environment), and prompt response is not forthcoming from others, Pacific Canbriam Energy Limited personnel will attempt to respond to the extent required to control and contain the emergency and eliminate danger to the public.

When Pacific Canbriam Energy Limited has no association to the emergency, Pacific Canbriam Energy Limited will attempt to respond when requested by government authority, the public or industry without prejudice. All emergencies shall be reported internally and externally in accordance with the procedures set out in this ERP.

2.4 Assistance from Local Health Authorities

Northern Health may, if capable, carry out the following activities:

- Act as a consultant utilizing provided information on toxic chemicals to the Emergency Operations Center.
- Monitor health effects of the incident to ensure appropriate data is collected and investigate such health effects.
- Provide advice to the government on the existing or potential health effects of the incident.
- Establish and operate trauma teams for emergency health services.
- Provide health advice and safety levels for any health care or special care facility and for the more vulnerable residents.
- Monitor adverse effects / contamination of water systems.
- Enforce and regulate Public Health Regulations.

northern health
the northern way of caring

HEMBC
Health Emergency Management

Emergency Response Roles & Responsibilities

Health Emergency Management BC, North (HEMBC)

HEMBC is a program under the Provincial Health Services Authority (PHSA). HEMBC provides the expertise, education, tools, and support specifically for the BC Health Sector to effectively mitigate, prepare for, respond to, and recover from the impacts of emergency events; ensuring the continuity of health services. There is a HEMBC team in each BC health authority. HEMBC-North deals specifically with Northern Health.

Roles and responsibilities:

- Maintain a 24-hour emergency/on call contact number for notification and activation of the health system in Northern BC (appendix I)
- Notify/activate the appropriate Northern Health programs (i.e. Public Health, Acute Care, etc.) based on the nature of the incident/emergency event.

Northern Health (NH)

Northern Health is the regional health authority responsible for providing health services to 300,000 people over an area of 600,000 square kilometers in the province of British Columbia. Services include:

- Acute (hospital) Care
- Public Health (Protection, Preventive and Population Health services)
- Mental Health and Addictions
- Home and Community Care

In the event of a major emergency/disaster, Northern Health will provide health care services within its capacity, and will activate its emergency response management plan(s).

NH Roles & responsibilities - <u>PREPAREDNESS (PRE-EVENT):</u>

- Participate with industry, local authority and other partners in the development of their Emergency Response Plans as it relates to health authority roles and responsibilities:
- Participate in stakeholder training and exercises associated with activation of an Emergency Response Plan, in which Northern Health or HEMBC have a role and responsibility (as resources allow);

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HEMBC
Health Emergency Management

NH Roles & responsibilities - RESPONSE:

- Activate internal health emergency management plans related to ongoing provision of services (listed above);
- Provide acute care and emergency services at existing Northern Health hospitals/health centres;
- Work with BC Emergency Health Services (Ambulance) and the BC Patient Transfer Network to transport patients to the appropriate levels of care;
- Apply and enforce the Public Health Act, and associated regulations;
- Provide advice/information to the stakeholders on the existing or potential public health effects of an incident (including drinking water safety, air quality, environmental contaminants, communicable disease prevention, re-occupancy of evacuated areas, etc.);
- Provide advice/information on the best methods for monitoring health effects from an incident.
- Assist in development of (joint) messaging for public information on emergency incidents;
- Provide guidance to stakeholders and local authorities on public health considerations in operating reception and evacuation centres, and group lodging facilities

NOTE: British Columbia Emergency Health Services (BCEHS - Ambulance) remains independent of Northern Health. If an ambulance is required please contact BCEHS via 911 (or the local contact number, if 911 is not available in your area).

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Health Emergency Management

Appendix I

NH/HEMBC- Contact information

1. **For Emergency events that require immediate connection with Northern Health, please call :**
   - HEMBC on call number (24/7) **855-554-3622** (or 855-55-HEMBC)
     - HEMBC will notify/activate the appropriate Northern Health programs (i.e. Public Health, Acute Care, etc.) based on the nature of the event/ emergency. Please include this number in industry ERPS, for the use of permit holders in contacting Northern Health on an emergency basis.
     - **Please do NOT** include this number on Public Awareness Pamphlets for individual projects; the EMBC/Oil and Gas Commission's emergency number(s) is more appropriate, and the HEMBC 24/7 number is on record with those agencies.

2. **For non-urgent requests related to Emergency Response Plans, or emergency exercise planning/information,** contact HEMBC North Director Mary Charters, at:
   - 250-617-5288
   - HEMBC@northernhealth.ca

3. **For Environmental assessment inquires and general government consultation questions pertaining to health** please email the NH Office of Health and Resource Development at:
   - resource.development@northernhealth.ca

EMERGENCY RESPONSE ROLES & RESPONSIBILITIES

Before An Emergency

- Assist the BCER with planning initiatives regarding upstream petroleum industry emergency response as requested by the BCER
- EMCR Northeast Region receives Industry Facility Emergency Response Plans.
- Participate in selected licensee ERP exercises when requested as time permits.
- Maintain a 24 hour 800 telephone contact where petroleum industry spill incidents can be reported.
- Maintain 24 hour emergency contact numbers for local governments and provincial emergency responders.

During an Emergency

- ECC Victoria will notify the BCER on call Emergency Response Officer and initiate British Columbia's notification of government agencies including MOF, MOE, MOT, Health Unit, WorkSafe BC, affected municipalities and all other level of government and industry, depending on the level of "coding" (notification Code: 1,2,3 is determined by the Lead Agency MOE or BCER); depending on the code level Standard Operating Procedures (SOP's) in ECC will determine who is notified).
- Provide representatives to help coordinate provincial response as required.

After an Emergency

- As requested by BCER.

3.0 Assets and Equipment

The following information is a summary of area operations and equipment for Pacific Canbriam's operations in northeast BC. For specific information pertaining to each area, please refer to the appropriate area tab in the Northeast BC Field Operations ERP Supplement.

Pacific Canbriam currently operates assets in the following areas:

Current Operating Areas	CEPA Regulated Sites
Altares / Farrell Creek	▪ Altares b-24-H/94-B-8 ▪ Altares b-72-A/94-B-8
Groundbirch	
Kobes	

3.1 Safety Equipment

During normal operations, all operators carry their own equipment as required by safety and emergency response plans. This equipment may include, but is not limited to the following:

- Communications equipment (cellular telephone or radio)
- Fire extinguishers
- First aid kits
- Handheld H_2S
- Flare gun and flares
- Roadblock equipment (barricade, orange vest, hard hat, reflective coveralls, gloves, personal H_2S monitor and flashlight)

Pacific Canbriam requires that all operators test equipment annually and that all personnel are trained on the safe and proper use of equipment.

The primary methods of communication will be cell phones and two-way radios. In an emergency situation, additional communication equipment (cellular and/or satellite phones and radios) will be provided to responders, including rovers, roadblock, reception centre and air monitoring personnel, as needed. Additional equipment can be acquired from local contracting companies. Refer to the appropriate area tab for more information.

Batteries are equipped with Emergency Shut Down Valves (ESDs), some of which are activated by a SCADA system and each facility is equipped with H_2S and LEL detectors, alarms, shut down equipment and automatic callouts on alarms with 24 hour monitoring.

3.2 Site Specific Products

Hazardous Product	General Description	Health Effects	Minimum PAZ	Applicable Areas
Diesel and/or Petroleum Distillates (used as base oil for Invert)	▪ Highly flammable and is easily ignited by heat, sparks, or flames. ▪ Vapors may form explosive mixtures with air. ▪ Vapors may travel to source of ignition and flash back. ▪ Most vapors are heavier than air, they will spread along ground and collect in low or confined areas. ▪ Containers may explode when heated.	▪ Inhalation or contact with material may irritate or burn skin and eyes. ▪ Fire may produce irritating, corrosive and/or toxic gases. ▪ Vapors may cause dizziness or suffocation. ▪ Runoff from fire control or dilution water may cause pollution.	▪ Isolate spill or leak area for at least 50 m in all directions. ▪ Keep unauthorized personnel away. Stay upwind, uphill and/or upstream. Ventilate closed spaces before entering. ▪ If a tank or tank truck is involved in a fire, isolate for 800 m (½ mile) in all directions; also consider initial evacuation for 800 m (½ mile) in all directions.	▪ Altares / Farrell Creek ▪ Groundbirch ▪ Kobes
Drilling Fluid Additives	▪ Mostly in DRY form stored in paper or plastic sacks.	▪ Inhalation or contact with material may irritate or burn skin and eyes. ▪ Fire may produce irritating, corrosive and/or toxic gases.	▪ Isolate spill or leak area for at least 50 m in all directions. ▪ Keep unauthorized personnel away. Stay upwind, uphill and/or upstream. Ventilate closed spaces before entering.	▪ Altares / Farrell Creek ▪ Groundbirch ▪ Kobes
Drilling mud (emulsion of base oil and water)	▪ Highly flammable and is easily ignited by heat, sparks, or flames. ▪ Vapors may form explosive mixtures with air. ▪ Vapors may travel to source of ignition and flash back. ▪ Many liquids are lighter than water.	▪ Inhalation or contact with material may irritate or burn skin and eyes. ▪ Fire may produce irritating, corrosive and/or toxic gases. ▪ Vapors may cause dizziness or suffocation. ▪ Runoff from fire control or dilution water may cause pollution.	▪ Isolate spill or leak area for at least 50 m in all directions. ▪ Keep unauthorized personnel away. Stay upwind, uphill and/or upstream. Ventilate closed spaces before entering. ▪ If a tank or tank truck is involved in a fire, isolate for 800 m (½ mile) in all directions; also consider initial evacuation for 800 m (½ mile) in all directions	▪ Altares / Farrell Creek ▪ Groundbirch ▪ Kobes

Hazardous Product	General Description	Health Effects	Minimum PAZ	Applicable Areas
Hydrogen Sulphide (H_2S)	▪ Flammable-explosive when mixed with air. ▪ Forms SO_2 when combusted. ▪ "Rotten egg" smell at low concentrations. ▪ Inhibits olfactory senses at high concentrations. ▪ Heavier than air. ▪ Will tend to disperse slower in sheltered or low lying areas. ▪ Extremely toxic.	▪ Moderate to strong offensive odour. ▪ May cause nausea, burning of the eyes, headaches, or loss of sleep upon prolonged exposure. ▪ Moderate to severe irritation to the eyes and lungs. ▪ May cause indigestions and loss of appetite. ▪ Loss of smell. ▪ Serious damage to lungs and eyes ensues within 30 minutes of exposure leading to loss of consciousness. ▪ Death within four to eight hours after exposure.	▪ 400 m (small spill) ▪ 5400 m (large spill)	▪ Altares / Farrell Creek ▪ Groundbirch ▪ Kobes
Methane (natural Gas) (LNG)	▪ Odourless; colourless; often referred to as "Sweet Natural Gas" ▪ Extremely Flammable; will form explosive mixtures with air. ▪ Vapours from liquefied gas are initially heavier than air.	▪ Vapours may cause dizziness or asphyxiation without warning. Some may be irritating if inhaled at high concentrations. ▪ Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite. ▪ Fire may produce irritating and/or toxic gases.	▪ 800 m (large spill) ▪ 1600 m (fire)	▪ Altares / Farrell Creek ▪ Groundbirch ▪ Kobes
Methanol	▪ Colourless, volatile and poisonous. ▪ Highly Flammable; will burn with an invisible flame. ▪ Vapours may form explosive mixtures with air, and may travel to source of ignition and flash back. ▪ Liquid at room temperature.	▪ Toxic; may be fatal if inhaled, ingested or absorbed through skin. ▪ Inhalation or contact with some of these materials will irritate or burn skin and eyes. ▪ Fire will produce irritating, corrosive and/or toxic gases. ▪ Vapours may cause dizziness or asphyxiation, especially when in closed or confined areas. ▪ Runoff from fire control or dilution water may cause environmental contamination	▪ 800 m (fire)	▪ Altares / Farrell Creek ▪ Groundbirch ▪ Kobes
Produced Water	▪ Water produced as a byproduct when oil and gas are extracted. ▪ Composition can vary from well to well, or if water is reused during extraction of oil and gas. ▪ Potential danger with the transport of produced water comes from the highway tanks used are often also used to transport other oil and gas products.	▪ Health effects are dependent upon composition and residue last contained in the container.		▪ Altares / Farrell Creek ▪ Groundbirch ▪ Kobes

Hazardous Product	General Description	Health Effects	Minimum PAZ	Applicable Areas
Propane (or Liquid Propane Gas (LPG))	▪ Extremely flammable and can easily ignite by heat, sparks, or flames. ▪ Vapors may travel to source of ignition and flash back. ▪ Cylinders exposed to fire may vent and release flammable gas through pressure relief devices. ▪ Containers may explode when heated. Ruptured cylinders may rocket.	▪ Vapours may cause dizziness or asphyxiation without warning. Some may be irritating if inhaled at high concentrations. ▪ Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite. ▪ Fire may produce irritating and/or toxic gases.	▪ 800 m (large spill) ▪ 1600 m (fire) ▪ 307 m (BLEVE)	▪ Altares / Farrell Creek ▪ Groundbirch ▪ Kobes
Silica Dust (Crystalline)	▪ Agitation of “frac sand” will produce a fine silica dust.	▪ Difficulty breathing, shortness of breath ▪ Lung damage and silicosis with prolonged breathing of crystalline silica dust. ▪ Is known to cause lung cancer	▪ Stay upwind, uphill and/or upstream. ▪ Ventilate closed spaces before entering.	▪ Altares / Farrell Creek ▪ Groundbirch ▪ Kobes
Sulphur Dioxide (SO_2)	▪ Non-flammable, toxic and corrosive gas.	▪ Choking effect. ▪ Poisonous gas. ▪ Immediately dangerous to life or health at 100 ppm. ▪ 400-500 ppm are immediately life threatening. ▪ Can cause skin and respiratory tract burns. ▪ May be inhaled or absorbed.	▪ 400 m (small spill) ▪ 5400 m (large spill)	▪ Altares / Farrell Creek ▪ Groundbirch ▪ Kobes
Triethylene Glycol (TEG)	▪ Colourless, almost odourless liquid.	▪ Virtually non-toxic with single exposure, however repeated ingestion of high doses may cause kidney damage.		▪ Altares / Farrell Creek ▪ Groundbirch ▪ Kobes
Corrosion Inhibitor (Baker Hughes CRO9815C)	▪ Red brown clear liquid with strong odor. ▪ Highly Flammable. Will be easily ignited by heat, sparks or flames.	▪ Toxic; may be fatal if inhaled, ingested or absorbed through skin. ▪ Inhalation or contact with some of these materials will irritate or burn skin and eyes. ▪ Fire will produce irritating, corrosive and/or toxic gases. ▪ Vapours may cause dizziness or asphyxiation, especially when in closed or confined areas. ▪ Runoff from fire control or dilution water may cause environmental contamination.	▪ 800 m Fire	▪ Altares / Farrell Creek ▪ Groundbirch ▪ Kobes

Characteristics and Dangers of H_2S

- Found in decaying organic matter, natural oil and gas, silos and sewers.
- Found at gas temperatures above -60°C.
- Flammable – burns to form SO_2.
- Odour of rotten eggs at low concentrations – kills all sense of smell at higher concentrations.
- Will tend to disperse more slowly in sheltered or calm low lying areas.
- Extremely toxic.
- At lower concentrations (20-50 ppm) irritates mucous membranes (eyes, throat, lungs), causes headaches, dizziness, nausea, may cause pulmonary edema (fluid in the lungs) upon prolonged exposure.
- High concentrations (500-1000 ppm) may cause paralysis of the respiratory centre in the brain – breathing stops.
- This gas is dangerous because it kills the sense of smell very quickly.

Hydrogen Sulphide (H_2S) Toxicity Table

Hydrogen sulphide is a colourless, flammable, toxic gas. It affects people differently depending on concentration and length of exposure. Concentrations of H_2S are generally measured in parts per million (ppm), one part per million means one part of gas in one million parts of air. At very low concentrations, it has an offensive odour, (similar to rotten eggs) however, it is undetectable by odour at higher concentrations. A person can be exposed to H_2S concentrations of up to 1 ppm for up to 8 hours without breathing apparatus as per government exposure limits.

General Health Effects of H_2S	
Concentration	**Effects**
0.01-0.3 ppm	Detectable by odour.
1-5 ppm	Moderate to strong offensive odour may cause nausea, tearing of the eyes, headaches or loss of sleep upon prolonged exposure. Effects are moderate.
10 ppm	Ceiling limit. (WorkSafe BC).
20-50 ppm	Slight eye and lung irritation. May cause eye damage after several days of exposure, may cause digestive upset and loss of appetite.
100 ppm	Eye and lung irritation.
150 ppm	Kills sense of smell, severe eye and lung irritation.
500 ppm	Serious damage to eyes within 30 minutes, severe lung irritation, unconsciousness and death within 4 to 8 hours.
1000 ppm	Breathing stops within 1 or 2 breaths.

Characteristics and Health Effects of Sulphur Dioxide (SO_2)

- This is a choking gas, unlike H_2S, and one wants to move to an area where the discomfort is not experienced.
- Formed by the combustion of H_2S or sulphur and is non-flammable.
- Found as a gas at temperatures above -10°C.
- Has the odour that occurs when a wooden match is extinguished.
- Highly irritating – dissolves to form sulphuric acid.
- At lower concentrations irritates eyes, nose and throat, causes difficulty in breathing and shortness of breath.
- Causes pulmonary edema at high concentrations – may be fatal.
- Effects on heavy smokers are more severe.

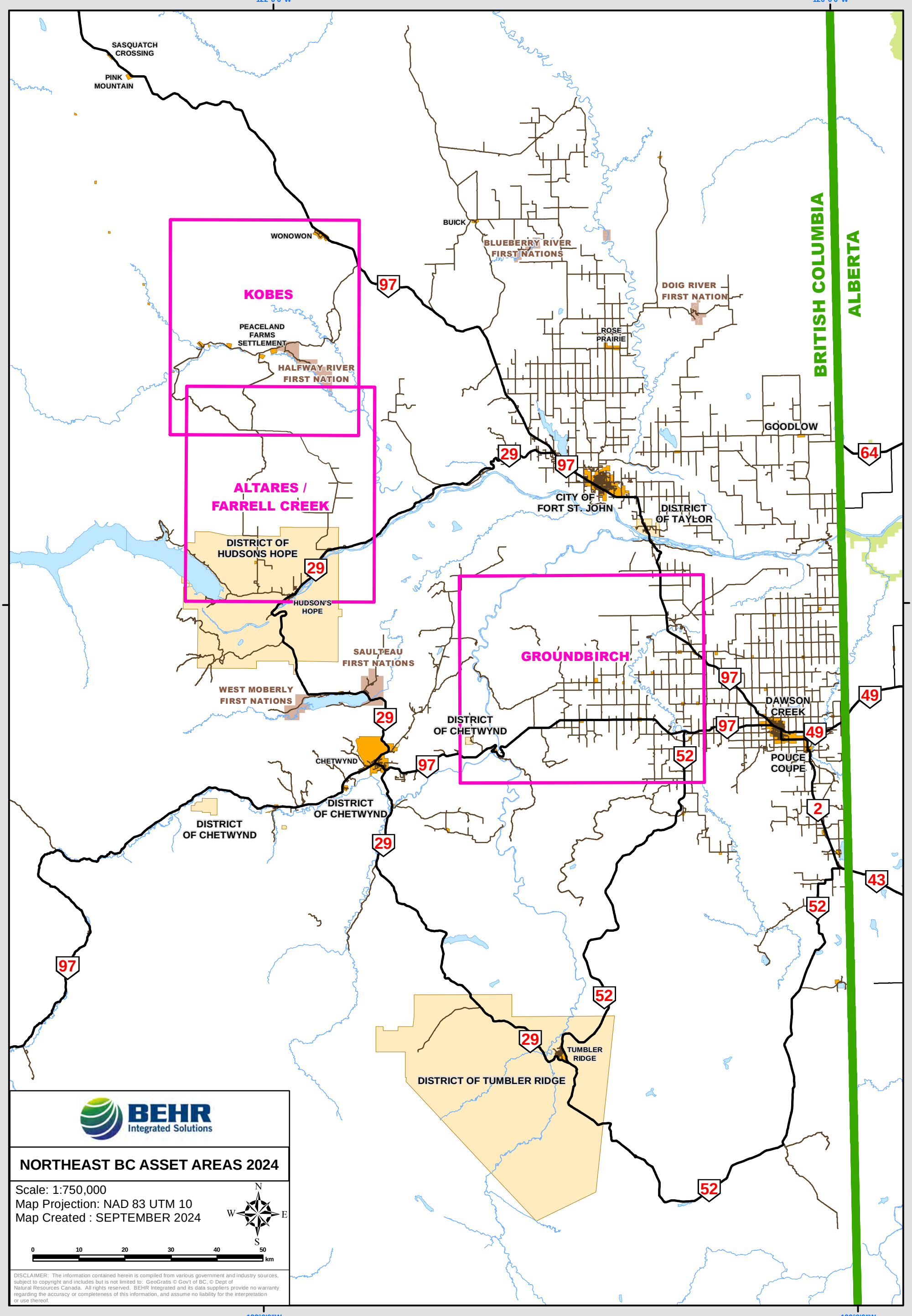
SO_2 Toxicity Table

If a release of sour gas occurs and is threatening the safety of the public, the response is to ignite the gas. Burning the sour gas turns the H_2S to SO_2. The heat from the fire will carry the SO_2 and smoke up into the air, where it will disperse. By the time the SO_2 comes back to ground level, the concentrations would normally only be detectable with the use of an electronic gas detection monitor. These levels should be well below provincial environment regulations.

General Health Effects of SO_2	
Concentration	**Effects**
0.13 ppm	24 hour evacuation level (MWLAP Level B criteria).
0.34 ppm	One hour average evacuation level (MWLAP Level B criteria).
2 ppm	Eight hour Occupational Exposure Limit (WorkSafeBC).
3-5 ppm	Odour threshold.
5 ppm	15 minute Occupational Exposure Limit (WorkSafeBC).
8-12 ppm	Throat irritation, coughing, constriction in chest, tearing and smarting of the eyes.
10-50 ppm	Exposure 5 -15 minutes: increased irritation of the eyes, nose, throat, choking, coughing and in some cases, wheezing as a sign of narrowing of the airways (which increases the resistance of the air-flow).
150 ppm	Short–term endurance lost due to severe eye irritation and because of the effects on the membranes of the nose, throat and lungs.
500 ppm	Highly dangerous after an exposure of 30-60 minutes.
1000-2000 ppm	May be fatal with continued exposure.

PACIFIC CANBRIAM ENERGY

NORTHEAST BC FIELD OPERATIONS OVERVIEW MAP 2024

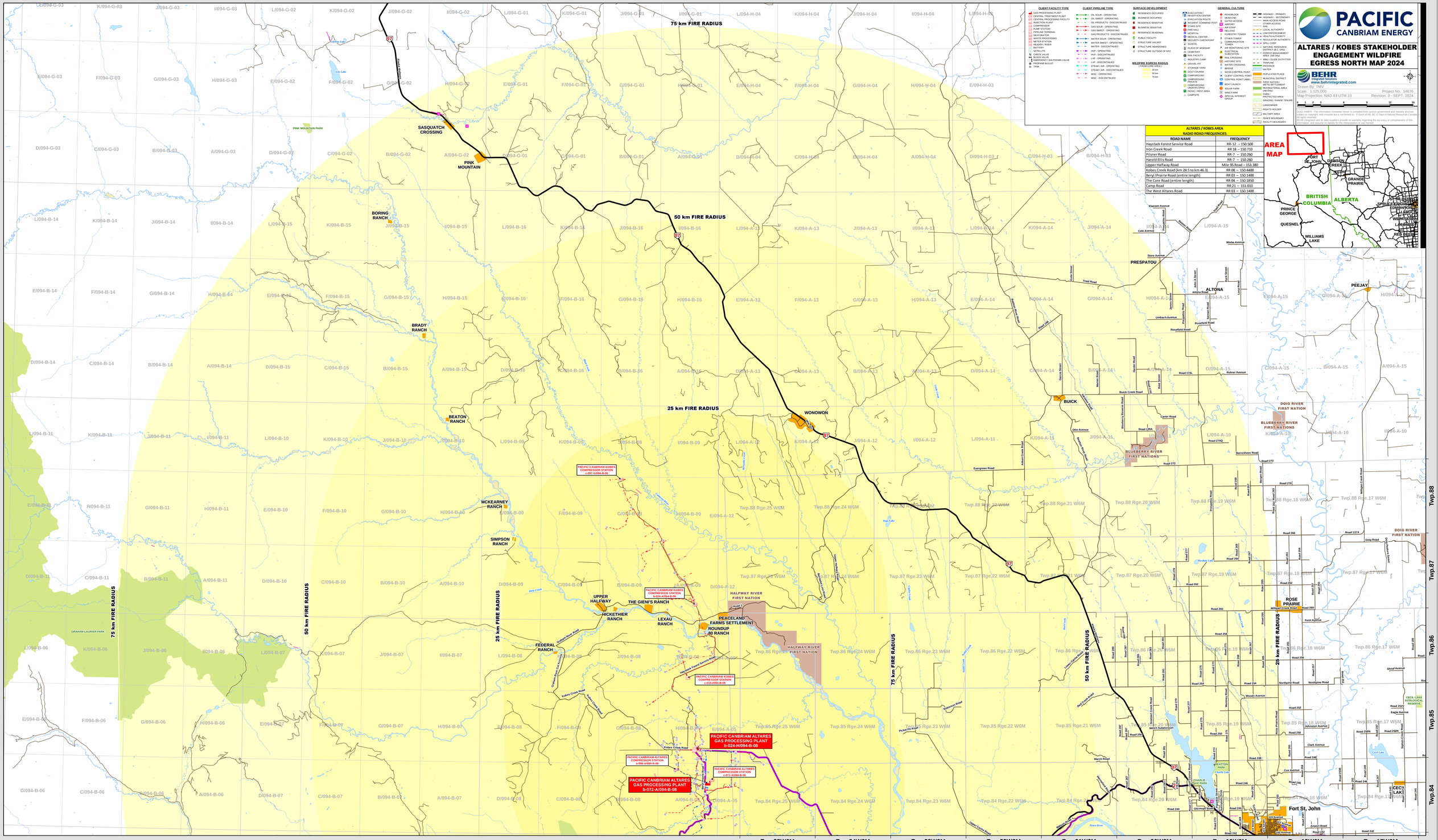


ALTARES / KOBES STAKEHOLDER ENGAGEMENT WILDFIRE EGRESS NORTH MAP 2024

PACIFIC CANBRIAM ENERGY

BEHR Integrated Solutions
www.behrintegrated.com

Drawn By: TLR
Scale: 1:125,000
Map Projection: NAD 83 UTM 10
Project No: 14676
Revision: 0 - SEPT. 2024



CLIENT FACILITY TYPE

- GAS PROCESSING PLANT
- GAS TREATMENT PLANT
- CENTRAL PROCESSING FACILITY
- INJECTION PLANT
- COMPRESSOR
- PUMP STATION
- PRESSURE REGULATOR
- WASTE PROCESSING
- METER STATION
- HEADER / RISER
- WELL
- SATELLITE
- CHECK VALVE
- BLOCK VALVE
- EMERGENCY SHUTDOWN VALVE
- PROPANE BULLET
- TANK

CLIENT PIPELINE TYPE

- OIL SOUR - OPERATING
- OIL SWEET - OPERATING
- OIL PRODUCTS - DISCONTINUED
- GAS SOUR - OPERATING
- GAS SWEET - OPERATING
- GAS PRODUCTS - DISCONTINUED
- WATER SOUR - OPERATING
- WATER SWEET - OPERATING
- WATER - DISCONTINUED
- HVP - OPERATING
- HVP - DISCONTINUED
- LVP - OPERATING
- LVP - DISCONTINUED
- STEAM / AIR - OPERATING
- STEAM / AIR - DISCONTINUED
- MISC - OPERATING
- MISC - DISCONTINUED

SURFACE DEVELOPMENT

- RESIDENCE OCCUPIED
- BUSINESS OCCUPIED
- RESIDENCE SENSITIVE
- BUSINESS SENSITIVE
- RESIDENCE SEASONAL
- PUBLIC FACILITY
- STRUCTURE VACANT
- STRUCTURE ABANDONED
- STRUCTURE OUTSIDE OF EPZ

WILDFIRE EGRESS RADIUS
(FROM CORE AREA)

- 25 km
- 50 km
- 75 km

GENERAL CULTURE

- EVACUATION / REGISTRATION CENTER
- EVACUATION ROUTE
- INCIDENT COMMAND POST
- STARS SITE
- FIRE HALL
- HOSPITAL
- MEDICAL CENTER
- SECURITY CHECKPOINT
- SCHOOL
- PLACE OF WORSHIP
- CEMETERY
- RAIL FACILITY
- INDUSTRY CAMP
- GRAVEL PIT
- STORAGE YARD
- GOLF COURSE
- CAMPGROUND
- CAMPGROUND (PRIVATE)
- CAMPGROUND (UNDEVELOPED)
- PICNIC / REST AREA
- CAMPSITE
- ROADBLOCK
- DEAD END
- GATED ACCESS
- AIRPORT
- HELIPAD
- HELI PAD
- FORESTRY TOWER
- OTHER TOWER
- COMMUNICATION TOWER
- AIR MONITORING SITE
- ELECTRICAL SUBSTATION
- RAIL CROSSING
- HISTORIC SITE
- WATER CROSSING
- BRIDGE
- WCSS CONTROL POINT
- CLIENT CONTROL POINT
- CONTROL POINT LABEL
- BOAT LAUNCH
- SOLAR FARM
- WIND FARM
- SPECIAL INTEREST GROUP
- HIGHWAY - PRIMARY
- HIGHWAY - SECONDARY
- WIA ACCESS ROAD
- OTHER ACCESS ROAD
- FIRE
- LOCAL AUTHORITY
- LAW ENFORCEMENT
- HEALTH AUTHORITY
- FIRE / EMS AUTHORITY
- DRILLSITE
- NATURAL RESOURCE DISTRICT (B.C. ONLY)
- FOREST MANAGEMENT AREA (AB ONLY)
- MNU / SNOW OUTFITTER (AB ONLY)
- PROVINCE
- WATER
- POPULATED PLACE
- MUNICIPAL DISTRICT
- FIRST NATION / METIS SETTLEMENT
- RECREATIONAL AREA (BC ONLY)
- PARK / PROTECTED AREA
- GRAZING / RANGE TENURE
- LANDOWNER
- RIGHTS HOLDER
- MILITARY AREA
- FENCE BOUNDARY
- FACILITY BOUNDARY

ALTARES / KOBES AREA RADIO ROAD FREQUENCIES

ROAD NAME	FREQUENCY
Haystack Forest Service Road	RR 12 – 150.500
Iron Creek Road	RR 18 – 150.710
Pilsner Road	RR 7 – 150.260
Harold Ellis Road	RR 7 – 150.260
Upper Halfway Road	Mile 95 Road – 153.380
Kobes Creek Road (km 24.5 to km 46.3)	RR 08 – 150.4400
Beryl |Prairie Road (entire length)	RR 03 – 150.1400
The Core Road (entire length)	RR 04 – 150.1850
Camp Road	RR 21 – 151.010
The West Altares Road	RR 03 – 150.1400

AREA MAP

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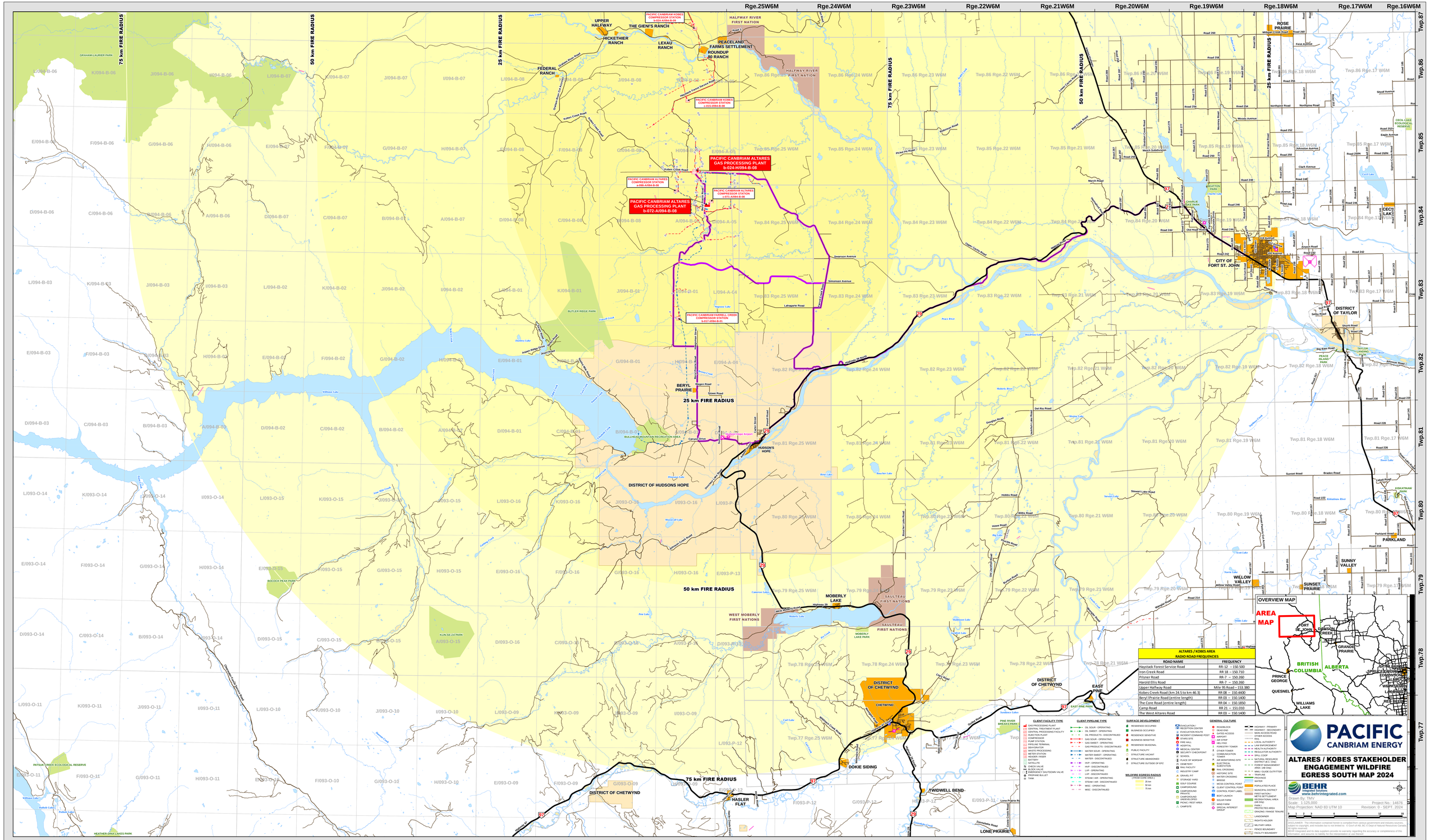

ALTARES / KOBES AREA RADIO ROAD FREQUENCIES	
ROAD NAME	FREQUENCY
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Pilsner Road	RR-7 – 150.260
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Beryl Prairie Road (entire length)	RR 03 – 150.1400
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- CENTRAL PROCESSING FACILITY
- INJECTION PLANT
- COMPRESSOR
- PUMP STATION
- PIPELINE TERMINAL
- DEHYDRATOR
- WASTE PROCESSING
- WELL SITE (GENERAL)
- HEADER / MANIFOLD
- BATTERY
- SATELLITE
- CHECK VALVE
- ESD VALVE
- EMERGENCY SHUTDOWN VALVE
- PROPANE BULLET
- TANK

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- WATER SOUR - OPERATING
- WATER SWEET - OPERATING
- WATER - DISCONTINUED
- AHP - OPERATING
- AHP - DISCONTINUED
- LVP - OPERATING
- LVP - DISCONTINUED
- STEAM / AIR - OPERATING
- STEAM / AIR - DISCONTINUED
- MISC. - OPERATING
- MISC. - DISCONTINUED

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- BUSINESS OCCUPIED
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- STRUCTURE OUTSIDE OF EPZ

WILDFIRE EGRESS RADIUS (FROM CORE AREA)
- 25 km
- 50 km
- 75 km

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INCIDENT COMMAND POST
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FIRE HALL
HOSPITAL
MEDICAL CENTER
ROADBLOCK / CHECKPOINT
SCHOOL
PLACE OF WORSHIP
CEMETERY
RAIL FACILITY
INDUSTRY CAMP
GRAVEL PIT
STORAGE YARD
GOLF COURSE
CAMPGROUND
CAMPGROUND PRIVATE
CAMPGROUND PUBLIC
PICNIC / REST AREA
CAMPSITE

ROADBLOCK
GATED RD
GATED ACCESS
AIRPORT
AIR STRIP
HELI PAD
FORESTRY TOWER
OTHER TOWER
COMMUNICATION TOWER
AIR MONITORING SITE
ELECTRICAL SUBSTATION
RAIL CROSSING
HISTORIC SITE
WATER CROSSING
BRIDGE
WCSS CONTROL POINT
CLIENT CONTROL POINT
CONTROL POINT LABEL
BOAT LAUNCH
SOLAR FARM
WIND FARM
SPECIAL INTEREST GROUP

HIGHWAY - PRIMARY
HIGHWAY - SECONDARY
MAIN ACCESS ROAD
OTHER ACCESS
RAIL
LOCAL AUTHORITY
FIRST NATION / METIS SETTLEMENT
REGIONAL AREA (METRO)
PARK
PROTECTED AREA
GRAZING / RANGE TENURE
LANDOWNER
RIGHTS HOLDER
MILITARY AREA
FENCE BOUNDARY
FACILITY BOUNDARY

POPULATED PLACE
MUNICIPAL DISTRICT
PROVINCE
WATER

2024 ANNUAL ERP UPDATE — ALTARES / FARRELL CREEK AREA

PACIFIC CANBRIAM ENERGY

PACIFIC CANBRIAM ENERGY LIMITED
24 HOUR EMERGENCY LINE: 1.877.269.2877

Pacific Canbriam Energy Limited Head Office	403.269.2874 Fax: 403.269.7637	2100, 215 – 2 Street SW Calgary, AB T2P 1M4
Fort St. John Field Office	250.785.8322	10628 Peck Lane Fort St. John, BC

FORT ST. JOHN FIELD CONTACT NUMBERS

Jeleena Cawley	Bus: 250.785.8322 Ext. 1 → Ext. 2	Cell: 250.948.8386
Reception or Administrative Support	Bus: 250.785.8322 Ext. 1 → Ext. 1	
Conference Room	Bus: 250.785.8322 Ext. 1 → Ext. 5	
SUPERINTENDENTS		
Steve Gonwick	Bus: 250.785.8322 Ext. 4 → Ext. 2	Cell: 250.793.8000
Cole Tymchuk	Bus: 250.785.8322 Ext. 4 → Ext. 3	Cell: 780.712.1984
ALTARES b-24-H PLANT		
b-24-H Control Room	Bus: 250.785.8322 Ext. 2 → Ext. 1	
b-24-H Field Office	Bus: 250.785.8322 Ext. 2 → Ext. 2	
b-24-H Conference Room	Bus: 250.785.8322 Ext. 2 → Ext. 3	
b-24-H Camp/On Call	Bus: 250.785.8322 Ext. 2 → Ext. 4	
ALTARES b-72-A PLANT		
b-72-A Camp/On Call	Bus: 250.785.8322 Ext. 3 → Ext. 1	
b-72-A Conference Room	Bus: 250.785.8322 Ext. 3 → Ext. 2	
b-72-A Control Room	Bus: 250.785.8322 Ext. 3 → Ext. 3	
Altares b-72-A Plant Operations		
Lyndon Toews	Bus: 250.785.8322 Ext. 4 → Ext. 1	Cell: 250.981.8199
Trevor Bickerstaff	Bus: 250.785.8322 Ext. 4 → Ext. 4	Cell: 780.522.7304
Field Lead Neil Schilling	Bus: 250.785.8322 Ext. 4 → Ext. 3	Cell: 250.401.1085
Field Lead Ryan Sephton		Cell: 604.556.4090
Altares b-72-A Maintenance		
Trevor Ebbert	Bus: 250.785.8322 Ext. 5 → Ext. 1	Cell: 250.948.8381
Chris Bouwsema	Bus: 250.785.8322 Ext. 5 → Ext. 1	Cell: 780.515.0423
ALTARES b-73-A CAMP		
b-73-A Camp	Bus: 250.785.8322 Ext. 8	780.940.2434
c-62-A WATER PLANT		
c-62-A Water Hub	Bus: 250.785.8322 Ext. 4	
Water Hub Lead Corey Reschke	Bus: 250.785.8322 Ext. 7	250.783.0603

CORPORATE CONTACTS

Chief Operating Officer	Nauman Rasheed	403.817.9041 Ext. 2141 403.899.0339
Manager, Production & Facilities	Jeff Pakish	403.817.9048 Ext. 2148 403.512.1293
Manager, Drilling & Completions	Steve Bernard	403.300.2434 Ext. 2434 403.519.8442
Manager, Operations	Zitin Lamba	403.817.9052 Local 2152 403.618.6166
Sr. Environmental Coordinator	Jason Zurkan	403.866.6115

FACILITY DESCRIPTION

Pacific Canbriam owns and operates three gas processing facilities, numerous sweet gas wells and pipelines in the Altares and Farrell Creek areas of Northeast BC. There are also suspended sour gas wells in Altares.

EPZ INFORMATION

The maximum expected H_2S concentration for the wells is 9.97% with a maximum EPZ of 167 m. The maximum expected H_2S concentration for the pipeline is 0% with a maximum EPZ of 192 m. The maximum expected facility EPZ is 192 m.

A 1.6 km Canadian Environmental Protection Act (CEPA) Hazard Zone has been assigned around the Altares b-24-H and the Altares b-72-A plant sites.

Pacific Canbriam's policy is to assign a 100 m Emergency Planning Zone (EPZ) around any sweet well or pipeline if the pipeline is inactive. If the pipeline is within 100 m of a structure, Pacific Canbriam may model that specific pipeline segment to determine if the EPZ encompasses the structure.

ON-SITE STORAGE

b-24-H/94-B-8

Condensate Storage:
- 5 tanks each 750 bbl capacity
- 1 tank 1,000 bbl capacity

LPG storage:
- 5 bullets each 2500 bbl capacity

b-72-A/94-B-8

Condensate storage:
- 12 tanks each 2000 bbl capacity

LPG storage:
- 10 bullets each 2500 bbl capacity

CLOSEST URBAN CENTRE

The nearest urban centre is Hudson's Hope, BC, 25 km southeast of the Farrell Creek field operations.

LAND USE / TERRAIN

Pacific Canbriam's operations are located in forested areas west and north-west of Fort St. John on the eastern slopes of the Rocky Mountains with average elevation of 1200 metres. These areas are predominantly used by trappers, grazing lease holders, forest management and for seasonal recreation such as hunting and fishing.

HYDROLOGY

Groundbirch Creek, Halfway River, Mackie Creek, Wapoose Creek, Lynx Creek and numerous unnamed creeks and small bodies of water are within the area.

HIGHWAYS

No highways intersect with the HPZ's in this field.

SITE ACCESS

Refer to access map on the following pages.

OTHER AREA OPERATORS & TIE-INS

OIL & GAS	
ARC Resources	780.831.2026
CNRL	888.878.3700
Canadian Spirit Resources Inc.	403.539.5005
PETRONAS Canada	844.299.2566
Plateau Pipelines / Pembina	800.360.4706
Western LNG/Nisga'a Nation (Prince Rupert Gas Transmission Ltd.)	855.920.4696
TC Energy (Nova Gas)	888.982.7222
Westcoast Energy (Enbridge)	800.663.9931
TIE-INS*	
There are no tie-ins with the above-mentioned companies.	
PARKS	
Bullhead Mountain Recreation Area	N/A

SAFETY EQUIPMENT

OPERATOR / TRUCK SAFETY EQUIPMENT

Operator field trucks will carry personal protective equipment, first aid kits and fire extinguishers.

NOTIFICATION

Altares b-24-H/94-B-8 Facility

The b-24-H facility is manned 12 hours/day. The plant can also be monitored remotely at the b-72-A control room 24 hours/day. The wells have remote shut down capability. There is a minimum of 2 operators in the PCE Operations Camp available for call-out's.

Altares b-72-A/94-B-8 Facility

Operators attend to the b-72-A facility 24 hours/day The plant can also be monitored remotely. The wells have remote shut down capability. There is a minimum of 2 operators in the PCE Operations Camp available for call-out's.

Farrell Creek b-17-I/94-B-1

The Farrell Creek facility is located at b-17-I/94-B-I. The Facility is sweet and produces natural gas. The plant can also be monitored remotely through SCADA systems. The wells have remote shut down capability. There are a minimum of two operators in the PCE Operations camp available for any call-out's.

COMMUNICATIONS

Cellular telephones are the primary communication devices to be employed during an emergency. Cellular reception and coverage is good in the Altares and Farrell Creek areas.

RADIO FREQUENCIES

All operators truck radios will be programmed with the Pacific Canbriam Altares Field VHF Radio Frequency. Plant operators will use programmed handheld personal radios for communications within plant boundaries.

Pacific Canbriam Radio Frequencies

b-24-H Plant / Pacific Canbriam Altares Field VHF	TX168.3000	RX162.945
b-72-A Plant UHF	TX459.5000	RX459.5000

Area Radio Frequencies

The frequencies and tones listed below should be programmed into all Pacific Canbriam contractors, representatives, and personnel's mobile radios in order to communicate with repeaters in each area.

Kobes Creek Road from km 24.5 to km 46.3	RR 08 – 150.4400
Beryl Prairie Road (entire length)	RR 03 – 150.1400
Haystack Road (entire length)	RR 13 – 150.530
The Core Road (entire length)	RR 04 – 150.1850
Camp Road	RR 21 – 151.010
The West Altares Road	RR 03 – 150.140
33 Access Road	RR 29

ROADBLOCK KITS / IGNITION KITS

Pacific Canbriam will establish roadblocks at the edge of the 100 m EPZ and evacuate the area in the event of an incident. Roadblocks for pipelines would tend to be short term while the line is shut down and depressurized.
At Pacific Canbriam discretion the setback distance may be reduced if supported by LEL monitoring results.

Roadblock and Mobile Helicopter Landing Pad Kits, if required, would be obtained from **the b-72-A Facility** and dispatched at a Level 1 Emergency. The number of Rovers, Roadblocks and Air Monitors required to be determined at the time of incident. Refer to the ERP cabinet for specific kit locations.

Roadblock Kits

Stop paddle, reflective traffic vest, amber beacon, flashlight with spare batteries, reflective barricade, personal electronic monitor (minimum tri-head), self-contained breathing apparatus, radio (public protection frequency, truck or portable), area map and hard hat.

Mobile Helicopter Landing Pad Kits

Air traffic wands, turbo flares, road flares, reflective flares, reflective PPE & pylons.

AGENCY CONTACTS

IMMEDIATE CONTACT REQUIRED AT ANY LEVEL OF EMERGENCY:		
BC Energy Regulator (BCER) – Incident Reporting Line (via EMCR)		800.663.3456
Emergency Management and Climate Readiness (EMCR)		
BCER 24 Hour Line	Fort St. John	250.794.5200
WorkSafe BC		888.621.7233
IMMEDIATE CONTACT REQUIRED IF ANY RESIDENTS ARE CONTACTED AT LEVEL 1 OR HIGHER:		
RCMP	Hudson's Hope	911 250.783.5241
Peace River Regional District	Dawson Creek	800.670.7773 250.784.3200
Northern Health Authority	HEMBC On Call	855.554.3622

PROVINCIAL GOVERNMENT CONTACTS

BC One Call	Call Before You Dig	800.474.6886
BC Drug & Poison Information Centre	BC DPIC	800.567.8911
BC Ministry of Environment & Climate Change Strategy	Peace Region	250.787.3411
	Report Poachers & Polluters	877.952.RAPP (877.952.7277)
BC Ministry of Forests	Peace Natural Resource District	250.784.1200
BC Ministry of Transportation & Infrastructure	Peace District Office North Peace Contractor	250.787.3237 800.842.4122
CANUTEC	Dangerous Goods Emergencies	888.226.8832 613.996.6666 From Cell: *666
Emergency Response Assistance Canada (ERAC)	(ERP2-0010-364)	800.265.0212
NAV Canada	Flight Information Center	866.541.4101
Public Works Association of BC (PWABC)	executivedirector@pwabc.ca	
Technical Safety BC		866.566.7233
WorkSafe BC		888.621.7233

EMERGENCY SERVICES

AMBULANCES		
Air Ambulance (STARS)	Emergency Link	888.888.4567
	#3687 – PCE b-72-A/94-B-08	
BC Ambulance Services	Fort St. John	911 800.461.9911
BC Emergency Health Service	Cell / SAT phone/ Outside BC	250.374.5937
Bailey Helicopters Ltd.	Fort St. John	250.785.2518
HOSPITALS		
Chetwynd Hospital and Health Centre	Chetwynd	250.788.2236
Dawson Creek & District Hospital	Dawson Creek	250.782.8501
Fort St. John Hospital and Peace Villa	Fort St. John	250.262.5200
Fort St. John Health Unit	Fort St. John	250.263.6000
Hudson's Hope Health Center	Hudson's Hope	250.783.9991
FIRE DEPARTMENTS		
Hudson's Hope Fire & Rescue		911 250.783.9901

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PACIFIC CANBRIAM ENERGY

SERVICE CONTRACTORS

MOBILE AIR MONITORING		
Firemaster Oilfield Services	Central Dispatch	403.342.7500
HSE Integrated Ltd.	Province Wide	888.346.8260
Trojan Safety Services	Central Dispatch	250.785.9557
OILFIELD FIRE FIGHTING / SAFETY CONTRACTORS / WELL CONTROL SPECIALISTS / IGNITION		
Firemaster Oilfield Services	Central Dispatch	403.342.7500
HSE Integrated Ltd.	Province Wide	888.346.8260
Safety Boss	24 Hour Emergency	800.882.4967
Superior Fire Control Ltd.	24 Hour Emergency	877.882.0035
CRISIS COMMUNICATIONS		
Petron Communications	Fort St. John	250.785.3333
T&T Communications	Fort St. John	250.785.0310
SAFETY SERVICES		
HSE Integrated Ltd.	Province Wide	888.346.8260
Trojan Safety Services	Central Dispatch	250.785.9557
United Safety Ltd.	Central Dispatch	800.432.1809
SPILL RESPONSE		
Emergency Response Assistance Canada (ERAC)	(LPG Spills Only) AB/BC	800.265.0212
Clean Harbors	Province Wide	800.645.8265
Troyer Ventures Ltd.	Fort Nelson Fort St. John	250.774.5332 250.785.5332
Ambipar Response	Fort St. John	866.574.7928
BULK FUEL DELIVERY		
Smith Fuel Services	24/7 Dispatch	250.785.3466
TRUCKING COMPANIES		
Cascade Energy Services LP	24 Hour Dispatch	780.876.8900
CEDA	24 Hour Dispatch	250.784.5151
D.W Wilson Services Ltd.	Fort St. John	250.785.7737
Energetic Services Inc.	Fort St. John	250.785.4761
Fedderly Transportation Ltd.	Fort St. John	250.787.0398
Formula Powell L.P. Trucking	Fort St. John	250.785.4222
Fort St. John Water Inc	Fort St. John	250.785.0862
Maxim Industries Inc.	Fort St. John	250.785.7775
Oculus Transport Ltd	Fort St. John	250.264.2252
Raven Oilfield Rentals	Fort St. John	800.799.7188
Troyer Ventures Ltd.	Fort Nelson Fort St. John	250.774.5332 250.785.5332

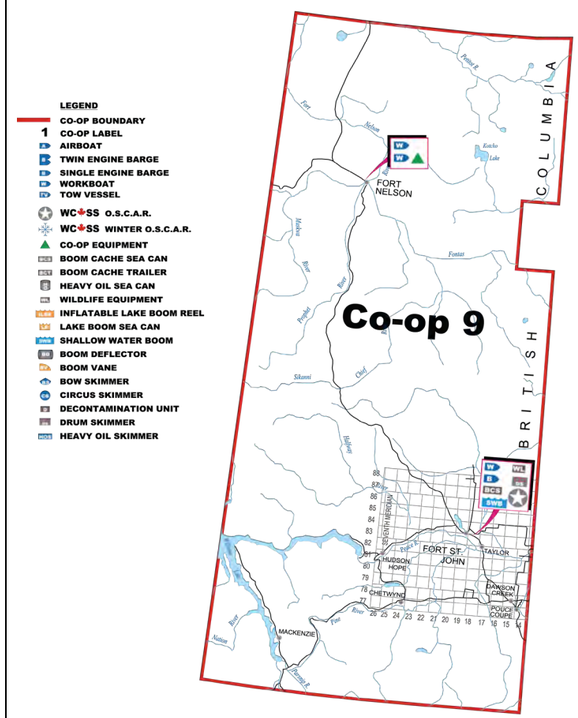
SERVICE CONTRACTORS (Continued)

UTILITIES		
ATCO Electric	Province Wide	800.668.5506
BC Hydro	Province Wide	888.769.3766
Telus	Province Wide	310.2255 *611
ELECTRICAL / INSTRUMENTATION CONTRACTOR		
CDN Controls Ltd.	Fort St. John	855.530.8151
Epscan Industries Ltd.	Fort St. John	250.787.9659
Techmation Electric & Controls	Fort St. John	250.261.6532
PTW Energy Services	Dawson Creek	250.782.6909
ENVIRONMENTAL SERVICES		
Clean Harbors (WCSS Spill Response Trailer)	Fort St. John	250.785.4577
Roy Northern Land & Environmental	Fort St. John	250.261.6644
Matrix Solutions Inc	24 Hour Spill Response	877.774.5525
Eco-Web Ecological Consulting	Fort St. John	250.787.1110
EMERGENCY RESPONSE MANAGEMENT		
Behr Integrated Solutions	Calgary	403.444.6940
TRANSPORTATION		
Diversified Transportation Ltd.	Prince George	250.563.5431 250.617.7710
Standard Bus Contracting Ltd	Chetwynd	250.788.2415
Avis Car and Truck Rental	Fort St. John Grande Prairie	250.785.5515 780.539.4101
Driving Force	Fort St. John Grande Prairie	250.787.0634 780.814.9596
HELICOPTER COMPANIES		
Qwest Helicopters	Fort Nelson	250.774.5302
Bailey Helicopters	Fort St. John	250.785.2518
Yellowhead Helicopters	24 Hour Emergency Fort St. John	888.566.4401 250.785.2331
ROAD SERVICES		
Dawson Road Maintenance Ltd.	Fort St. John	800.842.4122
Argo Road Maintenance (South Peace) Inc.	Dawson Creek – Pouce Coupe	800.663.7623
PILOT HOT SHOT AND TRAFFIC CONTROL		
Big League Oilfield Services	Fort St. John	250.787.9812
Peace Hot Shot & Picker Services	Fort St. John	250.785.8432
Energetic Traffic Control	Fort St. John	250.793.3331
PUMPING SERVICES		
BJ Energy Solutions	Clairmont	780.539.5210
Trican Well Service	Fort St. John	888.989.8975

SERVICE CONTRACTORS (Continued)

WCSS **See website for more info (www.wcss.ab.ca)*

COOP 9	
24 Hour Emergency Contact	866.541.8888
Regional Custodian	
North River Midstream Carl Reimer	250.262.3446 250.262.3456
Equipment is located at North River Midstream: 13217 Westcoast Frontage Charlie Lake, BC V0C 1H0 Mile 53 Alaska Hwy	
COOP Custodian	
Troyer Ventures Ltd.	250.774.5332
Equipment is located at 4850 - 46 Avenue Fort Nelson, BC V0C 1R0	



Equipment Summary	Transport Requirements
52' OSCAR Trailer	Semi-truck
40' Boom Cache Sea Can	Winch tractor / Trailer
20' Wildlife Sea Can	Winch tractor / Trailer
Work Boat	½-ton truck w/ 2" ball hitch
Drum Skimmer w /Power Pak	½-ton truck
Single Engine Barge	1-ton truck w/ 2-5/16" ball hitch & electric brakes
400' Shallow Water Boom	½-ton truck

RANGE TENURE

ID	COMPANY / NAME	EMERGENCY
RAN073263	Ray Jackson / Frank Miles (Horseshoe Creek Outfitters)	250.783.0561 250.263.1919
RAN076290	Christoph & Erika Weder (Venator Ranches Ltd.)	250.783.9999

TRAPPERS

TRAPPER ID	NAME	EMERGENCY
731T005	Unknown	N/A
735T001	Douglas Wiebe	250.783.9156
735T002	David & James Vince	N/A
735T004	Anilee Rose Anderson	250.793.9273
735T004	Allen George Chatten	N/A
735T004	Bryan Dale Chatten	N/A
735T004	Allen Dean Chatten	N/A
735T005	Renee Ardill	250.262.0184

GUIDES & OUTFITTERS

ID	COMPANY / NAME	EMERGENCY
750015	Luther Jackson	250.783.0561
701265	Steven Gonwick (Bullhead Mountain Outfitters Ltd.)	250.793.8000

RIGHTS HOLDERS

ID	COMPANY / NAME	EMERGENCY
Forest Tenure	ARC Resources	250.782.7952
Forest Tenure	BC Timber Sales (BCTS) – Peace-Liard	250.784.1200 250.795.4200
Forest Tenure	CANFOR	250.782.3302
Forest Tenure	Dale Benke	250.788.1806
Forest Tenure	Douglas Summer	N/A
Forest Tenure	Henry Bergen	250.630.2563 250.630.6160
Forest Tenure	Jacobus Haagsman	250.783.5389
Forest Tenure	Louisiana Pacific Canada Ltd.	250.782.3302 X227
Forest Tenure	Mathew Harder (W & M Enterprises)	250.785.2373 250.827.3810
Forest Tenure	Nathan Troyer	N/A
Forest Tenure	Pinewest Woodland Management Ltd.	N/A
Forest Tenure	Western LNG/Nisga'a Nation (Prince Rupert Gas Transmission Ltd.)	855.920.4696
Forest Tenure	TC Energy (Nova Gas)	888.982.7222

SURFACE DEVELOPMENT INFORMATION

There are 13 surface developments inside the EPZs. Note, there is random backcountry camping throughout the EPZ. In the event of an incident, ensure all members of the public are notified and provided with response information. If required use rovers and roadblocks to clear and isolate the areas in close proximity to the incident.

UNIQUE FEATURES AFFECTING EMERGENCY RESPONSE

None

RECEPTION CENTRES

Northern Grand Hotel	9830 100 Avenue Fort St. John, BC V1J 1Y5	250.787.0521
Stillwater Inn & Suites	9504 Canyon Drive Hudson's Hope, BC V0C 1V0	250.783.5400

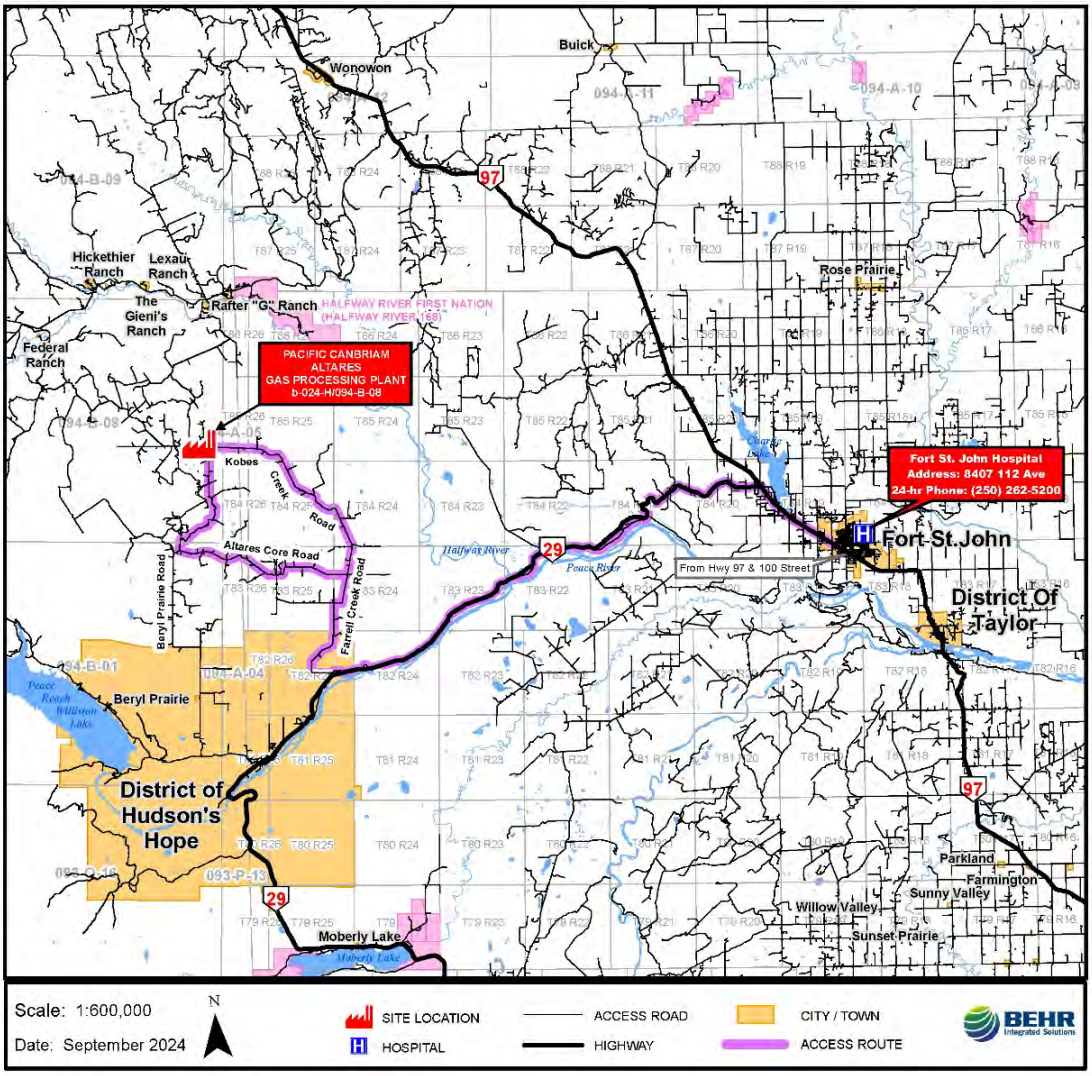
To Altares Gas Plant b-024-H / 94-B-08 – Total Distance 116 km

From Intersection of Hwy 97 and 100th Street, Fort St. John, BC

- Travel northwest on Hwy 97 for 12.5 km to Hwy 29 (Don Phillips Way).
- Turn left and travel southwest on Hwy 29 for 60.8 km.
- Turn right and travel west (then north) on Farrell Creek Road for 23.8 km.
- Continue travelling northwest onto Kobes Creek FSR for 20.5 km (preferred route).
- Turn right onto access road and travel north for 0.2 km into facility.

Or

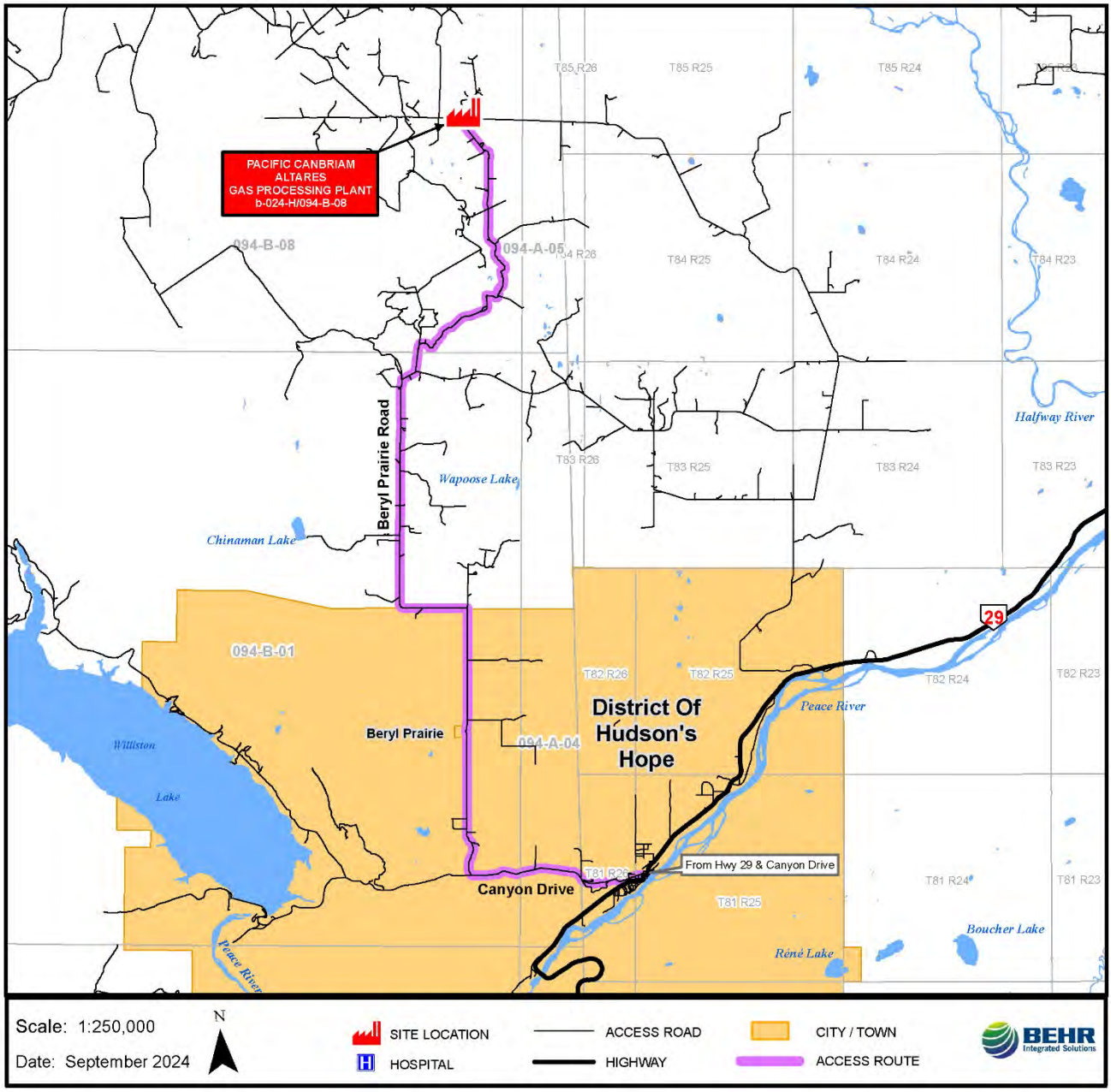
- Travel northwest on Hwy 97 for 12.5 km to Hwy 29 (Don Phillips Way).
- Turn left and travel southwest on Hwy 29 for 60.8 km.
- Turn right and travel west (then north) on Farrell Creek Road for 17.0 km.
- Turn left and travel west on Altares Core Road for 8.9 km.
- Continue west on Progress Connector for 0.8 km.
- Continue west on PDR 623 Progress Farrell Core Road for 11.5 km.
- Turn right and travel north on Beryl Prairie Road for 5.0 km.
- Continue north on Beryl Prairie FSR for 11.0 km.
- Turn right and travel east on Kobes Creek Road for 0.3 km.
- Turn right onto access road and travel north for 0.2 km into facility.



To Altares Gas Plant b-024-H / 94-B-08 – Total Distance 51.7 km

From Intersection of Hwy 29 and Canyon Drive, Hudson's Hope, BC

- Travel west on Canyon Drive for 8.5 km.
- Turn right and continue north on Beryl Prairie Road for 24.7 km.
- Continue north on PDR 623 Progress Farrell Core Road for 2.6 km.
- Continue north on Beryl Prairie Road for 5.0 km.
- Continue north on Beryl Prairie FSR for 11.0 km.
- Turn right and travel east on Kobes Creek Road for 0.3 km.
- Turn right onto access road and travel north for 0.2 km into facility.



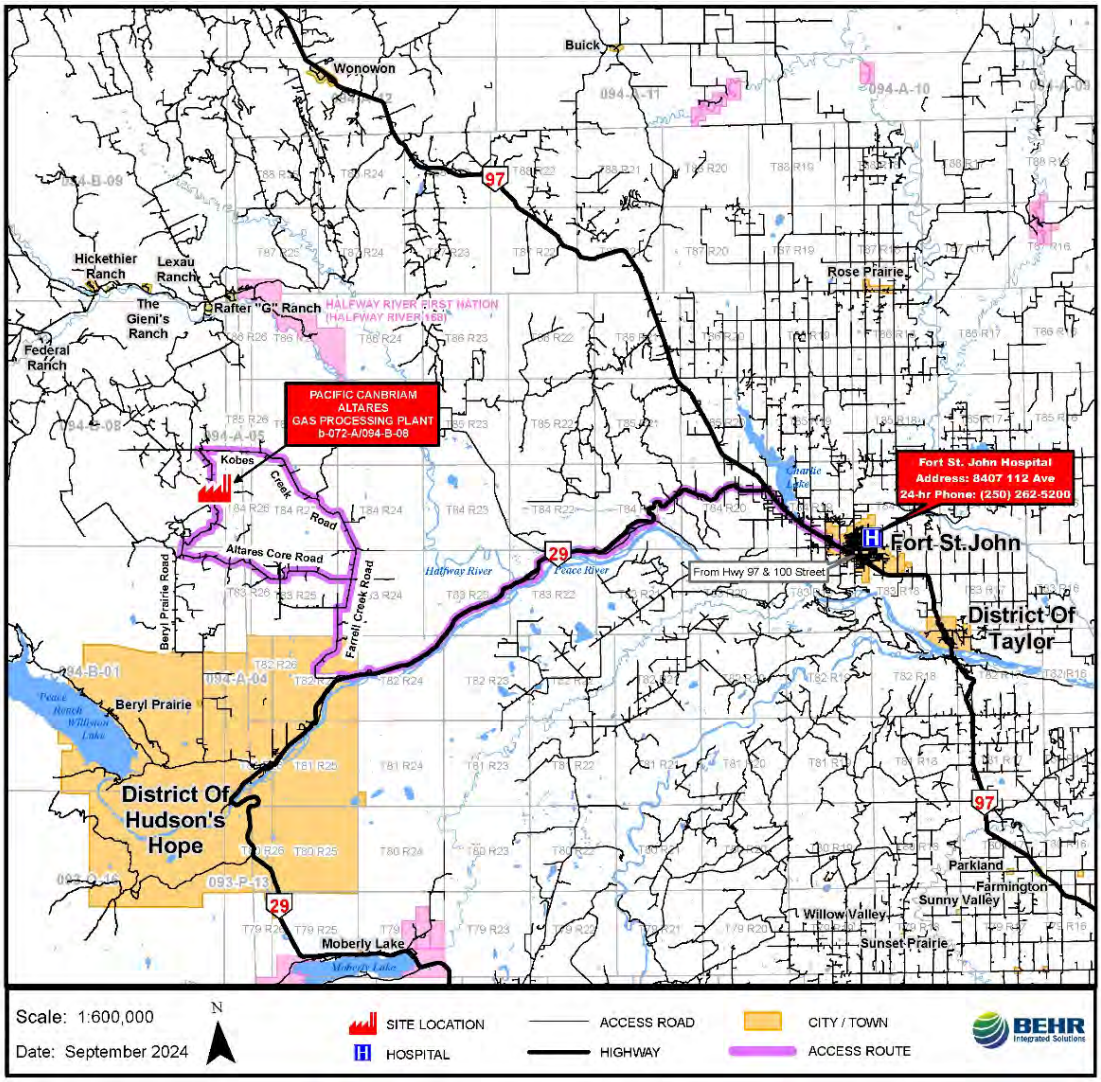
To Altares Gas Plant b-072-A / 94-B-08 – Total Distance 117 km

From Intersection of Hwy 97 and 100th Street, Fort St. John, BC

- Travel northwest on Hwy 97 for 12.5 km to Hwy 29 (Don Phillips Way).
- Turn left and travel southwest on Hwy 29 for 60.8 km.
- Turn right and travel west (then north) on Farrell Creek Road for 23.8 km.
- Continue travelling northwest onto Kobes Creek FSR for 20.8 km (preferred route).
- Turn left and travel south on Beryl Prairie FSR for 4.1 km.
- Turn left onto lease road to arrive into plant area.

Or

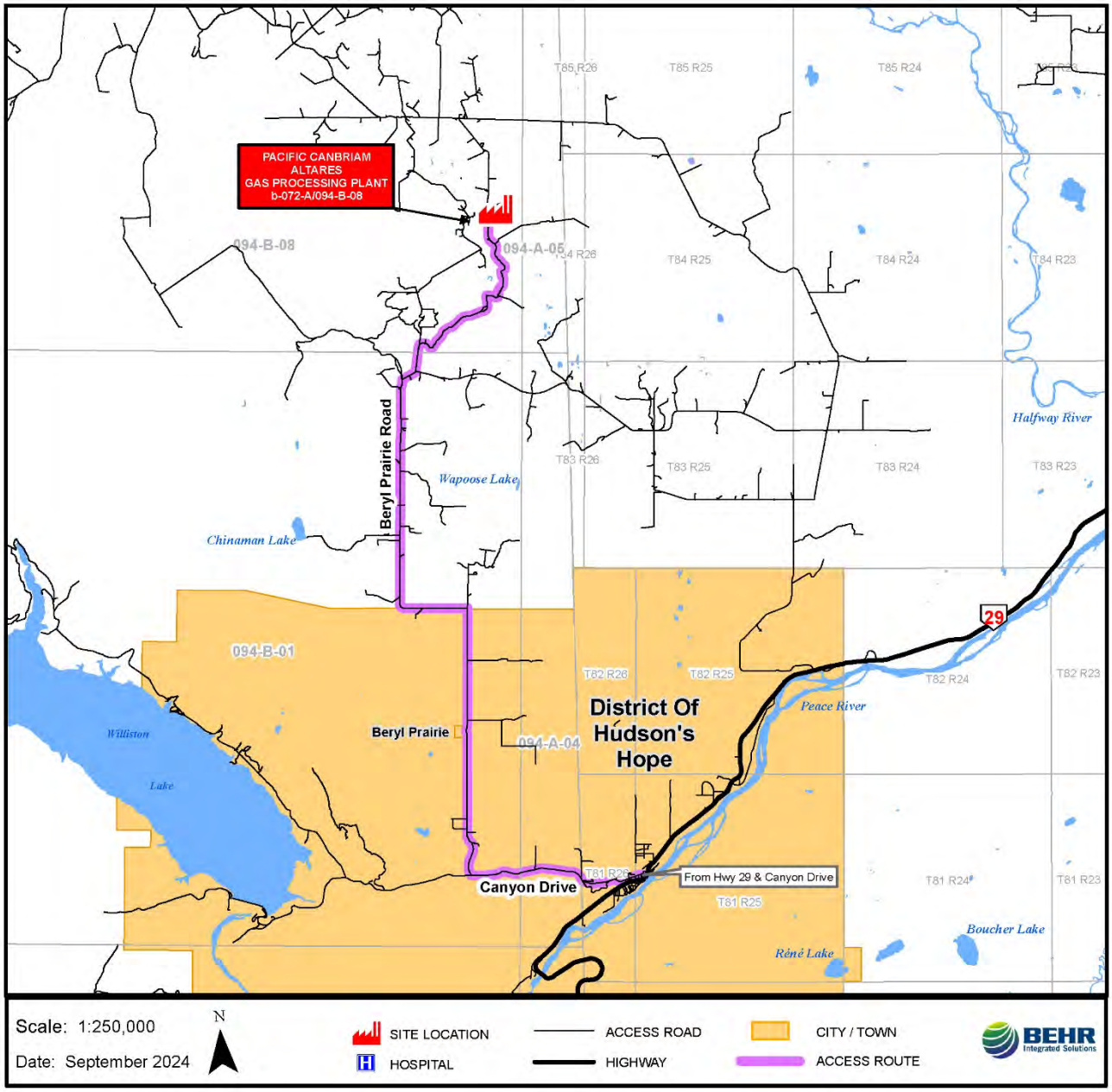
- Travel northwest on Hwy 97 for 12.5 km to Hwy 29 (Don Phillips Way).
- Turn left and travel southwest on Hwy 29 for 60.8 km.
- Turn right and travel west (then north) on Farrell Creek Road for 17.0 km.
- Turn left and travel west on Altares Core Road for 8.9 km.
- Continue west on Progress Connector for 0.8 km.
- Continue west on PDR 623 Progress Farrell Core Road for 11.5 km.
- Turn right and travel north on Beryl Prairie Road for 5.0 km.
- Continue north on Beryl Prairie FSR for 6.0 km.
- Turn left onto lease road to arrive into plant area.



To Altares Gas Plant b-072-A / 94-B-08 – Total Distance 46.3 km

From Intersection of Hwy 29 and Canyon Drive, Hudson's Hope, BC

- Travel west on Canyon Drive for 8.5 km.
- Turn right and continue north on Beryl Prairie Road for 24.7 km.
- Continue north on PDR 623 Progress Farrell Core Road for 2.6 km.
- Continue north on Beryl Prairie Road for 5.0 km.
- Continue north on Beryl Prairie FSR for 6.0 km.
- Turn left onto lease road to arrive in plant area.



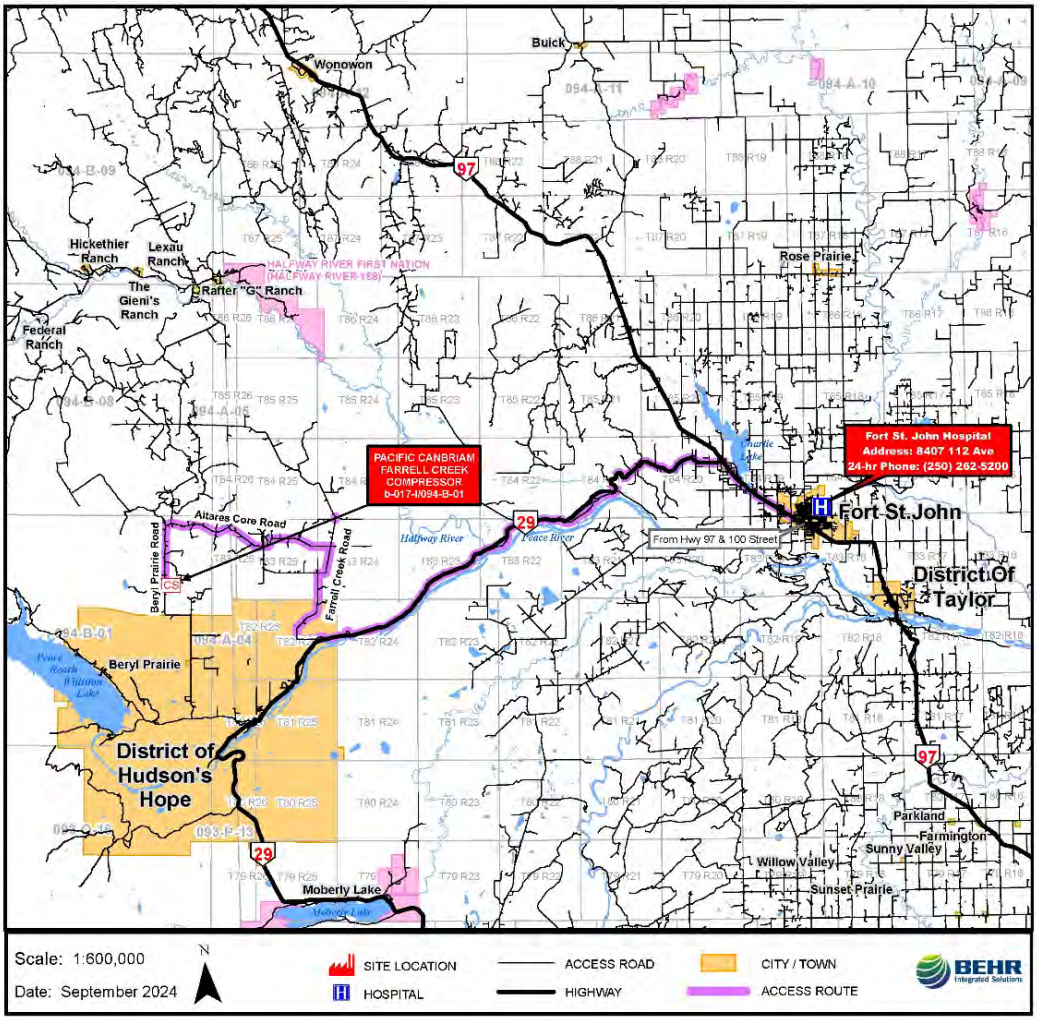
To Farrell Creek Compressor b-017-I / 94-B-01 – Total Distance 113 km

From Intersection of Hwy 97 and 100th Street, Fort St. John, BC

- Travel northwest on Hwy 97 for 12.5 km to Hwy 29 (Don Phillips Way).
- Turn left and travel southwest on Hwy 29 for 60.8 km.
- Turn right and travel west (then north) on Farrell Creek Road for 23.8 km.
- Continue travelling northwest onto Kobes Creek FSR for 20.8 km (preferred route).
- Turn left and travel south on Beryl Prairie FSR for 11.0 km.
- Continue south on Beryl Prairie FSR for 5.0 km.
- Continue south on PDR 623 Progress Farrell Core Road for 2.6 km.
- Turn left and continue south on Beryl Prairie Road for 5.0 km.
- Turn left and travel east on access road for 0.8 km to facility.

Or

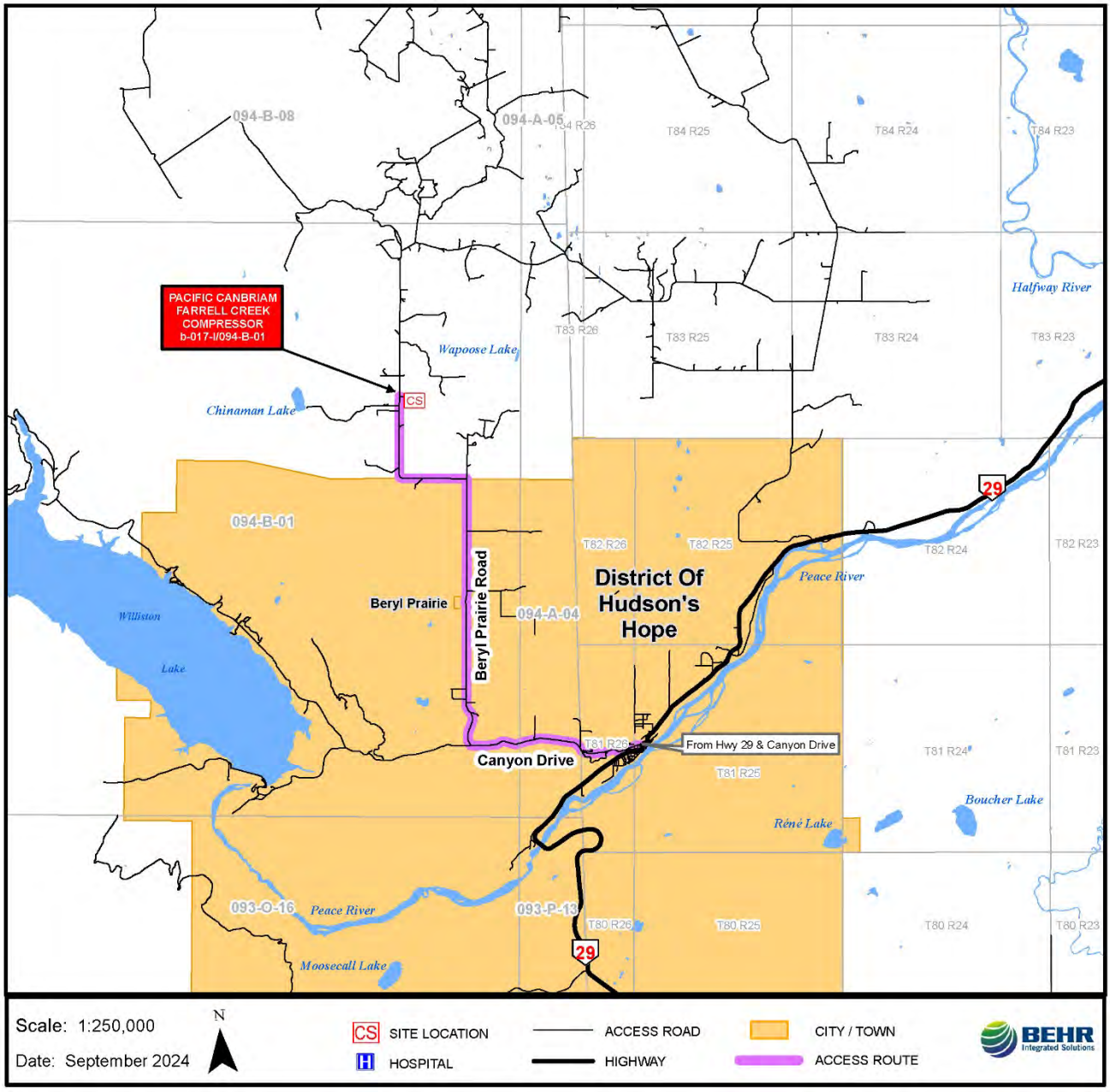
- Travel northwest on Hwy 97 for 12.5 km to Hwy 29 (Don Phillips Way).
- Turn left and travel southwest on Hwy 29 for 60.8 km.
- Turn right and travel west (then north) on Farrell Creek Road for 17.0 km.
- Turn left and travel west on Altares Core Road for 8.9 km.
- Continue west on Progress Connector for 0.8 km.
- Continue west on PDR 623 Progress Farrell Core Road for 14.1 km.
- Turn left and travel south on Beryl Prairie Road for 5.0 km.
- Turn left and travel east on access road for 0.8 km to facility.



To Farrell Creek Compressor b-017-I / 94-B-01 – Total Distance 28.1 km

From Intersection of Hwy 29 and Canyon Drive, Hudson's Hope, BC

- Travel west on Canyon Drive for 8.5 km.
- Turn right and continue north on Beryl Prairie Road for 24.7 km.
- Continue north on PDR 623 Progress Farrell Core Road for 2.6 km.
- Continue north on Beryl Prairie Road for 5.0 km.
- Continue north on Beryl Prairie FSR for 11.0 km.
- Turn right and travel east on Kobes Creek Road for 0.3 km.
- Turn left on access road and drive north for approx. 0.2 km to facility.



Altares / Farrell Creek - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Substance	Status	Distance to Nearest Residence (km)	Assigned HPZ (m)
Operating											
028394	200/b-049-D/094-A-05/2	15-12-084-26 W6M	564307.82	6236983.53	PACIFIC CANBRIAM HZ ALTARES 15-12-084-26	0	0.0000	Gas	Producing	>2	100
037341	100/11-12-085-26W6/0	08-06-085-25 W6M	566007.02	6244408.40	PACIFIC CANBRIAM HZ ALTARES A08-06-085-25	0	0.0000	Gas	Producing	>2	100
037343	102/11-12-085-26W6/2	08-06-085-25 W6M	566030.47	6244442.72	PACIFIC CANBRIAM HZ ALTARES C08-06-085-25	0	0.0000	Gas	Producing	>2	100
037345	103/11-12-085-26W6/0	08-06-085-25 W6M	566040.53	6244460.02	PACIFIC CANBRIAM HZ ALTARES E08-06-085-25	0	0.0000	Gas	Producing	>2	100
041119	100/15-12-085-26W6/0	08-06-085-25 W6M	566045.47	6244468.67	PACIFIC CANBRIAM HZ ALTARES F08-06-085-25	0	0.0000	Gas	Producing	>2	100
037344	200/c-028-E/094-A-05/0	08-06-085-25 W6M	566035.54	6244451.26	PACIFIC CANBRIAM HZ ALTARES D08-06-085-25	0	0.0000	Gas	Producing	>2	100
037340	200/d-029-E/094-A-05/0	08-06-085-25 W6M	566002.08	6244399.76	PACIFIC CANBRIAM HZ ALTARES 08-06-085-25	0	0.0000	Gas	Producing	>2	100
037342	202/d-029-E/094-A-05/0	08-06-085-25 W6M	566012.07	6244417.17	PACIFIC CANBRIAM HZ ALTARES B08-06-085-25	0	0.0000	Gas	Producing	>2	100
038562	100/04-32-084-25W6/0	01-01-085-26 W6M	564049.33	6243946.67	PACIFIC CANBRIAM HZ ALTARES A02-01-085-26	0	0.0000	Gas	Producing	>2	100
038561	102/05-32-084-25W6/0	01-01-085-26 W6M	564049.33	6243946.67	PACIFIC CANBRIAM HZ ALTARES 02-01-085-26	0	0.0000	Gas	Producing	>2	100
043710	203/c-021-H/094-B-08/0	01-01-085-26 W6M	564451.85	6243928.14	PACIFIC CANBRIAM HZ ALTARES L02-01-085-26	-	-	Gas	Producing	>2	100
038563	100/13-29-084-25W6/0	02-01-085-26 W6M	564027.18	6244144.26	PACIFIC CANBRIAM HZ ALTARES B02-01-085-26	0	0.0000	Gas	Producing	>2	100
038564	102/13-29-084-25W6/0	02-01-085-26 W6M	564022.18	6244135.95	PACIFIC CANBRIAM HZ ALTARES C02-01-085-26	0	0.0000	Gas	Producing	>2	100
038565	100/16-30-084-25W6/0	02-01-085-26 W6M	564017.11	6244127.64	PACIFIC CANBRIAM HZ ALTARES D02-01-085-26	0	0.0000	Gas	Producing	>2	100
038566	102/16-30-084-25W6/0	02-01-085-26 W6M	564012.16	6244119.33	PACIFIC CANBRIAM HZ ALTARES E02-01-085-26	0	0.0000	Gas	Producing	>2	100
043696	200/b-021-H/094-B-08/0	02-01-085-26 W6M	563955.19	6244145.52	PACIFIC CANBRIAM HZ ALTARES F02-01-085-26	-	-	Gas	Producing	>2	100
043697	202/b-021-H/094-B-08/0	02-01-085-26 W6M	563959.21	6244149.81	PACIFIC CANBRIAM HZ ALTARES G02-01-085-26	-	-	Gas	Producing	>2	100
043708	200/c-021-H/094-B-08/0	02-01-085-26 W6M	563963.29	6244149.65	PACIFIC CANBRIAM HZ ALTARES J02-01-085-26	0	-	Gas	Producing	>2	100
043709	202/c-021-H/094-B-08/0	02-01-085-26 W6M	563967.44	6244149.49	PACIFIC CANBRIAM HZ ALTARES K02-01-085-26	-	-	Gas	Producing	>2	100
043701	103/13-29-084-25W6/0	07-01-085-26 W6M	564059.75	6244198.86	PACIFIC CANBRIAM HZ ALTARES C07-01-085-26	0	0.0000	Gas	Producing	>2	100
043702	104/13-29-084-25W6/0	07-01-085-26 W6M	564064.82	6244207.17	PACIFIC CANBRIAM HZ ALTARES D07-01-085-26	0	0.0000	Gas	Producing	>2	100
043703	105/13-29-084-25W6/0	07-01-085-26 W6M	564069.76	6244215.59	PACIFIC CANBRIAM HZ ALTARES E07-01-085-26	0	0.0000	Gas	Producing	>2	100
043698	103/16-30-084-25W6/0	07-01-085-26 W6M	564044.73	6244173.70	PACIFIC CANBRIAM HZ ALTARES 07-01-085-26	0	0.0000	Gas	Producing	>2	100
043699	104/16-30-084-25W6/0	07-01-085-26 W6M	564049.80	6244182.12	PACIFIC CANBRIAM HZ ALTARES A07-01-085-26	0	0.0000	Gas	Producing	>2	100
043700	105/16-30-084-25W6/0	07-01-085-26 W6M	564054.75	6244190.43	PACIFIC CANBRIAM HZ ALTARES B07-01-085-26	0	0.0000	Gas	Producing	>2	100
043704	102/04-32-084-25W6/0	07-01-085-26 W6M	564074.83	6244223.91	PACIFIC CANBRIAM HZ ALTARES F07-01-085-26	0	0.0000	Gas	Producing	>2	100
043705	103/04-32-084-25W6/0	07-01-085-26 W6M	564079.84	6244232.22	PACIFIC CANBRIAM HZ ALTARES G07-01-085-26	0	0.0000	Gas	Producing	>2	100

Altares / Farrell Creek - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Substance	Status	Distance to Nearest Residence (km)	Assigned HPZ (m)
Operating											
043706	104/04-32-084-25W6/0	07-01-085-26 W6M	564084.91	6244240.65	PACIFIC CANBRIAM HZ ALTARES H07-01-085-26	0	0.0000	Gas	Producing	>2	100
043707	200/b-031-H/094-B-08/0	07-01-085-26 W6M	563975.16	6244178.99	PACIFIC CANBRIAM HZ ALTARES I07-01-085-26	-	-	Gas	Producing	>2	100
036845	100/05-32-084-25W6/0	10-01-085-26 W6M	564075.61	6244935.71	PACIFIC CANBRIAM HZ ALTARES 10-01-085-26	0	0.0000	Gas	Producing	>2	100
036844	100/12-32-084-25W6/0	15-01-085-26 W6M	564078.15	6244939.98	PACIFIC CANBRIAM HZ ALTARES H15-01-085-26	0	0.0000	Gas	Producing	>2	100
027474	102/01-06-085-25W6/2	15-01-085-26 W6M	564110.62	6244996.35	PACIFIC CANBRIAM HZ ALTARES C15-01-085-26	0	0.0000	Gas	Producing	>2	100
031815	100/03-06-085-25W6/0	15-01-085-26 W6M	564105.62	6244987.71	PACIFIC CANBRIAM HZ ALTARES D15-01-085-26	0	0.0000	Gas	Producing	>2	100
031816	200/c-030-E/094-A-05/0	15-01-085-26 W6M	564100.55	6244979.06	PACIFIC CANBRIAM HZ ALTARES E15-01-085-26	0	0.0000	Gas	Producing	>2	100
027472	200/d-030-E/094-A-05/0	15-01-085-26 W6M	564070.89	6245076.91	PACIFIC CANBRIAM HZ ALTARES A15-01-085-26	0	0.0000	Gas	Producing	>2	100
031818	200/d-021-H/094-B-08/0	15-01-085-26 W6M	564083.14	6244948.74	PACIFIC CANBRIAM HZ ALTARES G15-01-085-26	0	0.0000	Gas	Producing	>2	100
031817	200/a-031-H/094-B-08/2	15-01-085-26 W6M	564085.68	6244953.01	PACIFIC CANBRIAM HZ ALTARES F15-01-085-26	0	0.0000	Gas	Producing	>2	100
041428	100/11-30-084-25W6/0	c-098-D/094-A-05	564103.08	6243354.36	PACIFIC CANBRIAM HZ ALTARES C- 098-D/094-A-05	0	0.0000	Gas	Producing	>2	100
041430	100/10-30-084-25W6/0	c-099-D/094-A-05	564113.08	6243371.65	PACIFIC CANBRIAM HZ ALTARES C-B098-D/094-A-05	0	0.0000	Gas	Producing	>2	100
041429	102/11-30-084-25W6/0	c-099-D/094-A-05	564108.02	6243363.00	PACIFIC CANBRIAM HZ ALTARES C-A098-D/094-A-05	0	0.0000	Gas	Producing	>2	100
041431	100/15-30-084-25W6/0	c-099-D/094-A-05	564118.09	6243380.41	PACIFIC CANBRIAM HZ ALTARES C-C098-D/094-A-05	0	0.0000	Gas	Producing	>2	100
025603	200/b-006-I/094-B-01/2	b-017-I/094-B-01	556594.06	6226071.49	PACIFIC CANBRIAM HZ W FARRELL B- 017-I/094-B-01	0	0.0000	Gas	Producing	0.93	100
025603	200/b-017-I/094-B-01/0	b-017-I/094-B-01	556600.29	6226074.92	PACIFIC CANBRIAM HZ W FARRELL B- 017-I/094-B-01	0	0.0000	Gas	Producing	0.93	100
025929	200/c-006-I/094-B-01/0	c-018-I/094-B-01	555849.26	6226838.91	PACIFIC CANBRIAM HZ W. FARRELL C- 018-I/094-B-01	0	0.0000	Gas	Producing	0.45	100
026815	200/d-040-I/094-B-01/0	c-018-I/094-B-01	555825.36	6226833.92	PACIFIC CANBRIAM HZ ALTARES C-B018-I/094-B-01	0	0.0000	Gas	Producing	0.47	100
025465	200/b-034-I/094-B-01/0	c-045-I/094-B-01	558256.13	6229436.26	PACIFIC CANBRIAM HZ W FARRELL C- 045-I/094-B-01	0	0.0000	Gas	Producing	>2	100
025521	200/d-026-I/094-B-01/2	c-048-I/094-B-01	556094.71	6229263.77	PACIFIC CANBRIAM HZ W FARRELL C-A048-I/094-B-01	0	0.0000	Gas	Potential	>2	100
029600	200/d-008-A/094-B-08/2	c-029-A/094-B-08	555062.17	6236889.23	PACIFIC CANBRIAM HZ ALTARES C- 029-A/094-B-08	0	0.0000	Gas	Producing	1.25	100
035252	200/a-052-B/094-B-08/0	c-029-A/094-B-08	555035.52	6236857.39	PACIFIC CANBRIAM HZ ALTARES C-A029-A/094-B-08	0	0.0000	Gas	Producing	1.29	100
035253	202/a-052-B/094-B-08/0	c-029-A/094-B-08	555025.58	6236849.91	PACIFIC CANBRIAM HZ ALTARES C-B029-A/094-B-08	0	0.0000	Gas	Producing	1.29	100
020413	200/d-033-A/094-B-08/0	a-043-A/094-B-08	560074.37	6238240.38	PACIFIC CANBRIAM ALTARES A-043-A/094-B-08	0	0.0000	Gas	Shut-in	>2	100
020413	200/d-033-A/094-B-08/3	a-043-A/094-B-08	560074.37	6238240.38	PACIFIC CANBRIAM ALTARES A-043-A/094-B-08	0	0.0000	N/A	Observation	>2	100
029850	200/c-033-A/094-B-08/0	c-054-A/094-B-08	558792.18	6239750.79	PACIFIC CANBRIAM HZ ALTARES C- 054-A/094-B-08	0	0.0000	Gas	Producing	1.34	100
030276	202/c-033-A/094-B-08/2	c-054-A/094-B-08	558812.10	6239750.84	PACIFIC CANBRIAM HZ ALTARES C-B054-A/094-B-08	0	0.0000	Gas	Producing	1.33	100
030355	202/d-033-A/094-B-08/2	c-054-A/094-B-08	558822.13	6239750.87	PACIFIC CANBRIAM HZ ALTARES C-C054-A/094-B-08	0	0.0000	Gas	Producing	1.32	100

Altares / Farrell Creek - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Substance	Status	Distance to Nearest Residence (km)	Assigned HPZ (m)
Operating											
032846	202/b-042-A/094-B-08/0	c-054-A/094-B-08	558842.13	6239750.70	PACIFIC CANBRIAM HZ ALTARES C-E054-A/094-B-08	0	0.0000	Gas	Producing	1.313	100
032843	200/a-043-A/094-B-08/0	c-054-A/094-B-08	558832.10	6239750.78	PACIFIC CANBRIAM HZ ALTARES C-D054-A/094-B-08	0	0.0000	Gas	Producing	1.32	100
030275	202/d-044-A/094-B-08/2	c-054-A/094-B-08	558802.16	6239762.84	PACIFIC CANBRIAM HZ ALTARES C-A054-A/094-B-08	0	0.0000	Gas	Producing	1.32	100
029313	200/d-044-A/094-B-08/0	d-055-A/094-B-08	558635.82	6239805.29	PACIFIC CANBRIAM HZ ALTARES D- 055-A/094-B-08	0	0.0000	Gas	Producing	1.39	100
030679	202/d-042-A/094-B-08/0	d-063-A/094-B-08	559933.20	6240670.26	PACIFIC CANBRIAM HZ ALTARES D- 063-A/094-B-08	0	0.0000	Gas	Producing	0.44	100
030721	203/d-042-A/094-B-08/0	d-063-A/094-B-08	559943.17	6240670.06	PACIFIC CANBRIAM HZ ALTARES D-A063-A/094-B-08	0	0.0000	Gas	Producing	0.45	100
026200	200/d-064-A/094-B-08/0	d-064-A/094-B-08	559185.26	6240526.33	PACIFIC CANBRIAM ALTARES D- 064-A/094-B-08	0	0.0000	Gas	Producing	0.49	100
029998	200/b-042-A/094-B-08/0	b-074-A/094-B-08	558946.19	6241207.29	PACIFIC CANBRIAM HZ ALTARES B-E074-A/094-B-08	0	0.0000	Gas	Producing	0.69	100
031428	202/c-042-A/094-B-08/0	b-074-A/094-B-08	558964.27	6241215.66	PACIFIC CANBRIAM HZ ALTARES B-H074-A/094-B-08	0	0.0000	Gas	Producing	0.68	100
031429	203/c-042-A/094-B-08/0	b-074-A/094-B-08	558973.30	6241219.91	PACIFIC CANBRIAM HZ ALTARES B-I074-A/094-B-08	0	0.0000	Gas	Producing	0.67	100
031427	200/d-043-A/094-B-08/0	b-074-A/094-B-08	558955.23	6241211.42	PACIFIC CANBRIAM HZ ALTARES B-G074-A/094-B-08	0	0.0000	Gas	Producing	0.68	100
029210	200/a-053-A/094-B-08/0	b-074-A/094-B-08	558901.91	6241219.25	PACIFIC CANBRIAM HZ ALTARES B-C074-A/094-B-08	0	0.0000	Gas	Producing	0.73	100
029733	202/a-053-A/094-B-08/0	b-074-A/094-B-08	558910.76	6241223.83	PACIFIC CANBRIAM HZ ALTARES B-D074-A/094-B-08	0	0.0000	Gas	Producing	0.73	100
027786	200/b-053-A/094-B-08/0	b-074-A/094-B-08	558884.16	6241210.10	PACIFIC CANBRIAM HZ ALTARES B-A074-A/094-B-08	0	0.0000	Gas	Producing	0.74	100
029209	202/b-053-A/094-B-08/0	b-074-A/094-B-08	558893.00	6241214.68	PACIFIC CANBRIAM HZ ALTARES B-B074-A/094-B-08	0	0.0000	Gas	Producing	0.74	100
026688	200/a-075-A/094-B-08/0	b-074-A/094-B-08	558752.75	6241070.37	PACIFIC CANBRIAM ALTARES B- 074-A/094-B-08	0	0.0000	Gas	Producing	0.81	100
033957	200/c-095-A/094-B-08/0	c-074-A/094-B-08	558941.51	6241299.95	PACIFIC CANBRIAM HZ ALTARES C- 074-A/094-B-08	0	0.0000	Gas	Producing	0.74	100
035534	202/c-095-A/094-B-08/0	c-074-A/094-B-08	558932.35	6241295.37	PACIFIC CANBRIAM HZ ALTARES C-E074-A/094-B-08	0	0.0000	Gas	Producing	0.75	100
033960	200/b-005-H/094-B-08/0	c-074-A/094-B-08	558968.74	6241312.57	PACIFIC CANBRIAM HZ ALTARES C-C074-A/094-B-08	0	0.0000	Gas	Producing	0.73	100
033959	202/a-006-H/094-B-08/0	c-074-A/094-B-08	558959.70	6241308.33	PACIFIC CANBRIAM HZ ALTARES C-B074-A/094-B-08	0	0.0000	Gas	Producing	0.78	100
033961	203/d-006-H/094-B-08/0	c-074-A/094-B-08	558977.78	6241316.82	PACIFIC CANBRIAM HZ ALTARES C-D074-A/094-B-08	0	0.0000	Gas	Producing	0.72	100
026058	200/c-073-A/094-B-08/0	b-083-A/094-B-08	559572.25	6242076.49	PACIFIC CANBRIAM ALTARES B-A083-A/094-B-08	0	0.0000	N/A	Observation	1.14	100
034675	203/a-053-A/094-B-08/0	c-084-A/094-B-08	558972.75	6242541.92	PACIFIC CANBRIAM HZ ALTARES C-K084-A/094-B-08	0	0.0000	Gas	Producing	1.78	100
031333	200/c-063-A/094-B-08/0	c-084-A/094-B-08	559013.80	6242560.97	PACIFIC CANBRIAM HZ ALTARES C-G084-A/094-B-08	0	0.0000	Gas	Producing	1.78	100
034674	202/c-063-A/094-B-08/0	c-084-A/094-B-08	558981.85	6242546.16	PACIFIC CANBRIAM HZ ALTARES C-J084-A/094-B-08	0	0.0000	Gas	Producing	1.84	100
031330	200/d-063-A/094-B-08/0	c-084-A/094-B-08	559040.90	6242573.70	PACIFIC CANBRIAM HZ ALTARES C-D084-A/094-B-08	0	0.0000	Gas	Producing	1.78	100
031331	202/d-063-A/094-B-08/0	c-084-A/094-B-08	559031.87	6242569.45	PACIFIC CANBRIAM HZ ALTARES C-E084-A/094-B-08	0	0.0000	Gas	Producing	1.78	100
031332	203/d-063-A/094-B-08/0	c-084-A/094-B-08	559022.84	6242565.21	PACIFIC CANBRIAM HZ ALTARES C-F084-A/094-B-08	0	0.0000	Gas	Producing	1.78	100

Altares / Farrell Creek - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Substance	Status	Distance to Nearest Residence (km)	Assigned HPZ (m)
Operating											
031334	202/c-005-H/094-B-08/0	c-084-A/094-B-08	558951.05	6242607.85	PACIFIC CANBRIAM HZ ALTARES C-H084-A/094-B-08	0	0.0000	Gas	Producing	1.842	100
033947	203/c-005-H/094-B-08/0	c-084-A/094-B-08	558942.02	6242603.72	PACIFIC CANBRIAM HZ ALTARES C-I084-A/094-B-08	0	0.0000	Gas	Producing	1.84	100
030289	200/a-015-H/094-B-08/0	c-084-A/094-B-08	558991.92	6242627.01	PACIFIC CANBRIAM HZ ALTARES C-A084-A/094-B-08	0	0.0000	Gas	Producing	1.85	100
029799	202/a-015-H/094-B-08/0	c-084-A/094-B-08	559000.96	6242631.14	PACIFIC CANBRIAM HZ ALTARES C- 084-A/094-B-08	0	0.0000	Gas	Producing	1.85	100
030298	200/b-015-H/094-B-08/0	c-084-A/094-B-08	558973.79	6242618.52	PACIFIC CANBRIAM HZ ALTARES C-C084-A/094-B-08	0	0.0000	Gas	Producing	1.84	100
030297	202/b-015-H/094-B-08/0	c-084-A/094-B-08	558982.89	6242622.77	PACIFIC CANBRIAM HZ ALTARES C-B084-A/094-B-08	0	0.0000	Gas	Potential	1.85	100
031650	200/a-098-A/094-B-08/0	d-088-A/094-B-08	556283.81	6242523.00	PACIFIC CANBRIAM ALTARES D- 088-A/094-B-08	0	0.0000	Gas	Producing	>2	100
031223	200/b-019-H/094-B-08/0	a-097-A/094-B-08	556335.04	6242839.93	PACIFIC CANBRIAM HZ ALTARES A-C098-A/094-B-08	0	0.0000	Gas	Producing	>2	100
031222	202/b-019-H/094-B-08/0	a-097-A/094-B-08	556326.39	6242834.92	PACIFIC CANBRIAM HZ ALTARES A-B098-A/094-B-08	0	0.0000	Gas	Producing	>2	100
030274	200/b-075-A/094-B-08/0	b-097-A/094-B-08	556381.32	6242764.07	PACIFIC CANBRIAM HZ ALTARES B-C097-A/094-B-08	0	0.0000	Gas	Producing	>2	100
030132	200/a-076-A/094-B-08/0	b-097-A/094-B-08	556363.95	6242754.15	PACIFIC CANBRIAM HZ ALTARES B-A097-A/094-B-08	0	0.0000	Gas	Producing	>2	100
030133	202/a-076-A/094-B-08/0	b-097-A/094-B-08	556372.60	6242759.16	PACIFIC CANBRIAM HZ ALTARES B-B097-A/094-B-08	0	0.0000	Gas	Producing	>2	100
029601	200/c-009-H/094-B-08/0	b-097-A/094-B-08	556355.35	6242749.03	PACIFIC CANBRIAM HZ ALTARES B- 097-A/094-B-08	0	0.0000	Gas	Producing	>2	100
031225	202/c-009-H/094-B-08/0	a-098-A/094-B-08	556317.67	6242829.90	PACIFIC CANBRIAM HZ ALTARES A-A098-A/094-B-08	0	0.0000	Gas	Producing	>2	100
031224	203/c-009-H/094-B-08/0	a-098-A/094-B-08	556309.02	6242824.89	PACIFIC CANBRIAM HZ ALTARES A- 098-A/094-B-08	0	0.0000	Gas	Producing	>2	100
028977	202/a-083-A/094-B-08/0	c-004-H/094-B-08	558999.77	6244050.55	PACIFIC CANBRIAM HZ ALTARES C-A004-H/094-B-08	0	0.0000	Gas	Producing	1.29	100
030237	203/a-083-A/094-B-08/0	c-004-H/094-B-08	559017.76	6244060.04	PACIFIC CANBRIAM HZ ALTARES C-C004-H/094-B-08	0	0.0000	Gas	Producing	1.27	100
028979	200/b-083-A/094-B-08/0	c-004-H/094-B-08	559008.79	6244055.57	PACIFIC CANBRIAM HZ ALTARES C-B004-H/094-B-08	0	0.0000	Gas	Producing	1.28	100
028526	202/b-083-A/094-B-08/0	c-004-H/094-B-08	558990.80	6244046.53	PACIFIC CANBRIAM HZ ALTARES C- 004-H/094-B-08	0	0.0000	Gas	Producing	1.25	100
031627	200/b-035-H/094-B-08/0	c-004-H/094-B-08	558997.53	6244127.11	PACIFIC CANBRIAM HZ ALTARES C-H004-H/094-B-08	0	0.0000	Gas	Producing	1.21	100
031328	200/c-036-H/094-B-08/0	c-004-H/094-B-08	558979.35	6244118.62	PACIFIC CANBRIAM HZ ALTARES C-F004-H/094-B-08	0	0.0000	Gas	Producing	1.22	100
031327	202/c-036-H/094-B-08/0	c-004-H/094-B-08	558970.32	6244114.48	PACIFIC CANBRIAM HZ ALTARES C-E004-H/094-B-08	0	0.0000	Gas	Producing	1.23	100
031329	200/d-036-H/094-B-08/0	c-004-H/094-B-08	558988.38	6244122.86	PACIFIC CANBRIAM HZ ALTARES C-G004-H/094-B-08	0	0.0000	Gas	Producing	1.31	100
031326	200/d-037-H/094-B-08/0	c-004-H/094-B-08	558911.28	6244109.55	PACIFIC CANBRIAM HZ ALTARES C-D004-H/094-B-08	0	0.0000	Gas	Producing	1.25	100
032971	200/d-062-A/094-B-08/0	d-004-H/094-B-08	559036.45	6244067.76	PACIFIC CANBRIAM HZ ALTARES D- 004-H/094-B-08	0	0.0000	Gas	Producing	1.23	100
032974	202/d-062-A/094-B-08/0	d-004-H/094-B-08	559045.47	6244072.11	PACIFIC CANBRIAM HZ ALTARES D-A004-H/094-B-08	0	0.0000	Gas	Producing	1.23	100
032976	200/b-071-A/094-B-08/0	d-004-H/094-B-08	559063.47	6244080.82	PACIFIC CANBRIAM HZ ALTARES D-C004-H/094-B-08	0	0.0000	Gas	Producing	0.80	100
032975	200/a-072-A/094-B-08/0	d-004-H/094-B-08	559054.38	6244076.47	PACIFIC CANBRIAM HZ ALTARES D-B004-H/094-B-08	0	0.0000	Gas	Producing	1.23	100

Altares / Farrell Creek - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Substance	Status	Distance to Nearest Residence (km)	Assigned HPZ (m)
Operating											
043328	203/c-036-H/094-B-08/0	d-004-H/094-B-08	559233.02	6244279.88	PACIFIC CANBRIAM HZ ALTARES D-F004-H/094-B-08	0	0.0000	Gas	Producing	1.232	100
032977	202/d-037-H/094-B-08/0	d-004-H/094-B-08	559076.87	6244086.91	PACIFIC CANBRIAM HZ ALTARES D-D004-H/094-B-08	0	0.0000	Gas	Producing	1.23	100
043327	203/d-037-H/094-B-08/0	d-004-H/094-B-08	559233.02	6244279.88	PACIFIC CANBRIAM HZ ALTARES D-E004-H/094-B-08	0	0.0000	Gas	Producing	1.23	100
021710	200/b-006-H/094-B-08/0	b-006-H/094-B-08	557308.33	6243948.29	PACIFIC CANBRIAM ALTARES B-006-H/094-B-08	0	0.0000	N/A	Observation	>2	100
033870	202/a-075-A/094-B-08/0	c-007-H/094-B-08	556618.72	6244263.66	PACIFIC CANBRIAM HZ ALTARES C-F007-H/094-B-08	0	0.0000	Gas	Producing	>2	100
033871	203/a-075-A/094-B-08/0	c-007-H/094-B-08	556625.80	6244256.63	PACIFIC CANBRIAM HZ ALTARES C-G007-H/094-B-08	0	0.0000	Gas	Producing	>2	100
041394	204/a-075-A/094-B-08/0	c-007-H/094-B-08	556632.88	6244249.49	PACIFIC CANBRIAM HZ ALTARES C-H007-H/094-B-08	0	0.0000	Gas	Producing	>2	100
041395	205/a-075-A/094-B-08/0	c-007-H/094-B-08	556639.96	6244242.46	PACIFIC CANBRIAM HZ ALTARES C-I007-H/094-B-08	0	0.0000	Gas	Producing	>2	100
033869	200/c-075-A/094-B-08/0	c-007-H/094-B-08	556611.64	6244270.80	PACIFIC CANBRIAM HZ ALTARES C-E007-H/094-B-08	0	0.0000	Gas	Producing	>2	100
031819	202/a-030-H/094-B-08/2	c-007-H/094-B-08	556597.36	6244284.86	PACIFIC CANBRIAM HZ ALTARES C-D007-H/094-B-08	0	0.0000	Gas	Producing	>2	100
031019	200/d-030-H/094-B-08/0	c-007-H/094-B-08	556590.33	6244292.11	PACIFIC CANBRIAM HZ ALTARES C-C007-H/094-B-08	0	0.0000	Gas	Producing	>2	100
031018	200/a-040-H/094-B-08/0	c-007-H/094-B-08	556583.26	6244299.03	PACIFIC CANBRIAM HZ ALTARES C-B007-H/094-B-08	0	0.0000	Gas	Producing	>2	100
031017	202/a-040-H/094-B-08/0	c-007-H/094-B-08	556576.24	6244306.06	PACIFIC CANBRIAM HZ ALTARES C-A007-H/094-B-08	0	0.0000	Gas	Producing	>2	100
031501	202/b-084-A/094-B-08/0	c-017-H/094-B-08	556458.18	6245081.71	PACIFIC CANBRIAM HZ ALTARES C-F017-H/094-B-08	0	0.0000	Gas	Producing	1.80	100
031502	203/b-084-A/094-B-08/0	c-017-H/094-B-08	556450.22	6245075.60	PACIFIC CANBRIAM HZ ALTARES C-G017-H/094-B-08	0	0.0000	Gas	Producing	1.79	100
031500	200/c-084-A/094-B-08/0	c-017-H/094-B-08	556466.01	6245087.94	PACIFIC CANBRIAM HZ ALTARES C-E017-H/094-B-08	0	0.0000	Gas	Producing	1.80	100
033919	200/a-085-A/094-B-08/0	c-017-H/094-B-08	556442.33	6245069.37	PACIFIC CANBRIAM HZ ALTARES C-H017-H/094-B-08	0	0.0000	Gas	Producing	1.80	100
031499	200/b-094-A/094-B-08/0	c-017-H/094-B-08	556473.90	6245093.95	PACIFIC CANBRIAM HZ ALTARES C-D017-H/094-B-08	0	0.0000	Gas	Producing	1.80	100
030113	200/c-039-H/094-B-08/0	c-017-H/094-B-08	556417.12	6245133.71	PACIFIC CANBRIAM HZ ALTARES C-B017-H/094-B-08	0	0.0000	Gas	Producing	1.80	100
030240	202/c-039-H/094-B-08/0	c-017-H/094-B-08	556409.29	6245127.60	PACIFIC CANBRIAM HZ ALTARES C-C017-H/094-B-08	0	0.0000	Gas	Producing	1.79	100
028659	204/b-049-H/094-B-08/0	c-017-H/094-B-08	556434.87	6245124.04	PACIFIC CANBRIAM HZ ALTARES C- 017-H/094-B-08	0	0.0000	Gas	Producing	1.82	100
030112	205/b-049-H/094-B-08/0	c-017-H/094-B-08	556425.02	6245139.94	PACIFIC CANBRIAM HZ ALTARES C-A017-H/094-B-08	0	0.0000	Gas	Producing	1.81	100
034812	200/c-050-H/094-B-08/0	c-017-H/094-B-08	556442.26	6245028.52	PACIFIC CANBRIAM HZ ALTARES C-I017-H/094-B-08	0	0.0000	Gas	Producing	1.80	100
034813	202/c-050-H/094-B-08/0	c-017-H/094-B-08	556426.61	6245057.03	PACIFIC CANBRIAM HZ ALTARES C-J017-H/094-B-08	0	0.0000	Gas	Producing	1.80	100
030579	200/d-092-A/094-B-08/0	c-023-H/094-B-08	559723.48	6246060.94	PACIFIC CANBRIAM HZ ALTARES C-D023-H/094-B-08	0	0.0000	Gas	Producing	0.86	100
030580	200/a-002-H/094-B-08/0	c-023-H/094-B-08	559729.98	6246068.83	PACIFIC CANBRIAM HZ ALTARES C-E023-H/094-B-08	0	0.0000	Gas	Producing	0.86	100
030578	202/b-002-H/094-B-08/0	c-023-H/094-B-08	559716.97	6246053.28	PACIFIC CANBRIAM HZ ALTARES C-C023-H/094-B-08	0	0.0000	Gas	Potential	0.85	100
027196	200/c-002-H/094-B-08/0	c-023-H/094-B-08	559682.69	6246096.11	PACIFIC CANBRIAM HZ ALTARES C- 023-H/094-B-08	0	0.0000	Gas	Producing	0.83	100

Altares / Farrell Creek - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Substance	Status	Distance to Nearest Residence (km)	Assigned HPZ (m)
Operating											
027242	200/b-044-H/094-B-08/0	c-023-H/094-B-08	559692.23	6246107.59	PACIFIC CANBRIAM HZ ALTARES C-A023-H/094-B-08	0	0.0000	Gas	Producing	0.85	100
027243	200/c-044-H/094-B-08/0	c-023-H/094-B-08	559701.89	6246119.20	PACIFIC CANBRIAM HZ ALTARES C-B023-H/094-B-08	0	0.0000	Gas	Producing	0.86	100
026584	200/c-035-H/094-B-08/0	b-024-H/094-B-08	558893.27	6245548.76	PACIFIC CANBRIAM HZ ALTARES B-A024-H/094-B-08	0	0.0000	Gas	Producing	0.11	100
027596	200/b-045-H/094-B-08/0	b-024-H/094-B-08	558812.89	6245523.94	PACIFIC CANBRIAM HZ ALTARES B-B024-H/094-B-08	0	0.0000	Gas	Producing	0.18	100
030585	200/c-005-H/094-B-08/0	c-027-H/094-B-08	556408.45	6246011.34	PACIFIC CANBRIAM HZ ALTARES C-G027-H/094-B-08	0	0.0000	Gas	Producing	>2	100
031446	200/a-006-H/094-B-08/0	c-027-H/094-B-08	556428.94	6245943.59	PACIFIC CANBRIAM HZ ALTARES C-I027-H/094-B-08	0	0.0000	Gas	Producing	2.00	100
027957	200/d-006-H/094-B-08/0	c-027-H/094-B-08	556331.43	6245975.36	PACIFIC CANBRIAM HZ ALTARES C-B027-H/094-B-08	0	0.0000	Gas	Producing	1.93	100
031445	202/d-006-H/094-B-08/0	c-027-H/094-B-08	556437.97	6245947.94	PACIFIC CANBRIAM HZ ALTARES C-H027-H/094-B-08	0	0.0000	Gas	Producing	>2	100
027530	200/b-049-H/094-B-08/0	c-027-H/094-B-08	556304.28	6245962.76	PACIFIC CANBRIAM HZ ALTARES C- 027-H/094-B-08	0	0.0000	Gas	Producing	1.90	100
027956	202/b-049-H/094-B-08/0	c-027-H/094-B-08	556317.91	6245969.17	PACIFIC CANBRIAM HZ ALTARES C-A027-H/094-B-08	0	0.0000	Gas	Producing	1.91	100
028656	203/b-049-H/094-B-08/0	c-027-H/094-B-08	556358.57	6245988.08	PACIFIC CANBRIAM HZ ALTARES C-C027-H/094-B-08	0	0.0000	Gas	Producing	1.96	100
030582	200/c-049-H/094-B-08/0	c-027-H/094-B-08	556381.18	6245998.62	PACIFIC CANBRIAM HZ ALTARES C-D027-H/094-B-08	0	0.0000	Gas	Producing	1.98	100
030583	202/c-049-H/094-B-08/0	c-027-H/094-B-08	556390.33	6246002.86	PACIFIC CANBRIAM HZ ALTARES C-E027-H/094-B-08	0	0.0000	Gas	Producing	1.99	100
030584	203/c-049-H/094-B-08/0	c-027-H/094-B-08	556399.36	6246007.10	PACIFIC CANBRIAM HZ ALTARES C-F027-H/094-B-08	0	0.0000	Gas	Producing	>2	100
037954	200/c-033-G/094-B-08/0	a-030-H/094-B-08	554542.59	6245838.17	PACIFIC CANBRIAM HZ ALTARES A- 030-H/094-B-08	0	0.0000	Gas	Producing	0.75	100
037955	200/b-043-G/094-B-08/0	a-030-H/094-B-08	554537.64	6245829.42	PACIFIC CANBRIAM HZ ALTARES A-A030-H/094-B-08	0	0.0000	Gas	Producing	0.74	100
037953	202/b-043-G/094-B-08/0	d-030-H/094-B-08	554547.55	6245846.80	PACIFIC CANBRIAM HZ ALTARES D-D030-H/094-B-08	0	0.0000	Gas	Producing	0.76	100
037952	203/b-043-G/094-B-08/0	d-030-H/094-B-08	554552.57	6245855.66	PACIFIC CANBRIAM HZ ALTARES D-C030-H/094-B-08	0	0.0000	Gas	Producing	0.77	100
037951	203/c-043-G/094-B-08/0	d-030-H/094-B-08	554557.52	6245864.18	PACIFIC CANBRIAM HZ ALTARES D-B030-H/094-B-08	0	0.0000	Gas	Producing	0.78	100
037950	204/c-043-G/094-B-08/0	d-030-H/094-B-08	554562.67	6245872.82	PACIFIC CANBRIAM HZ ALTARES D-A030-H/094-B-08	0	0.0000	Gas	Producing	0.78	100
037949	205/c-043-G/094-B-08/0	d-030-H/094-B-08	554567.62	6245881.46	PACIFIC CANBRIAM HZ ALTARES D- 030-H/094-B-08	0	0.0000	Gas	Producing	0.79	100
028290	203/c-003-H/094-B-08/2	b-034-H/094-B-08	558855.05	6246474.41	PACIFIC CANBRIAM HZ ALTARES B- 034-H/094-B-08	0	0.0000	Gas	Producing	0.74	100
028708	202/d-003-H/094-B-08/0	b-034-H/094-B-08	558918.53	6246500.45	PACIFIC CANBRIAM HZ ALTARES B-C034-H/094-B-08	0	0.0000	Gas	Producing	0.77	100
031053	203/d-003-H/094-B-08/0	b-034-H/094-B-08	558927.61	6246504.69	PACIFIC CANBRIAM HZ ALTARES B-D034-H/094-B-08	0	0.0000	Gas	Producing	0.77	100
031054	204/d-003-H/094-B-08/0	b-034-H/094-B-08	558936.64	6246508.94	PACIFIC CANBRIAM HZ ALTARES B-E034-H/094-B-08	0	0.0000	Gas	Producing	0.77	100
033638	204/c-005-H/094-B-08/0	c-037-H/094-B-08	556304.35	6246802.21	PACIFIC CANBRIAM HZ ALTARES C-037-H/094-B-08	0	0.0000	Gas	Producing	>2	100
043393	203/a-015-H/094-B-08/0	c-037-H/094-B-08	556378.63	6246582.11	PACIFIC CANBRIAM HZ ALTARES C-F037-H/094-B-08	0	0.0000	Gas	Producing	>2	100
043394	204/a-015-H/094-B-08/0	c-037-H/094-B-08	556384.08	6246856.14	PACIFIC CANBRIAM HZ ALTARES C-G037-H/094-B-08	0	0.0000	Gas	Producing	>2	100

Altares / Farrell Creek - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Substance	Status	Distance to Nearest Residence (km)	Assigned HPZ (m)
Operating											
033639	203/b-015-H/094-B-08/0	c-037-H/094-B-08	556313.37	6246806.45	PACIFIC CANBRIAM HZ ALTARES C-A037-H/094-B-08	0	0.0000	Gas	Producing	>2	100
033640	204/b-015-H/094-B-08/0	c-037-H/094-B-08	556322.46	6246810.69	PACIFIC CANBRIAM HZ ALTARES C-B037-H/094-B-08	0	0.0000	Gas	Producing	>2	100
033641	205/b-015-H/094-B-08/0	c-037-H/094-B-08	556331.49	6246814.92	PACIFIC CANBRIAM HZ ALTARES C-C037-H/094-B-08	0	0.0000	Gas	Producing	>2	100
033642	206/b-015-H/094-B-08/0	c-037-H/094-B-08	556340.52	6246819.05	PACIFIC CANBRIAM HZ ALTARES C-D037-H/094-B-08	0	0.0000	Gas	Producing	>2	100
043392	207/b-015-H/094-B-08/0	c-037-H/094-B-08	556365.90	6246847.77	PACIFIC CANBRIAM HZ ALTARES C-E037-H/094-B-08	0	0.0000	Gas	Producing	1.84	100
043392	200/c-037-H/094-B-08/0	c-037-H/094-B-08	556375.93	6246837.00	PACIFIC CANBRIAM HZ ALTARES C-E037-H/094-B-08	-	-	Gas	Producing	1.84	100
037945	200/c-042-G/094-B-08/0	a-040-H/094-B-08	554673.86	6246429.28	PACIFIC CANBRIAM HZ ALTARES A-B040-H/094-B-08	0	0.0000	Gas	Producing	1.34	100
037943	202/c-042-G/094-B-08/0	a-040-H/094-B-08	554683.84	6246446.55	PACIFIC CANBRIAM HZ ALTARES A- 040-H/094-B-08	0	0.0000	Gas	Producing	1.36	100
037944	200/d-042-G/094-B-08/0	a-040-H/094-B-08	554678.88	6246437.91	PACIFIC CANBRIAM HZ ALTARES A-A040-H/094-B-08	0	0.0000	Gas	Producing	1.35	100
037948	200/c-043-G/094-B-08/0	a-040-H/094-B-08	554658.81	6246403.26	PACIFIC CANBRIAM HZ ALTARES A-E040-H/094-B-08	0	0.0000	Gas	Producing	1.31	100
037947	202/c-043-G/094-B-08/0	a-040-H/094-B-08	554663.83	6246411.89	PACIFIC CANBRIAM HZ ALTARES A-D040-H/094-B-08	0	0.0000	Gas	Producing	1.34	100
037946	200/d-043-G/094-B-08/0	a-040-H/094-B-08	554668.91	6246420.53	PACIFIC CANBRIAM HZ ALTARES A-C040-H/094-B-08	0	0.0000	Gas	Producing	1.33	100
030690	200/b-065-H/094-B-08/0	c-044-H/094-B-08	558710.69	6247905.87	PACIFIC CANBRIAM HZ ALTARES C-E044-H/094-B-08	0	0.0000	Gas	Producing	>2	100
028341	200/c-065-H/094-B-08/0	c-044-H/094-B-08	558766.96	6247938.26	PACIFIC CANBRIAM HZ ALTARES C- 044-H/094-B-08	0	0.0000	Gas	Producing	>2	100
030689	202/c-065-H/094-B-08/0	c-044-H/094-B-08	558719.34	6247910.78	PACIFIC CANBRIAM HZ ALTARES C-D044-H/094-B-08	0	0.0000	Gas	Producing	>2	100
028518	200/c-075-H/094-B-08/0	c-044-H/094-B-08	558736.68	6247920.81	PACIFIC CANBRIAM HZ ALTARES C-B044-H/094-B-08	0	0.0000	Gas	Producing	>2	100
026479	200/d-043-H/094-B-08/0	c-064-H/094-B-08	558800.42	6249657.61	PACIFIC CANBRIAM HZ ALTARES C-A064-H/094-B-08	0	0.0000	Gas	Producing	>2	100
026891	200/b-085-H/094-B-08/0	c-064-H/094-B-08	558774.07	6249718.92	PACIFIC CANBRIAM HZ ALTARES C-C064-H/094-B-08	0	0.0000	Gas	Producing	>2	100
024356	200/c-085-H/094-B-08/0	c-064-H/094-B-08	558820.43	6249657.78	PACIFIC CANBRIAM HZ ALTARES C- 064-H/094-B-08	0	0.0000	Gas	Producing	>2	100
033162	202/a-054-H/094-B-08/0	d-076-H/094-B-08	557688.17	6250753.44	PACIFIC CANBRIAM HZ ALTARES D-B076-H/094-B-08	0	0.0000	Gas	Producing	>2	100
038029	200/b-018-I/094-B-08/0	d-076-H/094-B-08	557640.14	6250726.85	PACIFIC CANBRIAM HZ ALTARES D-F076-H/094-B-08	0	0.0000	Gas	Producing	>2	100
037910	200/b-028-I/094-B-08/0	d-076-H/094-B-08	557666.36	6250741.56	PACIFIC CANBRIAM HZ ALTARES D-C076-H/094-B-08	0	0.0000	Gas	Producing	>2	100
038027	202/b-028-I/094-B-08/0	d-076-H/094-B-08	557657.60	6250736.55	PACIFIC CANBRIAM HZ ALTARES D-D076-H/094-B-08	0	0.0000	Gas	Producing	>2	100
038028	200/a-029-I/094-B-08/0	d-076-H/094-B-08	557648.90	6250731.64	PACIFIC CANBRIAM HZ ALTARES D-E076-H/094-B-08	0	0.0000	Gas	Producing	>2	100
031452	200/a-064-H/094-B-08/0	b-095-H/094-B-08	557943.42	6252053.12	PACIFIC CANBRIAM HZ ALTARES B- 095-H/094-B-08	0	0.0000	Gas	Producing	>2	100
031453	202/c-064-H/094-B-08/0	b-095-H/094-B-08	557934.78	6252048.10	PACIFIC CANBRIAM HZ ALTARES B-A095-H/094-B-08	0	0.0000	Gas	Producing	>2	100
031454	200/c-027-I/094-B-08/0	b-095-H/094-B-08	557904.53	6252030.66	PACIFIC CANBRIAM HZ ALTARES B-B095-H/094-B-08	0	0.0000	Gas	Producing	>2	100
031455	202/c-027-I/094-B-08/0	b-095-H/094-B-08	557895.90	6252025.64	PACIFIC CANBRIAM HZ ALTARES B-C095-H/094-B-08	0	0.0000	Gas	Producing	>2	100

Altares / Farrell Creek - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Substance	Status	Distance to Nearest Residence (km)	Assigned HPZ (m)
Operating											
041122	203/b-028-I/094-B-08/0	b-095-H/094-B-08	557861.18	6252005.69	PACIFIC CANBRIAM HZ ALTARES B-F095-H/094-B-08	0	0.0000	Gas	Producing	>2	100
Cased											
027435	100/12-07-083-24W6/2	12-07-083-24 W6M	575079.20	6227247.14	PACIFIC CANBRIAM ALTARES 12-07-083-24	0	-	N/A	Drilled & Cased	0.88	100
028743	100/03-24-083-25W6/0	03-24-083-25 W6M	573734.06	6229416.96	PACIFIC CANBRIAM ALTARES 03-24-083-25	0	-	N/A	Drilled & Cased	0.63	100
032009	100/13-17-084-25W6/0	13-19-084-25 W6M	564974.58	6240123.32	PACIFIC CANBRIAM HZ ALTARES 13-19-084-25	0	-	N/A	Drilled & Cased	>2	100
028394	100/15-12-084-26W6/0	15-12-084-26 W6M	564326.26	6235768.64	PACIFIC CANBRIAM HZ ALTARES 15-12-084-26	0	-	N/A	Drilled & Cased	>2	100
031817	102/15-01-085-26W6/0	15-01-085-26 W6M	564108.91	6244978.63	PACIFIC CANBRIAM HZ ALTARES F15-01-085-26	0	-	N/A	Drilled & Cased	>2	100
049926	100/16-28-084-25W6/0	16-32-084-25 W6M	567716.82	6243546.13	PACIFIC CANBRIAM HZ ALTARES M16-32-084-25	0	-	N/A	Drilled & Cased	>2	100
049925	102/16-28-084-25W6/0	16-32-084-25 W6M	567716.82	6243546.13	PACIFIC CANBRIAM HZ ALTARES L16-32-084-25	0	-	N/A	Drilled & Cased	>2	100
043193	100/01-33-084-25W6/0	16-32-084-25 W6M	567735.99	6243612.23	PACIFIC CANBRIAM HZ ALTARES A16-32-084-25	0	-	N/A	Drilled & Cased	>2	100
043195	102/01-33-084-25W6/0	16-32-084-25 W6M	567717.97	6243594.35	PACIFIC CANBRIAM HZ ALTARES C16-32-084-25	0	-	N/A	Drilled & Cased	>2	100
043197	103/01-33-084-25W6/0	16-32-084-25 W6M	567706.64	6243582.93	PACIFIC CANBRIAM HZ ALTARES E16-32-084-25	0	-	N/A	Drilled & Cased	>2	100
049921	104/01-33-084-25W6/0	16-32-084-25 W6M	567716.82	6243546.13	PACIFIC CANBRIAM HZ ALTARES H16-32-084-25	0	-	N/A	Drilled & Cased	>2	100
049922	105/01-33-084-25W6/0	16-32-084-25 W6M	567716.82	6243546.13	PACIFIC CANBRIAM HZ ALTARES I16-32-084-25	0	-	N/A	Drilled & Cased	>2	100
049923	106/01-33-084-25W6/0	16-32-084-25 W6M	567716.82	6243546.13	PACIFIC CANBRIAM HZ ALTARES J16-32-084-25	0	-	N/A	Drilled & Cased	>2	100
049924	107/01-33-084-25W6/0	16-32-084-25 W6M	567716.82	6243546.13	PACIFIC CANBRIAM HZ ALTARES K16-32-084-25	0	-	N/A	Drilled & Cased	>2	100
043192	100/15-08-085-25W6/0	16-32-084-25 W6M	567734.95	6243611.32	PACIFIC CANBRIAM HZ ALTARES 16-32-084-25	0	-	N/A	Drilled & Cased	>2	100
049919	102/15-08-085-25W6/0	16-32-084-25 W6M	567716.82	6243546.13	PACIFIC CANBRIAM HZ ALTARES F16-32-084-25	0	-	N/A	Drilled & Cased	>2	100
049920	103/15-08-085-25W6/0	16-32-084-25 W6M	567716.82	6243546.13	PACIFIC CANBRIAM HZ ALTARES G16-32-084-25	0	-	N/A	Drilled & Cased	>2	100
043194	100/16-08-085-25W6/0	16-32-084-25 W6M	567723.69	6243599.90	PACIFIC CANBRIAM HZ ALTARES B16-32-084-25	0	-	N/A	Drilled & Cased	>2	100
043196	102/16-08-085-25W6/0	16-32-084-25 W6M	567712.37	6243588.70	PACIFIC CANBRIAM HZ ALTARES D16-32-084-25	0	-	N/A	Drilled & Cased	>2	100
025596	200/c-020-E/094-A-04/0	c-020-E/094-A-04	562383.79	6217330.52	PACIFIC CANBRIAM HZ PORTAGE C- 020-E/094-A-04	0	-	N/A	Drilled & Cased	0.90	100
043270	102/10-30-084-25W6/0	c-098-D/094-A-05	564150.51	6243436.67	PACIFIC CANBRIAM HZ ALTARES C-G098-D/094-A-05	0	-	N/A	Drilled & Cased	>2	100
043271	103/10-30-084-25W6/0	c-098-D/094-A-05	564155.45	6243445.32	PACIFIC CANBRIAM HZ ALTARES C-H098-D/094-A-05	0	-	N/A	Drilled & Cased	>2	100
043272	104/10-30-084-25W6/0	c-098-D/094-A-05	563460.26	6243413.19	PACIFIC CANBRIAM HZ ALTARES C-I098-D/094-A-05	0	-	N/A	Drilled & Cased	>2	100
043274	105/10-30-084-25W6/0	c-099-D/094-A-05	564170.46	6243471.26	PACIFIC CANBRIAM HZ ALTARES C-K098-D/094-A-05	0	-	N/A	Drilled & Cased	>2	100
043266	103/11-30-084-25W6/0	c-098-D/094-A-05	564135.50	6243410.62	PACIFIC CANBRIAM HZ ALTARES C-D098-D/094-A-05	0	-	N/A	Drilled & Cased	>2	100
043268	104/11-30-084-25W6/0	c-098-D/094-A-05	564140.57	6243419.26	PACIFIC CANBRIAM HZ ALTARES C-E098-D/094-A-05	0	-	N/A	Drilled & Cased	>2	100

Altares / Farrell Creek - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Substance	Status	Distance to Nearest Residence (km)	Assigned HPZ (m)
Cased											
043269	105/11-30-084-25W6/0	c-098-D/094-A-05	564145.57	6243428.02	PACIFIC CANBRIAM HZ ALTARES C-F098-D/094-A-05	0	-	N/A	Drilled & Cased	>2	100
043273	106/16-30-084-25W6/0	c-099-D/094-A-05	564165.52	6243462.61	PACIFIC CANBRIAM HZ ALTARES C-J098-D/094-A-05	0	-	N/A	Drilled & Cased	>2	100
043275	107/16-30-084-25W6/0	c-099-D/094-A-05	564175.46	6243479.90	PACIFIC CANBRIAM HZ ALTARES C-L098-D/094-A-05	0	-	N/A	Drilled & Cased	>2	100
043277	202/c-011-H/094-B-08/0	c-099-D/094-A-05	564061.05	6243401.70	PACIFIC CANBRIAM HZ ALTARES C-N098-D/094-A-05	0	-	N/A	Drilled & Cased	>2	100
043278	200/d-012-H/094-B-08/0	c-099-D/094-A-05	564065.09	6243408.55	PACIFIC CANBRIAM HZ ALTARES C-O098-D/094-A-05	0	-	N/A	Drilled & Cased	>2	100
043267	200/c-001-H/094-B-08/0	d-099-D/094-A-05	563276.18	6243369.37	PACIFIC CANBRIAM HZ ALTARES D- 099-D/094-A-05	0	-	N/A	Drilled & Cased	>2	100
043282	200/b-011-H/094-B-08/0	d-099-D/094-A-05	563280.16	6243376.22	PACIFIC CANBRIAM HZ ALTARES D-A099-D/094-A-05	0	-	N/A	Drilled & Cased	>2	100
043276	200/c-011-H/094-B-08/0	d-099-D/094-A-05	563284.20	6243383.18	PACIFIC CANBRIAM HZ ALTARES D-B099-D/094-A-05	0	-	N/A	Drilled & Cased	>2	100
025521	202/c-048-I/094-B-01/0	c-048-I/094-B-01	556097.53	6229261.91	PACIFIC CANBRIAM HZ W FARRELL C-A048-I/094-B-01	0	-	N/A	Drilled & Cased	>2	100
035254	202/c-029-A/094-B-08/0	c-029-A/094-B-08	555031.65	6236854.55	PACIFIC CANBRIAM HZ ALTARES C-C029-A/094-B-08	0	-	N/A	Drilled & Cased	1.29	100
030276	200/c-054-A/094-B-08/0	c-054-A/094-B-08	558815.43	6239770.14	PACIFIC CANBRIAM HZ ALTARES C-B054-A/094-B-08	0	-	N/A	Drilled & Cased	1.33	100
030355	202/c-054-A/094-B-08/0	c-054-A/094-B-08	558825.40	6239751.80	PACIFIC CANBRIAM HZ ALTARES C-C054-A/094-B-08	0	-	N/A	Drilled & Cased	1.32	100
029082	200/a-064-A/094-B-08/0	a-064-A/094-B-08	559311.76	6240259.03	PACIFIC CANBRIAM ALTARES A-064-A/094-B-08	0	-	N/A	Drilled & Cased	0.65	100
033958	200/d-096-A/094-B-08/0	c-074-A/094-B-08	558950.36	6241304.19	PACIFIC CANBRIAM HZ ALTARES C-A074-A/094-B-08	0	-	N/A	Drilled & Cased	0.68	100
048731	200/b-064-A/094-B-08/0	c-007-H/094-B-08	556516.97	6244229.69	PACIFIC CANBRIAM HZ ALTARES C-M007-H/094-B-08	0	-	N/A	Drilled & Cased	>2	100
048732	202/b-064-A/094-B-08/0	c-007-H/094-B-08	556492.01	6244242.61	PACIFIC CANBRIAM HZ ALTARES C-N007-H/094-B-08	0	-	N/A	Drilled & Cased	>2	100
048733	200/d-065-A/094-B-08/0	c-007-H/094-B-08	556492.01	6244242.61	PACIFIC CANBRIAM HZ ALTARES C-O007-H/094-B-08	0	-	N/A	Drilled & Cased	>2	100
048734	200/b-074-A/094-B-08/0	c-007-H/094-B-08	556492.01	6244242.61	PACIFIC CANBRIAM HZ ALTARES C-P007-H/094-B-08	0	-	N/A	Drilled & Cased	>2	100
048735	202/b-074-A/094-B-08/0	c-007-H/094-B-08	556492.01	6244242.61	PACIFIC CANBRIAM HZ ALTARES C-Q007-H/094-B-08	0	-	N/A	Drilled & Cased	>2	100
048728	200/c-041-G/094-B-08/0	c-007-H/094-B-08	556500.05	6244246.72	PACIFIC CANBRIAM HZ ALTARES C-J007-H/094-B-08	0	-	N/A	Drilled & Cased	>2	100
048729	202/c-041-G/094-B-08/0	c-007-H/094-B-08	556505.69	6244241.01	PACIFIC CANBRIAM HZ ALTARES C-K007-H/094-B-08	0	-	N/A	Drilled & Cased	>2	100
048730	202/d-042-G/094-B-08/0	c-007-H/094-B-08	557045.46	6244323.35	PACIFIC CANBRIAM HZ ALTARES C-L007-H/094-B-08	0	-	N/A	Drilled & Cased	>2	100
025584	200/b-003-H/094-B-08/0	b-024-H/094-B-08	558903.75	6245532.43	PACIFIC CANBRIAM HZ ALTARES B-024-H/094-B-08	0	-	N/A	Drilled & Cased	0.09	100
024098	202/a-033-H/094-B-08/2	d-044-H/094-B-08	559151.75	6248156.33	PACIFIC CANBRIAM HZ ALTARES D-044-H/094-B-08	0	-	N/A	Drilled & Cased	>2	100
024098	200/b-043-H/094-B-08/0	d-044-H/094-B-08	559151.75	6248156.33	PACIFIC CANBRIAM HZ ALTARES D-044-H/094-B-08	0	-	N/A	Drilled & Cased	>2	100
010236	200/b-079-H/094-B-08/0	b-079-H/094-B-08	554967.28	6250348.77	PACIFIC CANBRIAM ALTARES B- 079-H/094-B-08	0	-	N/A	Drilled & Cased	>2	100
041121	200/a-028-I/094-B-08/0	b-095-H/094-B-08	557878.57	6252015.72	PACIFIC CANBRIAM HZ ALTARES B-E095-H/094-B-08	0	-	N/A	Drilled & Cased	>2	100
041120	200/d-028-I/094-B-08/0	b-095-H/094-B-08	557887.20	6252020.74	PACIFIC CANBRIAM HZ ALTARES B-D095-H/094-B-08	0	-	N/A	Drilled & Cased	>2	100

Altares / Farrell Creek - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Substance	Status	Distance to Nearest Residence (km)	Assigned HPZ (m)
Not Operating											
027344	100/01-06-085-25W6/0	15-01-085-26 W6M	564106.10	6245025.34	PACIFIC CANBRIAM HZ ALTARES 15-01-085-26	0	0.0000	Gas	Suspended	>2	100
025596	200/d-021-H/094-B-01/2	c-020-E/094-A-04	562383.79	6217330.52	PACIFIC CANBRIAM HZ PORTAGE C- 020-E/094-A-04	0	0.0000	N/A	Suspended	0.90	100
026550	200/a-007-I/094-B-01/0	c-018-I/094-B-01	555840.32	6226834.12	PACIFIC CANBRIAM HZ ALTARES C-A018-I/094-B-01	0	0.0000	N/A	Suspended	0.46	100
003797	200/a-023-A/094-B-08/2	a-023-A/094-B-08	560088.40	6236273.25	PACIFIC CANBRIAM ET AL ALTARES A-023-A/094-B-08	0	0.0000	Gas	Suspended	>2	100
003797	200/a-023-A/094-B-08/3	a-023-A/094-B-08	560088.40	6236273.25	PACIFIC CANBRIAM ET AL ALTARES A-023-A/094-B-08	0	0.0000	Gas	Suspended	>2	100
030027	200/d-023-A/094-B-08/0	a-023-A/094-B-08	560112.96	6236279.38	PACIFIC CANBRIAM HZ ALTARES A-A023-A/094-B-08	0	0.0000	Gas	Suspended	>2	100
020413	200/d-033-A/094-B-08/2	a-043-A/094-B-08	560074.37	6238240.38	PACIFIC CANBRIAM ALTARES A-043-A/094-B-08	0	0.0000	Gas	Suspended	>2	100
019029	200/b-043-A/094-B-08/0	b-043-A/094-B-08	559762.04	6238374.58	PACIFIC CANBRIAM ET AL ALTARES B-043-A/094-B-08	0	0.0000	Gas	Suspended	>2	100
019029	200/b-043-A/094-B-08/2	b-043-A/094-B-08	559761.98	6238374.58	PACIFIC CANBRIAM ET AL ALTARES B-043-A/094-B-08	0	0.0000	Gas	Suspended	>2	100
025290	200/d-053-A/094-B-08/0	d-053-A/094-B-08	560180.51	6239633.69	PACIFIC CANBRIAM ET AL ALTARES D-B053-A/094-B-08	0	0.0000	Gas	Suspended	1.39	100
018745	200/d-072-A/094-B-08/0	c-071-A/094-B-08	561022.96	6241463.40	PACIFIC CANBRIAM ALTARES C-071-A/094-B-08	0	0.0000	Gas	Suspended	0.73	100
018745	200/d-072-A/094-B-08/2	c-071-A/094-B-08	561022.96	6241463.40	PACIFIC CANBRIAM ALTARES C-071-A/094-B-08	0	0.0000	Gas	Suspended	0.73	100
018745	200/d-072-A/094-B-08/3	c-071-A/094-B-08	561022.96	6241463.40	PACIFIC CANBRIAM ALTARES C-071-A/094-B-08	0	0.0000	Gas	Suspended	0.73	100
021734	200/b-093-A/094-B-08/0	c-082-A/094-B-08	560556.80	6242496.36	PACIFIC CANBRIAM HZ ALTARES C-082-A/094-B-08	0	0.0000	Gas	Suspended	1.29	100
024322	200/b-002-H/094-B-08/0	c-082-A/094-B-08	560576.16	6242461.35	PACIFIC CANBRIAM HZ ALTARES C-A082-A/094-B-08	0	0.0000	Water Disposal	Suspended	1.26	100
024239	200/d-022-G/094-B-08/0	d-022-G/094-B-08	552905.59	6245983.46	PACIFIC CANBRIAM ALTARES D-022-G/094-B-08	0	0.0000	Gas	Suspended	1.93	100
031016	200/a-030-H/094-B-08/0	c-007-H/094-B-08	556549.70	6244339.33	PACIFIC CANBRIAM HZ ALTARES C-007-H/094-B-08	0	0.0000	Water Disposal	Suspended	>2	100
023873	202/b-003-H/094-B-08/2	c-014-H/094-B-08	558916.83	6245378.10	PACIFIC CANBRIAM HZ ALTARES C-B014-H/094-B-08	0	0.0000	Gas	Suspended	0.15	100
023873	200/d-003-H/094-B-08/0	c-014-H/094-B-08	558916.83	6245378.10	PACIFIC CANBRIAM HZ ALTARES C-B014-H/094-B-08	0	0.0000	Gas	Suspended	0.15	100
023971	200/d-004-H/094-B-08/0	c-014-H/094-B-08	558917.39	6245418.08	PACIFIC CANBRIAM HZ ALTARES C-C014-H/094-B-08	0	0.0000	Gas	Suspended	0.12	100
020038	202/c-014-H/094-B-08/0	c-014-H/094-B-08	558916.56	6245353.16	PACIFIC CANBRIAM ALTARES C-A014-H/094-B-08	91,700	0.0000	N/A	Suspended	0.18	100
020038	202/c-014-H/094-B-08/2	c-014-H/094-B-08	558916.56	6245353.16	PACIFIC CANBRIAM ALTARES C-A014-H/094-B-08	0	0.0000	Gas	Suspended	0.18	100
030581	202/a-002-H/094-B-08/0	c-023-H/094-B-08	559736.36	6246076.38	PACIFIC CANBRIAM HZ ALTARES C-F023-H/094-B-08	0	0.0000	Gas	Suspended	0.87	100
025013	200/b-012-H/094-B-08/0	b-033-H/094-B-08	559721.29	6246630.09	PACIFIC CANBRIAM HZ ALTARES B-C033-H/094-B-08	0	0.0000	Gas	Suspended	1.19	100
021732	200/a-023-H/094-B-08/0	b-033-H/094-B-08	559758.74	6246498.59	PACIFIC CANBRIAM HZ ALTARES B-A033-H/094-B-08	0	0.0000	Gas	Suspended	1.12	100
010237	200/b-033-H/094-B-08/2	b-033-H/094-B-08	559649.50	6246681.85	PACIFIC CANBRIAM ET AL ALTARES B-033-H/094-B-08	0	0.0000	Gas	Suspended	1.19	100
022954	200/c-043-H/094-B-08/0	b-033-H/094-B-08	559733.27	6246595.64	PACIFIC CANBRIAM HZ ALTARES B-B033-H/094-B-08	99,700	0.0138	Gas	Suspended	1.18	167
028291	200/c-003-H/094-B-08/0	b-034-H/094-B-08	558864.08	6246478.65	PACIFIC CANBRIAM HZ ALTARES B-A034-H/094-B-08	0	0.0000	Gas	Suspended	0.75	100

Altares / Farrell Creek - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Substance	Status	Distance to Nearest Residence (km)	Assigned HPZ (m)
Not Operating											
028292	202/c-003-H/094-B-08/0	b-034-H/094-B-08	558873.23	6246482.79	PACIFIC CANBRIAM HZ ALTARES B-B034-H/094-B-08	0	0.0000	Gas	Suspended	0.75	100
031055	205/d-003-H/094-B-08/0	b-034-H/094-B-08	558945.79	6246513.07	PACIFIC CANBRIAM HZ ALTARES B-F034-H/094-B-08	0	0.0000	Gas	Suspended	0.78	100
028517	200/b-075-H/094-B-08/0	c-044-H/094-B-08	558709.78	6247887.38	PACIFIC CANBRIAM HZ ALTARES C-A044-H/094-B-08	0	0.0000	Gas	Suspended	>2	100
030688	202/b-075-H/094-B-08/0	c-044-H/094-B-08	558727.98	6247915.80	PACIFIC CANBRIAM HZ ALTARES C-C044-H/094-B-08	0	0.0000	Gas	Suspended	>2	100
024348	200/b-074-H/094-B-08/0	d-044-H/094-B-08	559119.91	6248180.60	PACIFIC CANBRIAM HZ ALTARES D-A044-H/094-B-08	0	0.0000	Salt Water Disposal	Suspended	>2	100
026668	202/d-043-H/094-B-08/0	c-064-H/094-B-08	558795.32	6249696.06	PACIFIC CANBRIAM HZ ALTARES C-B064-H/094-B-08	0	0.0000	Gas	Suspended	>2	100
033161	200/a-054-H/094-B-08/0	d-076-H/094-B-08	557696.87	6250758.34	PACIFIC CANBRIAM HZ ALTARES D-A076-H/094-B-08	0	0.0000	Gas	Suspended	>2	100
031916	202/b-085-H/094-B-08/2	d-076-H/094-B-08	557761.80	6250795.85	PACIFIC CANBRIAM ALTARES D-076-H/094-B-08	0	0.0000	Salt Water Disposal	Suspended	>2	100
044804	100/01-17-084-25W6/0	13-19-084-25 W6M	564929.58	6240257.67	PACIFIC CANBRIAM HZ ALTARES E13-19-084-25	-	-	N/A	N/A	>2	100
044806	102/01-17-084-25W6/0	13-19-084-25 W6M	564929.58	6240257.67	PACIFIC CANBRIAM HZ ALTARES G13-19-084-25	-	-	N/A	N/A	>2	100
Well Authorization Granted											
044807	103/01-17-084-25W6/0	13-19-084-25 W6M	564929.58	6240257.67	PACIFIC CANBRIAM HZ ALTARES H13-19-084-25	-	-	N/A	N/A	>2	100
044808	104/01-17-084-25W6/0	13-19-084-25 W6M	564929.58	6240257.67	PACIFIC CANBRIAM HZ ALTARES I13-19-084-25	-	-	N/A	N/A	>2	100
044805	100/08-17-084-25W6/0	13-19-084-25 W6M	564929.58	6240257.67	PACIFIC CANBRIAM HZ ALTARES F13-19-084-25	-	-	N/A	N/A	>2	100
044809	102/08-17-084-25W6/0	13-19-084-25 W6M	564929.58	6240257.67	PACIFIC CANBRIAM HZ ALTARES J13-19-084-25	-	-	N/A	N/A	>2	100
038400	100/11-17-084-25W6/0	13-19-084-25 W6M	564984.97	6240132.05	PACIFIC CANBRIAM HZ ALTARES A13-19-084-25	-	-	N/A	N/A	>2	100
038401	102/11-17-084-25W6/0	13-19-084-25 W6M	564992.86	6240138.18	PACIFIC CANBRIAM HZ ALTARES B13-19-084-25	-	-	N/A	N/A	>2	100
038402	100/14-17-084-25W6/0	13-19-084-25 W6M	565000.69	6240144.43	PACIFIC CANBRIAM HZ ALTARES C13-19-084-25	-	-	N/A	N/A	>2	100
038403	100/11-29-084-25W6/0	13-19-084-25 W6M	564976.36	6240262.17	PACIFIC CANBRIAM HZ ALTARES D13-19-084-25	-	-	N/A	N/A	>2	100
043197	103/16-08-085-25W6/0	16-32-084-25 W6M	567706.64	6243582.93	PACIFIC CANBRIAM HZ ALTARES E16-32-084-25	-	-	N/A	N/A	>2	100
042634	102/15-12-084-26W6/0	15-12-084-26 W6M	564175.76	6235608.18	PACIFIC CANBRIAM ALTARES A15-12-084-26	-	-	N/A	N/A	>2	100
027835	100/01-07-084-25W6/0	16-12-084-26 W6M	564707.16	6237025.97	PACIFIC CANBRIAM HZ ALTARES A16-12-084-26	-	-	N/A	N/A	>2	100
049798	200/d-081-A/094-B-08/0	07-25-084-26 W6M	564092.30	6241115.41	PACIFIC CANBRIAM HZ ALTARES 07-25-084-26	-	-	N/A	N/A	>2	100
049806	202/d-081-A/094-B-08/0	07-25-084-26 W6M	564092.30	6241115.41	PACIFIC CANBRIAM HZ ALTARES H07-25-084-26	-	-	N/A	N/A	>2	100
049807	203/d-081-A/094-B-08/0	07-25-084-26 W6M	564092.30	6241115.41	PACIFIC CANBRIAM HZ ALTARES I07-25-084-26	-	-	N/A	N/A	>2	100
049799	200/b-091-A/094-B-08/0	07-25-084-26 W6M	564092.30	6241115.41	PACIFIC CANBRIAM HZ ALTARES A07-25-084-26	-	-	N/A	N/A	>2	100
049800	202/b-091-A/094-B-08/0	07-25-084-26 W6M	564092.30	6241115.41	PACIFIC CANBRIAM HZ ALTARES B07-25-084-26	-	-	N/A	N/A	>2	100
049808	203/b-091-A/094-B-08/0	07-25-084-26 W6M	564092.30	6241115.41	PACIFIC CANBRIAM HZ ALTARES J07-25-084-26	-	-	N/A	N/A	>2	100

Altares / Farrell Creek - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Substance	Status	Distance to Nearest Residence (km)	Assigned HPZ (m)
Well Authorization Granted											
049809	204/b-091-A/094-B-08/0	07-25-084-26 W6M	564092.30	6241115.41	PACIFIC CANBRIAM HZ ALTARES K07-25-084-26	-	-	N/A	N/A	>2	100
049810	205/b-091-A/094-B-08/0	07-25-084-26 W6M	564092.30	6241115.41	PACIFIC CANBRIAM HZ ALTARES L07-25-084-26	-	-	N/A	N/A	>2	100
049801	200/c-091-A/094-B-08/0	07-25-084-26 W6M	564092.30	6241115.41	PACIFIC CANBRIAM HZ ALTARES C07-25-084-26	-	-	N/A	N/A	>2	100
049811	202/c-091-A/094-B-08/0	07-25-084-26 W6M	564092.30	6241115.41	PACIFIC CANBRIAM HZ ALTARES M07-25-084-26	-	-	N/A	N/A	>2	100
049802	200/d-091-A/094-B-08/0	07-25-084-26 W6M	564092.30	6241115.41	PACIFIC CANBRIAM HZ ALTARES D07-25-084-26	-	-	N/A	N/A	>2	100
049803	202/d-091-A/094-B-08/0	07-25-084-26 W6M	564092.30	6241115.41	PACIFIC CANBRIAM HZ ALTARES E07-25-084-26	-	-	N/A	N/A	>2	100
049812	203/d-091-A/094-B-08/0	07-25-084-26 W6M	564092.30	6241115.41	PACIFIC CANBRIAM HZ ALTARES N07-25-084-26	-	-	N/A	N/A	>2	100
049813	204/d-091-A/094-B-08/0	07-25-084-26 W6M	564092.30	6241115.41	PACIFIC CANBRIAM HZ ALTARES O07-25-084-26	-	-	N/A	N/A	>2	100
049814	205/d-091-A/094-B-08/0	07-25-084-26 W6M	564092.30	6241115.41	PACIFIC CANBRIAM HZ ALTARES P07-25-084-26	-	-	N/A	N/A	>2	100
049815	206/d-091-A/094-B-08/0	07-25-084-26 W6M	564092.30	6241115.41	PACIFIC CANBRIAM HZ ALTARES Q07-25-084-26	-	-	N/A	N/A	>2	100
049816	207/d-091-A/094-B-08/0	07-25-084-26 W6M	564092.30	6241115.41	PACIFIC CANBRIAM HZ ALTARES R07-25-084-26	-	-	N/A	N/A	>2	100
049804	200/a-001-H/094-B-08/0	07-25-084-26 W6M	564092.30	6241115.41	PACIFIC CANBRIAM HZ ALTARES F07-25-084-26	-	-	N/A	N/A	>2	100
049805	202/a-001-H/094-B-08/0	07-25-084-26 W6M	564092.30	6241115.41	PACIFIC CANBRIAM HZ ALTARES G07-25-084-26	-	-	N/A	N/A	>2	100
049817	203/a-001-H/094-B-08/0	07-25-084-26 W6M	564092.30	6241115.41	PACIFIC CANBRIAM HZ ALTARES S07-25-084-26	-	-	N/A	N/A	>2	100
049299	204/c-021-H/094-B-08/0	02-01-085-26 W6M	564049.39	6243946.67	PACIFIC CANBRIAM HZ ALTARES I02-01-085-26	-	-	N/A	N/A	>2	100
049298	203/d-022-H/094-B-08/0	02-01-085-26 W6M	564049.39	6243946.67	PACIFIC CANBRIAM HZ ALTARES H02-01-085-26	-	-	N/A	N/A	>2	100
049294	205/c-021-H/094-B-08/0	07-01-085-26 W6M	564043.26	6244349.56	PACIFIC CANBRIAM HZ ALTARES P07-01-085-26	-	-	N/A	N/A	>2	100
049293	206/c-021-H/094-B-08/0	07-01-085-26 W6M	564043.26	6244349.56	PACIFIC CANBRIAM HZ ALTARES O07-01-085-26	-	-	N/A	N/A	>2	100
049295	207/c-021-H/094-B-08/0	07-01-085-26 W6M	564043.26	6244349.56	PACIFIC CANBRIAM HZ ALTARES Q07-01-085-26	-	-	N/A	N/A	>2	100
049291	204/a-022-H/094-B-08/0	07-01-085-26 W6M	564043.26	6244349.56	PACIFIC CANBRIAM HZ ALTARES M07-01-085-26	-	-	N/A	N/A	>2	100
049292	202/d-022-H/094-B-08/0	07-01-085-26 W6M	564043.26	6244349.56	PACIFIC CANBRIAM HZ ALTARES N07-01-085-26	-	-	N/A	N/A	>2	100
049297	202/b-031-H/094-B-08/0	07-01-085-26 W6M	564043.26	6244349.56	PACIFIC CANBRIAM HZ ALTARES S07-01-085-26	-	-	N/A	N/A	>2	100
049296	203/b-031-H/094-B-08/0	07-01-085-26 W6M	564043.26	6244349.56	PACIFIC CANBRIAM HZ ALTARES R07-01-085-26	-	-	N/A	N/A	>2	100
043280	107/10-30-084-25W6/0	c-098-D/094-A-05	563460.26	6243413.19	PACIFIC CANBRIAM HZ ALTARES C-Q098-D/094-A-05	-	-	N/A	N/A	>2	100
043279	108/10-30-084-25W6/0	c-098-D/094-A-05	563460.26	6243413.19	PACIFIC CANBRIAM HZ ALTARES C-P098-D/094-A-05	-	-	N/A	N/A	>2	100
043281	109/10-30-084-25W6/0	c-098-D/094-A-05	563460.26	6243413.19	PACIFIC CANBRIAM HZ ALTARES C-R098-D/094-A-05	-	-	N/A	N/A	>2	100
049285	202/b-011-H/094-B-08/0	c-098-D/094-A-05	563460.26	6243413.19	PACIFIC CANBRIAM HZ ALTARES C-T098-D/094-A-05	-	-	N/A	N/A	>2	100
049284	203/b-011-H/094-B-08/0	c-098-D/094-A-05	563460.26	6243413.19	PACIFIC CANBRIAM HZ ALTARES C-S098-D/094-A-05	-	-	N/A	N/A	>2	100

Altares / Farrell Creek - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Substance	Status	Distance to Nearest Residence (km)	Assigned HPZ (m)
Well Authorization Granted											
049286	203/c-011-H/094-B-08/0	c-098-D/094-A-05	563460.26	6243413.19	PACIFIC CANBRIAM HZ ALTARES C-U098-D/094-A-05	-	-	N/A	N/A	>2	100
049287	204/c-011-H/094-B-08/0	c-098-D/094-A-05	563460.26	6243413.19	PACIFIC CANBRIAM HZ ALTARES C-V098-D/094-A-05	-	-	N/A	N/A	>2	100
049288	202/d-012-H/094-B-08/0	c-098-D/094-A-05	563460.26	6243413.19	PACIFIC CANBRIAM HZ ALTARES C-W098-D/094-A-05	-	-	N/A	N/A	>2	100
049289	202/a-022-H/094-B-08/0	c-098-D/094-A-05	563460.26	6243413.19	PACIFIC CANBRIAM HZ ALTARES C-X098-D/094-A-05	-	-	N/A	N/A	>2	100
049290	203/a-022-H/094-B-08/0	c-098-D/094-A-05	563460.26	6243413.19	PACIFIC CANBRIAM HZ ALTARES C-Y098-D/094-A-05	-	-	N/A	N/A	>2	100
028050	200/b-063-A/094-B-08/0	d-053-A/094-B-08	560155.51	6239633.67	PACIFIC CANBRIAM ALTARES D-C053-A/094-B-08	-	-	N/A	N/A	1.37	100
035382	200/b-034-A/094-B-08/0	c-055-A/094-B-08	558274.00	6239578.70	PACIFIC CANBRIAM HZ ALTARES C-055-A/094-B-08	-	-	N/A	N/A	1.80	100
031639	200/b-065-A/094-B-08/0	d-055-A/094-B-08	558625.32	6239840.10	PACIFIC CANBRIAM ALTARES D-A055-A/094-B-08	-	-	N/A	N/A	1.37	100
033108	200/c-041-A/094-B-08/0	d-063-A/094-B-08	560003.21	6240669.01	PACIFIC CANBRIAM HZ ALTARES D-F063-A/094-B-08	-	-	N/A	N/A	0.50	100
033106	200/a-042-A/094-B-08/0	d-063-A/094-B-08	559983.21	6240669.40	PACIFIC CANBRIAM HZ ALTARES D-D063-A/094-B-08	-	-	N/A	N/A	0.48	100
030722	203/a-042-A/094-B-08/0	d-063-A/094-B-08	559937.38	6240707.61	PACIFIC CANBRIAM HZ ALTARES D-B063-A/094-B-08	-	-	N/A	N/A	0.43	100
030723	204/a-042-A/094-B-08/0	d-063-A/094-B-08	559947.40	6240707.64	PACIFIC CANBRIAM HZ ALTARES D-C063-A/094-B-08	-	-	N/A	N/A	0.44	100
033107	204/d-042-A/094-B-08/0	d-063-A/094-B-08	559993.24	6240669.32	PACIFIC CANBRIAM HZ ALTARES D-E063-A/094-B-08	-	-	N/A	N/A	0.49	100
030748	202/c-075-A/094-B-08/0	b-074-A/094-B-08	558747.16	6241071.85	PACIFIC CANBRIAM ALTARES B-F074-A/094-B-08	-	-	N/A	N/A	0.80	100
044794	200/b-007-H/094-B-08/0	c-074-A/094-B-08	558848.53	6241491.58	PACIFIC CANBRIAM HZ ALTARES C-J074-A/094-B-08	-	-	N/A	N/A	0.68	100
044791	202/c-007-H/094-B-08/0	c-074-A/094-B-08	558848.53	6241491.58	PACIFIC CANBRIAM HZ ALTARES C-G074-A/094-B-08	-	-	N/A	N/A	0.68	100
044792	203/c-007-H/094-B-08/0	c-074-A/094-B-08	558848.53	6241491.58	PACIFIC CANBRIAM HZ ALTARES C-H074-A/094-B-08	-	-	N/A	N/A	0.68	100
044793	204/c-007-H/094-B-08/0	c-074-A/094-B-08	558848.53	6241491.58	PACIFIC CANBRIAM HZ ALTARES C-I074-A/094-B-08	-	-	N/A	N/A	0.68	100
044790	200/a-017-H/094-B-08/0	c-074-A/094-B-08	558848.53	6241491.58	PACIFIC CANBRIAM HZ ALTARES C-F074-A/094-B-08	-	-	N/A	N/A	0.68	100
034124	200/d-052-A/094-B-08/0	a-083-A/094-B-08	559998.68	6242180.33	PACIFIC CANBRIAM HZ ALTARES A-A083-A/094-B-08	-	-	N/A	N/A	1.01	100
034125	202/d-052-A/094-B-08/0	a-083-A/094-B-08	560001.11	6242170.68	PACIFIC CANBRIAM HZ ALTARES A-B083-A/094-B-08	-	-	N/A	N/A	1.01	100
034126	203/d-052-A/094-B-08/0	a-083-A/094-B-08	560003.53	6242160.92	PACIFIC CANBRIAM HZ ALTARES A-C083-A/094-B-08	-	-	N/A	N/A	0.99	100
034127	204/d-052-A/094-B-08/0	a-083-A/094-B-08	560005.90	6242151.15	PACIFIC CANBRIAM HZ ALTARES A-D083-A/094-B-08	-	-	N/A	N/A	0.98	100
034128	205/d-052-A/094-B-08/0	a-083-A/094-B-08	560008.32	6242141.50	PACIFIC CANBRIAM HZ ALTARES A-E083-A/094-B-08	-	-	N/A	N/A	0.98	100
034129	200/b-061-A/094-B-08/0	a-083-A/094-B-08	560010.75	6242131.74	PACIFIC CANBRIAM HZ ALTARES A-F083-A/094-B-08	-	-	N/A	N/A	0.97	100
034130	202/b-061-A/094-B-08/0	a-083-A/094-B-08	560013.17	6242122.09	PACIFIC CANBRIAM HZ ALTARES A-G083-A/094-B-08	-	-	N/A	N/A	0.96	100
034131	203/b-061-A/094-B-08/0	a-083-A/094-B-08	560015.60	6242112.44	PACIFIC CANBRIAM HZ ALTARES A-H083-A/094-B-08	-	-	N/A	N/A	0.95	100
033394	204/b-019-H/094-B-08/0	b-097-A/094-B-08	556402.93	6242776.15	PACIFIC CANBRIAM HZ ALTARES B-D097-A/094-B-08	-	-	N/A	N/A	>2	100

Altares / Farrell Creek - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Substance	Status	Distance to Nearest Residence (km)	Assigned HPZ (m)
Well Authorization Granted											
031013	200/d-076-A/094-B-08/0	c-097-A/094-B-08	556420.68	6243340.32	PACIFIC CANBRIAM HZ ALTARES C-A097-A/094-B-08	-	-	N/A	N/A	>2	100
031014	202/d-076-A/094-B-08/0	c-097-A/094-B-08	556429.40	6243345.22	PACIFIC CANBRIAM HZ ALTARES C-B097-A/094-B-08	-	-	N/A	N/A	>2	100
031015	203/d-076-A/094-B-08/0	c-097-A/094-B-08	556438.12	6243350.13	PACIFIC CANBRIAM HZ ALTARES C-C097-A/094-B-08	-	-	N/A	N/A	>2	100
031012	203/b-019-H/094-B-08/0	c-097-A/094-B-08	556411.91	6243335.42	PACIFIC CANBRIAM HZ ALTARES C-097-A/094-B-08	-	-	N/A	N/A	>2	100
031820	200/a-029-H/094-B-08/0	c-097-A/094-B-08	556402.33	6243433.03	PACIFIC CANBRIAM HZ ALTARES C-D097-A/094-B-08	-	-	N/A	N/A	>2	100
029260	200/a-020-H/094-B-08/0	d-022-G/094-B-08	552891.51	6246047.29	PACIFIC CANBRIAM HZ ALTARES D-A022-G/094-B-08	-	-	N/A	N/A	1.97	100
043329	200/a-037-H/094-B-08/0	d-004-H/094-B-08	559233.02	6244279.88	PACIFIC CANBRIAM HZ ALTARES D-G004-H/094-B-08	-	-	N/A	N/A	1.23	100
048736	200/c-074-A/094-B-08/0	c-007-H/094-B-08	556492.01	6244242.61	PACIFIC CANBRIAM HZ ALTARES C-R007-H/094-B-08	-	-	N/A	N/A	>2	100
048730	202/d-030-H/094-B-08/0	c-007-H/094-B-08	554425.78	6245901.01	PACIFIC CANBRIAM HZ ALTARES C-L007-H/094-B-08	-	-	N/A	N/A	>2	100
037425	202/b-071-A/094-B-08/0	b-013-H/094-B-08	559758.82	6244667.05	PACIFIC CANBRIAM HZ ALTARES B-B013-H/094-B-08	-	-	N/A	N/A	0.76	100
037424	203/b-071-A/094-B-08/0	b-013-H/094-B-08	559749.79	6244662.92	PACIFIC CANBRIAM HZ ALTARES B-A013-H/094-B-08	-	-	N/A	N/A	0.78	100
036567	200/a-082-A/094-B-08/0	b-013-H/094-B-08	559758.14	6244644.67	PACIFIC CANBRIAM HZ ALTARES B-013-H/094-B-08	-	-	N/A	N/A	0.78	100
037426	200/d-082-A/094-B-08/0	b-013-H/094-B-08	559767.85	6244671.30	PACIFIC CANBRIAM HZ ALTARES B-C013-H/094-B-08	-	-	N/A	N/A	0.77	100
037565	202/d-082-A/094-B-08/0	b-013-H/094-B-08	559776.87	6244675.54	PACIFIC CANBRIAM HZ ALTARES B-D013-H/094-B-08	-	-	N/A	N/A	0.768	100
034814	203/b-095-A/094-B-08/0	c-017-H/094-B-08	556426.59	6245016.18	PACIFIC CANBRIAM HZ ALTARES C-K017-H/094-B-08	-	-	N/A	N/A	1.81	100
034816	203/c-039-H/094-B-08/0	c-017-H/094-B-08	556381.70	6245106.08	PACIFIC CANBRIAM HZ ALTARES C-M017-H/094-B-08	-	-	N/A	N/A	1.76	100
034817	204/c-039-H/094-B-08/0	c-017-H/094-B-08	556373.81	6245099.97	PACIFIC CANBRIAM HZ ALTARES C-N017-H/094-B-08	-	-	N/A	N/A	1.75	100
034815	207/b-049-H/094-B-08/0	c-017-H/094-B-08	556389.59	6245112.31	PACIFIC CANBRIAM HZ ALTARES C-L017-H/094-B-08	-	-	N/A	N/A	1.77	100
028241	200/b-024-H/094-B-08/0	b-024-H/094-B-08	558813.41	6245499.12	PACIFIC CANBRIAM HZ ALTARES B-D024-H/094-B-08	-	-	N/A	N/A	0.18	100
028243	200/a-025-H/094-B-08/0	b-024-H/094-B-08	558813.44	6245479.20	PACIFIC CANBRIAM HZ ALTARES B-F024-H/094-B-08	-	-	N/A	N/A	0.18	100
028242	202/c-035-H/094-B-08/0	b-024-H/094-B-08	558813.37	6245489.10	PACIFIC CANBRIAM HZ ALTARES B-E024-H/094-B-08	-	-	N/A	N/A	0.18	100
028240	202/b-045-H/094-B-08/0	b-024-H/094-B-08	558813.40	6245509.14	PACIFIC CANBRIAM HZ ALTARES B-C024-H/094-B-08	-	-	N/A	N/A	0.18	100
031448	203/b-005-H/094-B-08/0	c-027-H/094-B-08	556409.29	6245962.04	PACIFIC CANBRIAM HZ ALTARES C-K027-H/094-B-08	-	-	N/A	N/A	1.99	100
031447	206/b-005-H/094-B-08/0	c-027-H/094-B-08	556400.26	6245957.80	PACIFIC CANBRIAM HZ ALTARES C-J027-H/094-B-08	-	-	N/A	N/A	1.98	100
031449	205/c-005-H/094-B-08/0	c-027-H/094-B-08	556418.32	6245966.27	PACIFIC CANBRIAM HZ ALTARES C-L027-H/094-B-08	-	-	N/A	N/A	2.00	100
031450	204/d-006-H/094-B-08/0	c-027-H/094-B-08	556427.47	6245970.63	PACIFIC CANBRIAM HZ ALTARES C-M027-H/094-B-08	-	-	N/A	N/A	>2	100
050053	202/c-033-G/094-B-08/0	a-030-H/094-B-08	554578.76	6245610.65	PACIFIC CANBRIAM HZ ALTARES A-G030-H/094-B-08	-	-	N/A	N/A	0.49	100
050048	203/c-042-G/094-B-08/0	a-030-H/094-B-08	554578.76	6245610.65	PACIFIC CANBRIAM HZ ALTARES A-B030-H/094-B-08	-	-	N/A	N/A	0.49	100

Altares / Farrell Creek - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Substance	Status	Distance to Nearest Residence (km)	Assigned HPZ (m)
Well Authorization Granted											
050051	204/b-043-G/094-B-08/0	a-030-H/094-B-08	554578.76	6245610.65	PACIFIC CANBRIAM HZ ALTARES A-E030-H/094-B-08	-	-	N/A	N/A	0.49	100
050052	205/b-043-G/094-B-08/0	a-030-H/094-B-08	554578.76	6245610.65	PACIFIC CANBRIAM HZ ALTARES A-F030-H/094-B-08	-	-	N/A	N/A	0.49	100
050050	206/c-043-G/094-B-08/0	a-030-H/094-B-08	554578.76	6245610.65	PACIFIC CANBRIAM HZ ALTARES A-D030-H/094-B-08	-	-	N/A	N/A	0.49	100
050049	202/d-043-G/094-B-08/0	a-030-H/094-B-08	554578.76	6245610.65	PACIFIC CANBRIAM HZ ALTARES A-C030-H/094-B-08	-	-	N/A	N/A	0.49	100
038730	200/d-080-E/094-A-05/0	d-094-H/094-B-08	559222.41	6252840.00	PACIFIC CANBRIAM HZ ALTARES D-094-H/094-B-08	-	-	N/A	N/A	>2	100
038731	202/d-080-E/094-A-05/0	d-094-H/094-B-08	559226.04	6252849.29	PACIFIC CANBRIAM HZ ALTARES D-A094-H/094-B-08	-	-	N/A	N/A	>2	100
038732	203/d-080-E/094-A-05/0	d-094-H/094-B-08	559229.80	6252858.58	PACIFIC CANBRIAM HZ ALTARES D-B094-H/094-B-08	-	-	N/A	N/A	>2	100
048982	200/d-027-I/094-B-08/0	b-095-H/094-B-08	557930.20	6252148.45	PACIFIC CANBRIAM HZ ALTARES B-G095-H/094-B-08	-	-	N/A	N/A	>2	100
044842	204/d-080-E/094-A-05/0	a-004-I/094-B-08	559110.04	6253092.35	PACIFIC CANBRIAM HZ ALTARES A-A004-I/094-B-08	-	-	N/A	N/A	>2	100
038733	200/a-090-E/094-A-05/0	a-004-I/094-B-08	559233.55	6252868.43	PACIFIC CANBRIAM HZ ALTARES A-004-I/094-B-08	-	-	N/A	N/A	>2	100
044843	202/a-090-E/094-A-05/0	a-004-I/094-B-08	559110.04	6253092.35	PACIFIC CANBRIAM HZ ALTARES A-B004-I/094-B-08	-	-	N/A	N/A	>2	100
044845	203/a-090-E/094-A-05/0	a-004-I/094-B-08	559110.04	6253092.35	PACIFIC CANBRIAM HZ ALTARES A-D004-I/094-B-08	-	-	N/A	N/A	>2	100
044846	204/a-090-E/094-A-05/0	a-004-I/094-B-08	559110.04	6253092.35	PACIFIC CANBRIAM HZ ALTARES A-E004-I/094-B-08	-	-	N/A	N/A	>2	100
044844	200/d-090-E/094-A-05/0	a-004-I/094-B-08	559110.04	6253092.35	PACIFIC CANBRIAM HZ ALTARES A-C004-I/094-B-08	-	-	N/A	N/A	>2	100
044847	202/d-090-E/094-A-05/0	a-004-I/094-B-08	559110.04	6253092.35	PACIFIC CANBRIAM HZ ALTARES A-F004-I/094-B-08	-	-	N/A	N/A	>2	100
Cancelled / Abandoned											
020757	200/d-013-H/094-B-08/0	c-013-H/094-B-08	559640.10	6245149.18	PACIFIC CANBRIAM ALTARES C-013-H/094-B-08			Gas	Abandoned Zone		-
020757	200/d-013-H/094-B-08/2	c-013-H/094-B-08	559640.10	6245149.18	PACIFIC CANBRIAM ALTARES C-013-H/094-B-08			Gas	Abandoned Zone		-
009417	200/d-083-G/094-B-08/0	d-083-G/094-B-08	552336.00	6251426.02	PACIFIC CANBRIAM ALTARES D-083-G/094-B-08			Gas	Abandoned Zone		-
009417	200/d-083-G/094-B-08/2	d-083-G/094-B-08	552336.00	6251425.90	PACIFIC CANBRIAM ALTARES D-083-G/094-B-08			Gas	Abandoned Zone		-
024032	100/05-05-083-24W6/0	05-05-083-24 W6M	576727.56	6224970.58	PACIFIC CANBRIAM FARRELL 05-05-083-24			N/A	Abandoned		-
027435	100/12-07-083-24W6/0	12-07-083-24 W6M	575103.30	6227243.33	PACIFIC CANBRIAM ALTARES 12-07-083-24			N/A	Abandoned		-
006792	100/07-19-083-24W6/0	07-19-083-24 W6M	575666.23	6229958.69	PACIFIC CANBRIAM GROUNDBIRCH 07-19-083-24			N/A	Abandoned		-
024135	100/01-31-083-24W6/0	01-31-083-24 W6M	575997.24	6232822.55	PACIFIC CANBRIAM FARRELL 01-31-083-24	0	-	N/A	Abandoned		-
024135	100/01-31-083-24W6/2	01-31-083-24 W6M	575997.24	6232822.55	PACIFIC CANBRIAM FARRELL 01-31-083-24	0	-	N/A	Abandoned		-
028488	100/15-18-083-24W6/0	01-25-083-25 W6M	574525.97	6231097.01	CANBRIAM HZ ALTARES 01-25-083-25			N/A	Canceled		-
027832	100/16-12-084-26W6/0	16-12-084-26 W6M	564698.06	6237021.94	PACIFIC CANBRIAM ALTARES 16-12-084-26			N/A	Abandoned		-
037343	100/08-06-085-25W6/0	08-06-085-25 W6M	566030.06	6244441.38	PACIFIC CANBRIAM HZ ALTARES C08-06-085-25			N/A	Abandoned Zone		-

Altares / Farrell Creek - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Substance	Status	Distance to Nearest Residence (km)	Assigned HPZ (m)
Cancelled / Abandoned											
019844	100/09-07-085-25W6/0	09-07-085-25 W6M	566100.13	6246397.30	PACIFIC CANBRIAM KOBES 09-07-085-25			N/A	Abandoned		-
027473	100/15-01-085-26W6/0	15-01-085-26 W6M	564017.92	6244957.44	PACIFIC CANBRIAM ALTARES B15-01-085-26			Water Disposal	Abandoned Zone		-
027473	100/15-01-085-26W6/2	15-01-085-26 W6M	564017.92	6244957.44	PACIFIC CANBRIAM ALTARES B15-01-085-26			N/A	Abandoned Zone		-
027474	100/16-01-085-26W6/0	15-01-085-26 W6M	564110.62	6244996.35	PACIFIC CANBRIAM HZ ALTARES C15-01-085-26			N/A	Abandoned Zone		-
003797	200/a-023-A/094-B-08/0	a-023-A/094-B-08	560088.46	6236273.25	PACIFIC CANBRIAM ET AL ALTARES A-023-A/094-B-08			N/A	Abandoned & Re-entered		-
029600	200/c-029-A/094-B-08/0	c-029-A/094-B-08	555062.17	6236889.23	PACIFIC CANBRIAM HZ ALTARES C- 029-A/094-B-08			N/A	Abandoned Zone		-
018809	200/d-042-A/094-B-08/0	d-053-A/094-B-08	560180.38	6239533.84	PACIFIC CANBRIAM HZ ALTARES D-053-A/094-B-08			Gas	Abandoned Zone		-
018809	202/d-053-A/094-B-08/2	d-053-A/094-B-08	560180.38	6239533.84	PACIFIC CANBRIAM HZ ALTARES D-053-A/094-B-08			N/A	Abandoned Zone		-
030275	203/c-054-A/094-B-08/0	c-054-A/094-B-08	558811.26	6239767.08	PACIFIC CANBRIAM HZ ALTARES C-A054-A/094-B-08			N/A	Abandoned Zone		-
031152	200/c-072-A/094-B-08/0	c-093-A/094-B-08	559739.77	6243416.56	PACIFIC CANBRIAM HZ ALTARES C-C093-A/094-B-08			N/A	Canceled		-
031821	202/b-024-H/094-B-08/0	c-093-A/094-B-08	559671.66	6243488.96	PACIFIC CANBRIAM HZ ALTARES C-D093-A/094-B-08			N/A	Canceled		-
031149	202/d-072-A/094-B-08/0	c-093-A/094-B-08	559766.73	6243429.74	CANBRIAM HZ ALTARES C-093-A/094-B-08			N/A	Canceled		-
031150	203/d-072-A/094-B-08/0	c-093-A/094-B-08	559757.71	6243425.27	PACIFIC CANBRIAM HZ ALTARES C-A093-A/094-B-08			N/A	Canceled		-
031151	204/d-072-A/094-B-08/0	c-093-A/094-B-08	559748.80	6243420.92	PACIFIC CANBRIAM HZ ALTARES C-B093-A/094-B-08			N/A	Canceled		-
002408	200/c-061-G/094-B-08/0	c-061-G/094-B-08	553343.72	6249737.19	PACIFIC CANBRIAM ET AL ALTARES C-061-G/094-B-08	0	-	N/A	Abandoned		-
017739	202/a-003-H/094-B-08/0	a-003-H/094-B-08	559863.15	6244022.65	PACIFIC CANBRIAM ALTARES A-A003-H/094-B-08			N/A	Abandoned Zone		-
017739	202/a-003-H/094-B-08/2	a-003-H/094-B-08	559863.15	6244022.65	PACIFIC CANBRIAM ALTARES A-A003-H/094-B-08			Gas	Abandoned Zone		-
017739	202/a-003-H/094-B-08/3	a-003-H/094-B-08	559863.15	6244022.65	PACIFIC CANBRIAM ALTARES A-A003-H/094-B-08			Gas	Abandoned Zone		-
022319	202/a-013-H/094-B-08/0	d-003-H/094-B-08	559936.18	6244141.23	PACIFIC CANBRIAM HZ ALTARES D-003-H/094-B-08			Gas	Abandoned Zone		-
022319	202/a-023-H/094-B-08/2	d-003-H/094-B-08	559936.18	6244141.23	PACIFIC CANBRIAM HZ ALTARES D-003-H/094-B-08			Gas	Abandoned Zone		-
031819	200/c-007-H/094-B-08/0	c-007-H/094-B-08	556597.36	6244284.86	PACIFIC CANBRIAM HZ ALTARES C-D007-H/094-B-08			N/A	Abandoned Zone		-
031789	200/a-018-H/094-B-08/0	a-018-H/094-B-08	556255.52	6244541.70	PACIFIC CANBRIAM ALTARES A-018-H/094-B-08			N/A	Canceled		-
030764	200/d-027-H/094-B-08/0	d-027-H/094-B-08	556879.61	6246123.92	CANBRIAM HZ ALTARES D-027-H/094-B-08			N/A	Canceled		-
020140	200/a-033-H/094-B-08/0	a-033-H/094-B-08	559823.92	6246398.65	PACIFIC CANBRIAM ALTARES A-033-H/094-B-08			Gas	Abandoned Zone		-
020140	200/a-033-H/094-B-08/2	a-033-H/094-B-08	559823.92	6246398.65	PACIFIC CANBRIAM ALTARES A-033-H/094-B-08			N/A	Abandoned Zone		-
010237	200/b-033-H/094-B-08/0	b-033-H/094-B-08	559649.50	6246681.85	PACIFIC CANBRIAM ET AL ALTARES B-033-H/094-B-08			N/A	Abandoned		-
028628	200/a-065-H/094-B-08/0	c-033-H/094-B-08	559571.03	6247175.01	CANBRIAM HZ ALTARES C-033-H/094-B-08			N/A	Canceled		-
028290	203/c-003-H/094-B-08/0	b-034-H/094-B-08	558855.05	6246474.41	PACIFIC CANBRIAM HZ ALTARES B- 034-H/094-B-08			N/A	Abandoned Zone		-

Altares / Farrell Creek - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Substance	Status	Distance to Nearest Residence (km)	Assigned HPZ (m)
Cancelled / Abandoned											
022912	200/b-053-H/094-B-08/0	b-053-H/094-B-08	559544.17	6248232.17	PACIFIC CANBRIAM ALTARES B-053-H/094-B-08			Gas	Abandoned Zone		-
022912	200/b-053-H/094-B-08/2	b-053-H/094-B-08	559544.17	6248232.17	PACIFIC CANBRIAM ALTARES B-053-H/094-B-08			Gas	Abandoned Zone		-
020032	200/c-059-H/094-B-08/0	c-059-H/094-B-08	554915.31	6248957.62	PACIFIC CANBRIAM ALTARES C- 059-H/094-B-08			N/A	Abandoned Zone		-
027575	200/c-064-H/094-B-08/0	c-064-H/094-B-08	558832.32	6249766.48	PACIFIC CANBRIAM HZ ALTARES C-D064-H/094-B-08			N/A	Abandoned		-
027575	200/c-064-H/094-B-08/3	c-064-H/094-B-08	558832.32	6249766.48	PACIFIC CANBRIAM HZ ALTARES C-D064-H/094-B-08			N/A	Abandoned		-
027575	200/c-064-H/094-B-08/4	c-064-H/094-B-08	558832.32	6249766.48	PACIFIC CANBRIAM HZ ALTARES C-D064-H/094-B-08			N/A	Abandoned		-
027575	200/d-054-H/094-B-08/5	c-064-H/094-B-08	558832.32	6249766.48	PACIFIC CANBRIAM HZ ALTARES C-D064-H/094-B-08			N/A	Abandoned		-
027575	200/d-085-H/094-B-08/2	c-064-H/094-B-08	558832.32	6249766.48	PACIFIC CANBRIAM HZ ALTARES C-D064-H/094-B-08			N/A	Abandoned		-
031916	202/b-085-H/094-B-08/0	d-076-H/094-B-08	557761.80	6250795.85	PACIFIC CANBRIAM ALTARES D-076-H/094-B-08			N/A	Abandoned Zone		-
010236	200/b-079-H/094-B-08/2	b-079-H/094-B-08	554967.28	6250348.65	PACIFIC CANBRIAM ALTARES B- 079-H/094-B-08			N/A	Abandoned		-
013237	200/c-015-I/094-B-08/0	c-015-I/094-B-08	557727.53	6254665.19	PACIFIC CANBRIAM KOBES C-015-I/094-B-08			N/A	Abandoned		-
013237	200/c-015-I/094-B-08/2	c-015-I/094-B-08	557727.59	6254665.19	PACIFIC CANBRIAM KOBES C-015-I/094-B-08			Gas	Abandoned Zone		-
013237	200/c-015-I/094-B-08/3	c-015-I/094-B-08	557727.59	6254665.19	PACIFIC CANBRIAM KOBES C-015-I/094-B-08			Gas	Abandoned Zone		-
019238	200/b-051-I/094-B-08/0	b-051-I/094-B-08	560855.56	6257860.68	PACIFIC CANBRIAM KOBES B- 051-I/094-B-08			Gas	Abandoned		-
027892	200/c-057-I/094-B-08/0	c-057-I/094-B-08	556458.60	6258116.60	PACIFIC CANBRIAM HZ KOBES C- 057-I/094-B-08			N/A	Abandoned Zone		-

BCER has requested a minimum 100m EPZ be applied to sweet assets and all assets that are not abandoned.

Altares / Farrell Creek - Pipelines

License	Line	From Location	From Facility	From Valve	From Valve Easting (Zone 10)	From Valve Northing (Zone 10)	To Location	To Facility	To Valve	To Valve Easting (Zone 10)	To Valve Northing (Zone 10)	Substance	Status	MOP (kPa)	OD (mm)	WT (mm)	Length (km)	H_2S (%)	Cumulative H_2S Release Volume (m^3)	Assigned HPZ[1, 2] (km)
Operating																				
14454	1A	d-B53-A/094-B-08	WE				a-073-A/094-B-08	PL	CV	560226	6239594	NG	O	9930	168.30	4.80	1.650	0.00	0	0.145
14454	1B	a-073-A/094-B-08	PL	ESD	560165	6241074	c-014-H/094-B-08	CS	CV/ESD	558795	6245155	NG	O	9930	168.30	4.80	4.675	0.00	0	0.133
14454	6	C-014-H/094-B-08	CS	ESD	558774	6245183	D-015-H/094-B-08	PL				NG	O	9930	168.30	4.80	0.354	0.00	0	0.187
14620	1	B-043-A/094-B-08	WE	ESD	559766	6238374	D-053-A/094-B-08	PL				NG	O	9930	168.30	4.80	1.601	0.00	0	0.150
16333	1	A-023-A/094-B-08	WE	ESD	560074	6236281	A-043-A/094-B-08	PL	CV/ESD	560051	6238176	NG	O	9930	168.30	4.80	2.647	0.00	0	0.136
22104	1	D-064-A/094-B-08	WE	ESD	559185	6240526	A-073-A/094-B-08	PL	CV	560158	6241102	NG	O	9930	114.30	4.00	1.252	0.00	0	0.100
22208	1	C-018-I/094-B-01	WE				B-017-I/094-B-01	PL				NG	O	4960	219.10	4.80	1.988	0.00	0	0.136
22208	2	B-017-I/094-B-01	WE				B-017-I/094-B-01	PL				NG	O	4960	114.30	6.00	0.025	0.00	0	0.138
22208	3	B-017-I/094-B-01					D-007-I/094-B-01	PL				NG	O	6410	273.10	5.60	0.384	0.00	0	0.248
22256	1	C-048-I/094-B-01	WE				B-017-I/094-B-01	PL				NG	O	4960	219.10	4.80	4.114	0.00	0	0.128
22323	1	B-074-A/094-B-08	WE	ESD	558752	6241070	D-064-A/094-B-08	PL	CV	559308	6240668	NG	O	9930	114.30	4.00	0.631	0.00	0	0.121
22336	1	D-015-H/094-B-08	WE				B-024-H/094-B-08	PL				NG	O	9930	168.30	4.80	0.773	0.00	0	0.174
22429	1	C-045-I/094-B-01	WE				C-048-I/094-B-01	PL				NG	O	4960	219.10	4.80	2.846	0.00	0	0.131
22569	1	C-023-H/094-B-08	WE				B-024-H/094-B-08	PL				NG	O	9930	323.90	6.40	0.979	0.00	0	0.276
22605	1	B-024-H/094-B-08					D-028-H/094-B-08					NG	O	9930	406.40	7.90	3.269	0.00	0	0.308
22605	2	C-027-H/094-B-08	PL				B-024-H/094-B-08	PL				NG	O	9930	323.90	6.40	3.122	0.00	0	0.279
22678	1	C-064-H/094-B-08	WE				C-044-H/094-B-08	PL				NG	O	9930	323.90	6.40	2.081	0.00	0	0.287
22678	3	C-044-H/094-B-08	WE				A-024-H/094-B-08					NG	O	9930	323.90	6.40	2.400	0.00	0	0.268
22684	1	B-024-H/094-B-08	PL				B-024-H/094-B-08	PL				NG	O	9930	323.90	6.40	0.206	0.00	0	0.284
22701	1	15-01-085-26W6	WE				C-013-H/094-B-08	PL				NG	O	9930	168.30	4.80	4.430	0.00	0	0.133
22701	2	C-013-H/094-B-08	PL				B-024-H/094-B-08	PL				NG	O	9930	273.10	6.40	1.067	0.00	0	0.258
22996	1	C-044-H/094-B-08	PL				B-044-H/094-B-08	PL				NG	O	9930	219.10	5.60	0.165	0.00	0	0.215
23075	1	B-074-A/094-B-08	PL				C-013-H/094-B-08	PL				NG	O	9930	273.10	6.40	4.504	0.00	0	0.239
23075	3	B-074-A/094-B-08	WE				B-074-A/094-B-08	PL				NG	O	9930	219.10	6.40	0.100	0.00	0	0.220
23075	4	C-004-H/094-B-08	WE				C-004-H/094-B-08	PL				NG	O	9930	219.10	6.40	0.100	0.00	0	0.220
23075	5	C-084-A/094-B-08	WE				C-084-A/094-B-08	PL				NG	O	9930	219.10	6.40	0.100	0.00	0	0.220
23075	6	D-084-A/094-B-08	WE				D-084-A/094-B-08	PL				NG	O	9930	273.10	6.40	0.084	0.00	0	0.267
23075	7	C-004-H/094-B-08	WE				D-004-H/094-B-08	PL				NG	O	9930	273.10	6.40	0.349	0.00	0	0.241
23133	1	D-055-A/094-B-08	WE	ESD	558635	6239805	B-043-A/094-B-08	PL	CV/ESD	559762	6238376	NG	O	6200	168.30	4.80	1.711	0.00	0	0.114
23152	1	B-097-A/094-B-08	PL				B-074-A/094-B-08	PL				NG	O	9930	219.10	5.60	2.950	0.00	0	0.190

Altares / Farrell Creek - Pipelines

License	Line	From Location	From Facility	From Valve	From Valve Easting (Zone 10)	From Valve Northing (Zone 10)	To Location	To Facility	To Valve	To Valve Easting (Zone 10)	To Valve Northing (Zone 10)	Substance	Status	MOP (kPa)	OD (mm)	WT (mm)	Length (km)	H_2S (%)	Cumulative H_2S Release Volume (m^3)	Assigned HPZ[1, 2] (km)
Operating																				
23152	3	B-097-A/094-B-08	WE				B-097-A/094-B-08	PL				NG	O	9930	219.10	5.60	0.525	0.00	0	0.218
23152	5	B-097-A/094-B-08	PL				B-074-A/094-B-08	PL				NG	O	9930	323.90	7.90	2.640	0.00	0	0.279
23152	6	D-088-A/094-B-08	WE				B-097-A/094-B-08	PL				NG	O	9930	168.30	4.80	0.348	0.00	0	0.187
23232	1	B-072-A/094-B-08					B-024-H/094-B-08					NG	O	9930	406.40	7.90	5.983	0.00	0	0.303
23233	1	B-074-A/094-B-08	PL				B-072-A/094-B-08	PT				NG	O	9930	323.90	7.90	2.209	0.00	0	0.276
23233	2	B-074-A/094-B-08	PL				B-072-A/094-B-08	PT				NG	O	9930	323.90	7.90	2.209	0.00	0	0.276
23233	6	B-074-A/094-B-08	PL				B-072-A/094-B-08	PT				NG	O	9930	406.40	10.30	2.209	0.00	0	0.329
23233	7	B-074-A/094-B-08	PL				B-072-A/094-B-08	PL				NG	O	9930	406.40	10.30	2.209	0.00	0	0.329
23249	1	15-12-084-26W6	WE	ESD	564223	6236883	A-023-A/094-B-08	WE	CV/ESD	560066	6236261	NG	O	9930	114.30	4.00	4.550	0.00	0	0.100
23410	1	C-054-A/094-B-08	WE				B-074-A/094-B-08	PL				NG	O	9930	219.10	5.60	2.201	0.00	0	0.194
23483	1	D-017-H/094-B-08	PL				B-097-A/094-B-08	PL				NG	O	9930	219.10	5.60	3.350	0.00	0	0.188
23483	2	D-017-H/094-B-08	PL				B-097-A/094-B-08	PL				NG	O	9930	323.90	7.90	3.350	0.00	0	0.276
23741	1	C-084-A/094-B-08	WE				B-074-A/094-B-08	PL				NG	O	9930	406.40	9.50	1.558	0.00	0	0.321
23836	1	D-063-A/094-B-08	PL				D-063-A/094-B-08	PL				NG	O	9930	406.40	11.90	0.700	0.00	0	0.304
23836	2	D-063-A/094-B-08	WE				D-063-A/094-B-08	PL				NG	O	9930	219.10	6.40	0.300	0.00	0	0.216
24490	1	B-095-H/094-B-08	WE				C-064-H/094-B-08	PL				NG	O	9930	323.90	7.90	2.969	0.00	0	0.278
24499	1	C-037-H/094-B-08	WE				D-028-H/094-B-08	PL				NG	O	9930	219.10	5.20	1.728	0.00	0	0.207
24503	1	A-024-H/094-B-08	PL				D-084-A/094-B-08	PL				NG	O	9930	406.40	9.50	4.087	0.00	0	0.307
24573	1	C-029-A/094-B-08	WE				C-054-A/094-B-08	PL				NG	O	9930	168.30	4.00	5.977	0.00	0	0.134
24877	1	15-01-085-26W6					C-013-H/094-B-08					NG	O	9930	323.90	7.90	4.357	0.00	0	0.276
24993	1	C-062-A/094-B-08					B-078-A/094-B-08					NG	O	10657	406.40	9.50	4.889	0.00	0	0.301
24993	2	D-063-A/094-B-08					C-062-A/094-B-08					NG	O	9930	323.90	10.30	0.214	0.00	0	0.279
24993	3	D-063-A/094-B-08					C-062-A/094-B-08					NG	O	9930	406.40	12.70	0.213	0.00	0	0.332
24993	4	D-063-A/094-B-08					C-062-A/094-B-08					NG	O	9930	323.90	10.30	0.212	0.00	0	0.277
24993	5	D-063-A/094-B-08					C-062-A/094-B-08					NG	O	9930	406.40	12.70	0.211	0.00	0	0.333
24993	9	D-063-A/094-B-08					C-062-A/094-B-08					NG	O	9930	406.40	12.70	0.195	0.00	0	0.335
25029	1	08-06-085-25W6					15-01-085-26W6					NG	O	9930	323.90	7.90	2.502	0.00	0	0.279
25037	2	C-007-H/094-B-08					C-007-H/094-B-08					NG	O	9930	323.90	9.50	0.065	0.00	0	0.310
25266	1	D-030-H/094-B-08	WE				D-017-H/094-B-08	PL				NG	O	9930	323.90	7.90	3.248	0.00	0	0.276
25730	1	C-098-D/094-A-05					C-098-D/094-A-05					NG	O	9930	406.40	9.50	0.151	0.00	0	0.348
25730	4	C-098-D/094-A-05					B-008-E/094-A-05					NG	O	9930	406.40	9.50	0.649	0.00	0	0.308

Altares / Farrell Creek - Pipelines

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Operating																				
25749	1	07-01-085-26W6					B-008-E/094-A-05					NG	O	9930	323.90	7.90	0.668	0.00	0	0.272
25749	4	B-008-E/094-A-05					14-01-085-26W6					NG	O	9930	406.40	9.50	1.799	0.00	0	0.327
25797	2	C-098-D/094-A-05					D-063-A/094-B-08					NG	O	9930	406.40	9.50	6.935	0.00	0	0.298
25797	10	C-068-D/094-A-05					D-063-A/094-B-08					NG	O	9930	406.40	9.50	4.037	0.00	0	0.307
25797	11	C-098-D/094-A-05					C-068-D/094-A-05					NG	O	9930	406.40	9.50	2.898	0.00	0	0.329
25797	12	C-068-D/094-A-05					D-063-A/094-B-08					NG	O	9930	406.40	9.50	4.037	0.00	0	0.307
25869	1	16-32-084-25W6					08-06-085-25W6					NG	O	9930	323.90	7.90	1.990	0.00	0	0.283
22569	5	C-023-H/094-B-08	WE				C-023-H/094-B-08	PL				NG	New	9930	323.90	219.10	0.060	0.00	0	0.231
24490	6	D-076-H/094-B-08					C-075-H/094-B-08					NG	New	9930	273.10	6.40	0.148	0.00	0	0.255
26240	1	13-19-084-25W6					C-068-D/094-A-05					NG	New	9930	406.40	9.50	1.611	0.00	0	0.322
26381	1	07-25-084-26W6					C-068-D/094-A-05					NG	New	9930	406.40	9.50	0.770	0.00	0	0.306
350	4	B-033-H/094-B-08	WE				D-044-H/094-B-08	PL				FG	O	1379	60.30	6.70	1.635	0.00	0	0.100
350	5	D-044-H/094-B-08	WE				B-053-H/094-B-08	PL				FG	O	1379	60.30	6.70	0.220	0.00	0	0.100
16979	2	C-014-H/094-B-08	WE				C-014-H/094-B-08	PL				FG	O	1378	88.90	9.09	0.411	0.00	0	0.100
17677	2	C-014-H/094-B-08	WE				A-033-H/094-B-08	PL				FG	O	1378	88.90	9.09	1.394	0.00	0	0.100
21517	1	A-054-H/094-B-08	WE				C-064-H/094-B-08	PL				FG	O	1379	168.30	4.00	1.439	0.00	0	0.100
22258	1	B-024-H/094-B-08	PL				A-054-H/094-B-08	WE				FG	O	1379	168.30	4.80	2.980	0.00	0	0.100
22497	4	B-017-I/094-B-01					D-017-I/094-B-01					FG	O	1173	88.90	12.20	0.480	0.00	0	0.100
22569	3	B-024-H/094-B-08	PL				A-024-H/094-B-08	PL				FG	O	1380	88.90	8.10	0.095	0.00	0	0.100
22569	7	A-024-H/094-B-08					C-023-H/094-B-08					FG	O	1380	88.90	8.10	0.870	0.00	0	0.100
22569	8	A-024-H/094-B-08					A-024-H/094-B-08					FG	O	1379	88.90	8.10	0.065	0.00	0	0.100
22569	9	A-024-H/094-B-08					A-024-H/094-B-08					FG	O	1379	88.90	8.10	0.064	0.00	0	0.100
22678	5	A-054-H/094-B-08					D-044-H/094-B-08					FG	O	1379	88.90	8.08	0.106	0.00	0	0.100
22678	6	A-054-H/094-B-08					A-054-H/094-B-08					FG	O	1379	88.90	5.54	0.018	0.00	0	0.100
23075	8	C-004-H/094-B-08	WE				D-004-H/094-B-08	PL				FG	O	1900	88.90	3.20	0.350	0.00	0	0.100
23075	9	D-084-A/094-B-08	PL				C-084-A/094-B-08	WE				FG	O	1379	88.90	8.08	0.123	0.00	0	0.100
23075	10	D-084-A/094-B-08					D-084-A/094-B-08					FG	O	1379	88.90	8.08	0.087	0.00	0	0.100
23145	2	A-097-I/094-B-01	PL				A-097-I/094-B-01	PL				FG	O	6450	114.30	4.00	0.210	0.00	0	0.123
23233	5	B-072-A/094-B-08	PL				B-073-A/094-B-08	Camp				FG	O	1900	88.90	3.20	0.846	0.00	0	0.100
23836	4	D-063-A/094-B-08	PL				D-063-A/094-B-08	WE				FG	O	1900	88.90	3.20	0.300	0.00	0	0.100
24490	3	C-064-H/094-B-08	PL				B-095-H/094-B-08	WE				FG	O	1379	88.90	8.10	2.964	0.00	0	0.100

Altares / Farrell Creek - Pipelines

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Operating																				
24490	4	C-075-H/094-B-08					D-076-H/094-B-08					FG	O	9930	168.30	6.40	0.145	0.00	0	0.186
24499	3	D-028-H/094-B-08	PL				C-037-H/094-B-08	WE				FG	O	1379	88.90	8.10	1.721	0.00	0	0.100
24503	2	A-024-H/094-B-08	PL				D-084-A/094-B-08	PL				FG	O	1379	88.90	8.10	4.087	0.00	0	0.100
24877	3	C-013-H/094-B-08					15-01-085-26W6					FG	O	1379	124.00	12.00	4.357	0.00	0	0.100
24877	5	15-01-085-26W6					15-01-085-26W6					FG	O	1379	88.90	8.10	0.271	0.00	0	0.100
24993	6	C-062-A/094-B-08					D-063-A/094-B-08					FG	O	4960	124.00	12.50	0.210	0.00	0	0.100
25029	3	15-01-085-26W6					08-06-085-25W6					FG	O	1379	88.90	8.10	2.501	0.00	0	0.100
25037	3	C-007-H/094-B-08					C-007-H/094-B-08					FG	O	9930	88.90	5.49	0.065	0.00	0	0.123
25266	3	D-017-H/094-B-08					D-030-H/094-B-08					FG	O	1379	88.90	8.10	3.249	0.00	0	0.100
25414	2	C-097-A/094-B-08					C-097-A/094-B-08					FG	O	1379	88.90	8.10	0.099	0.00	0	0.100
25730	3	B-008-E/094-A-05					C-098-D/094-A-05					FG	O	1379	124.00	12.50	0.799	0.00	0	0.100
25749	3	14-01-085-26W6					07-01-085-26W6					FG	O	1379	124.00	12.50	1.799	0.00	0	0.100
25797	3	D-063-A/094-B-08					C-098-D/094-A-05					FG	O	4960	124.00	12.50	6.791	0.00	0	0.100
25797	7	C-068-D/094-A-05					D-069-D/094-A-05					FG	O	4960	124.00	12.50	0.515	0.00	0	0.100
25869	3	08-06-085-25W6					16-32-084-25W6					FG	O	1379	124.00	12.50	1.990	0.00	0	0.100
23836	5	D-063-A/094-B-08	PL				D-063-A/094-B-08	WE				FG	New	1900	88.90	3.20	0.436	0.00	0	0.100
24490	5	C-075-H/094-B-08					D-076-H/094-B-08					FG	New	1379	88.90	8.10	0.150	0.00	0	0.100
25245	1	C-017-H/094-B-08					C-007-H/094-B-08					FG	New	1379	88.90	8.10	0.883	0.00	0	0.100
25797	4	D-063-A/094-B-08					B-074-A/094-B-08					FG	New	4960	124.00	12.50	1.879	0.00	0	0.100
26240	3	C-068-D/094-A-05					13-19-084-25W6					FG	New	4960	124.00	12.50	1.611	0.00	0	0.100
26381	3	C-068-D/094-A-05					07-25-084-26W6					FG	New	4960	124.00	12.50	0.769	0.00	0	0.100
22569	4	B-024-H/094-B-08	PL				C-023-H/094-B-08	PL				PW	O	2206	273.10	37.40	0.979	0.00	0	0.129
22605	3	B-024-H/094-B-08	PL				C-027-H/094-B-08	PL				PW	O	2206	273.10	37.40	3.122	0.00	0	0.129
22678	2	A-024-H/094-B-08	PL				C-064-H/094-B-08	PL				PW	O	2010	273.10	37.40	4.480	0.00	0	0.129
22678	4	A-054-H/094-B-08					D-044-H/094-B-08					PW	O	2010	168.30	23.00	0.124	0.00	0	0.100
22684	2	B-024-H/094-B-08	PL				B-024-H/094-B-08	PL				PW	O	2206	273.10	37.40	0.206	0.00	0	0.129
22701	4	C-013-H/094-B-08	PL				B-024-H/094-B-08	PL				PW	O	2206	323.90	44.40	1.067	0.00	0	0.153
23075	2	C-013-H/094-B-08	PL				B-074-A/094-B-08	PL				PW	O	2206	323.90	44.40	4.504	0.00	0	0.153
23145	1	B-067-I/094-B-01	PL				A-097-I/094-B-01	PL				PW	O	2206	406.40	55.70	3.280	0.00	0	0.192
23145	3	A-097-I/094-B-01	PL				C-062-A/094-B-08	PT				PW	O	2206	406.40	55.70	10.194	0.00	0	0.192
23152	2	B-074-A/094-B-08	PL				B-097-A/094-B-08	PL				PW	O	2206	273.10	37.40	3.287	0.00	0	0.129

Altares / Farrell Creek - Pipelines

License	Line	From Location	From Facility	From Valve	From Valve Easting (Zone 10)	From Valve Northing (Zone 10)	To Location	To Facility	To Valve	To Valve Easting (Zone 10)	To Valve Northing (Zone 10)	Substance	Status	MOP (kPa)	OD (mm)	WT (mm)	Length (km)	H_2S (%)	Cumulative H_2S Release Volume (m^3)	Assigned HPZ[1, 2] (km)
Operating																				
23232	2	C-062-A/094-B-08	PT				B-024-H/094-B-08	PL				PW	O	2206	323.90	44.40	6.557	0.00	0	0.153
23232	3	B-024-H/094-B-08	PL				B-024-H/094-B-08	PL				PW	O	2206	124.00	12.50	0.200	0.00	0	0.100
23233	3	B-074-A/094-B-08	PL				C-062-A/094-B-08	PT				PW	O	2206	323.90	44.40	2.525	0.00	0	0.153
23410	2	C-054-A/094-B-08	PL				B-074-A/094-B-08	PL				PW	O	2206	323.90	44.40	2.201	0.00	0	0.153
23483	3	D-017-H/094-B-08	PL				B-097-A/094-B-08	PL				PW	O	2206	323.90	7.30	3.800	0.00	0	0.153
24490	2	C-064-H/094-B-08	PL				B-095-H/094-B-08	PL				PW	O	2190	273.10	37.40	2.964	0.00	0	0.129
24499	2	C-037-H/094-B-08	PL				D-028-H/094-B-08	PL				PW	O	2180	323.90	44.40	1.725	0.00	0	0.153
24877	2	D-013-H/094-B-08					15-01-085-26W6					PW	O	2190	323.90	44.40	3.964	0.00	0	0.153
24993	8	C-062-A/094-B-08					D-063-A/094-B-08					PW	O	2190	323.90	44.50	0.084	0.00	0	0.153
24993	10	B-072-A/094-B-08					C-062-A/094-B-08					PW	O	9930	191.00	24.50	0.679	0.00	0	0.100
25029	2	08-06-085-25W6					15-01-085-26W6					PW	O	2190	323.90	44.40	2.502	0.00	0	0.153
25037	1	C-007-H/094-B-08					C-007-H/094-B-08					PW	O	2206	323.90	44.37	0.065	0.00	0	0.153
25266	2	D-030-H/094-B-08					D-028-H/094-B-08					PW	O	2190	323.90	44.40	2.417	0.00	0	0.153
25266	4	D-028-H/094-B-08					D-017-H/094-B-08					PW	O	2190	323.90	44.40	0.866	0.00	0	0.153
25414	1	C-097-A/094-B-08					C-097-A/094-B-08					PW	O	2206	406.40	55.70	0.099	0.00	0	0.192
25414	3	C-097-A/094-B-08					C-097-A/094-B-08					PW	O	2206	406.40	55.70	0.099	0.00	0	0.192
25730	2	C-098-D/094-A-05					B-008-E/094-A-05					PW	O	2190	406.40	55.70	0.800	0.00	0	0.192
25749	2	07-01-085-26W6					14-01-085-26W6					PW	O	2190	406.40	55.70	1.794	0.00	0	0.192
25797	1	C-098-D/094-A-05					D-069-D/094-A-05					PW	O	2190	406.40	55.67	3.225	0.00	0	0.192
25869	2	16-32-084-25W6					08-06-085-25W6					PW	O	2190	323.90	44.37	1.990	0.00	0	0.153
18587	4	D-083-A/094-B-08					C-082-A/094-B-08					PW	New	2206	168.30	23.05	0.385	0.00	0	0.100
25797	8	C-062-A/094-B-08					C-062-A/094-B-08					PW	New	2190	323.90	44.37	0.281	0.00	0	0.153
25797	9	D-063-A/094-B-08					B-074-A/094-B-08					PW	New	2190	323.90	44.37	1.907	0.00	0	0.153
26240	2	13-19-084-25W6					C-068-D/094-A-05					PW	New	2190	406.40	55.60	1.610	0.00	0	0.192
26381	2	C-068-D/094-A-05					07-25-084-26W6					PW	New	2185	406.40	55.66	0.770	0.00	0	0.192
22496	2	D-044-B/094-B-01	Lake				C-036-A/094-B-01	IP				FW	O	1730	406.40	45.20	6.909	0.00	0	ROW
22497	1	C-036-A/094-B-01	IP				D-007-I/094-B-01	IP				FW	O	1730	406.40	45.20	16.425	0.00	0	ROW
22497	2	D-007-I/094-B-01	PL				B-017-I/094-B-01					FW	O	1730	406.40	45.20	0.480	0.00	0	ROW
22497	3	D-007-I/094-B-01	PS				B-067-I/094-B-01	PL				FW	O	2200	406.40	55.70	4.837	0.00	0	ROW
25797	5	C-062-A/094-B-08					D-069-D/094-A-05					FW	O	2190	323.90	44.37	3.882	0.00	0	ROW
25797	6	C-062-A/094-B-08					D-069-D/094-A-05					FW	O	2190	323.90	44.37	3.881	0.00	0	ROW

Altares / Farrell Creek - Pipelines

License	Line	From Location	From Facility	From Valve	From Valve Easting (Zone 10)	From Valve Northing (Zone 10)	To Location	To Facility	To Valve	To Valve Easting (Zone 10)	To Valve Northing (Zone 10)	Substance	Status	MOP (kPa)	OD (mm)	WT (mm)	Length (km)	H_2S (%)	Cumulative H_2S Release Volume (m^3)	Assigned HPZ[1, 2] (km)
Operating																				
24993	7	C-062-A/094-B-08					D-063-A/094-B-08					Air	O	1380	88.90	8.10	0.209	0.00	0	ROW
Not Operating																				
350	1	B-053-H/094-B-08	WE	ESD	559544	6248232	D-044-H/094-B-08	PL	CV	559151	6248156	SNG	D	9930	114.30	4.00	0.363	26.00	0	0.100
350	2	B-033-H/094-B-08	WE	ESD	559648	6246725	A-033-H/094-B-08	PL	CV	559823	6246399	SNG	D	9930	168.30	4.80	0.431	26.00	0	0.100
350	3	D-044-H/094-B-08	WE	ESD	559151	6248156	B-033-H/094-B-08	PL				SNG	D	9930	168.30	4.80	1.635	26.00	0	0.100
14454	2	D-053-A/094-B-08	PL				C-014-H/094-B-08	CS				NG	D	1378	88.90	9.88	6.325		0	0.100
14454	3	A-003-H/094-B-08	WE	ESD	559844	6244002	A-003-H/094-B-08	PL				SNG	D	9930	114.30	4.00	0.100	20.00	0	0.100
14454	4	C-071-A/094-B-08	WE	ESD	561021	6241467	A-073-A/094-B-08	PL	CV	560180	6241084	SNG	D	9930	114.30	4.00	0.935	20.00	0	0.100
14454	5	C-071-A/094-B-08	WE				A-073-A/094-B-08	PL				NG	D	1378	88.90	9.88	0.935	0.00	0	0.100
14454	7	A-003-H/094-B-08	WE				A-003-H/094-B-08	PL				NG	D	1378	88.90	9.88	0.100	0.00	0	0.100
14620	2	B-043-A/094-B-08	WE				D-053-A/094-B-08	PL				NG	D	1378	88.90	9.88	1.601	0.00	0	0.100
16333	2	A-043-A/094-B-08	WE				A-023-A/094-B-08	PL				NG	D	1378	88.90	9.09	2.647	0.00	0	0.100
16333	3	A-043-A/094-B-08	WE				A-043-A/094-B-08	PL				SNG	D	9930	114.30	4.00	0.088	20.00	0	0.100
16333	4	A-043-A/094-B-08	PL				A-043-A/094-B-08	PL				NG	D	1379	88.90	9.88	0.088	0.00	0	0.100
16979	1	C-014-H/094-B-08	WE	ESD	558867	6245279	C-014-H/094-B-08	CS	CV/ESD	558697	6245261	SNG	D	9930	168.30	4.80	0.411	26.00	0	0.100
17677	1	A-033-H/094-B-08	WE	ESD	559824	6246398	C-014-H/094-B-08	PL	CV/ESD	558978	6245366	SNG	D	9930	168.30	4.80	1.394	26.00	0	0.100
17677	3	C-014-H/094-B-08	WE	ESD	558867	6245295	C-014-H/094-B-08	PL	CV/ESD	558681	6245261	SNG	D	9930	168.30	4.80	0.299	26.00	0	0.100
17909	1	C-013-H/094-B-08	WE	ESD	559649	6245161	C-014-H/094-B-08	PL	CV	558930	6245291	SNG	D	9930	168.30	4.80	0.784	26.00	0	0.100
17909	2	C-014-H/094-B-08	WE				C-013-H/094-B-08	PL				NG	D	1379	88.90	9.88	0.784	0.00	0	0.100
18587	1	C-082-A/094-B-08	WE	ESD	560557	6242497	D-083-A/094-B-08	PL	CV	560156	6242479	NG	D	9930	114.30	4.00	0.422	20.00	0	0.100
18587	2	D-083-A/094-B-08	WE				C-082-A/094-B-08	PL				FG	D	1379	60.30	6.70	0.422	0.00	0	0.100
19914	1	D-003-H/094-B-08	WE	ESD	559930	6244140	C-014-H/094-B-08	CS	ESD	558724	6245224	SNG	D	9930	168.30	4.80	1.810	26.00	0	0.100
21148	1	D-022-G/094-B-08	WE				B-022-G/094-B-08	PL				NG	D	9930	114.30	3.20	0.624	0.01	0	0.100
22569	6	C-023-H/094-B-08	WE				C-023-H/094-B-08	PL				FG	D	1380	88.90	12.10	0.060	0.00	0	0.100
23152	7	B-097-A/094-B-08	PL				D-088-A/094-B-08	WE				FG	D	9930	88.90	4.00	0.347	0.00	0	0.100
24241	1	B-024-H/094-B-08	PL				B-024-H/094-B-08	PL				FG	D	9930	88.90	4.80	0.229	0.00	0	0.100
24515	1	D-013-H/094-B-08					15-01-085-26W6					PW	D	3000	124.00	12.00	3.952	0.00	0	0.100
Not Constructed																				
18587	3	C-082-A/094-B-08					D-083-A/094-B-08					FG	New	1379	88.90	8.08	0.385	0.00	0	-
22701	3	C-013-H/094-B-08	PL				15-01-085-26W6	PL				PW	New	2206	273.10	37.40	4.430	0.00	0	-
25239	1	B-024-H/094-B-08					D-017-H/094-B-08					FG	New	1379	88.90	8.10	2.150	0.00	0	-

Altares / Farrell Creek - Pipelines

License	Line	From Location	From Facility	From Valve	From Valve Easting (Zone 10)	From Valve Northing (Zone 10)	To Location	To Facility	To Valve	To Valve Easting (Zone 10)	To Valve Northing (Zone 10)	Substance	Status	MOP (kPa)	OD (mm)	WT (mm)	Length (km)	H_2S (%)	Cumulative H_2S Release Volume (m^3)	Assigned HPZ[1, 2] (km)
Not Constructed																				
25239	2	D-017-H/094-B-08					C-017-H/094-B-08					FG	New	1379	88.90	8.10	0.637	0.00	0	-
Abandoned/Cancelled																				
21517	2	A-054-H/094-B-08					D-044-H/094-B-08					NG	A	9930	168.30	4.00	0.291	0.00	-	-

All pipelines with a calculated HPZ less than 100 m were assigned a 100 m HPZ to comply with the *All Hazards Approach* utilized in BC.

Footnotes:

1. The Assigned HPZ for the sweet natural gas and fuel gas pipelines has been taken to be the largest of the LEL/2 or Heat Radiation to 5 kW/m^2 calculations with a minimum HPZ of 0.100 km.
2. The Assigned HPZ for the produced water pipelines has been calculated based on 12m per inch OD, with a minimum HPZ of 0.100 km.

Pipeline Legend:	
Facility:	B = Battery BE = Bind End CS = Compressor Station DH = Dehydrator GP = Gas Plant GS = Gathering System MS = Meter Station PS = Pump Station PL = Pipeline PT = Plant S = Satellite WE = Well CP = Camp
Substance:	CO = Crude Oil FG = Fuel Gas FW = Fresh Water NG = Natural Gas OE = Oil Well Effluent OM = Oil Emulsion SC = Sour Crude SE = Sour Effluent SG = Sour Gas SW = Salt Water PW = Produced Water FW = Fresh Water
Status:	A = Abandoned D = Discontinued I = Inactive O = Operating Q = Active R = Removed S = Suspended TBC = To Be Constructed X = Cancelled NIU = Not In Use NB = Not Built
Valve:	CV = Check Valve ESD = Emergency Shut Down Valve
Other:	L = Length OD = Outside Diameter WT = Wall Thickness MOP = Maximum Operating Pressure GLR = Gas to Liquid Ratio

Altares / Farrell Creek - Facilities

Facility Licence #	Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Facility Type	Status	Distance to Nearest Residence or public facility (km)	H_2S Release Volume (m^3)	Assigned HPZ (km)	CEPA EPZ (km)
Operating									
25641	15-12-084-26W6	564306.71	6236951.99	Well Facility	Active	>2	0	0.100	
26920	08-06-085-25W6	566002.85	6244394.95	Well Facility	Active	>2	0	0.283	
27513	02-01-085-26W6	564067.79	6243900.63	Well Facility	Active	>2	0	0.100	
25150	15-01-085-26W6	564074.54	6245045.16	Well Facility	Active	>2	0	0.279	
25218	15-01-085-26W6	564074.54	6245045.16	Well Facility	Active	>2	0	0.279	
27324	D-069-D/094-A-05	563279.00	6240812.00	Water Hub	Active	>2	0	0.192	
27514	C-098-D/094-A-05	563478.26	6243414.11	Well Facility	Active	>2	0	0.348	
18119	D-007-I/094-B-01	557264.00	6225751.00	Pump station	Active	1.197	0	0.248	
8634	B-017-I/094-B-01	556749.81	6226157.69	Gas Sales Meter (BC)	Active	0.924	0	0.248	
7833	B-017-I/094-B-01	556749.81	6226157.69	Compressor station	Active	0.924	0	0.248	
18128	A-097-I/094-B-01	557106.00	6233770.00	Pump station	Active	1.454	0	0.192	
26580	C-029-A/094-B-08	555061.60	6236888.67	Well Facility	Active	1.253	0	0.134	
21740	A-043-A/094-B-08	560076.93	6238242.96	Well Facility	Active	>2	0	0.136	
7803	D-053-A/094-B-08	560194.00	6239640.00	Dehydrator	Active	1.445	0	0.150	
18168	C-054-A/094-B-08	558804.59	6239765.58	Well Facility	Active	1.33	0	0.194	
25934	D-055-A/094-B-08	558638.59	6239807.65	Well Facility	Active	1.39	0	0.114	
18063	C-062-A/094-B-08	560392.00	6240427.00	Water Hub	Active	0.379	0	0.335	
26309	D-063-A/094-B-08	559983.23	6240686.46	Well Facility	Active	0.38	0	0.335	
24567	D-064-A/094-B-08	559188.13	6240528.86	Well Facility	Active	0.49	0	0.121	
17909	B-072-A/094-B-08	560499.00	6241051.00	Gas processing plant	Active	0.38	0	0.329	1.050[(1)]

Altares / Farrell Creek - Facilities

Facility Licence #	Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Facility Type	Status	Distance to Nearest Residence or public facility (km)	H_2S Release Volume (m^3)	Assigned HPZ (km)	CEPA EPZ (km)
Operating									
24819	B-074-A/094-B-08	558755.53	6241072.96	Well Facility	Active	0.809	0	0.329	
18044	B-074-A/094-B-08	558755.53	6241072.96	Well Facility	Active	0.81	0	0.329	
23616	C-082-A/094-B-08	560559.63	6242498.96	Well Facility	Active	1.28	0	0.100	
18164	C-084-A/094-B-08	559000.00	6242630.00	Well Facility	Active	1.848	0	0.321	
26211	D-088-A/094-B-08	556286.46	6242525.61	Well Facility	Active	>2	0	0.187	
18084	B-097-A/094-B-08	556366.65	6242756.63	Well Facility	Active	>2	0	0.279	
27124	C-097-A/094-B-08	556446.58	6243390.92	Water Hub	Active	>2	0	0.192	
20650	A-003-H/094-B-08	559865.73	6244025.36	Well Facility	Active	1.385	0	0.100	
22606	D-003-H/094-B-08	559938.73	6244143.86	Well Facility	Active	1.385	0	0.100	
18114	C-004-H/094-B-08	559020.36	6244062.52	Well Facility	Active	1.282	0	0.241	
27190	C-007-H/094-B-08	556602.87	6244251.76	Well Facility	Active	>2	0	0.310	
7505	C-014-H/094-B-08	558919.53	6245380.66	Compressor station	Active	0.087	0	0.187	
23421	C-014-H/094-B-08	558919.53	6245380.66	Well Facility	Active	0.087	0	0.187	
18163	C-017-H/094-B-08	556411.95	6245130.42	Well Facility	Active	1.797	0	0.100	
18319	C-023-H/094-B-08	559719.80	6246055.91	Well Facility	Active	0.852	0	0.276	
26285	B-024-H/094-B-08	558766.03	6245462.08	Compressor station	Active	0.087	0	0.308	
7834	B-024-H/094-B-08	558766.03	6245462.08	Gas processing plant	Active	0.087	0	0.308	
25425	C-027-H/094-B-08	556306.93	6245965.26	Well Facility	Active	1.96	0	0.279	
25243	C-027-H/094-B-08	556306.93	6245965.26	Well Facility	Active	1.96	0	0.279	
25746	C-027-H/094-B-08	556306.93	6245965.26	Well Facility	Active	1.96	0	0.279	
25426	C-027-H/094-B-08	556306.93	6245965.26	Well Facility	Active	1.958	0	0.279	

Altares / Farrell Creek - Facilities

Facility Licence #	Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Facility Type	Status	Distance to Nearest Residence or public facility (km)	H_2S Release Volume (m^3)	Assigned HPZ (km)	CEPA EPZ (km)
Operating									
26116	C-027-H/094-B-08	556306.93	6245965.26	Well Facility	Active	1.958	0	0.279	
27452	D-030-H/094-B-08	554614.99	6245863.73	Well Facility	Active	0.770	0	0.276	
21580	A-033-H/094-B-08	559826.53	6246401.36	Well Facility	Active	1.110	0	0.100	
25586	B-034-H/094-B-08	558875.67	6246485.56	Well Facility	Active	0.772	-	0.100	
25584	B-034-H/094-B-08	558875.67	6246485.56	Well Facility	Active	0.772	-	0.100	
26188	B-034-H/094-B-08	558875.67	6246485.56	Well Facility	Active	0.772	-	0.100	
25763	B-034-H/094-B-08	558875.67	6246485.56	Well Facility	Active	0.772	-	0.100	
26186	B-034-H/094-B-08	558875.67	6246485.56	Well Facility	Active	0.772	-	0.100	
26187	B-034-H/094-B-08	558875.67	6246485.56	Well Facility	Active	0.772	-	0.100	
26737	C-037-H/094-B-08	556303.83	6246802.15	Well Facility	Active	>2	0	0.207	
27448	A-040-H/094-B-08	554629.95	6246410.39	Well Facility	Active	>2	-	0.100	
25692	C-044-H/094-B-08	558760.81	6247935.94	Well Facility	Active	>2	0	0.287	
25614	C-044-H/094-B-08	558760.81	6247935.94	Well Facility	Active	>2	0	0.287	
23491	D-044-H/094-B-08	559122.63	6248183.36	Well Facility	Active	>2	0	0.100	
27207	D-044-H/094-B-08	559122.63	6248183.36	Water disposal facility	Active	>2	0	0.100	
22860	B-053-H/094-B-08	559546.93	6248234.86	Well Facility	Active	>2	0	0.100	
23640	C-064-H/094-B-08	558823.13	6249660.56	Well Facility	Active	>2	0	0.287	
24711	C-064-H/094-B-08	558823.13	6249660.56	Well Facility	Active	>2	0	0.287	
24916	C-064-H/094-B-08	558823.13	6249660.56	Well Facility	Active	>2	0	0.287	
26523	D-076-H/094-B-08	557761.26	6250795.99	Well Facility	Active	>2	0	0.255	
26621	D-076-H/094-B-08	557761.26	6250795.99	Well Facility	Active	>2	0	0.255	

Altares / Farrell Creek - Facilities

Facility Licence #	Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Facility Type	Status	Distance to Nearest Residence or public facility (km)	H_2S Release Volume (m^3)	Assigned HPZ (km)	CEPA EPZ (km)
Operating									
26622	D-076-H/094-B-08	557761.26	6250795.99	Water disposal facility	Active	>2	0	0.255	
26496	B-095-H/094-B-08	557860.51	6252026.36	Well Facility	Active	>2	0	0.278	
Suspended									
24747	C-018-I/094-B-01	555851.43	6226841.96	Well Facility	Suspended	0.461	-	0.136	
20972	D-053-A/094-B-08	560194.00	6239640.00	Well Facility	Suspended	1.445	-	0.150	
7513	C-071-A/094-B-08	561023.00	6241457.00	Compressor station	Suspended	0.732	-	0.100	
22367	C-082-A/094-B-08	560559.63	6242498.96	Well Facility	Suspended	1.276	-	0.100	
21905	C-013-H/094-B-08	559642.63	6245151.86	Well Facility	Suspended	0.348	-	0.276	
19266	B-033-H/094-B-08	559651.63	6246728.36	Well Facility	Suspended	1.18	-	0.100	
23970	B-033-H/094-B-08	559651.63	6246728.36	Well Facility	Suspended	1.18	-	0.100	
22877	B-033-H/094-B-08	559651.63	6246728.36	Well Facility	Suspended	1.18	-	0.100	
23636	D-044-H/094-B-08	559122.63	6248183.36	Well Facility	Suspended	>2	-	0.100	
Permit Approved									
27608	13-19-084-25W6			Well Facility	Permit Approved	>2	-	-	
25470	D-053-A/094-B-08	560194.00	6239640.00	Well Facility	Permit Approved	1.445	-	-	
27606	C-074-A/094-B-08			Well Facility	Permit Approved	0.730	-	-	
27210	C-082-A/094-B-08	560559.63	6242498.96	Water disposal facility	Permit Approved	1.28	-	-	
26345	A-098-A/094-B-08	556321.43	6242766.57	Compressor station	Permit Approved	>2	-	-	
26114	C-027-H/094-B-08	556306.93	6245965.26	Well Facility	Permit Approved	1.958	-	-	
26113	C-027-H/094-B-08	556306.93	6245965.26	Well Facility	Permit Approved	1.958	-	-	
26115	C-027-H/094-B-08	556306.93	6245965.26	Well Facility	Permit Approved	1.958	-	-	

Altares / Farrell Creek - Facilities

Facility Licence #	Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Facility Type	Status	Distance to Nearest Residence or public facility (km)	H_2S Release Volume (m^3)	Assigned HPZ (km)	CEPA EPZ (km)
Permit Approved									
27609	A-004-I/094-B-08			Well Facility	Permit Approved	>2	-	-	
Inactive									
24232	B-017-I/094-B-01	556749.81	6226157.69	Well Facility	Not Active	0.924	-	0.248	
24886	C-018-I/094-B-01	555851.43	6226841.96	Well Facility	Not Active	0.461	-	0.136	
24409	C-018-I/094-B-01	555851.43	6226841.96	Well Facility	Not Active	0.461	-	0.136	
24153	C-045-I/094-B-01	558258.93	6229438.66	Well Facility	Not Active	>2	-	0.131	
24183	C-048-I/094-B-01	556097.23	6229266.16	Well Facility	Not Active	>2	-	0.131	
18699	A-023-A/094-B-08	560091.13	6236275.76	Well Facility	Not Active	>2	-	0.136	
26042	A-023-A/094-B-08	560091.13	6236275.76	Well Facility	Not Active	>2	-	0.136	
21038	B-043-A/094-B-08	559764.83	6238377.16	Well Facility	Not Active	>2	-	0.150	
23573	D-022-G/094-B-08	552908.03	6245986.06	Well Facility	Not Active	1.934	-	0.100	
7747	C-014-H/094-B-08	558919.53	6245380.66	Well Facility	Not Active	0.087	-	0.187	
22366	B-033-H/094-B-08	559651.63	6246728.36	Well Facility	Not Active	1.183	-	0.100	
25585	B-034-H/094-B-08	558875.67	6246485.56	Well Facility	Not Active	0.77	-	0.100	
25691	C-044-H/094-B-08	558760.81	6247935.94	Well Facility	Not Active	>2	-	0.287	
24805	C-064-H/094-B-08	558823.13	6249660.56	Well Facility	Not Active	>2	-	0.287	
Cancelled / Removed									
15254	01-31-083-24W6	-	-	Test Facility (BC)	Cancelled	-	-	-	
15525	C-064-H/094-B-08	558823.12907	6249660.56444	Test Facility (BC)	Cancelled	>2	-	-	
18007	B-024-H/094-B-08	558766.03228	6245462.07980	Gathering Point (BC)	Cancelled	0.087	-	-	
15396	C-014-H/094-B-08	558919.52923	6245380.66431	Test Facility (BC)	Cancelled	0.09	-	-	

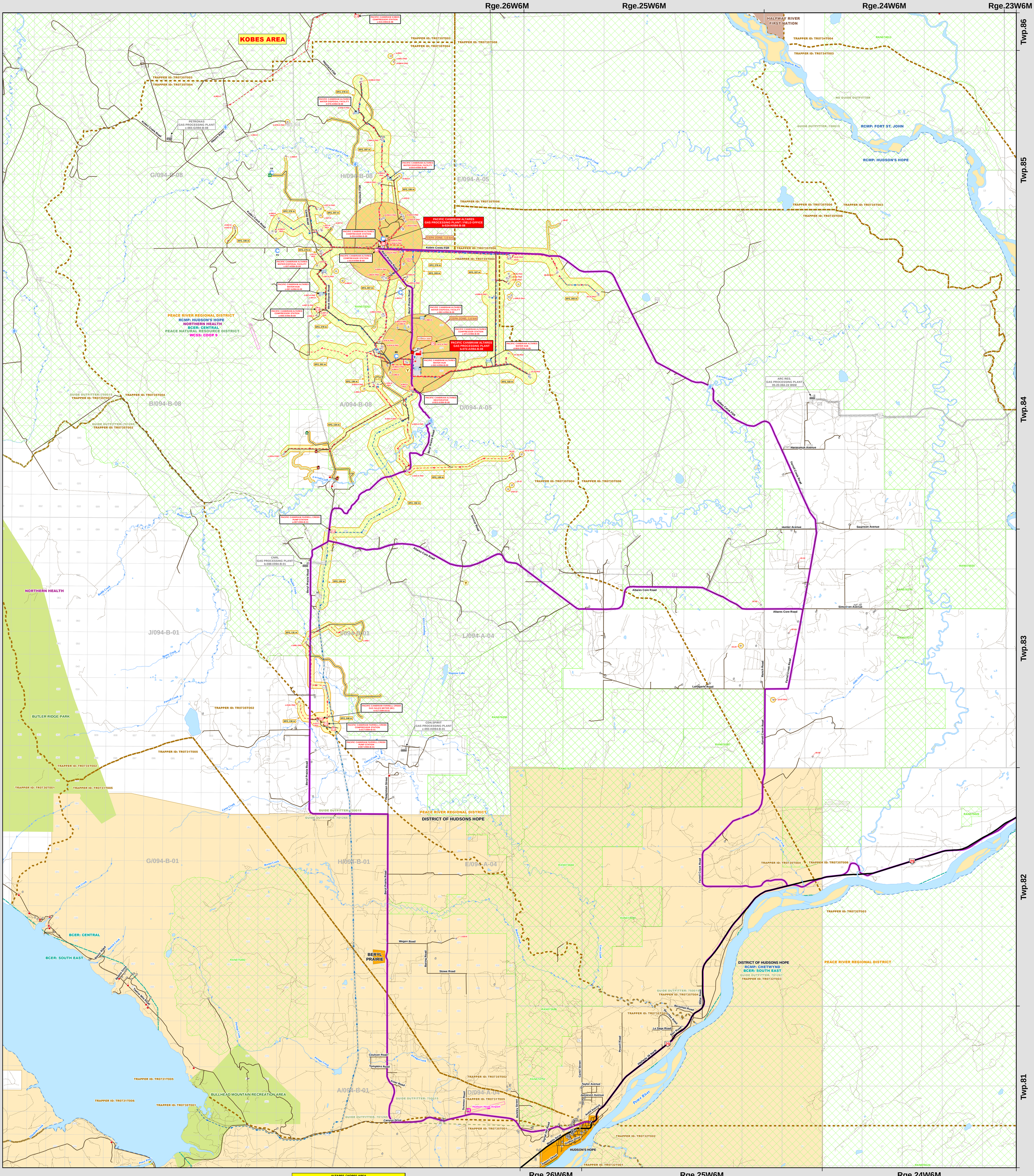
Altares / Farrell Creek - Facilities

Facility Licence #	Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Facility Type	Status	Distance to Nearest Residence or public facility (km)	H_2S Release Volume (m^3)	Assigned HPZ (km)	CEPA EPZ (km)
Cancelled / Removed									
24475	B-083-A/094-B-08	-	-	Well Facility	Cancelled	1.153	-	-	
26926	C-007-H/094-B-08	-	-	Water disposal facility	Removed	>2	-	-	
25219	15-01-085-26W6	564074.53813	6245045.15645	Well Facility	Removed	>2	-	-	

All operating and suspended facilities were assigned a minimum 100 m HPZ to comply with the *All Hazards Approach* utilized in BC.

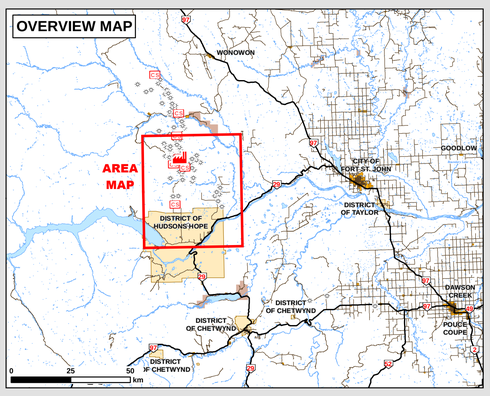
Footnotes:

1. Refer to "Altares b-072-A/094-B-08 Gas Plant Site-Specific Hazard Planning Distance Calculations for CEPA Products and Combustible Liquids" report prepared on April 24, 2023 by Behr Integrated Solutions Inc.



ALTARES / KOBES AREA RADIO ROAD FREQUENCIES	
ROAD NAME	FREQUENCY
Haystack Forest Service Road	RR-12 – 150.500
Iron Creek Road	RR 18 – 150.710
Pilsner Road	RR-7 – 150.260
Harold Ellis Road	RR-7 – 150.260
Upper Halfway Road	Mile 95 Road – 153.380
Kobes Creek Road (km 24.5 to km 46.3)	RR 08 – 150.4400
Beryl IPrairie Road (entire length)	RR 03 – 150.1400
The Core Road (entire length)	RR 04 – 150.1850
Camp Road	RR 21 – 151.010
The West Altares Road	RR 03 – 150.1400

EMERGENCY RESPONSE PLAN (ERP) STAKEHOLDERS: ALTARES / FARRELL CREEK	
REGULATOR AUTHORITY :	BCER CENTRAL ZONE
LOCAL AUTHORITY :	PEACE RIVER REGIONAL DISTRICT
FIRST NATION / MÉTIS SETTLEMENT :	N/ A
LAW ENFORCEMENT :	RCMP: HUDSON'S HOPE
HEALTH AUTHORITY :	NORTHERN HEALTH
SPILL COOP :	WCSS: COOP 9
TRANSPORTATION/ HWY/ RAIL:	N/ A
AIRPORT ZONING AREA:	FORT ST. JOHN
TRAPPER :	TRAPPER: TR0731T005, TR0735T001, TR0735T002, TR0735T004, TR0735T005
GUIDE/ OUTFITTER:	GUIDE: 750015
GRAZING/ RANGE TENURE:	RAN073263, RAN076290
FOREST MANAGEMENT AREA:	PEACE NATURAL RESOURCE DISTRICT
PARK:	BULLHEAD MOUNTAIN RECREATION AREA



CLIENT FACILITY TYPE
- GAS PROCESSING PLANT
- CENTRAL TREATMENT PLANT
- CENTRAL PROCESSING FACILITY
- INJECTION PLANT
- COMPRESSOR
- PUMP STATION
- PIPELINE TERMINAL
- DEHYDRATOR
- WASTE PROCESSING
- METER STATION
- HEADER / RISER
- BATTERY
- SATELLITE
- CHECK VALVE
- BLOCK VALVE
- EMERGENCY SHUTDOWN VALVE
- PROPANE BULLET
- TANK

NON-CLIENT OPERATORS
- GAS PROCESSING PLANT
- FACILITY
- WELL
- PIPELINE

CLIENT PIPELINE TYPE
- OIL SOUR - OPERATING
- OIL SWEET - OPERATING
- OIL PRODUCTS - DISCONTINUED
- GAS SOUR - OPERATING
- GAS SWEET - OPERATING
- GAS PRODUCTS - DISCONTINUED
- WATER SOUR - OPERATING
- WATER SWEET - OPERATING
- WATER - DISCONTINUED
- HVP - OPERATING
- HVP - DISCONTINUED
- LVP - OPERATING
- LVP - DISCONTINUED
- STEAM / AIR - OPERATING
- STEAM / AIR - DISCONTINUED
- MISC - OPERATING
- MISC - DISCONTINUED

CLIENT WELL TYPE
- WELL - GAS
- WELL - OIL
- WELL - WATER SOURCE
- WELL - WATER INJECTION
- WELL - OBSERVATION
- WELL - LOCATION
- WELL - GAS SUSPENDED
- WELL - OIL SUSPENDED

SURFACE DEVELOPMENT
- RESIDENCE OCCUPIED
- BUSINESS OCCUPIED
- RESIDENCE SENSITIVE
- BUSINESS SENSITIVE
- RESIDENCE SEASONAL
- PUBLIC FACILITY
- STRUCTURE VACANT
- STRUCTURE ABANDONED
- STRUCTURE OUTSIDE OF EPZ

EMERGENCY RESPONSE
- EPZ (EMERGENCY PLANNING ZONE)
- IIZ (INITIAL ISOLATION ZONE)
- CEPA ZONE
- EPZ (EXISTING SYSTEM)
- EGRESS
- ERP ACCESS

- EVACUATION / RECEPTION CENTER
- EVACUATION ROUTE
- INCIDENT COMMAND POST
- STARS SITE
- FIRE HALL
- HOSPITAL
- MEDICAL CENTER
- SECURITY CHECKPOINT
- SCHOOL
- PLACE OF WORSHIP
- CEMETERY
- RAIL FACILITY
- INDUSTRY CAMP
- GRAVEL PIT
- STORAGE YARD
- GOLF COURSE
- CAMPGROUND
- CAMPGROUND PRIVATE
- CAMPGROUND UNDEVELOPED
- PICNIC / REST AREA
- CAMPSITE

GENERAL CULTURE
- ROADBLOCK
- DEAD END
- GATED ACCESS
- AIRPORT
- AIR STRIP
- HELI PAD
- FORESTRY TOWER
- OTHER TOWER
- COMMUNICATION TOWER
- AIR MONITORING SITE
- ELECTRICAL SUBSTATION
- RAIL CROSSING
- HISTORIC SITE
- WATER CROSSING
- BRIDGE
- WCSS CONTROL POINT
- CLIENT CONTROL POINT
- CONTROL POINT LABEL
- BOAT LAUNCH
- SOLAR FARM
- WIND FARM
- SPECIAL INTEREST GROUP
- HIGHWAY - PRIMARY
- HIGHWAY - SECONDARY
- MAIN ACCESS ROAD
- OTHER ACCESS
- RAIL
- LOCAL AUTHORITY
- LAW ENFORCEMENT
- HEALTH AUTHORITY
- REGULATOR AUTHORITY
- SPILL COOP
- NATURAL RESOURCE DISTRICT (B.C. Only)
- FOREST MANAGEMENT AREA (AB Only)
- WMU / GUIDE OUTFITTER
- TRAPLINE
- PROVINCE
- WATER
- POPULATED PLACE
- FIRST NATION / METIS SETTLEMENT
- RECREATIONAL AREA (AB Only)
- PARK / PROTECTED AREA
- GRAZING / RANGE TENURE
- LANDOWNER
- RIGHTS HOLDER
- MILITARY AREA
- FENCE BOUNDARY
- FACILITY BOUNDARY

PACIFIC CANBRIAM ENERGY

NEBC FIELD SUPPLEMENT 2024 ALTARES / FARRELL CREEK AREA MAP

BEHR Integrated Solutions
www.behrintegrated.com

Drawn By: TMV
Scale: 1:50,000 — Project No.: 14676
Map Projection: NAD 83 UTM 10 — Revision: 0 - SEPT. 2024

0 1 2 3 4 5 6 km

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Area Occupant Data

Confidential Data

Confidential data collected during the Public Involvement Program will only be included in manuals labelled as ***Confidential***.

All manuals will contain contact information for publicly listed data for area occupants within the HPZ that may include Trappers, Grazing Lease Holders and Industrial Operators. Refer to each site-specific area in the *Assets and Equipment Section* for this information.

The following reports are only included in copies of the confidential ERP:

Surface Development – Summary Report
- Includes contact information for all surface developments within the HPZ.
- Report sorted by Map Coordinates.

Special Needs Contacts within the EPZ – Summary Report
- Includes residents who have indicated they may require early response actions due to medical needs or communication barriers.
- Report sorted by Map Coordinates.

School / Student – Summary Report
- Includes children who may be in school during an incident.
- Report sorted by Map Coordinates.

Surface Development – Detail Report (per location)
- Includes all information pertaining to a specific location.
- The individual detail reports are sorted by Map Coordinates.

Surface Development – Summary Report (Alphabetical)
- Includes contact information for all surface developments within the HPZ.

Report is sorted Alphabetically.

Public Information Package

A public information package was prepared and delivered to area occupants during the public involvement process. A copy of the public information package is included in all manuals.

EPZ STAKEHOLDER SUMMARY REPORT

Pacific Canbriam Energy/Altares / Farrell Creek

The following report provides an overview of all Stakeholders identified within the Emergency Planning Zone, based on information gathered during the most recent Public Notification and Consultation Campaign, and other situational awareness data gathered during the most recent Emergency Response Plan update.

EMERGENCY PLANNING ZONE (EPZ) OVERVIEW	
Surface Developments within the EPZ	13
Occupants living / working within the EPZ (includes all Students)	446
Students attending school who live within the EPZ	3
Surface Developments with Sensitivities (There may be more than one sensitivity per Surface Development)	4

OCCUPANT SENSITIVITIES OVERVIEW (Sensitivities are identified for response activities and for consultation awareness)	
Aboriginal Community Member	0
Evacuation Assistance	0
Language / Comprehension Barrier	0
Not Contacted During Public Notification / Consultation Campaign	4
Other Special Needs	0
Potentially Contentious Occupant	1
Requires Early Notification	0
Sensitive to Industry Development	0

SURFACE DEVELOPMENTS OVERVIEW	
PRIVATE PROPERTY (Locations where people live)	
Residences – Abandoned	0
Residences – Not contacted	3
Residences – Occupied Full Time	1
Residences – Seasonal / Part Time	0
Residences – Vacant	0
Building - Unoccupied	0
Resident Surface Developments within the EPZ	4
Unoccupied Surface Developments within the EPZ	0

PUBLIC FACILITIES (Locations where members of the public may congregate)	
Airport/Airstrip	0
Boat Launch - Recreational	0
Camp site – Off-Road	0
Campground - Official	0
Campsite - Developed	0
Cemetery	0
Community Center	0
Evacuation / Reception Centre	0

Golf Course	0
Helispot	0
Hospital	0
Picnic / Rest Area	0
Place of Worship	0
Public Facility	0
School	0
Public Facility Locations within the EPZ	0

NON RESIDENT LAND USERS (Locations where people may be working)	
Business / Industrial Land Users	
Business	1
Other O&G Operator Battery	0
Other O&G Operator Camp	5
Other O&G Operator Compressor	2
Other O&G Operator Plant	1
Business / Other O&G Operator Locations within the EPZ	9

Other Land Users (Locations where people may be working periodically)	
Air Monitoring Site / Trailer	0
Electrical Sub Station	0
Gravel Pit	0
Guide / Outfitter	0
Landowner	0
Military / Base	0
Registered Trapline / Trapper	0
Rights Holder / Allotment User	0
Security Gate / Checkpoint	0
Solar Farm	0
Special Interest Group	0
Spill Control Point	0
Storage / Laydown Yard	0
Tower - Communication	0
Tower - Forestry	0
Tower - Other	0
Wind Farm	0
Other Non - Resident Land Users within the EPZ (This total does not include Businesses / Industrial Locations above)	0

ALTARES / FARRELL CREEK FIELD 2024 ANNUAL UPDATE

PUBLIC INFORMATION PACKAGE

OVERVIEW

Pacific Canbriam Energy Limited. is committed to protecting public safety and the environment. Our history as a company has demonstrated this commitment and our ability to safely conduct exploration and production operations.

As part of our ongoing safety program, we are contacting you to provide you with important information regarding our operations in your area.

Pacific Canbriam operates sweet and sour (H2S) wells, pipelines and facilities within the Peace River Regional District of Northeastern British Columbia.

The BC Energy Regulator (BCER) requires Pacific Canbriam to prepare and distribute an information package, detailing their operations, to all persons, residences, local authorities and publicly used facilities within and immediately adjacent to the Emergency Planning Zones associated with their area activities. This package is required to contain information about proposed or existing operations, the procedures in place to respond to an emergency and public protection measures.

EMERGENCY RESPONSE PLAN

An Emergency Response Plan (ERP) is a comprehensive plan designed to protect the public and includes criteria for assessing an emergency situation and procedures for mobilizing response personnel and agencies as well as procedures for establishing communications and the coordination of resources in the event of an incident. The extent of the information contained within the ERP is determined by the identified potential hazards.

The purpose of an ERP is to ensure a timely and effective response to emergencies in order to protect people, the environment, property and business. An ERP addresses the worst case emergency scenarios, potential hazards to the public, and systems required for adequate response.

HAZARD PLANNING ZONE (HPZ)

A HPZ is determined based upon the potential release rate calculated for a proposed well. Once a release rate has been established, a formula is used to determine the corresponding radius of the HPZ. This information is then incorporated into the creation of the ERP to deal with any events that might risk the safety and welfare of those inside the HPZ. The ERP must properly account for all of the individuals and assets found within this radius.

PACIFIC CANBRIAM 24 HOUR EMERGENCY NUMBER: 1.877.269.2877

PERSONAL INFORMATION & CONFIDENTIALITY

Consultations with residents and others in the EPZ to gather and/or confirm personal information is a BCER requirement for the purpose of preparing and maintaining an ERP. All information requested will be confidential and will be used solely in case of an emergency.

By providing the requested information, response plans can be designed with your particular circumstances in mind and will enhance communication, identify response priorities and improve Pacific Canbriam's ability to respond in the event of an emergency.

EMERGENCY CONTACTS

Thank you for taking the time to review this package. Should you have any further questions or concerns please feel free to contact any of the numbers below.

Pacific Canbriam Contact Information

Pacific Canbriam 24 Hour Emergency Number:	1.877.269.2877
Nauman Rasheed Chief Operating Officer	Bus: 403.817.9041
Zitin Lamba Manager, Operations	Bus: 403.817.9052 Ext 2152

BC Energy Regulator (BCER)

24-Hr Number Public Inquiry & Emergency Reporting Line	800.500.BCER (2237)
BCER 24 Hour Number Fort St. John	250.794.5200
BCER Emergency Operations Centre Fax Line	250.794.5385

Regional District

Peace River Regional District Dawson Creek Office Fort St. John Office	800.670.7773 250.784.3200 250.785.8084

Reception Centres

Ramada by Wyndham Northern Grand Hotel & Conference Centre	9830 100 Avenue Fort St. John, BC	250.787.0521
Stillwater Inn & Suites	9504 Canyon Drive Hudson's Hope, BC	250.783.5400

CALL OR CLICK BEFORE YOU DIG!
800.474.6886
WWW.BCONECALL.BC.CA

ABOUT SOUR GAS

Hydrogen Sulphide (H_2S) is a colourless, flammable, toxic gas. It affects people differently depending on concentration and length of exposure. At very low concentrations it has an offensive odour (similar to rotten eggs); however, it is undetectable by odour at higher concentrations. A person can be exposed to H_2S concentrations of up to 1 part per million for up to 8 hours (government exposure limits) without a breathing apparatus.

In the unlikely event of an emergency, the ERP will be activated and the safety of the public will be maximized through evacuation, sheltering or ignition procedures. If you suspect H_2S or SO_2 in the air please remain indoors and contact the Pacific Canbriam 24 hour emergency number on the first and last page of this package.

HYDROGEN SULPHIDE (H_2S)

- Found in decaying organic matter, natural oil and gas, silos and sewers
- Found at gas temperatures above -60°C
- Flammable – burns to form SO_2
- Odour of rotten eggs at low concentrations- kills all sense of smell at higher concentrations
- Will tend to disperse more slowly in sheltered or calm low lying areas
- Extremely toxic
- At lower concentrations (20-50 ppm) irritates mucous membranes (eyes, throat, lungs), causes headaches, dizziness, nausea, may cause pulmonary edema (fluid in the lungs) upon prolonged exposure
- High concentrations (500-1000 ppm) may cause paralysis of the respiratory centre in the brain – breathing stops, suffocation begins

GENERAL HEALTH EFFECTS OF H_2S

Concentration	Effects
0.01-0.3 ppm	Detectable by odour.
1-5 ppm	Moderate to strong offensive odour may cause nausea, tearing of the eyes, headaches or loss of sleep upon prolonged exposure. Effects are moderate.
10 ppm	Ceiling limit. (WorkSafe BC)
20-50 ppm	Slight eye and lung irritation. May cause eye damage after several days of exposure, may cause digestive upset and loss of appetite.
100 ppm	Eye and lung irritation.
150 ppm	Kills sense of smell, severe eye and lung irritation.
500 ppm	Serious damage to eyes within 30 minutes, severe lung irritation, unconsciousness and death within 4 to 8 hours.
1000 ppm	Breathing stops within 1 or 2 breaths.

It is important to note that burning sour gas turns the H_2S to Sulphur Dioxide (SO_2). The heat from the fire will carry the SO_2 and smoke up into the air where it will be dispersed over a large area. By the time the SO_2 comes back to ground level, the concentrations would normally only be detectable with the use of an electronic gas detection monitor. These levels should be well below the levels that provincial environment regulations accept.

EVACUATION - CONTINUED

Evacuation of the public outside the EPZ is mandatory when H_2S levels reach 10 ppm in un-evacuated areas. Pacific Canbriam will provide air monitoring, starting at a Level 1 Emergency, to determine H_2S levels.

As public safety is the primary goal during an incident, primary response efforts will be concentrated on members of the public. Response efforts for livestock and pets will be addressed at the time of incident based on the response needs and responder capabilities.

SHELTER IN PLACE

Shelter in place is the practice of remaining indoors during a sudden outdoor release of a hazardous substance.

Shelter in place is not a viable option for recreational users or transients, due to their inability to safely shelter.

Shelter in Place Instructions

- Immediately gather everyone indoors and remain there.
- Close and lock all windows and outside doors – if possible, tape the gaps around the door frames.
- Extinguish indoor wood burning fires - if possible, close the damper.
- Turn off appliances or equipment that either uses inside air, blows out inside air or sucks in outside air, such as:
  - Stoves
  - Fireplaces
  - Clothes dryers
  - Air conditioners
  - Bathroom and kitchen fans
  - Built in vacuum systems
- Turn off heat and hot water pilot lights.
- Leave all inside doors open.
- Wait in an interior upstairs room.
- Avoid using the telephone, except for emergencies, so that you can be contacted by emergency personnel.
- Stay tuned to local radio for possible information updates or for further instructions.
- Even if you see people outside do not leave until told to do so.
- If you are unable to follow these instructions, please notify company emergency response personnel.
- After the hazardous substance has passed through the area you will receive an all clear message from emergency response personnel along with instructions to:
  - Ventilate your building by opening all windows and doors.
  - Turn on fans, turn up thermostats, and furnace circulating fans.
- Once the building is completely ventilated return all equipment to normal.

IGNITION

If safety of the public cannot be assured by evacuation or sheltering, the sour gases escaping from the well will be ignited, this results in the H_2S being burned and converted to sulphur dioxide (SO_2).

- Ignition must take place when one of the following conditions has been met:
- Although required, evacuation of the response zones has not taken place.
- Monitoring results indicate H_2S concentrations in excess of 10 ppm over a 3-minute average in un-evacuated parts of the EPZ.
- Monitored H_2S concentrations exceed 1 ppm (1-hour average) in urban density developments.
- Monitoring is not taking place due to weather or other unforeseen circumstances.
- The release cannot be brought under control in the short term.

EPZ CALCULATIONS

H_2S EPZ CALCULATIONS:	MIN.	MAX.
Cumulative Release Volumes	0 m^3	0 m^3
H_2S Release Rates	0 m^3/s	0.0138 m^3/s
H_2S Concentrations	0 %	9.97 %
Hazard Planning Zones	0 m	192 m

LEVELS OF EMERGENCY

Level 1 - Moderate Emergency – ERP is activated

There is no immediate danger to the public or environment as no H_2S has been released; and the emergency is confined to the lease or company property. A Level 1 Emergency is declared at the earliest sign of difficulty controlling the well and when all problems are contained within the well site area. These problems are usually handled without difficulty using techniques and equipment readily available on site. A Level 1 Emergency creates little or no media interest.

Level 2 – Major Emergency – ERP is activated

There is the potential for risk to the public or environment, as the emergency could extend beyond company property. However, control is still possible. A Level 2 Emergency creates local or regional media interest and outside and provincial agencies must be notified.

Level 3 - Serious Emergency – ERP is activated

There exists an immediate danger to the public or environment as control of the situation has been lost. A Level 3 Emergency creates Provincial or National media interest and immediate multi-agency and provincial government involvement is required.

PUBLIC PROTECTION

In the unlikely event that an emergency situation occurs which causes or creates a potentially dangerous situation to occupants within the EPZ, the best method of public protection would be implemented. Depending on an incident's specifics, Pacific Canbriam will implement the following method(s) of public protection.

EVACUATION

In case of a Level 1 Emergency, those residents/occupants who may require additional time to evacuate or cannot safely shelter in place will be contacted, advised of the situation and informed of the proper reception centre to evacuate to. A list of reception centres is provided at the back of this package.

In the event of a Level 2 or 3 Emergency, all residents/occupants within the EPZ would be contacted and instructed to evacuate immediately to the Reception Centre.

Pacific Canbriam will provide you with the safest route out of the emergency area to the Reception Centre. If you require assistance to evacuate, Pacific Canbriam personnel will be available to assist you. Upon arrival at the Reception Centre, please check in with the Pacific Canbriam representatives as they will be available to answer any questions or concerns you may have.

If you choose not to go the Reception Centre, we ask that you please tell the Pacific Canbriam representative where you are going and provide updated contact information so that we may confirm your safety and keep you informed. You will be advised when it is safe to return home. Pacific Canbriam will provide you with a Claims Form so that you can be reimbursed for reasonable out-of-pocket expenses resulting from the evacuation.

SULPHUR DIOXIDE (SO_2)

- Formed by the combustion of H_2S or sulphur and is non-flammable
- Found as a gas at temperatures above -10°C
- Has the odour that occurs when a wooden match is extinguished
- Highly irritating – dissolves to form sulphuric acid
- At lower concentrations irritates eyes, nose and throat, causes difficulty in breathing and shortness of breath
- Causes pulmonary edema at high concentrations – may be fatal
- Effects on heavy smokers are more severe

GENERAL HEALTH EFFECTS OF SO_2

Concentration	Effects
0.13 ppm	24 hour evacuation level (MWLAP Level B criteria).
0.34 ppm	One hour average evacuation level (MWLAP Level B criteria).
2 ppm	Eight hour Occupational Exposure Limit (WorkSafeBC).
3-5 ppm	Odour threshold.
5 ppm	15 minute Occupational Exposure Limit (WorkSafeBC).
8-12 ppm	Throat irritation, coughing, constriction in chest, tearing and smarting of the eyes.
10-50 ppm	Exposure 5 -15 minutes: increased irritation of the eyes, nose, throat, choking, coughing and in some cases, wheezing as a sign of narrowing of the airways (which increases the resistance of the air-flow).
150 ppm	Short–term endurance lost due to severe eye irritation and because of the effects on the membranes of the nose, throat and lungs.
500 ppm	Highly dangerous after an exposure of 30-60 minutes.
1000-2000 ppm	May be fatal with continued exposure.

CEPA E2

The Canadian Environmental Protection Act, 1999 - Environmental Emergency (CEPA E2) Regulations aim at enhancing the protection of the environment and human health in environmental emergency situations by promoting prevention and ensuring preparedness, response and recovery.

The Regulations contain a list of substances and other hazardous substances which, if they enter the environment as a result of an environmental emergency:

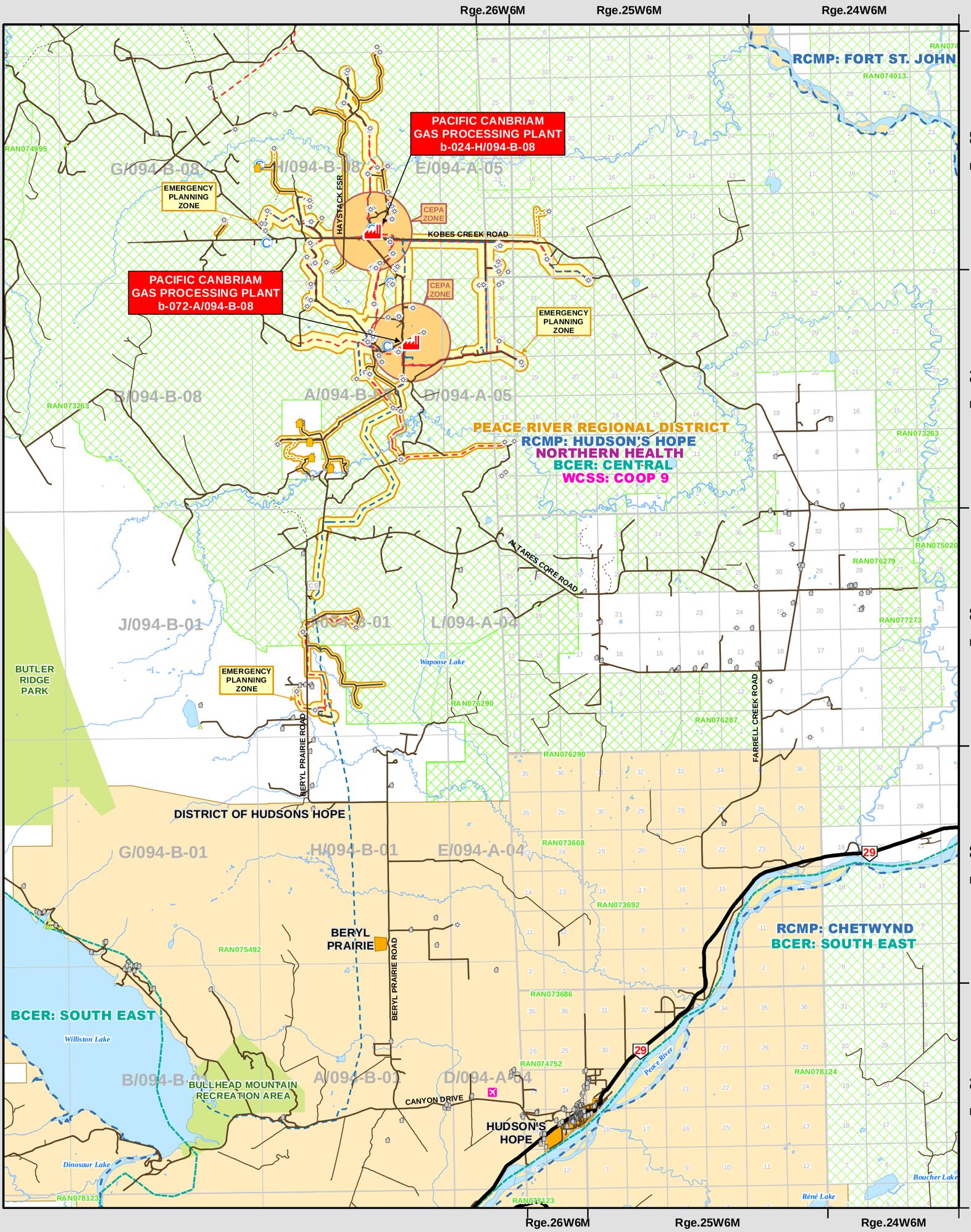
- Have or may have an immediate or long-term harmful effect on the environment or its biological diversity.
- Constitute or may constitute a danger to the environment on which human life depends, or Constitute or may constitute a danger in Canada to human life or health.

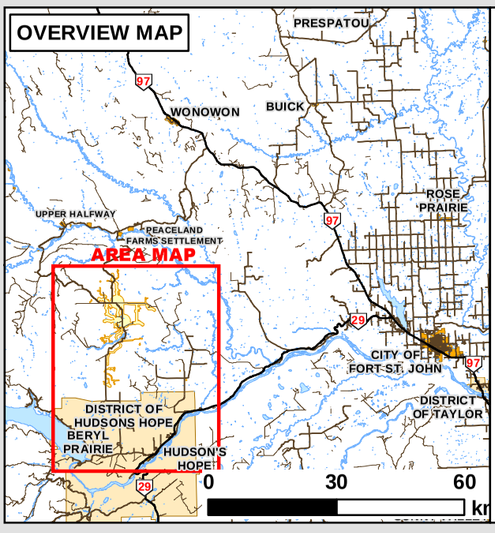
Any person in Canada who owns or manages a listed substance in a quantity at or over the prescribed minimum quantity is required to provide Environment and Climate Change Canada (ECCC) with information on the quantity of the substance, along with the facility location, a report that an environmental emergency plan has been prepared and a notice indicating that the emergency plan has been implemented within 90 days, six months and one year of the coming into force of the Regulations, respectively.

The emergency plan will have to address the types of emergencies that might reasonably occur, including both on-site and off-site consequences, and the associated prevention, preparedness, response and recovery issues

SUMMARY OF OPERATING CONDITIONS

CEPA Isolation Zone for a Large Spill	800 m
CEPA Isolation Zone & Evacuation Zone for a Fire	1600 m





CLIENT FACILITY TYPE
- GAS PROCESSING PLANT
- COMPRESSOR
- PIPELINE TERMINAL
- BATTERY
- WELL
- STRUCTURE INSIDE OF EPZ
- STRUCTURE OUTSIDE OF EPZ
- EPZ (EMERGENCY PLANNING ZONE)
- CEPA ZONE

CLIENT PIPELINE TYPE
- OIL SOUR - OPERATING
- OIL SWEET - OPERATING
- OIL PRODUCTS - DISCONTINUED
- GAS SOUR - OPERATING
- GAS SWEET - OPERATING
- GAS PRODUCTS - DISCONTINUED
- WATER SOUR - OPERATING
- WATER SWEET - OPERATING
- WATER - DISCONTINUED
- HVP - OPERATING
- HVP - DISCONTINUED
- LVP - OPERATING
- LVP - DISCONTINUED
- STEAM - OPERATING
- STEAM - DISCONTINUED
- MISC - OPERATING
- MISC - DISCONTINUED

GENERAL CULTURE
- EVACUATION CENTER
- EVACUATION ROUTE
- FIRE HALL
- HOSPITAL
- MEDICAL CENTER
- SCHOOL
- PLACE OF WORSHIP
- CEMETERY
- INDUSTRY CAMP
- GRAVEL PIT
- STORAGE YARD
- GOLF COURSE
- CAMPGROUND
- DEAD END
- GATED ACCESS
- AIRPORT
- AIR STRIP
- FORESTRY/OTHER TOWER
- COMMUNICATION TOWER
- SOLAR FARM
- WIND FARM
- HIGHWAY - PRIMARY
- HIGHWAY - SECONDARY
- MAIN ACCESS ROAD
- OTHER ACCESS
- RAIL
- LOCAL AUTHORITY
- LAW ENFORCEMENT
- HEALTH AUTHORITY
- REGULATOR AUTHORITY
- PROVINCE
- WATER
- POPULATED PLACE
- FIRST NATION / MÉTIS SETTLEMENT
- PARK/PROTECTED AREA
- MILITARY AREA

PACIFIC CANBRIAM ENERGY

NEBC FIELD OPERATIONS SUPPLEMENT 2024
ALTARES / FARRELL CREEK AREA MAP
PUBLIC INFORMATION HANDOUT MAP

BEHR Integrated Solutions
www.behrintegrated.com

Drawn By: TMV
Scale: 1:150,000 — Project No.: 14676
Map Projection: NAD 83 UTM 10 — Revision: 0 - SEPT. 2024

0 2.5 5 7.5 10 km

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ALTARES b-24-H/94-B-8 FACILITY

PACIFIC CANBRIAM ENERGY

PACIFIC CANBRIAM ENERGY LIMITED
24 HOUR EMERGENCY LINE: 1.877.269.2877

Pacific Canbriam Energy Limited Head Office	403.269.2874 Fax: 403.269.7637	2100, 215 – 2 Street SW, Calgary, AB T2P 1M4
Fort St. John Field Office	250.785.8322	10628 Peck Lane Fort St. John, BC

FORT ST. JOHN OFFICE CONTACT NUMBERS

Jeleena Cawley	Bus: 250.785.8322 Ext. 1 → Ext. 2	Cell: 250.948.8386
Reception or Administrative Support	Bus: 250.785.8322 Ext. 1 → Ext. 1	
Conference Room	Bus: 250.785.8322 Ext. 1 → Ext. 4	
SUPERINTENDENTS		
Steve Gonwick	Bus: 250.785.8322 Ext. 4 → Ext. 2	Cell: 250.793.8000
Cole Tymchuk	Bus: 250.785.8322 Ext. 5 → Ext. 2	Cell: 780.712.1984
ALTARES b-24-H PLANT		
b-24-H Control Room	Bus: 250.785.8322 Ext. 2 → Ext. 1	
b-24-H Field Office	Bus: 250.785.8322 Ext. 2 → Ext. 2	
b-24-H Conference Room	Bus: 250.785.8322 Ext. 2 → Ext. 3	
b-24-H Camp/On Call	Bus: 250.785.8322 Ext. 2 → Ext. 4	
ALTARES b-73-A CAMP		
b-73-A Camp	Bus: 250.785.8322 Ext. 8	780.940.2434
c-62-A WATER PLANT		
c-62-A Water Hub	Bus: 250.785.8322 Ext. 4	
Water Hub Lead Corey Reschke	Bus: 250.785.8322 Ext. 7	250.783.0603

CORPORATE CONTACTS

Chief Operating Officer	Nauman Rasheed	403.817.9041 Ext. 2141 403.899.0339
Manager, Production & Facilities	Jeff Pakish	403.817.9048 Ext. 2148 403.512.1293
Manager, Drilling & Completions	Steve Bernard	403.300.2434 Ext. 2434 403.519.8442
Manager, Operations	Zitin Lamba	403.817.9052 Local 2152 403.618.6166
Sr. Environmental Coordinator	Jason Zurkan	403.866.6115

FACILITY DESCRIPTION

The Altares facility is located at b-24-H/94-B-8. The Facility is sweet; it produces natural gas, LPG's, and condensate. The Facility is manned 12 hours/day. The plant can also be monitored remotely at the b-72-A control room 24 hours/day. The wells have remote shut down capability. There are a minimum of two operators in the PCE Operations camp available for any call-out's.

The Altares b-24-H plant consists of:
- Inlet separation
- Inlet compression
- 3 sales compressors
- Flare-stack
- Water transfer and storage
- Condensate Storage – 5 tanks each 750 bbl capacity; 1 tank 1,000 bbl capacity
- Office building, control room
- LPG storage – 5 bullets each 2500 design bbl capacity (storage capacity is approximately 80% of tank design capacity ≈ 2000 bbl each)
- Shallow Cut Refrigeration Plant
- Stabilization unit – 1 - 1,000 bbl/day

The Facility handles gas from the immediate area and delivers the gas into the Spectra T-North system at d-28-H/94-B-8.

LPG's (C3+) are separated from the gas stream and are stored on location in five (5) 2500 bbl LPG storage tanks. The LPG is transported via pipeline to Pembina (b-24-H). Produced water is then transferred to the c-62-A water hub via pipeline.

EPZ INFORMATION

The facility has an EPZ of 192 m. A 1.60 km Canadian Environmental Protection Act (CEPA) Hazard Zone has been assigned around the Altares b-24-H plant.

ON-SITE STORAGE

Condensate Storage:
- 5 tanks each 750 bbl capacity
- 1 tank 1,000 bbl capacity

LPG storage:
- 5 bullets each 2500 bbl capacity

NEAREST URBAN CENTRE / DWELLING

The nearest urban centre is the Halfway I.R located 17.50 km.
The nearest occupied dwelling is 0.95 km north of the b-24-H facility.

LAND USE / TERRAIN

Pacific Canbriam's operations are located in forested areas west and north-west of Fort St. John on the eastern slopes of the Rocky Mountains with average elevation of 1200 metres. These areas are predominantly used by trappers, grazing lease holders, forest management and for seasonal recreation such as hunting and fishing.

HYDROLOGY

There are several unnamed creeks are within the area.

HIGHWAYS

No highways intersect with the hazard zone in this field.

SITE ACCESS

Refer to access map on the following pages.

OTHER AREA OPERATORS & TIE-INS

OIL & GAS

PETRONAS Energy	844.299.2566
Plateau Pipelines / Pembina	800.360.4706

TIE-INS*

There are no tie-ins with the above-mentioned companies.

SAFETY EQUIPMENT

OPERATOR / TRUCK SAFETY EQUIPMENT

Operator field trucks will carry personal protective equipment, first aid kits and fire extinguishers.

NOTIFICATION

Operators attend to the b-24-H facility is manned 12 hours/day. The plant can also be monitored remotely at the b-72-A control room 24 hours/day. The wells have remote shut down capability. There is a minimum of 2 operators in the PCE Operations Camp available for call-out's.

COMMUNICATIONS

Cellular telephones are the primary communication devices to be employed during an emergency. Cellular reception and coverage is good in the Altares and Farrell Creek areas.

RADIO FREQUENCIES

All operators truck radios will be programmed with the Pacific Canbriam Altares Field VHF Radio Frequency. Plant operators will use programmed handheld personal radios for communications within plant boundaries.

Pacific Canbriam Radio Frequencies

b-24-H Plant / Pacific Canbriam Altares Field VHF	TX168.3000	RX162.945
b-72-A Plant UHF	TX459.5000	RX459.5000

Area Radio Frequencies

The frequencies and tones listed below should be programmed into all Pacific Canbriam contractors, representatives, and personnel's mobile radios in order to communicate with repeaters in each area.

Kobes Creek Road from km 24.5 to km 46.3	RR 08 – 150.4400
Beryl Prairie Road (entire length)	RR 03 – 150.1400
Haystack Road (entire length)	RR 13 – 150.530
The Core Road (entire length)	RR 04 – 150.1850
Camp Road	RR 21 – 151.010
The West Altares Road	RR 03 – 150.140
33 Access Road	RR 29

ROADBLOCK KITS / IGNITION KITS

Pacific Canbriam will establish roadblocks at the edge of the 100 m EPZ and evacuate the area in the event of an incident. Roadblocks for pipelines would tend to be short term while the line is shut down and depressurized.
At Pacific Canbriam discretion the setback distance may be reduced if supported by LEL monitoring results.

Roadblock and Mobile Helicopter Landing Pad Kits, if required, would be obtained from **the b-72-A Facility** and dispatched at a Level 1 Emergency. The number of Rovers, Roadblocks and Air Monitors required to be determined at the time of incident. Refer to the ERP cabinet for specific kit locations.

Roadblock Kits

Stop paddle, reflective traffic vest, amber beacon, flashlight with spare batteries, reflective barricade, personal electronic monitor (minimum tri-head), self-contained breathing apparatus, radio (public protection frequency, truck or portable), area map and hard hat.

Mobile Helicopter Landing Pad Kits

Air traffic wands, turbo flares, road flares, reflective flares, reflective PPE & pylons.

AGENCY CONTACTS

IMMEDIATE CONTACT REQUIRED AT ANY LEVEL OF EMERGENCY:

BC Energy Regulator (BCER) – Incident Reporting Line (via EMCR)		800.663.3456
Emergency Management and Climate Readiness (EMCR)		
BCER 24 Hour Line	Fort St. John	250.794.5200
WorkSafe BC		888.621.7233

IMMEDIATE CONTACT REQUIRED IF ANY RESIDENTS ARE CONTACTED AT LEVEL 1 OR HIGHER:

RCMP	Hudson's Hope	911 250.783.5241
Peace River Regional District	Dawson Creek	800.670.7773 250.784.3200
Northern Health Authority	HEMBC On Call	855.554.3622

PROVINCIAL GOVERNMENT CONTACTS

BC One Call	Call Before You Dig	800.474.6886
BC Drug & Poison Information Centre	BC DPIC	800.567.8911
BC Ministry of Environment & Climate Change Strategy	Peace Region	250.787.3411
	Report Poachers & Polluters	877.952.RAPP (877.952.7277)
BC Ministry of Forests	Peace Natural Resource District	250.784.1200
BC Ministry of Transportation & Infrastructure	Peace District Office North Peace Contractor	250.787.3237 800.842.4122
CANUTEC	Dangerous Goods Emergencies	888.226.8832 613.996.6666 From Cell: *666
Emergency Response Assistance Canada (ERAC)	(ERP2-0010-364)	800.265.0212
NAV Canada	Flight Information Center	866.541.4101
Public Works Association of BC (PWABC)	executivedirector@pwabc.ca	
Technical Safety BC		866.566.7233
WorkSafe BC		888.621.7233

EMERGENCY SERVICES

AMBULANCES

Air Ambulance (STARS)	Emergency Link	888.888.4567
	#3687 – PCE b-72-A/94-B-08	
BC Ambulance Services	Fort St. John	911 800.461.9911
BC Emergency Health Service	Cell / SAT phone/ Outside BC	250.374.5937
Bailey Helicopters Ltd.	Fort St. John	250.785.2518

HOSPITALS

Chetwynd Hospital and Health Centre	Chetwynd	250.788.2236
Dawson Creek & District Hospital	Dawson Creek	250.782.8501
Fort St. John Hospital and Peace Villa	Fort St. John	250.262.5200
Fort St. John Health Unit	Fort St. John	250.263.6000
Hudson's Hope Health Center	Hudson's Hope	250.783.9991

FIRE DEPARTMENTS

Hudson's Hope Fire & Rescue		911 250.783.9901

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ALTARES b-24-H/94-B-8 FACILITY

SERVICE CONTRACTORS

MOBILE AIR MONITORING		
Firemaster Oilfield Services	Central Dispatch	403.342.7500
HSE Integrated Ltd.	Province Wide	888.346.8260
Trojan Safety Services	Central Dispatch	250.785.9557
OILFIELD FIRE FIGHTING / SAFETY CONTRACTORS / WELL CONTROL SPECIALISTS / IGNITION		
Firemaster Oilfield Services	Central Dispatch	403.342.7500
HSE Integrated Ltd.	Province Wide	888.346.8260
Safety Boss	24 Hour Emergency	800.882.4967
Superior Fire Control Ltd.	24 Hour Emergency	877.882.0035
CRISIS COMMUNICATIONS		
Petron Communications	Fort St. John	250.785.3333
T&T Communications	Fort St. John	250.785.0310
SAFETY SERVICES		
HSE Integrated Ltd.	Province Wide	888.346.8260
Trojan Safety Services	Central Dispatch	250.785.9557
United Safety Ltd.	Central Dispatch	800.432.1809
SPILL RESPONSE		
Emergency Response Assistance Canada (ERAC)	(LPG Spills Only) AB/BC	800.265.0212
Clean Harbors	Province Wide	800.645.8265
Troyer Ventures Ltd.	Fort Nelson Fort St. John	250.774.5332 250.785.5332
Ambipar Response	Fort St. John	866.574.7928
BULK FUEL DELIVERY		
Smith Fuel Services	24/7 Dispatch	250.785.3466
TRUCKING COMPANIES		
Cascade Energy Services LP	24 Hour Dispatch	780.876.8900
CEDA	24 Hour Dispatch	250.784.5151
D.W Wilson Services Ltd.	Fort St. John	250.785.7737
Energetic Services Inc.	Fort St. John	250.785.4761
Fedderly Transportation Ltd.	Fort St. John	250.787.0398
Formula Powell L.P. Trucking	Fort St. John	250.785.4222
Fort St. John Water Inc	Fort St. John	250.785.0862
Maxim Industries Inc.	Fort St. John	250.785.7775
Oculus Transport Ltd	Fort St. John	250.264.2252
Raven Oilfield Rentals	Fort St. John	800.799.7188
Troyer Ventures Ltd.	Fort Nelson Fort St. John	250.774.5332 250.785.5332

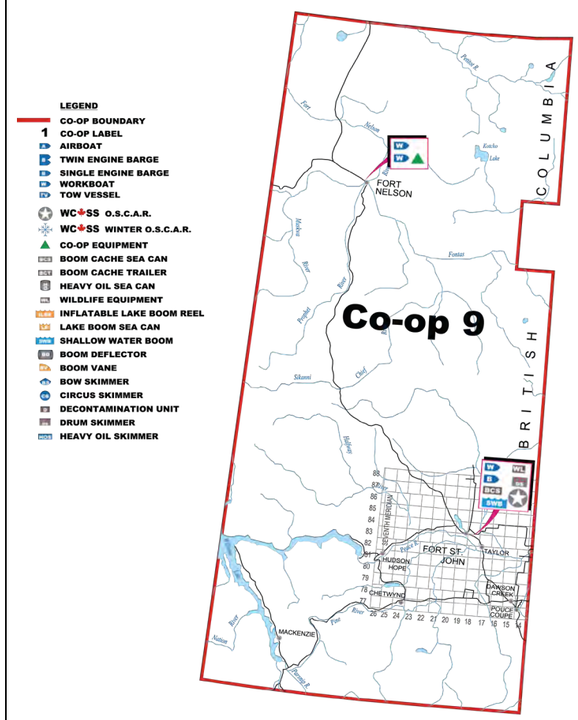
SERVICE CONTRACTORS (Continued)

UTILITIES		
ATCO Electric	Province Wide	800.668.5506
BC Hydro	Province Wide	888.769.3766
Telus	Province Wide	310.2255 *611
ELECTRICAL / INSTRUMENTATION CONTRACTOR		
CDN Controls Ltd.	Fort St. John	855.530.8151
Epscan Industries Ltd.	Fort St. John	250.787.9659
Techmation Electric & Controls	Fort St. John	250.261.6532
PTW Energy Services	Dawson Creek	250.782.6909
ENVIRONMENTAL SERVICES		
Clean Harbors (WCSS Spill Response Trailer)	Fort St. John	250.785.4577
Roy Northern Land & Environmental	Fort St. John	250.261.6644
Matrix Solutions Inc	24 Hour Spill Response	877.774.5525
Eco-Web Ecological Consulting	Fort St. John	250.787.1110
EMERGENCY RESPONSE MANAGEMENT		
Behr Integrated Solutions	Calgary	403.444.6940
TRANSPORTATION		
Diversified Transportation Ltd.	Prince George	250.563.5431 250.617.7710
Standard Bus Contracting Ltd	Chetwynd	250.788.2415
Avis Car and Truck Rental	Fort St. John Grande Prairie	250.785.5515 780.539.4101
Driving Force	Fort St. John Grande Prairie	250.787.0634 780.814.9596
HELICOPTER COMPANIES		
Qwest Helicopters	Fort Nelson	250.774.5302
Bailey Helicopters	Fort St. John	250.785.2518
Yellowhead Helicopters	24 Hour Emergency Fort St. John	888.566.4401 250.785.2331
ROAD SERVICES		
Dawson Road Maintenance Ltd.	Fort St. John	800.842.4122
Argo Road Maintenance (South Peace) Inc.	Dawson Creek – Pouce Coupe	800.663.7623
PILOT HOT SHOT AND TRAFFIC CONTROL		
Big League Oilfield Services	Fort St. John	250.787.9812
Peace Hot Shot & Picker Services	Fort St. John	250.785.8432
Energetic Traffic Control	Fort St. John	250.793.3331
PUMPING SERVICES		
BJ Energy Solutions	Clairmont	780.539.5210
Trican Well Service	Fort St. John	888.989.8975

SERVICE CONTRACTORS (Continued)

WCSS **See website for more info (www.wcss.ab.ca)*

COOP 9	
24 Hour Emergency Contact	866.541.8888
Regional Custodian	
North River Midstream Carl Reimer	250.262.3446 250.262.3456
Equipment is located at North River Midstream: 13217 Westcoast Frontage Charlie Lake, BC V0C 1H0 Mile 53 Alaska Hwy	
COOP Custodian	
Troyer Ventures Ltd.	250.774.5332
Equipment is located at 4850 - 46 Avenue Fort Nelson, BC V0C 1R0	



Equipment Summary	Transport Requirements
52' OSCAR Trailer	Semi-truck
40' Boom Cache Sea Can	Winch tractor / Trailer
20' Wildlife Sea Can	Winch tractor / Trailer
Work Boat	½-ton truck w/ 2" ball hitch
Drum Skimmer w /Power Pak	½-ton truck
Single Engine Barge	1-ton truck w/ 2-5/16" ball hitch & electric brakes
400' Shallow Water Boom	½-ton truck

RANGE TENURE

ID	COMPANY / NAME	EMERGENCY
RAN073263	Ray Jackson (Horseshoe Creek Outfitters)	250.783.0561 250.263.1919

TRAPPERS

TRAPPER ID	NAME	EMERGENCY
735T004	Anilee Rose Anderson	250.793.9273
735T004	Allen George Chatten	N/A
735T004	Bryan Dale Chatten	N/A
735T004	Allen Dean Chatten	N/A

GUIDES & OUTFITTERS

ID	COMPANY / NAME	EMERGENCY
701264	Ray Jackson (Horseshoe Creek Outfitters)	250.783.0561 250.263.1919

RIGHTS HOLDERS

ID	COMPANY / NAME	EMERGENCY
Forest Tenure	CANFOR	250.782.3302

SURFACE DEVELOPMENT INFORMATION

There are 2 surface developments inside the CEPA Hazard Zone.

In the event of an incident, ensure all members of the public are notified and provided with response information. If required use rovers and roadblocks to clear and isolate the areas in close proximity to the incident.

UNIQUE FEATURES AFFECTING EMERGENCY RESPONSE

None

RECEPTION CENTRES

Northern Grand Hotel	9830 100 Avenue Fort St. John, BC V1J 1Y5	250.787.0521
Stillwater Inn & Suites	9504 Canyon Drive Hudson's Hope, BC V0C 1V0	250.783.5400

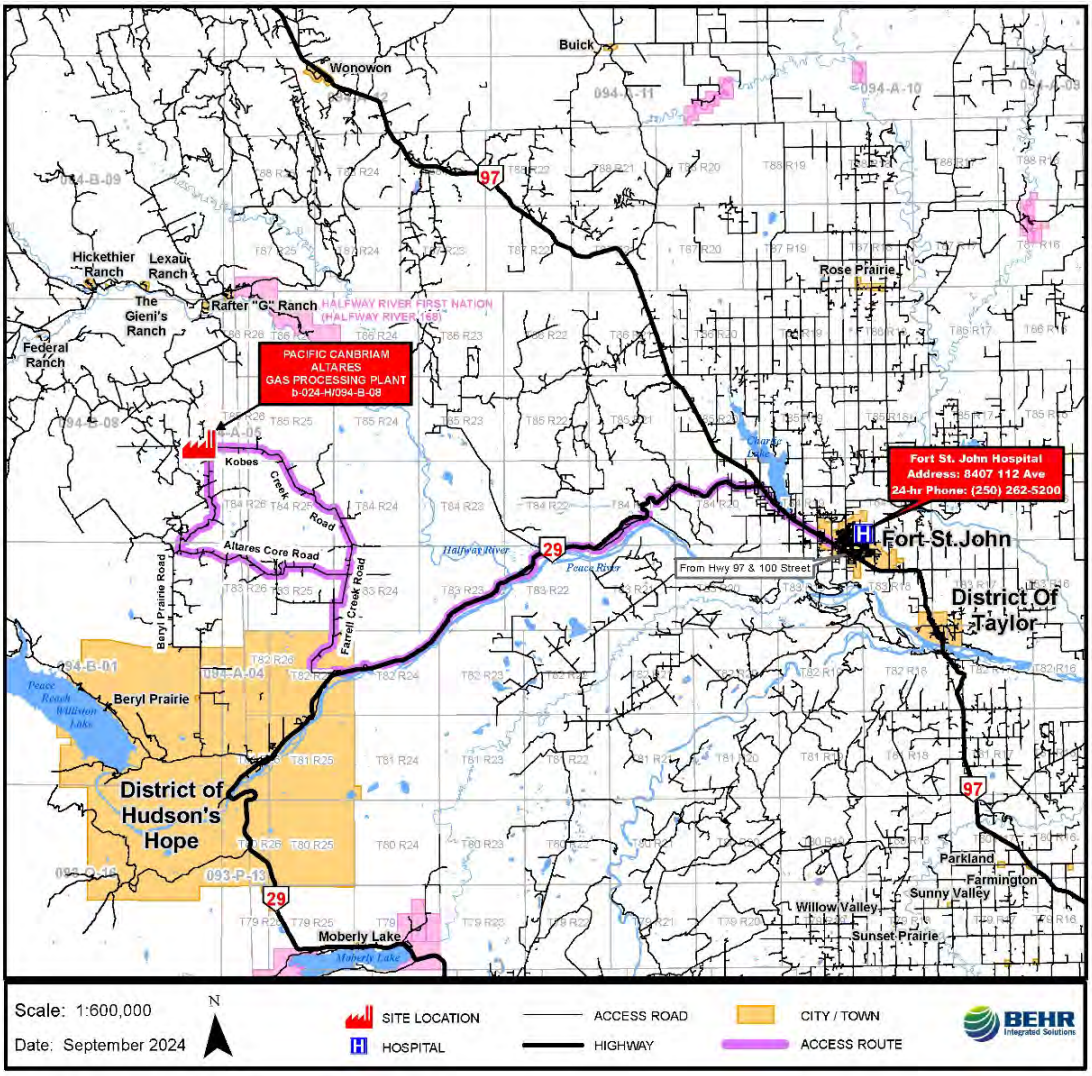
To Altares Gas Plant b-024-H / 94-B-08 – Total Distance 116 km

From Intersection of Hwy 97 and 100th Street, Fort St. John, BC

- Travel northwest on Hwy 97 for 12.5 km to Hwy 29 (Don Phillips Way).
- Turn left and travel southwest on Hwy 29 for 60.8 km.
- Turn right and travel west (then north) on Farrell Creek Road for 23.8 km.
- Continue travelling northwest onto Kobes Creek FSR for 20.5 km (preferred route).
- Turn right onto access road and travel north for 0.2 km into facility.

Or

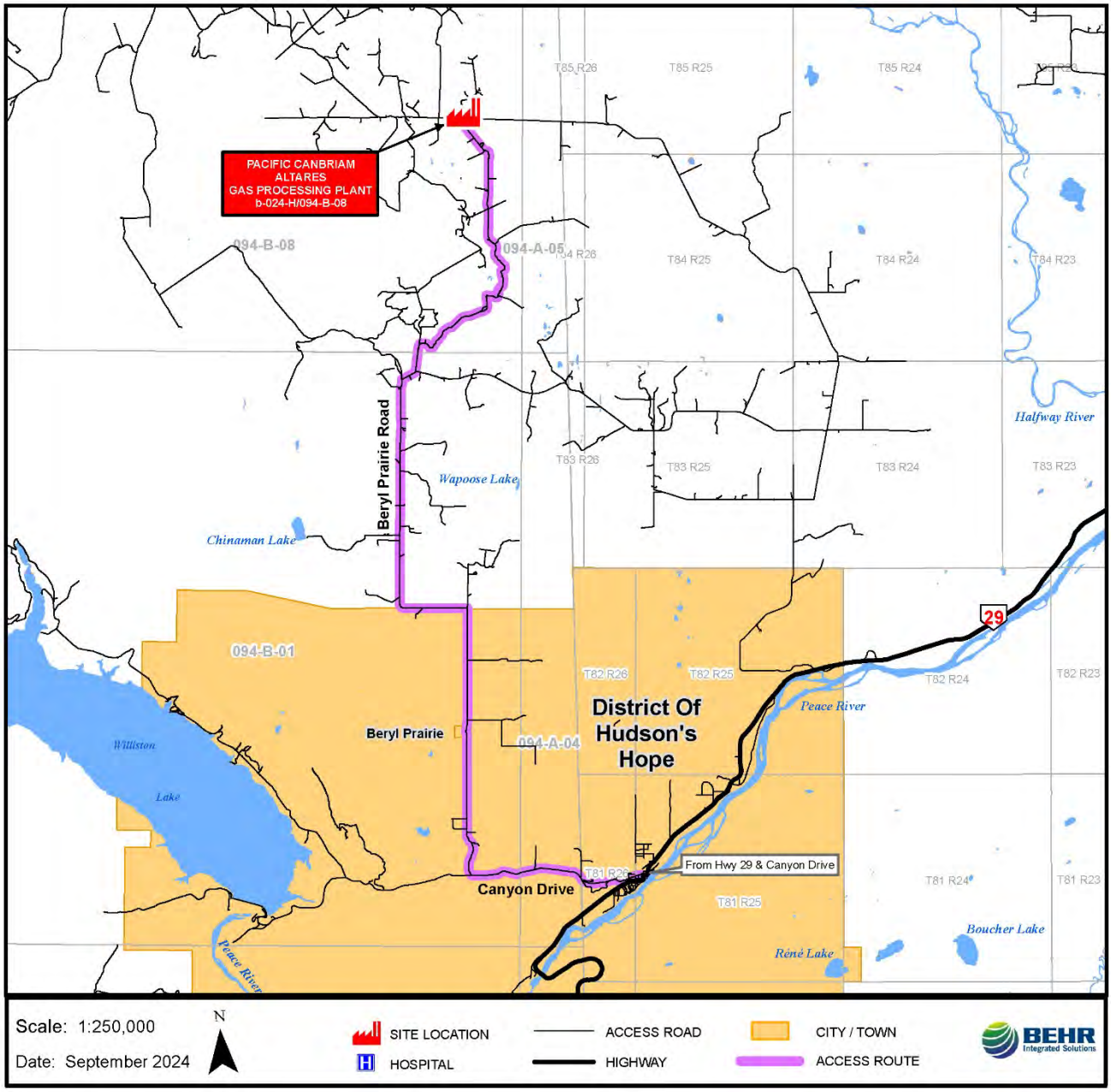
- Travel northwest on Hwy 97 for 12.5 km to Hwy 29 (Don Phillips Way).
- Turn left and travel southwest on Hwy 29 for 60.8 km.
- Turn right and travel west (then north) on Farrell Creek Road for 17.0 km.
- Turn left and travel west on Altares Core Road for 8.9 km.
- Continue west on Progress Connector for 0.8 km.
- Continue west on PDR 623 Progress Farrell Core Road for 11.5 km.
- Turn right and travel north on Beryl Prairie Road for 5.0 km.
- Continue north on Beryl Prairie FSR for 11.0 km.
- Turn right and travel east on Kobes Creek Road for 0.3 km.
- Turn right onto access road and travel north for 0.2 km into facility.



To Altares Gas Plant b-024-H / 94-B-08 – Total Distance 51.7 km

From Intersection of Hwy 29 and Canyon Drive, Hudson's Hope, BC

- Travel west on Canyon Drive for 8.5 km.
- Turn right and continue north on Beryl Prairie Road for 24.7 km.
- Continue north on PDR 623 Progress Farrell Core Road for 2.6 km.
- Continue north on Beryl Prairie Road for 5.0 km.
- Continue north on Beryl Prairie FSR for 11.0 km.
- Turn right and travel east on Kobes Creek Road for 0.3 km.
- Turn right onto access road and travel north for 0.2 km into facility.



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E2 Substances and Environmental Emergency Response Plan

Background & Purpose

Pacific Canbriam Energy Limited owns / operates work sites where Propane, Condensate and Natural Gas Liquids are produced as a result of their natural gas refining process. It is stored while awaiting shipment to market. The purpose of this Plan is to provide workers with basic information on how to implement The Pacific Canbriam Emergency Response Assistance Plan in the event of an emergency.

Emergency Response Assistance Canada (ERAC)

The mission of ERAC is to provide safe, timely, effective, and compliant services that include the following:

- Dangerous goods response plans, drills and exercises to Plan Participants
- Dangerous goods responder training
- First responder training
- Emergency response

ERAC maintains a dedicated 24 hours, 7 days a week, plan activation telephone number that is answered by experienced Response Managers.

The telephone number to activate the ERAP through ERAC, in the event of an emergency during road transport, is **800.265.0212.**

Emergency Response Assistance Plan (ERAP)

Pacific Canbriam Energy Limited. has a registered ERAP in place with Transport Canada and Emergency Response Assistance Canada (ERAC) for shipments of Natural Gas Liquids (NGL) and Propane by road or rail transport.

ERAP Activation Number: 800.265.0212

ERAP Reference Numbers:
ERP2-0010-364 Valid for UN1075 LPG

The ERAP reference number and the Emergency Response Assistance Canada (ERAC) activation phone number must appear on all dangerous goods shipping documents and on signage at the tank location.

ERAP Response
As soon as you are made aware of an incident involving your dangerous goods, whether by the ERAP incident report or other means, you must decide how you will respond to the release or anticipated release. The person who submitted and received approval for the ERAP (or a

person delegated to do so that has been identified in the plan), is responsible for the implementation of the ERAP. Your options are:

Tier 1: Implementing the ERAP to Tier 1 means that you are responding, generally by telephone, by remotely monitoring the response to the release or anticipated release. None of the emergency response resources found in the ERAP are brought to the site of the incident during Tier 1.

Tier 2: Implementing the ERAP to Tier 2 means that you are responding at the site of the incident by monitoring the response to the release or anticipated release on site or remotely and bringing ERAP emergency response resources (response personnel and/or equipment) to the location of the release or anticipated release. If the incident warrants you to bring emergency response resources to the site immediately, you can skip Tier 1 and implement the plan directly to Tier 2.

A person with an approved ERAP must implement it to Tier 1 or Tier 2 in response to a release or anticipated release of dangerous goods.

ERAP Implementation Report
An ERAP Implementation Report must be made each time the approved ERAP is implemented to either a Tier 1 or Tier 2. You must, as soon as possible, after you addressed a request for technical or emergency response advice, call CANUTEC at 1.888.CANUTEC or 613.996.6666 to make a report.

ERAP Implementation Report

Date: _____ **Time:** _____

Name: _____ **Number:** _____

Authorized person to use the ERAP (if applicable): _____

ERAP Reference Number: **ERP2-0010-364:** Valid for UN1075 LPG

Shipping Name: _____

UN Number: _____

What Tier was the ERAP implemented to? **Tier 1** ☐ **Tier 2** ☐

Measures taken to respond to the release or anticipated release:

_____

_____

_____

_____

_____

ERAP Incident Report

An ERAP incident report must be made by the person who has the charge, management or control of a means of containment to the person at the ERAP telephone number and must be made after an incident has occurred, which causes a release or anticipated release of the dangerous goods in the course of handling or transporting, and which endangers, or could endanger, public safety.

ERAP Incident Report

Date: _____ **Time:** _____

Location of release: _____

Name: _____ **Number:** _____

ERAP Reference Number: **ERP2-0010-364:** Valid for UN1075 LPG

Shipping Name: _____

UN Number: _____

Mode of transport: _____

Total quantity before release: _____

Quantity estimated to have been released: _____

Description of containment measures: _____

_____

_____

_____

_____

Has means of containment been damaged to the extent that its' integrity could be compromised?

Yes ☐ **No** ☐

Is a transfer of the dangerous goods to another means of containment anticipated or required?

Yes ☐ **No** ☐

Describe the type of incident that led to the release or anticipated release, including a collision, rollover, derailment, overfill, fire, explosion or load-shift:

_____

_____

_____

Liquefied Petroleum Gases (LPG)
Propane is a flammable gas that is sometimes referred to as LP-Gas, LPG, or Liquefied Petroleum Gas. LPG is primarily made up of propane-butane mixtures, but might also contain small percentages of ethane, ethylene, propylene, isobutane, or butylene, all of which can cause slight variations in the LPG properties (eg. flammable range, vapour pressure, etc.).

Physical properties provide responders with knowledge of how LP gases will behave both within and after being released from its container. Physical properties of LP gases include:

- They are tasteless, colorless, and usually odourless. In order to detect propane leaks and reduce gas losses, a commercial odorant called Mercaptan may be added.
- Capable of being either a liquid or gas, however, under ambient conditions, propane will be a gas.
- Most LP gases can be stored and transported as liquids under pressure and can easily vaporize into gas under the proper conditions.
- Under normal outdoor temperatures liquid LP gases expand rapidly into gas. One cubic foot of liquid propane will boil off and produce 270 cubic feet of propane vapour.
- LP gases will expand when heat is applied. If stored inside a container, this expansion will increase the volume of the liquid and the pressure inside the container.
- LP gases are not toxic, but they present possible inhalation hazards. If released in a confined space, propane can displace oxygen and act as a simple asphyxiant.

Boiling Liquid Expanding Vapour Explosion (BLEVE)
A BLEVE may occur when a sealed container of liquefied gas, such as a propane tank, is exposed to a fire. The fire causes the container wall temperature to heat up and the internal tank pressure to rise rapidly. While the pressure vessel may be equipped with a pressure relief valve, the stress applied by the increased pressure and the deterioration of the container wall causes the container to rupture. The super heated liquid is released, expands and vaporizes in seconds, resulting in a catastrophic explosion.

It is important that the vessel is kept cool with water spray and the external fire is controlled and not allowed to come within close distance of the storage tank. Personnel are advised to withdraw immediately if sound from venting devices increases, or tank discoloration is observed.

Approach to Developing a Plan

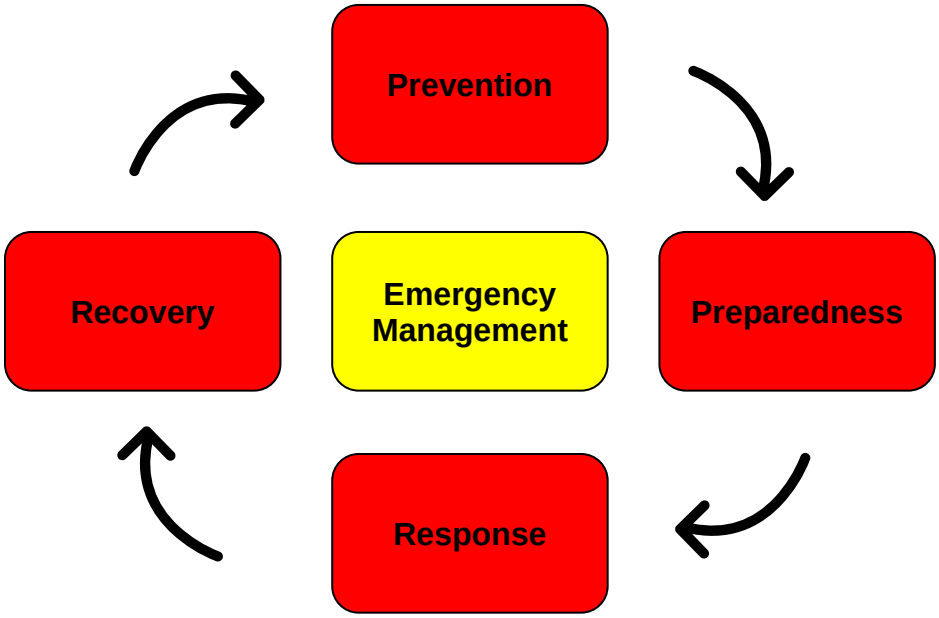
The purpose of emergency planning is to reduce and/or eliminate the risks of natural or human-induced disasters for human life and the environment.

E2 plans should integrate all relevant aspects of risk management. Undesirable events such as the release of hazardous substances could occur as a result of process, procedure or equipment failures. E2 plans should account for these scenarios by providing proactive identification, assessment, and mitigation measures.

A risk assessment conducted at a facility will:

1. Identify multiple scenarios that could occur that would lead to the release of the substance from the facility
2. Assess the probability of such scenarios occurring
3. Predict the impact distances from the scenarios for each substance
4. Describe the consequences of each scenario on human health and the environment.

Prevention, preparedness, response and recovery are the four pillars involved in E2 plan development. Below are some general concepts associated with each of these pillars.



Prevention

Environmental emergencies can be averted, or their severity limited by identifying in advance the cause of their probable frequency, potential consequences, and impacts.

Preventing environmental emergencies begins with evaluating the risks associated with the regulated substance(s) stored at the facility. Studying past spill events at the site and at similar sites in Canada allows for a more accurate prediction of the range of potential scenarios, including worst-case scenarios. This understanding is critical to assessing a facility's capabilities and resources for dealing with a crisis.

Preparedness

In preparing an E2 plan, it is important to involve key people, particularly first responders and representatives of potentially affected stakeholder groups in and around Pacific Canbriam Energy's facilities. Such consultation enhances the level and effectiveness of preparedness. When preparing the E2 plan, you should resolve identified gaps, consider options such as upgrading equipment, expanding staff, and increasing communication with and among neighbouring facilities, community officials, public safety agencies, etc. The communication of risk to surrounding communities is an important component of both prevention and preparedness activities.

Pacific Canbriam Energy Limited must identify and include reference in their plan to adequate training and resources to enable responders to respond to potential emergencies. Preparedness planning should reveal, depending on the significance and possible escalating nature of particular events, a facility's capabilities, and resources to effectively respond to an event adequately.

Response

Response to an environmental emergency is intended to include all aspects of managing the emergency situation until the emergency phase of the event is considered over. These needs can vary greatly in scope, depending on the nature and magnitude of the emergency. Effective emergency response includes, but is not limited to, the following:

- quick activation of the emergency plan
- adequate resource mobilization
- rapid assessment of the probable path and impacts of the emergency
- proper notification of the emergency to first responders and affected parties, including alerting, and warning the public
- maintenance of communication systems between stakeholders
- evacuating, confining, and accounting for personnel and members of the public present at a facility, if needed
- adequate reporting.

Quick and effective response relies on sound planning and pre-established partnerships. Effective emergency response calls for co-operation between industries, communities, local organizations and government through partnerships formed before emergencies occur. Such partnerships can be strengthened through the regular testing of the E2 plan with all of those involved. Communication from the facility to off-site agencies, to the public and among responders is important and necessary for a coordinated and successful response effort.

Recovery

Recovery from an environmental emergency is more than just the recovery of the spilled product. Recovery refers to the restoration of any part of the environment damaged by or during the emergency. Recovery affects both the operating entity itself and the surrounding community. The issue of recovery is best managed through discussions among all involved parties to assess the damage and agree on a restoration plan. The level of environmental restoration is determined by many factors, such as the size, persistence and toxicity, or hazardous nature of a release. Recovery of an area to its natural state is not always possible. Thus, restoration plans are situation-specific and would need to be defined in terms of acceptability to affected stakeholders.

Pacific Canbriam Energy Limited, in consultation with public authorities, should initiate recovery processes as soon as possible, striving for a rapid recovery from environmental damage. Those leading the recovery effort must be aware that rapid response without assessing the risks associated with the recovery effort can lead to increased damage and longer recovery times for the environment. The recovery process can either begin during response or can be initiated in stages until normal operations are restored. Planning for the recovery phase during the preparedness phase will improve recovery time and reduce impacts on the environment.

Emergency Scenarios

While the potential for a liquid petroleum gas release is low, it is important that personnel are familiar with product handling scenarios that may result in an actual emergency.

Possible Emergency Scenarios		
Stationary Tank Product Leak / Spill		
Potential Causes	▪ Loading / unloading incidents ▪ Container degradation ▪ Container rupture	▪ Container damage (due to vandalism, vehicle incident, effects from extreme weather, etc.)
Potential Hazards	▪ Fire / explosion, tank failure, vapour cloud. ▪ Evacuation of operations personnel and local residents.	▪ Local roads closed and traffic and/or business disrupted. ▪ Remote area may hinder prompt arrival of responders.
Potential Risks	▪ Responder injury ▪ Public injury ▪ Environmental damage	▪ Property damage ▪ Loss of revenue
Prevention	▪ Training / exercises ▪ Preventative maintenance ▪ JSA (job safety analyses) ▪ Clean work areas ▪ Personnel on-site daily ▪ Frequent inspections ▪ Frequent testing ▪ Truck loading / unloading procedures	▪ Barriers ▪ Break away valves ▪ Check valves ▪ ESD valves ▪ Positive grounding procedures ▪ Pressure safety valve ▪ Alarms / detectors ▪ Audits
Preparedness	▪ Training / exercises ▪ Warning sirens ▪ Safety equipment maintained and tested	▪ Mutual aid agreements ▪ Member of WCSS
Response	▪ Ensure safety of all personnel. ▪ Assess the need to shut off flow of product to the tank, activate Emergency Shut Down procedures if warranted. ▪ Call emergency services, as required. ▪ Contact Supervisor. ▪ Conduct an assessment of the situation and determine the Level of Emergency. ▪ Mobilize additional resources, as required ▪ Supervisor contacts the Area Manager who makes a decision on whether to enact the Corporate ERP.	▪ The Pacific Canbriam Supervisor contacts the appropriate regulatory agencies. ▪ The Fire Department implements a strategy to control the vapour cloud and bring in additional resources. In the event of a fire, water will be needed to extinguish or cool tanks or equipment ▪ If the emergency escalates, the Fire Department and / or the Incident Commander may call ERAC and implement the ERAP.
Recovery	▪ Incident investigation ▪ Develop a restoration plan ▪ Perform appropriate repairs ▪ Investigate the need to upgrade or improve facility equipment / processes	▪ Keep all affected parties informed of the situation ▪ Restore any part of the environment damaged by or during the emergency

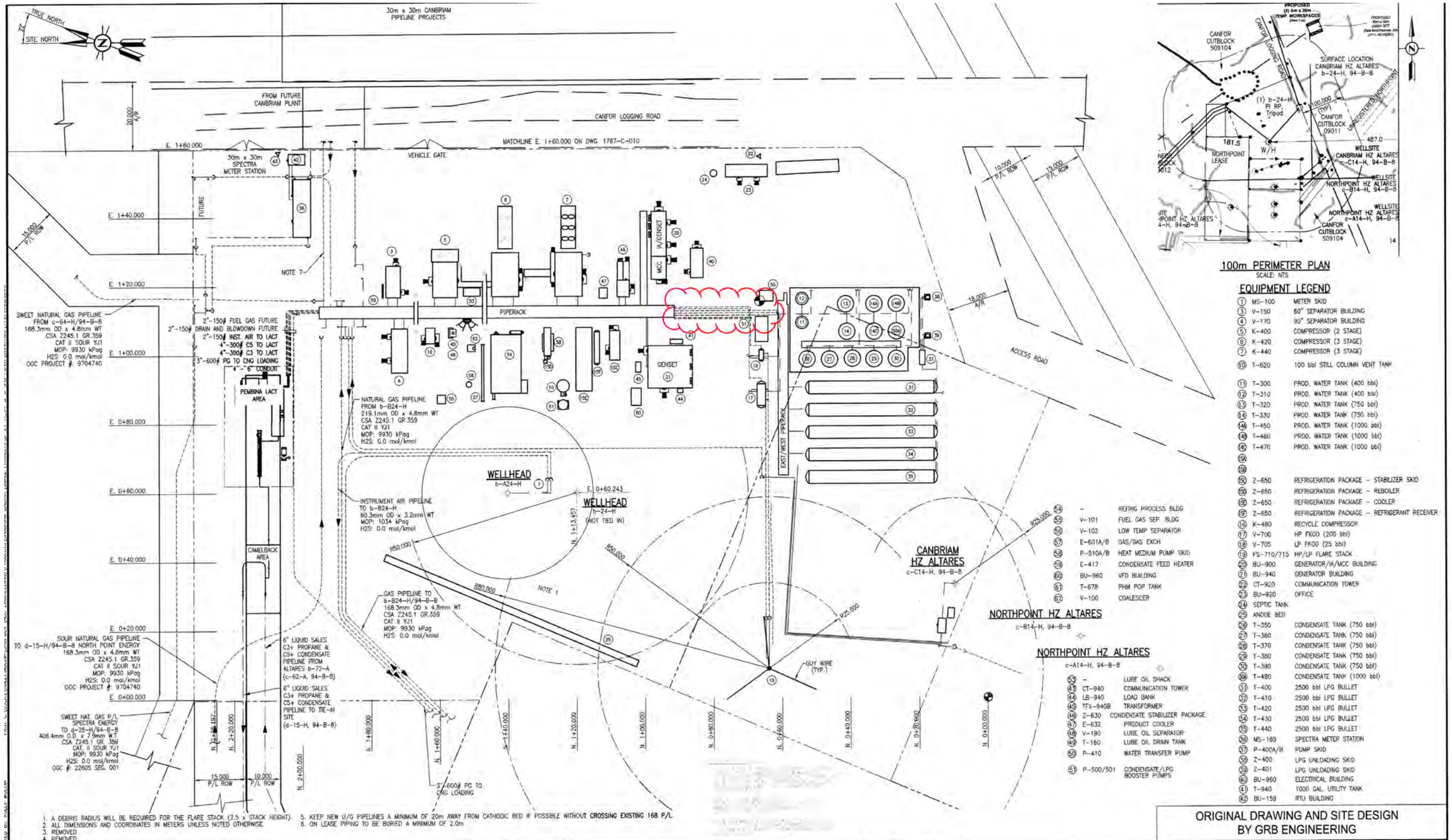
Possible Emergency Scenarios		
Tank Truck Transport Incident		
Potential Causes	▪ Vehicle incident ▪ Severe weather	▪ Driver in medical distress ▪ Driver fatigue
Potential Hazards	▪ Fire / explosion, tank failure, vapour cloud. ▪ Local roads closed and traffic disrupted. ▪ Remote area may hinder prompt arrival of responders.	▪ Potential of transport truck fluids (fuel, oil, etc.) impacting a waterway.
Potential Risks	▪ Responder injury ▪ Public injury ▪ Environmental damage	▪ Property damage ▪ Loss of revenue
Prevention	▪ Training / exercises ▪ Preventative maintenance ▪ JSA (job safety analyses)	▪ Truck loading / unloading procedures ▪ Driver abstract checks
Preparedness	▪ Training / exercises ▪ Safety equipment maintained and tested	▪ Mutual aid agreements ▪ Member of WCSS
Response	▪ The first priority, if it is safe to do so, is to protect the driver, the public and the environment. ▪ If you are first on the scene, call emergency services. ▪ Contact Supervisor. ▪ The Pacific Canbriam Supervisor contacts the appropriate regulatory agencies. ▪ If the incident occurs on a private road owned by Pacific Canbriam, the Pacific Canbriam Supervisor will contact the Area Manager who will make a decision on whether to enact the Corporate ERP.	▪ On a public roadway, the Police or Fire Department will control the scene and may contact CANUTEC, who will notify ERAC. ▪ The Fire Department implements a strategy to control the vapour cloud and bring in additional resources. In the event of a fire, water will be needed to extinguish or cool the transport tank. ▪ If the emergency escalates, the Fire Department and / or the Incident Commander may call ERAC and implement the ERAP.
Recovery	▪ Incident investigation ▪ Develop a restoration plan ▪ Perform appropriate repairs ▪ Investigate the need to upgrade or improve facility equipment	▪ Keep all affected parties informed of the situation ▪ Restore any part of the environment damaged by or during the emergency

Area Specifics

Altares b-24-H/94-B-8 Storage Tanks														
E2 ID	CAS #	UN #	Facility Name	Location	Substance	Hazard Category	Storage Type	Tank Volumes	Maximum Capacity of Largest Vessel	Maximum Quantity Expected on Site	Suggested Spill Evacuation Radius (m)	Suggested Fire Evacuation Radius (m)	Calculated Evacuation Radius (m)	Suggested BLEVE Evacuation Radius (m)
Altares b-24-H Facility														
4890	64741-48-6	1075	Altares b-24-H Facility	b-24-H/94-B-8	LPG	Explosion Hazard (E)	5 Bullets	397.47 m^3 (2500 bbl)	211 metric tonnes	1055 metric tonnes	**800**	**1600**		**See page 19**
4890	64741-47-5	1268	Altares b-24-H Facility	b-24-H/94-B-8	Condensate	Combustible (C)	5 Tanks	750 bbl	8.73 metric tonnes	2559.60 metric tonnes	**300**	**800**		
4890	64741-47-5	1268	Altares b-24-H Facility	b-24-H/94-B-8	Condensate	Combustible (C)	1 Tank	1000 bbl	213.30 metric tonnes	2559.60 metric tonnes	**300**	**800**		

Note: The suggested evacuation radius for Condensate and LPG is based on the distance listed in the Emergency Response Guidebook (2024).

Sensitive Receptors within the CEPA Response Zones			
Receptor	Potential Impact	Distance from Gas Plant	Contact Information
Trapline 735T004	Public Safety / Environmental	Gas Plant is inside Trapper Boundary	Contact information for Trappers are on the second page of this plan.
Guide / Outfitter 750015	Public Safety / Environmental	Gas Plant is inside Guide / Outfitter Boundary	Contact information for Guides / Outfitters are on the second page of this plan.
Range Tenure RAN073263	Public Safety / Environmental	Gas Plant is inside Range Tenure Boundary	Contact information for Range Tenures are on the second page of this plan.
Manned Oil and Gas Facilities	Public Safety	Nearest surface development is approximately 0.2 km.	Contact information for residents / businesses can be found at the back of this section


TRUE NORTH
SITE NORTH
30m x 30m CANBRIAM PIPELINE PROJECTS
FROM FUTURE CANBRIAM PLANT
CANFOR LOGGING ROAD
MATCHLINE E. 1+60.000 ON DWG. 1767-C-010
VEHICLE GATE
30m x 30m SPECTRA METER STATION
FUTURE
NOTE 7
PIPERACK
GENSET
IA/CENSET
MCC
ACCESS ROAD
SWEET NATURAL GAS PIPELINE FROM c-64-H/94-B-8 168.3mm OD x 4.8mm WT CSA Z245.1 GR.359 CAT II SOUR YJ1 MOP: 9930 kPag H2S: 0.0 mol/kmol OGC PROJECT #: 9704740
2"-150# FUEL GAS FUTURE
2"-150# DRAIN AND BLOWDOWN FUTURE
2"-150# INST. AIR TO LACT
4"-300# CS TO LACT
4"-300# C3 TO LACT
3"-600# PG TO CNG LOADING
4"-6" CONDUIT
PEMBINA LACT AREA
CAMELBACK AREA
NATURAL GAS PIPELINE FROM b-B24-H 219.1mm OD x 4.8mm WT CSA Z245.1 GR.359 CAT II YJ1 MOP: 9930 kPag H2S: 0.0 mol/kmol
WELLHEAD b-A24-H
WELLHEAD b-24-H (NOT TIED IN)
INSTRUMENT AIR PIPELINE TO b-B24-H 60.3mm OD x 3.2mm WT MOP: 1034 kPag H2S: 0.0 mol/kmol
GAS PIPELINE TO b-B24-H/94-B-8 168.3mm OD x 4.8mm WT CSA Z245.1 GR.359 CAT II YJ1 MOP: 9930 kPag H2S: 0.0 mol/kmol
SOUR NATURAL GAS PIPELINE TO d-15-H/94-B-8 NORTH POINT ENERGY 168.3mm OD x 4.8mm WT CSA Z245.1 GR.359 CAT II SOUR YJ1 MOP: 9930 kPag H2S: 0.0 mol/kmol OGC PROJECT #: 9704740
6" LIQUID SALES C3+ PROPANE & C5+ CONDENSATE PIPELINE FROM ALTARES b-72-A (c-62-A, 94-B-8)
6" LIQUID SALES C3+ PROPANE & C5+ CONDENSATE PIPELINE TO TIE-IN SITE (d-15-H, 94-B-8)
SWEET NAT. GAS P/L SPECTRA ENERGY TO d-25-H/94-B-8 406.4mm O.D. x 7.9mm W.T. CSA Z245.1 GR. 359 CAT. II SOUR YJ1 MOP: 9930 kPag H2S: 0.0 mol/kmol OGC #: 22605 SEC. 001
3"-600# PG TO CNG LOADING
GUY WIRE (TYP.)
CANBRIAM HZ ALTARES c-C14-H, 94-B-8
NORTHPOINT HZ ALTARES c-B14-H, 94-B-8
NORTHPOINT HZ ALTARES c-A14-H, 94-B-8
EAST/WEST PIPERACK
E. 1+80.000
E. 1+40.000
E. 1+20.000
E. 1+00.000
E. 0+80.000
E. 0+60.000
E. 0+40.000
E. 0+20.000
E. 0+00.000
E. 0+60.243
N. 1+13.457
N. 2+00.000
N. 1+80.000
N. 1+60.000
N. 1+40.000
N. 1+20.000
N. 1+00.000
N. 0+80.000
N. 0+60.000
N. 0+40.000
N. 0+20.000
N. 0+00.000
20.000 A/R
15.000 P/L ROW
10.000 P/L ROW
18.000 A/R
R50.000
R80.000
R25.000
R20.000
1. A DEBRIS RADIUS WILL BE REQUIRED FOR THE FLARE STACK (2.5 x STACK HEIGHT).
2. ALL DIMENSIONS AND COORDINATES IN METERS UNLESS NOTED OTHERWISE
3. REMOVED
4. REMOVED
5. KEEP NEW U/G PIPELINES A MINIMUM OF 20m AWAY FROM CATHODIC BED IF POSSIBLE WITHOUT CROSSING EXISTING 168 P/L
6. ON LEASE PIPING TO BE BURIED A MINIMUM OF 2.0m
100m PERIMETER PLAN
SCALE: NTS
EQUIPMENT LEGEND
1 MS-100 METER SKID
3 V-150 60" SEPARATOR BUILDING
4 V-170 90" SEPARATOR BUILDING
5 K-400 COMPRESSOR (2 STAGE)
6 K-420 COMPRESSOR (3 STAGE)
7 K-440 COMPRESSOR (3 STAGE)
10 T-620 100 bbl STILL COLUMN VENT TANK
11 T-300 PROD. WATER TANK (400 bbl)
12 T-310 PROD. WATER TANK (400 bbl)
13 T-320 PROD. WATER TANK (750 bbl)
14 T-330 PROD. WATER TANK (750 bbl)
14A T-450 PROD. WATER TANK (1000 bbl)
14B T-460 PROD. WATER TANK (1000 bbl)
14C T-470 PROD. WATER TANK (1000 bbl)
15 Z-650 REFRIGERATION PACKAGE - STABILIZER SKID
16 Z-650 REFRIGERATION PACKAGE - REBOILER
18 Z-650 REFRIGERATION PACKAGE - COOLER
17 Z-650 REFRIGERATION PACKAGE - REFRIGERANT RECEIVER
18 K-480 RECYCLE COMPRESSOR
17 V-700 HP FKOD (200 bbl)
18 V-705 LP FKOD (25 bbl)
19 FS-710/715 HP/LP FLARE STACK
20 BU-900 GENERATOR/IA/MCC BUILDING
21 BU-940 GENERATOR BUILDING
22 CT-920 COMMUNICATION TOWER
23 BU-920 OFFICE
24 SEPTIC TANK
25 ANODE BED
26 T-350 CONDENSATE TANK (750 bbl)
27 T-360 CONDENSATE TANK (750 bbl)
28 T-370 CONDENSATE TANK (750 bbl)
29 T-380 CONDENSATE TANK (750 bbl)
30 T-390 CONDENSATE TANK (750 bbl)
30A T-480 CONDENSATE TANK (1000 bbl)
31 T-400 2500 bbl LPG BULLET
32 T-410 2500 bbl LPG BULLET
33 T-420 2500 bbl LPG BULLET
34 T-430 2500 bbl LPG BULLET
35 T-440 2500 bbl LPG BULLET
36 MS-169 SPECTRA METER STATION
37 P-400A/B PUMP SKID
38 Z-400 LPG UNLOADING SKID
39 Z-401 LPG UNLOADING SKID
40 BU-960 ELECTRICAL BUILDING
41 T-940 1000 GAL. UTILITY TANK
42 BU-159 RTU BUILDING
54 - REFRIG PROCESS BLDG
55 V-101 FUEL GAS SEP. BLDG
56 V-102 LOW TEMP SEPARATOR
57 E-601A/B GAS/GAS EXCH
58 P-510A/B HEAT MEDIUM PUMP SKID
59 E-417 CONDENSATE FEED HEATER
60 BU-960 VFD BUILDING
61 T-678 PHM POP TANK
62 V-100 COALESCER
53 - LUBE OIL SHACK
43 CT-940 COMMUNICATION TOWER
44 LB-940 LOAD BANK
45 TFX-940B TRANSFORMER
46 Z-630 CONDENSATE STABILIZER PACKAGE
47 E-632 PRODUCT COOLER
48 V-190 LUBE OIL SEPARATOR
49 T-160 LUBE OIL DRAIN TANK
50 P-410 WATER TRANSFER PUMP
51 P-500/501 CONDENSATE/LPG BOOSTER PUMPS
ORIGINAL DRAWING AND SITE DESIGN BY GRB ENGINEERING
PERMIT STAMP
PERMIT TO PRACTICE ALLARDYCE BOWER CONSULTING INC.
Signature
Date Jun 06, 2018
PERMIT NUMBER: P 11182
The Association of Professional Engineers, Geologists and Geophysicists of Alberta
Jun 06, 2018
GENERAL NOTES:
DRN. RG 2013.12.15
CHK. AA 2014.07.03
APP'D.
L.S.D. b-24-H/94-B-8
ALLARDYCE BOWER CONSULTING INC.
www.abcengineering.ca
Canbriam
ALTARES b-24-H GAS PRODUCTION FACILITY
SITE PLAN
SCALE 1:1000
DRAWING NUMBER 1767C002A
REV 23
23 AS BUILT 17360 RPM 2018.06.06
22 NEW EQUIPMENT FOR PLANT RE-BUILD 17360 RPM 2017.10.10
21 ISSUED FOR CONSTRUCTION - LACT PUMP INSTALLATION 15228 RPM 2017.05.22
20 AS BUILT - CNG LOADING U/G LINE AND U/G LINES TO PEMBINA LACT SKID 16255/15228 RPM 2017.05.15
19 RE-ISSUED FOR CONSTRUCTION, FOR CNG ADDITION AND LACT U/G'S 15228 RPM 2016.12.21
18 REVISED FOR CNG ADDITION AND LACT U/G'S, ISSUED FOR CONSTRUCTION 16255 ASA 2016.12.06
17 ISSUED FOR CONSTRUCTION 15185 BP 2015.05.15 EB 2015.05.15

Characteristics and Dangers of Condensate

- Highly flammable.
- Will be easily ignited by heat, sparks or flames.
- Vapours may form explosive mixtures with air.
- Vapours may travel to source of ignition and flash back.
- Most vapours are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapour explosion hazard indoors, outdoors or in sewers
- Those substances designated with a **(P)** may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.
- May cause toxic effects if inhaled or absorbed through skin.
- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire will produce irritating, corrosive and / or toxic gases.
- Vapours may cause dizziness or suffocation.
- Runoff from fire control or dilution water may cause pollution.

Characteristics and Dangers of Liquid Petroleum Gases (LPG)

- Extremely flammable.
- Will be easily ignited by heat, sparks or flames.
- Will form explosive mixtures with air.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Vapors may travel to source of ignition and flash back.
- Cylinders exposed to fire may vent and release flammable gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.
- Vapors may cause dizziness or asphyxiation without warning, especially when in closed or confined areas.
- Some vapors may be irritating if inhaled at high concentrations.
- Contact with gas or liquefied gas may cause burns, severe injury and / or frostbite.
- Fire may produce irritating and / or toxic gases.

Liquefied Petroleum Gas (LPG)

Gases – Flammable (Including Refrigerated Liquids) – Guide 115 – Taken from the Emergency Response Guidebook 2024

Potential Hazards

Fire or Explosion

- **Extremely flammable.**
- May be easily ignited by heat, sparks or flame.
- Will form explosive mixtures with air.
- Vapours from liquefied gas are initially heavier than air and spread along the ground.

CAUTION: Methane is lighter than air and will rise.

- Vapours may travel to source of ignition and flashback.
- Cylinders exposed to fire may vent and release toxic and flammable gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

Health

- Vapors may cause dizziness or asphyxiation without warning, especially when in closed or confined areas.
- Some may be irritating if inhaled at high concentrations.
- Contact with gas, liquefied gas or cryogenic liquids may cause burns, severe injury and/or frostbite.
- Fire may produce irritating and/or toxic gases.

Public Safety

- **Call 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Many gases are heavier than air and will spread along the ground and collect in low or confined areas (sewers, basements, tanks, etc.).

Protective Clothing

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection**.
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.

Evacuation

- Immediate Precautionary Measure
  - Isolate spill or leak area for at least 100 metres (330 feet) in all directions.
- Large Spill
  - Consider initial downwind evacuation for at least 800 metres (0.5 mile)
- Fire
  - If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.
  - In fires involving Liquefied Petroleum Gases (LPG) (UN1075), also refer to BLEVE table on page 21.

Liquefied Petroleum Gas (LPG)

Emergency Response

Fire

Do not extinguish a leaking gas fire unless leak can be stopped.

Small Fire

- Dry chemical or CO_2.

Large Fire

- Water spray or fog.
- If it can be done safely, move undamaged containers away from the area around the fire.

Fire Involving Tanks

- Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks in direct contact with flames.
- For massive fire, use unmanned master stream devices or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) from immediate area.
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- Prevent spreading of vapors through sewers, ventilation systems and confined areas.
- Isolate area until gas has dispersed.

CAUTION: When in contact with refrigerated / cryogenic liquids, many materials become brittle and are likely to break without warning.

Liquefied Petroleum Gas (LPG)

Emergency Response

First Aid

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect
- themselves and avoid contamination.
- Move victim to fresh air if it can be done safely.
- Administer oxygen if breathing is difficult.
- If victim is not breathing:
  - DO NOT perform mouth-to-mouth resuscitation; the victim may have ingested or inhaled the substance.
  - If equipped and pulse detected, wash face and mouth, then give artificial respiration using a proper respiratory medical device (bag-valve mask, pocket mask equipped with a one-way valve or other device).
  - If no pulse detected or no respiratory medical device available, provide continuous compressions. Conduct a pulse check every two minutes or monitor for any signs of spontaneous respirations.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For severe burns, immediate medical attention is required.
- Effects of exposure (inhalation, ingestion, or skin contact) to substance may be delayed.
- Keep victim calm and warm.
- Keep victim under observation.
- For further assistance, contact your local Poison Control Center.
- **Note:** Basic Life Support (BLS) and Advanced Life Support (ALS) should be done by trained professionals.

Specific First Aid:

- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, only medical personnel should attempt thawing frosted parts.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.

Condensate

Flammable Liquids (Water – Immiscible / Noxious) – Guide 128 –
Taken from the Emergency Response Guidebook 2024

Potential Hazards

Fire or Explosion

- **Highly flammable: Will be easily ignited by heat, sparks or flames.**
- Vapours may form explosive mixtures with air.
- Vapours may travel to source of ignition and flash back.
- Most vapours are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapour explosion hazard indoors, outdoors or in sewers
- Those substances designated with a **(P)** may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.
- Substance may be transported hot.

Health

- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire may produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or asphyxiation, especially when in closed or confined areas.
- Runoff from fire control or dilution water may cause environmental contamination.

Public Safety

- **Call 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Ventilate closed spaces before entering, but only if properly trained and equipped.

Protective Clothing

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing provides only thermal protection **but only limited chemical protection.**

Evacuation

- Immediate Precautionary Measure
  - Isolate spill or leak area for at least 50 metres (150 feet) in all directions.
- Large Spill
  - Consider initial downwind evacuation for at least 300 metres (1000 feet)
- Fire
  - If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 metres (1/2 mile) in all directions; also, consider initial evacuation for 800 metres (1/2 mile) in all directions.

Condensate

Emergency Response

Fire

Caution: The majority of these products have a very low flash point. Use of water spray when fighting fire may be inefficient.

Small Fire

- Dry chemical, CO_2, water spray or regular foam. If regular foam is ineffective or unavailable, use alcohol-resistant foam.

Large Fire

- Water spray, fog or regular foam. If regular foam is ineffective or unavailable, use alcohol-resistant foam.
- Avoid aiming straight or solid streams directly onto the product.
- If it can be done safely, move undamaged containers away from the area around the fire.

Fire Involving Tanks or Car / Trailer Loads

- Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- For petroleum crude oil, do not spray water directly into a breached tank car. This can lead to a dangerous boil over.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks in direct contact with flames.
- For massive fire, use unmanned master stream devices or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

Spill or Leak

- Eliminate all ignition sources (no smoking, flares, sparks or flames) from immediate area.
- All equipment used when handling the product must be grounded.
- Do not touch or walk though spilled material.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapour-suppressing foam may be used to reduce vapours.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- Use clean, non-sparking tools to collect absorbed material.

Large Spill

- Dike far ahead of liquid spill for later disposal.
- Water spray may reduce vapour but may not prevent ignition in closed spaces.

Condensate

Emergency Response

First Aid

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect
- themselves and avoid contamination.
- Move victim to fresh air if it can be done safely.
- Administer oxygen if breathing is difficult.
- If victim is not breathing:
  - DO NOT perform mouth-to-mouth resuscitation; the victim may have ingested or inhaled the substance.
  - If equipped and pulse detected, wash face and mouth, then give artificial respiration using a proper respiratory medical device (bag-valve mask, pocket mask equipped with a one-way valve or other device).
  - If no pulse detected or no respiratory medical device available, provide continuous compressions. Conduct a pulse check every two minutes or monitor for any signs of spontaneous respirations.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For severe burns, immediate medical attention is required.
- Effects of exposure (inhalation, ingestion, or skin contact) to substance may be delayed.
- Keep victim calm and warm.
- Keep victim under observation.
- For further assistance, contact your local Poison Control Center.
- **Note:** Basic Life Support (BLS) and Advanced Life Support (ALS) should be done by trained professionals.

Specific First Aid:

- Wash skin with soap and water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.

WARNING:	The data given is approximate and should only be used with extreme caution. These times can vary from situation to situation. LPG tanks have been known to BLEVE within minutes, therefore, never risk life based on these times.

BLEVE
(USE WITH CAUTION)

Capacity		Diameter		Length		Propane Mass		Minimum Time To Failure For Severe Torch	Approximate Time To Empty For Engulfing Fire	Fireball Radius		Emergency Response Distance		Minimum Evacuation Distance		Preferred Evacuation Distance		Cooling Water Flow Rate	
Litres	Gallons	m	ft	m	ft	kg	lb	Minutes	Minutes	m	ft	m	ft	m	ft	m	ft	Litres/min	USgal/min
100	26.4	0.3	1	1.5	4.9	40	88	4	8	10	33	90	295	154	505	307	1007	97	26
400	106	0.61	2	1.5	4.9	160	353	4	12	16	52	90	295	244	801	488	1601	195	52
2000	528	0.96	3.1	3	9.8	800	1764	5	18	28	92	111	364	417	1368	834	2736	435	115
4000	1057	1	3.3	4.9	16.1	1600	3527	5	20	35	115	140	459	525	1722	1050	3445	615	163
8000	2113	1.25	4.1	6.5	21.3	3200	7055	6	22	44	144	176	577	661	2169	1323	4341	870	230
22000	5812	2.1	6.9	6.7	22	8800	19401	7	28	62	203	247	810	926	3038	1852	6076	1443	381
42000	11095	2.1	6.9	11.8	38.7	16800	37038	7	32	77	253	306	1004	1149	3770	2200	7218	1994	527
82000	21662	2.75	9	13.7	45	32800	72312	8	40	96	315	383	1257	1435	4708	2200	7218	2786	736
140000	36984	3.3	10.8	17.2	56.4	56000	123459	9	45	114	374	457	1499	1715	5627	2200	7218	3640	962

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Reporting

Canadian Environmental Protection Act (CEPA) Reporting Requirements
These reporting requirements are set out by Environment & Climate Change Canada, however, notification and reporting is made through Emergency Management & Climate Readiness (EMCR) **1.800.663.3456**
Section 201 of CEPA 1999 sets out the obligation to notify the environmental emergencies to the Department. This section requires that, when an environmental emergency occurs in respect of any of the substances listed under the Regulations or interim orders (eg. Schedule 1 of the Regulations), any person who owned or had the charge, management, or control of the substance immediately before the environmental emergency, or any person who caused or contributed to the environmental emergency, must, as soon as possible, notify the regional enforcement or any other person designated by the regulations.
▪ A **verbal notification** is to be made by telephone **as soon as possible** in the circumstances to EMCR **1.800.663.3456**. ▪ A **written report (Schedule 8 Notice)** must be submitted in the online E2 reporting system **as soon as possible** in the circumstances. The system is accessed through the Single Window Information Management (SWIM) system (available at: https://ec.ss.ec.gc.ca). Section 18 of the Regulations clarifies that written reports must be provided only when the environmental emergency meets at least one of the following three criteria: **(a)** has or may have an immediate or long-term harmful effect on the environment; **(b)** constitutes or may constitute a danger to the environment on which human life depends; or **(c)** constitutes or may constitute a danger in Canada to human life or health. If there is any doubt as to whether the incident is a reportable environmental emergency, the incident should be reported, and a written report should be provided.
Environmental emergencies involving substances listed in Schedule 1 of the Regulations are required to be reported as soon as possible. The obligation to report environmental emergencies applies whether or not the quantities of substances or container capacity are met or are above the specified quantity threshold.

Fisheries and Oceans Canada (DFO) Reporting Requirements

If there is a release into a water body of **any** substance deleterious to fish, contact Fisheries and Oceans Canada (DFO) (only if fish bearing waterbody) at **1.800.889.8852.**

Transport Canada Reporting Requirements

If a spill occurs during the transportation or handling of a Transportation of Dangerous Goods regulated product where the volume exceeds those specified in the following table, the spill must be immediately reported to the local police, EMCR at **1.800.663.3456 and** CANUTEC – **1.888.226.8832**

TRANSPORT CANADA REPORTING REQUIREMENTS

Any spill or release that goes off-lease that has caused, is causing, or may cause an adverse effect, must immediately be reported to the local police, EMCR – 1.800.663.3456 and CANUTEC – 1.888.226.8832

Class	Division	Characteristics of Dangerous Goods	Quantity	Packing Group
1 Explosives (Sections 2.9 – 2.12)	1.1	A substance or article with a mass explosion hazard	Any quantity	II – Hazardous Substances
	1.2	A substance or article with a projection hazard but not a mass explosion hazard		
	1.3	A substance or article which has a fire hazard and either a minor blast hazard or a minor projection hazard or both, but does not have a mass explosion hazard		
	1.4	A substance or article which presents no significant hazard beyond the package in the event of ignition or initiation during transport		
	1.5	A very insensitive substance with a mass explosion hazard		
	1.6	Extremely insensitive article with no mass explosion hazard		
2 Gases (Sections 2.13 – 2.17)	2.1	A flammable gas which is easily ignited and burns	Any quantity	Not Applicable
	2.2	A non-flammable, non-toxic, non-corrosive gas		
	2.3	A toxic gas		
3 Flammable Liquids (Sections 2.18 – 2.19)	*	A flammable liquid with a closed-cup flash point less than or equal to 60.0°C	Any quantity (Packing Group I or II) 30 L or 30 kg (Packing Group III)	I – Very Hazardous Substances or II - Hazardous Substances, or III – Moderately Hazardous Substances
4 Flammable Solids (Sections 2.20 – 2.22)	4.1	A flammable solid which is readily combustible and may cause fire through friction or from heat retained from manufacturing	Any quantity (Packing Group I or II) 30 L or 30 kg (Packing Group III)	I – Very Hazardous Substances or II - Hazardous Substances, or III – Moderately Hazardous Substances
	4.2	A spontaneously combustible substance that ignites when exposed to air		
	4.3	A water-reactive substance which emits flammable gas when it comes into contact with water		
5 Oxidizing Substances, Organic Peroxides (Sections 2.23 – 2.25)	5.1	An oxidizing substance which may yield oxygen and contribute to the combustion of other material	Any quantity (Packing Group I or II) 30 L or 30 kg (Packing Group III)	I – Very Hazardous Substances or II - Hazardous Substances, or III – Moderately Hazardous Substances
	5.2	An organic peroxide which releases oxygen readily and may be liable to explosive decomposition, or sensitive to heat, shock or friction		
6 Toxic and Infectious Substances (Sections 2.26 – 2.36)	6.1	A toxic substance that is liable to cause harm to human health	Any quantity (Packing Group I or II) 30 L or 30 kg (Packing Group III)	I – Very Hazardous Substances or II - Hazardous Substances, or III – Moderately Hazardous Substances
	6.2	An infectious substance	Any quantity	A or B
7 Radioactive Materials (Sections 2.37 – 2.39)	None	Radioactive materials as defined in the Packaging and Transport of Nuclear Substance Regulations	A level of ionizing radiation greater than the level established in section 39 of the "Packaging and Transport of Nuclear Substance Regulations 2015"	Not Applicable
8 Corrosive Substances (Sections 2.40 – 2.42)	None	Solids or liquids such as acids or alkalis materials that cause destruction of the skin or corrode metals	Any quantity (Packing Group I or II) 30 L or 30 kg (Packing Group III)	I – Very Hazardous Substances or II - Hazardous Substances, or III – Moderately Hazardous Substances
9 Miscellaneous Products, Substances or Organisms (Sections 2.43 – 2.45)	None	A regulated substance that cannot be assigned to any other class. It includes genetically modified micro-organisms, marine pollutants and substances transported at elevated temperatures	30 L or 30 kg	II – Hazardous Substances or III – Moderately Hazardous Substances, or without packing group

Training and Exercises

Environmental emergency exercises involve a simulation relating to an emergency that can reasonably be expected to occur with substance(s) at the facility that are subject to the Regulations. The simulations are meant to explore, learn from and prepare for scenarios described within the E2 plan that potentially have harmful effects on the environment or human life or health. Exercising the E2 plan provides those who are responsible for the plan with valuable information regarding the facility's readiness to respond to one or multiple elements of their plan. Any lessons learned via the exercise can be used to update and improve the plan.

The Regulations require that E2 plans be exercised on an annual basis. A full-scale exercise must also be conducted every five years. Based on these exercises, the E2 plans must be reviewed and updated, as required. Pacific Canbriam Energy Limited is required to keep a record of the results of these annual and full-scale simulation exercises, including the date and summary of the exercise, the results of the exercise and any modifications made to the plan as a result. Up-to-date exercise records are kept separately from this document within Pacific Canbriam Energy Limited's record management system.

Types of E2 Plan Exercises

Annual Simulation Exercise

This is an exercise that simulates the response to an environmental emergency that involves the release of one Schedule 1 substance from each of the hazard categories present at the facility. Examples that fulfill the requirements include:

Drills
These are supervised activities that allow emergency response team members to validate a specific operation or function, usually focused on one or two key skills such as shutdown procedures or valve operation. Drills can also be used to determine if plans can be executed as designed, to assess whether more training is required, or to reinforce best practices.

Tabletop Exercises
This type of exercise is presented by a facilitator in an informal setting with no hands-on practice or fieldwork. This type of exercise is intended to generate discussion about various issues regarding a hypothetical, simulated emergency. Tabletop exercises can boost general awareness, validate plans and procedures, rehearse concepts, and / or assess the types of systems needed to guide the prevention of, protection from, mitigation of, response to, and recovery from a defined incident.

Functional Exercises
These exercises provide a more realistic simulation of an emergency compared to a tabletop exercise. They are typically conducted in "real-time" in a classroom setting or a designated site for a Command Post. The Command Post Team "takes action" – making decisions, simulating the deployment of resources, and responding to new developments.

In comparison to a full-scale exercise, a functional exercise involves fewer participants, and the movement of personnel and equipment is simulated.

Full-Scale Simulation Exercise
This is an action-based simulation exercise requiring the deployment of personnel, resources, and equipment. The scenario must involve at least one Schedule 1 substance located at the facility. Full-scale exercises are typically the most complex and resource-intensive because they are staged in a realistic field environment with equipment deployment and involve many participants performing assigned tasks in real-time. Full-scale exercises give the team an opportunity to practice and validate their plans, policies, and a wide variety of the skills covered in response team training. Volunteers may play the role of victims and mock injuries can be staged. These exercises may involve other agencies, although role players representing other agencies can be used if desired.

Cycle for Annual Exercises

A different simulation exercise for each hazard category must be carried out annually so that all the environmental emergencies identified in the E2 plan will be exercised over time. If the facility has more than one substance from the same hazard category, you must simulate one environmental emergency identified in the E2 plan for one substance in that hazard category. ECCC recommends rotating substances when available, if applicable.

Example Exercise Cycle		
	Condensate	**LPG**
Hazard Category	Combustible (C)	Explosion (E)
Probable Case	Spill / Leak	Spill / Leak
Worst Case	Fire / BLEVE	Fire / BLEVE
Year 1	Condensate – Flash Fire	LPG – Fire / BLEVE
Year 2	Condensate – Spill / Leak	LPG – Spill / Leak
Year 3	Condensate – Pool Fire	LPG – Fire / BLEVE
Year 4	Condensate – Spill / Leak	LPG – Spill / Leak
Year 5	Full Scale for any (1) of the Hazard Categories – any scenario.	

Training Requirements

Pacific Canbriam Energy Limited is responsible for ensuring the readiness and expertise of their personnel required to activate the E2 Plan.

The following table summarizes the training that has been or will be provided to prepare personnel at the facility who will respond in the event of an environmental emergency.

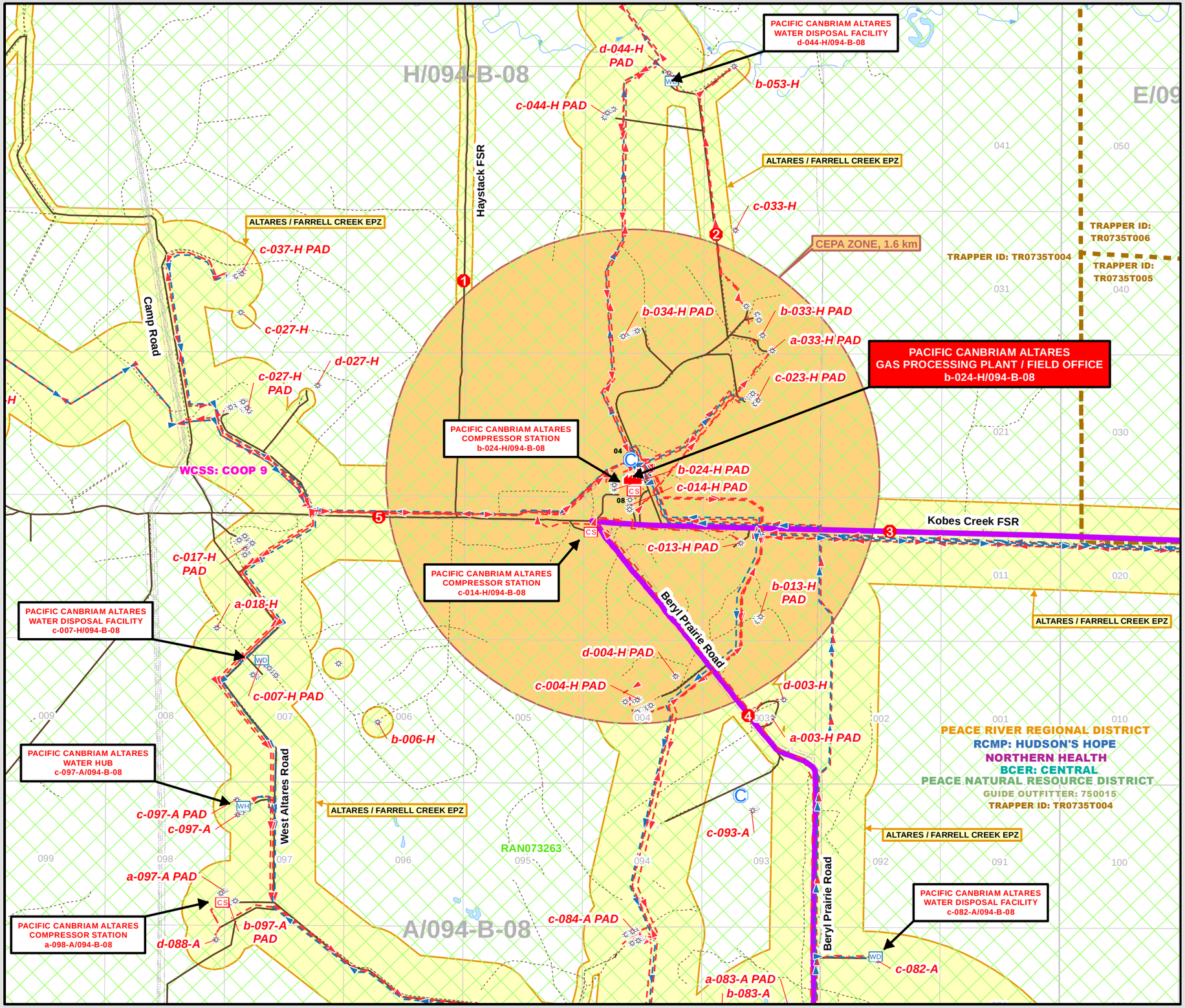
Training Record			
Position	**Training**	**Date**	**Renewal**
Incident Commander	ERP / E2 Plan	Up-to-date training records are kept separately from this document within Pacific Canbriam Energy Limited's record management system.	
	ICS 100		
	ICS 200		
	WHMIS		
	H2S Alive		
Safety Officer	ICS 100		
	ICS 200		
	WHMIS		
Information Officer	ICS 100		
	ICS 200		
	Media Relations Training		
	Public Relations Training		

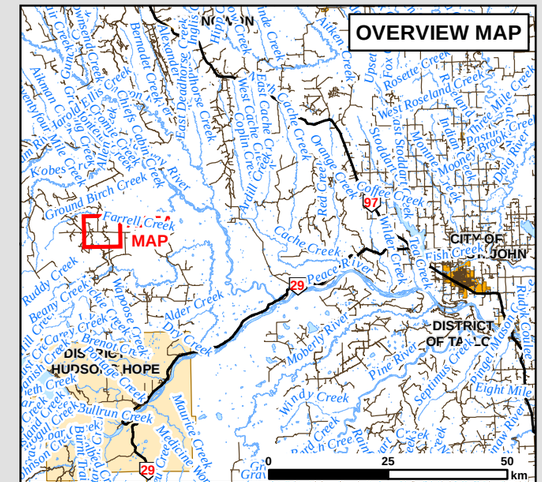
Exercise Record				
Date of Exercise	Location	Hazard Category	Type of Emergency	Annual / Full Scale

Safety Data Sheets (SDS)

The following SDS that are applicable to the Pacific Canbriam b-24-H/94-B-8 Facility are located on Pacific Canbriam's sdsBinders online system:

- Condensate (Sweet)
- LPG (Sweet)





CLIENT FACILITY TYPE
- GAS PROCESSING PLANT
- CENTRAL TREATMENT PLANT
- CENTRAL PROCESSING FACILITY
- INJECTION PLANT
- COMPRESSOR
- PUMP STATION
- PIPELINE TERMINAL
- DEHYDRATOR
- WASTE PROCESSING
- METER STATION
- HEADER / RISER
- BATTERY
- SATELLITE
- CHECK VALVE
- BLOCK VALVE
- EMERGENCY SHUTDOWN VALVE
- PROPANE BULLET
- TANK

CLIENT PIPELINE TYPE
- OIL SOUR - OPERATING
- OIL SWEET - OPERATING
- OIL PRODUCTS - DISCONTINUED
- GAS SOUR - OPERATING
- GAS SWEET - OPERATING
- GAS PRODUCTS - DISCONTINUED
- WATER SOUR - OPERATING
- WATER SWEET - OPERATING
- WATER - DISCONTINUED
- HVP - OPERATING
- HVP - DISCONTINUED
- LVP - OPERATING
- LVP - DISCONTINUED
- STEAM / AIR - OPERATING
- STEAM / AIR - DISCONTINUED
- MISC - OPERATING
- MISC - DISCONTINUED

SURFACE DEVELOPMENT
- RESIDENCE OCCUPIED
- BUSINESS OCCUPIED
- RESIDENCE SENSITIVE
- BUSINESS SENSITIVE
- RESIDENCE SEASONAL
- PUBLIC FACILITY
- STRUCTURE VACANT
- STRUCTURE ABANDONED
- STRUCTURE OUTSIDE OF EPZ

NON-CLIENT OPERATORS
- GAS PROCESSING PLANT
- FACILITY
- WELL
- PIPELINE

CLIENT WELL TYPE
- WELL - GAS
- WELL - OIL
- WELL - WATER SOURCE
- WELL - WATER INJECTION
- WELL - OBSERVATION
- WELL - LOCATION
- WELL - GAS SUSPENDED
- WELL - OIL SUSPENDED

EMERGENCY RESPONSE
- EPZ (EMERGENCY PLANNING ZONE)
- IIZ (INITIAL ISOLATION ZONE)
- CEPA ZONE
- EPZ (EXISTING SYSTEM)
- EGRESS
- ERP ACCESS

GENERAL CULTURE
- EVACUATION / RECEPTION CENTER
- EVACUATION ROUTE
- INCIDENT COMMAND POST
- STARS SITE
- FIRE HALL
- HOSPITAL
- MEDICAL CENTER
- SECURITY CHECKPOINT
- SCHOOL
- PLACE OF WORSHIP
- CEMETERY
- RAIL FACILITY
- INDUSTRY CAMP
- GRAVEL PIT
- STORAGE YARD
- GOLF COURSE
- CAMPGROUND
- CAMPGROUND PRIVATE
- CAMPGROUND UNDEVELOPED
- PICNIC / REST AREA
- CAMPSITE
- ROADBLOCK
- DEAD END
- GATED ACCESS
- AIRPORT
- AIR STRIP
- HELI PAD
- FORESTRY TOWER
- OTHER TOWER
- COMMUNICATION TOWER
- AIR MONITORING SITE
- ELECTRICAL SUBSTATION
- RAIL CROSSING
- HISTORIC SITE
- WATER CROSSING
- BRIDGE
- WCSS CONTROL POINT
- CLIENT CONTROL POINT
- CONTROL POINT LABEL
- BOAT LAUNCH
- SOLAR FARM
- WIND FARM
- SPECIAL INTEREST GROUP
- HIGHWAY - PRIMARY
- HIGHWAY - SECONDARY
- MAIN ACCESS ROAD
- OTHER ACCESS
- RAIL
- LOCAL AUTHORITY
- LAW ENFORCEMENT
- HEALTH AUTHORITY
- REGULATOR AUTHORITY
- SPILL COOP
- NATURAL RESOURCE DISTRICT (B.C. Only)
- FOREST MANAGEMENT AREA (AB Only)
- WMU / GUIDE OUTFITTER
- TRAPLINE
- PROVINCE
- WATER
- POPULATED PLACE
- FIRST NATION / METIS SETTLEMENT
- RECREATIONAL AREA (AB Only)
- PARK / PROTECTED AREA
- GRAZING / RANGE TENURE
- LANDOWNER
- RIGHTS HOLDER
- MILITARY AREA
- FENCE BOUNDARY
- FACILITY BOUNDARY

PACIFIC CANBRIAM ENERGY

NEBC FIELD SUPPLEMENT 2024
ALTARES b-24-H/094-B-08 AREA MAP

BEHR Integrated Solutions
www.behrintegrated.com

Drawn By: TMV
Scale: 1:25,000 — Project No.: 14676
Map Projection: NAD 83 UTM 10 — Revision: 0 - SEPT 2024

0 0.5 1 1.5 2
Kilometers

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Area Occupant Data

Confidential Data

Confidential data collected during the Public Involvement Program will only be included in manuals labelled as ***Confidential***.

All manuals will contain contact information for publicly listed data for area occupants within the HPZ that may include Trappers, Grazing Lease Holders and Industrial Operators. Refer to each site-specific area in the *Assets and Equipment Section* for this information.

The following reports are only included in copies of the confidential ERP:

Surface Development – Summary Report
- Includes contact information for all surface developments within the HPZ.
- Report sorted by Map Coordinates.

Special Needs Contacts within the EPZ – Summary Report
- Includes residents who have indicated they may require early response actions due to medical needs or communication barriers.
- Report sorted by Map Coordinates.

School / Student – Summary Report
- Includes children who may be in school during an incident.
- Report sorted by Map Coordinates.

Surface Development – Detail Report (per location)
- Includes all information pertaining to a specific location.
- The individual detail reports are sorted by Map Coordinates.

Surface Development – Summary Report (Alphabetical)
- Includes contact information for all surface developments within the HPZ.

Report is sorted Alphabetically.

Public Information Package

A public information package was prepared and delivered to area occupants during the public involvement process. A copy of the public information package is included in all manuals.

EPZ STAKEHOLDER SUMMARY REPORT

Pacific Canbriam Energy/Altares Plant b-24-H/94-B-08

The following report provides an overview of all Stakeholders identified within the Emergency Planning Zone, based on information gathered during the most recent Public Notification and Consultation Campaign, and other situational awareness data gathered during the most recent Emergency Response Plan update.

EMERGENCY PLANNING ZONE (EPZ) OVERVIEW	
Surface Developments within the EPZ	2
Occupants living / working within the EPZ (includes all Students)	6
Students attending school who live within the EPZ	0
Surface Developments with Sensitivities (There may be more than one sensitivity per Surface Development)	0

OCCUPANT SENSITIVITIES OVERVIEW (Sensitivities are identified for response activities and for consultation awareness)	
Aboriginal Community Member	0
Evacuation Assistance	0
Language / Comprehension Barrier	0
Not Contacted During Public Notification / Consultation Campaign	0
Other Special Needs	0
Potentially Contentious Occupant	0
Requires Early Notification	0
Sensitive to Industry Development	0

SURFACE DEVELOPMENTS OVERVIEW	
PRIVATE PROPERTY (Locations where people live)	
Residences – Abandoned	0
Residences – Not contacted	0
Residences – Occupied Full Time	0
Residences – Seasonal / Part Time	0
Residences – Vacant	0
Building - Unoccupied	0
Resident Surface Developments within the EPZ	0
Unoccupied Surface Developments within the EPZ	0

PUBLIC FACILITIES (Locations where members of the public may congregate)	
Airport/Airstrip	0
Boat Launch - Recreational	0
Camp site – Off-Road	0
Campground - Official	0
Campsite - Developed	0
Cemetery	0
Community Center	0
Evacuation / Reception Centre	0

Golf Course	0
Helispot	0
Hospital	0
Picnic / Rest Area	0
Place of Worship	0
Public Facility	0
School	0
Public Facility Locations within the EPZ	0

NON RESIDENT LAND USERS (Locations where people may be working)	
Business / Industrial Land Users	
Business	0
Other O&G Operator Battery	0
Other O&G Operator Camp	1
Other O&G Operator Compressor	1
Other O&G Operator Plant	0
Business / Other O&G Operator Locations within the EPZ	2

Other Land Users (Locations where people may be working periodically)	
Air Monitoring Site / Trailer	0
Electrical Sub Station	0
Gravel Pit	0
Guide / Outfitter	0
Landowner	0
Military / Base	0
Registered Trapline / Trapper	0
Rights Holder / Allotment User	0
Security Gate / Checkpoint	0
Solar Farm	0
Special Interest Group	0
Spill Control Point	0
Storage / Laydown Yard	0
Tower - Communication	0
Tower - Forestry	0
Tower - Other	0
Wind Farm	0
Other Non - Resident Land Users within the EPZ (This total does not include Businesses / Industrial Locations above)	0

ALTARES / FARRELL CREEK FIELD 2024 ANNUAL UPDATE

PUBLIC INFORMATION PACKAGE

OVERVIEW

Pacific Canbriam Energy Limited. is committed to protecting public safety and the environment. Our history as a company has demonstrated this commitment and our ability to safely conduct exploration and production operations.

As part of our ongoing safety program, we are contacting you to provide you with important information regarding our operations in your area.

Pacific Canbriam operates sweet and sour (H2S) wells, pipelines and facilities within the Peace River Regional District of Northeastern British Columbia.

The BC Energy Regulator (BCER) requires Pacific Canbriam to prepare and distribute an information package, detailing their operations, to all persons, residences, local authorities and publicly used facilities within and immediately adjacent to the Emergency Planning Zones associated with their area activities. This package is required to contain information about proposed or existing operations, the procedures in place to respond to an emergency and public protection measures.

EMERGENCY RESPONSE PLAN

An Emergency Response Plan (ERP) is a comprehensive plan designed to protect the public and includes criteria for assessing an emergency situation and procedures for mobilizing response personnel and agencies as well as procedures for establishing communications and the coordination of resources in the event of an incident. The extent of the information contained within the ERP is determined by the identified potential hazards.

The purpose of an ERP is to ensure a timely and effective response to emergencies in order to protect people, the environment, property and business. An ERP addresses the worst case emergency scenarios, potential hazards to the public, and systems required for adequate response.

HAZARD PLANNING ZONE (HPZ)

A HPZ is determined based upon the potential release rate calculated for a proposed well. Once a release rate has been established, a formula is used to determine the corresponding radius of the HPZ. This information is then incorporated into the creation of the ERP to deal with any events that might risk the safety and welfare of those inside the HPZ. The ERP must properly account for all of the individuals and assets found within this radius.

PACIFIC CANBRIAM 24 HOUR EMERGENCY NUMBER: 1.877.269.2877

PERSONAL INFORMATION & CONFIDENTIALITY

Consultations with residents and others in the EPZ to gather and/or confirm personal information is a BCER requirement for the purpose of preparing and maintaining an ERP. All information requested will be confidential and will be used solely in case of an emergency.

By providing the requested information, response plans can be designed with your particular circumstances in mind and will enhance communication, identify response priorities and improve Pacific Canbriam's ability to respond in the event of an emergency.

EMERGENCY CONTACTS

Thank you for taking the time to review this package. Should you have any further questions or concerns please feel free to contact any of the numbers below.

Pacific Canbriam Contact Information

Pacific Canbriam 24 Hour Emergency Number:	1.877.269.2877
Nauman Rasheed Chief Operating Officer	Bus: 403.817.9041
Zitin Lamba Manager, Operations	Bus: 403.817.9052 Ext 2152

BC Energy Regulator (BCER)

24-Hr Number Public Inquiry & Emergency Reporting Line	800.500.BCER (2237)
BCER 24 Hour Number Fort St. John	250.794.5200
BCER Emergency Operations Centre Fax Line	250.794.5385

Regional District

Peace River Regional District Dawson Creek Office Fort St. John Office	800.670.7773 250.784.3200 250.785.8084

Reception Centres

Ramada by Wyndham Northern Grand Hotel & Conference Centre	9830 100 Avenue Fort St. John, BC	250.787.0521
Stillwater Inn & Suites	9504 Canyon Drive Hudson's Hope, BC	250.783.5400

CALL OR CLICK BEFORE YOU DIG!
800.474.6886
WWW.BCONECALL.BC.CA

ABOUT SOUR GAS

Hydrogen Sulphide (H_2S) is a colourless, flammable, toxic gas. It affects people differently depending on concentration and length of exposure. At very low concentrations it has an offensive odour (similar to rotten eggs); however, it is undetectable by odour at higher concentrations. A person can be exposed to H_2S concentrations of up to 1 part per million for up to 8 hours (government exposure limits) without a breathing apparatus.

In the unlikely event of an emergency, the ERP will be activated and the safety of the public will be maximized through evacuation, sheltering or ignition procedures. If you suspect H_2S or SO_2 in the air please remain indoors and contact the Pacific Canbriam 24 hour emergency number on the first and last page of this package.

HYDROGEN SULPHIDE (H_2S)

- Found in decaying organic matter, natural oil and gas, silos and sewers
- Found at gas temperatures above -60°C
- Flammable – burns to form SO_2
- Odour of rotten eggs at low concentrations- kills all sense of smell at higher concentrations
- Will tend to disperse more slowly in sheltered or calm low lying areas
- Extremely toxic
- At lower concentrations (20-50 ppm) irritates mucous membranes (eyes, throat, lungs), causes headaches, dizziness, nausea, may cause pulmonary edema (fluid in the lungs) upon prolonged exposure
- High concentrations (500-1000 ppm) may cause paralysis of the respiratory centre in the brain – breathing stops, suffocation begins

GENERAL HEALTH EFFECTS OF H_2S

Concentration	Effects
0.01-0.3 ppm	Detectable by odour.
1-5 ppm	Moderate to strong offensive odour may cause nausea, tearing of the eyes, headaches or loss of sleep upon prolonged exposure. Effects are moderate.
10 ppm	Ceiling limit. (WorkSafe BC)
20-50 ppm	Slight eye and lung irritation. May cause eye damage after several days of exposure, may cause digestive upset and loss of appetite.
100 ppm	Eye and lung irritation.
150 ppm	Kills sense of smell, severe eye and lung irritation.
500 ppm	Serious damage to eyes within 30 minutes, severe lung irritation, unconsciousness and death within 4 to 8 hours.
1000 ppm	Breathing stops within 1 or 2 breaths.

It is important to note that burning sour gas turns the H_2S to Sulphur Dioxide (SO_2). The heat from the fire will carry the SO_2 and smoke up into the air where it will be dispersed over a large area. By the time the SO_2 comes back to ground level, the concentrations would normally only be detectable with the use of an electronic gas detection monitor. These levels should be well below the levels that provincial environment regulations accept.

EVACUATION - CONTINUED

Evacuation of the public outside the EPZ is mandatory when H_2S levels reach 10 ppm in un-evacuated areas. Pacific Canbriam will provide air monitoring, starting at a Level 1 Emergency, to determine H_2S levels.

As public safety is the primary goal during an incident, primary response efforts will be concentrated on members of the public. Response efforts for livestock and pets will be addressed at the time of incident based on the response needs and responder capabilities.

SHELTER IN PLACE

Shelter in place is the practice of remaining indoors during a sudden outdoor release of a hazardous substance.

Shelter in place is not a viable option for recreational users or transients, due to their inability to safely shelter.

Shelter in Place Instructions

- Immediately gather everyone indoors and remain there.
- Close and lock all windows and outside doors – if possible, tape the gaps around the door frames.
- Extinguish indoor wood burning fires - if possible, close the damper.
- Turn off appliances or equipment that either uses inside air, blows out inside air or sucks in outside air, such as:
  - Stoves
  - Fireplaces
  - Clothes dryers
  - Air conditioners
  - Bathroom and kitchen fans
  - Built in vacuum systems
- Turn off heat and hot water pilot lights.
- Leave all inside doors open.
- Wait in an interior upstairs room.
- Avoid using the telephone, except for emergencies, so that you can be contacted by emergency personnel.
- Stay tuned to local radio for possible information updates or for further instructions.
- Even if you see people outside do not leave until told to do so.
- If you are unable to follow these instructions, please notify company emergency response personnel.
- After the hazardous substance has passed through the area you will receive an all clear message from emergency response personnel along with instructions to:
  - Ventilate your building by opening all windows and doors.
  - Turn on fans, turn up thermostats, and furnace circulating fans.
- Once the building is completely ventilated return all equipment to normal.

IGNITION

If safety of the public cannot be assured by evacuation or sheltering, the sour gases escaping from the well will be ignited, this results in the H_2S being burned and converted to sulphur dioxide (SO_2).

- Ignition must take place when one of the following conditions has been met:
- Although required, evacuation of the response zones has not taken place.
- Monitoring results indicate H_2S concentrations in excess of 10 ppm over a 3-minute average in un-evacuated parts of the EPZ.
- Monitored H_2S concentrations exceed 1 ppm (1-hour average) in urban density developments.
- Monitoring is not taking place due to weather or other unforeseen circumstances.
- The release cannot be brought under control in the short term.

EPZ CALCULATIONS

H_2S EPZ CALCULATIONS:	MIN.	MAX.
Cumulative Release Volumes	0 m^3	0 m^3
H_2S Release Rates	0 m^3/s	0.0138 m^3/s
H_2S Concentrations	0 %	9.97 %
Hazard Planning Zones	0 m	192 m

LEVELS OF EMERGENCY

Level 1 - Moderate Emergency – ERP is activated

There is no immediate danger to the public or environment as no H_2S has been released; and the emergency is confined to the lease or company property. A Level 1 Emergency is declared at the earliest sign of difficulty controlling the well and when all problems are contained within the well site area. These problems are usually handled without difficulty using techniques and equipment readily available on site. A Level 1 Emergency creates little or no media interest.

Level 2 – Major Emergency – ERP is activated

There is the potential for risk to the public or environment, as the emergency could extend beyond company property. However, control is still possible. A Level 2 Emergency creates local or regional media interest and outside and provincial agencies must be notified.

Level 3 - Serious Emergency – ERP is activated

There exists an immediate danger to the public or environment as control of the situation has been lost. A Level 3 Emergency creates Provincial or National media interest and immediate multi-agency and provincial government involvement is required.

PUBLIC PROTECTION

In the unlikely event that an emergency situation occurs which causes or creates a potentially dangerous situation to occupants within the EPZ, the best method of public protection would be implemented. Depending on an incident's specifics, Pacific Canbriam will implement the following method(s) of public protection.

EVACUATION

In case of a Level 1 Emergency, those residents/occupants who may require additional time to evacuate or cannot safely shelter in place will be contacted, advised of the situation and informed of the proper reception centre to evacuate to. A list of reception centres is provided at the back of this package.

In the event of a Level 2 or 3 Emergency, all residents/occupants within the EPZ would be contacted and instructed to evacuate immediately to the Reception Centre.

Pacific Canbriam will provide you with the safest route out of the emergency area to the Reception Centre. If you require assistance to evacuate, Pacific Canbriam personnel will be available to assist you. Upon arrival at the Reception Centre, please check in with the Pacific Canbriam representatives as they will be available to answer any questions or concerns you may have.

If you choose not to go the Reception Centre, we ask that you please tell the Pacific Canbriam representative where you are going and provide updated contact information so that we may confirm your safety and keep you informed. You will be advised when it is safe to return home. Pacific Canbriam will provide you with a Claims Form so that you can be reimbursed for reasonable out-of-pocket expenses resulting from the evacuation.

SULPHUR DIOXIDE (SO_2)

- Formed by the combustion of H_2S or sulphur and is non-flammable
- Found as a gas at temperatures above -10°C
- Has the odour that occurs when a wooden match is extinguished
- Highly irritating – dissolves to form sulphuric acid
- At lower concentrations irritates eyes, nose and throat, causes difficulty in breathing and shortness of breath
- Causes pulmonary edema at high concentrations – may be fatal
- Effects on heavy smokers are more severe

GENERAL HEALTH EFFECTS OF SO_2

Concentration	Effects
0.13 ppm	24 hour evacuation level (MWLAP Level B criteria).
0.34 ppm	One hour average evacuation level (MWLAP Level B criteria).
2 ppm	Eight hour Occupational Exposure Limit (WorkSafeBC).
3-5 ppm	Odour threshold.
5 ppm	15 minute Occupational Exposure Limit (WorkSafeBC).
8-12 ppm	Throat irritation, coughing, constriction in chest, tearing and smarting of the eyes.
10-50 ppm	Exposure 5 -15 minutes: increased irritation of the eyes, nose, throat, choking, coughing and in some cases, wheezing as a sign of narrowing of the airways (which increases the resistance of the air-flow).
150 ppm	Short–term endurance lost due to severe eye irritation and because of the effects on the membranes of the nose, throat and lungs.
500 ppm	Highly dangerous after an exposure of 30-60 minutes.
1000-2000 ppm	May be fatal with continued exposure.

CEPA E2

The Canadian Environmental Protection Act, 1999 - Environmental Emergency (CEPA E2) Regulations aim at enhancing the protection of the environment and human health in environmental emergency situations by promoting prevention and ensuring preparedness, response and recovery.

The Regulations contain a list of substances and other hazardous substances which, if they enter the environment as a result of an environmental emergency:

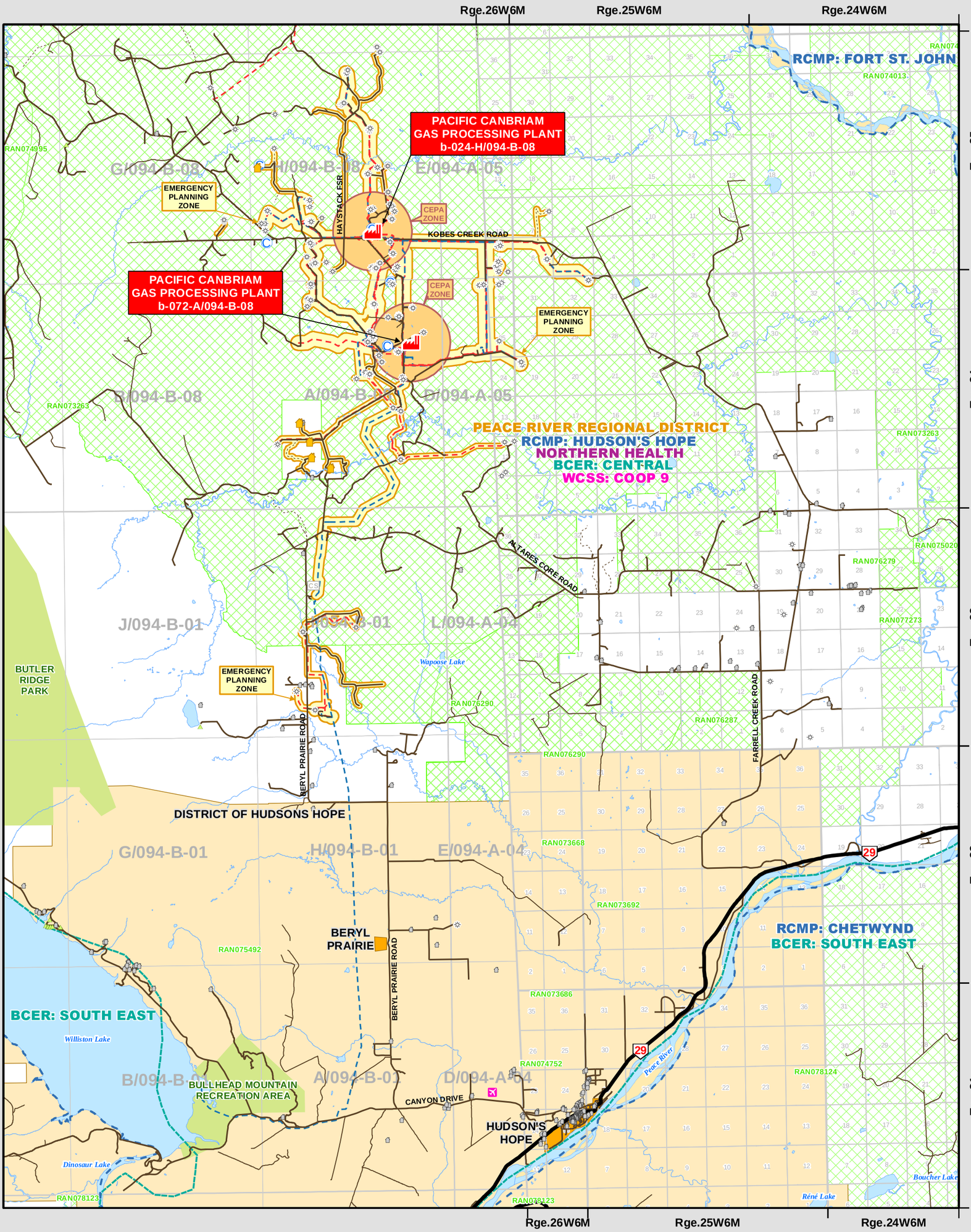
- Have or may have an immediate or long-term harmful effect on the environment or its biological diversity.
- Constitute or may constitute a danger to the environment on which human life depends, or Constitute or may constitute a danger in Canada to human life or health.

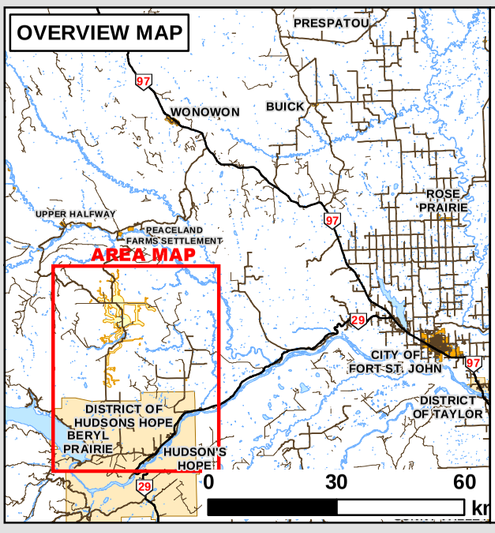
Any person in Canada who owns or manages a listed substance in a quantity at or over the prescribed minimum quantity is required to provide Environment and Climate Change Canada (ECCC) with information on the quantity of the substance, along with the facility location, a report that an environmental emergency plan has been prepared and a notice indicating that the emergency plan has been implemented within 90 days, six months and one year of the coming into force of the Regulations, respectively.

The emergency plan will have to address the types of emergencies that might reasonably occur, including both on-site and off-site consequences, and the associated prevention, preparedness, response and recovery issues

SUMMARY OF OPERATING CONDITIONS

CEPA Isolation Zone for a Large Spill	800 m
CEPA Isolation Zone & Evacuation Zone for a Fire	1600 m





CLIENT FACILITY TYPE
- GAS PROCESSING PLANT
- COMPRESSOR
- PIPELINE TERMINAL
- BATTERY
- WELL
- STRUCTURE INSIDE OF EPZ
- STRUCTURE OUTSIDE OF EPZ
- EPZ (EMERGENCY PLANNING ZONE)
- CEPA ZONE

CLIENT PIPELINE TYPE
- OIL SOUR - OPERATING
- OIL SWEET - OPERATING
- OIL PRODUCTS - DISCONTINUED
- GAS SOUR - OPERATING
- GAS SWEET - OPERATING
- GAS PRODUCTS - DISCONTINUED
- WATER SOUR - OPERATING
- WATER SWEET - OPERATING
- WATER - DISCONTINUED
- HVP - OPERATING
- HVP - DISCONTINUED
- LVP - OPERATING
- LVP - DISCONTINUED
- STEAM - OPERATING
- STEAM - DISCONTINUED
- MISC - OPERATING
- MISC - DISCONTINUED

GENERAL CULTURE
- EVACUATION CENTER
- EVACUATION ROUTE
- FIRE HALL
- HOSPITAL
- MEDICAL CENTER
- SCHOOL
- PLACE OF WORSHIP
- CEMETERY
- INDUSTRY CAMP
- GRAVEL PIT
- STORAGE YARD
- GOLF COURSE
- CAMPGROUND
- DEAD END
- GATED ACCESS
- AIRPORT
- AIR STRIP
- FORESTRY/OTHER TOWER
- COMMUNICATION TOWER
- SOLAR FARM
- WIND FARM
- HIGHWAY - PRIMARY
- HIGHWAY - SECONDARY
- MAIN ACCESS ROAD
- OTHER ACCESS
- RAIL
- LOCAL AUTHORITY
- LAW ENFORCEMENT
- HEALTH AUTHORITY
- REGULATOR AUTHORITY
- PROVINCE
- WATER
- POPULATED PLACE
- FIRST NATION / MÉTIS SETTLEMENT
- PARK/PROTECTED AREA
- MILITARY AREA

PACIFIC CANBRIAM ENERGY

NEBC FIELD OPERATIONS SUPPLEMENT 2024
ALTARES / FARRELL CREEK AREA MAP
PUBLIC INFORMATION HANDOUT MAP

BEHR Integrated Solutions
www.behrintegrated.com

Drawn By: TMV
Scale: 1:150,000 — Project No.: 14676
Map Projection: NAD 83 UTM 10 — Revision: 0 - SEPT. 2024

0 2.5 5 7.5 10 km

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2024 ANNUAL ERP UPDATE

ALTARES b-72-A/94-B-8 FACILITY

PACIFIC CANBRIAM ENERGY LIMITED 24 HOUR EMERGENCY LINE: 1.877.269.2877		
Pacific Canbriam Energy Limited Head Office	403.269.2874 Fax: 403.269.7637	2100, 215 – 2 Street SW, Calgary, AB T2P 1M4
Fort St. John Field Office	250.785.8322	10628 Peck Lane Fort St. John, BC

FORT ST. JOHN FIELD CONTACT NUMBERS

FORT ST. JOHN OFFICE		
Jeleena Cawley	Bus: 250.785.8322 Ext. 1 → Ext. 2	Cell: 250.948.8386
Reception or Administrative Support	Bus: 250.785.8322 Ext. 1 → Ext. 1	
Conference Room	Bus: 250.785.8322 Ext. 1 → Ext. 4	
SUPERINTENDENTS		
Steve Gonwick	Bus: 250.785.8322 Ext. 4 → Ext. 2	Cell: 250.793.8000
Cole Tymchuk	Bus: 250.785.8322 Ext. 5 → Ext. 2	Cell: 780.712.1984
ALTARES b-72-A PLANT		
b-72-A Camp/On Call	Bus: 250.785.8322 Ext. 3 → Ext. 1	
b-72-A Conference Room	Bus: 250.785.8322 Ext. 3 → Ext. 2	
b-72-A Control Room	Bus: 250.785.8322 Ext. 3 → Ext. 3	
Altares b-72-A Plant Operations		
Lyndon Toews	Bus: 250.785.8322 Ext. 4 → Ext. 1	Cell: 250.981.8199
Trevor Bickerstaff	Bus: 250.785.8322 Ext. 4 → Ext. 4	Cell: 780.522.7304
Field Lead Neil Schilling	Bus: 250.785.8322 Ext. 4 → Ext. 3	Cell: 250.401.1085
Field Lead Ryan Sephton		Cell: 604.556.4090
Altares b-72-A Maintenance		
Trevor Ebbert	Bus: 250.785.8322 Ext. 5 → Ext. 1	Cell: 250.948.8381
Chris Bouwsema	Bus: 250.785.8322 Ext. 5 → Ext. 1	Cell: 780.515.0423
ALTARES b-73-A CAMP		
b-73-A Camp	Bus: 250.785.8322 Ext. 8	780.940.2434
c-62-A WATER PLANT		
c-62-A Water Hub	Bus: 250.785.8322 Ext. 4	
Water Hub Lead Corey Reschke	Bus: 250.785.8322 Ext. 7	250.783.0603

CORPORATE CONTACTS

Chief Operating Officer	Nauman Rasheed	403.817.9041 Ext. 2141 403.899.0339
Manager, Production & Facilities	Jeff Pakish	403.817.9048 Ext. 2148 403.512.1293
Manager, Drilling & Completions	Steve Bernard	403.300.2434 Ext. 2434 403.519.8442
Manager, Operations	Zitin Lamba	403.817.9052 Local 2152 403.618.6166
Sr. Environmental Coordinator	Jason Zurkan	403.866.6115

FACILITY DESCRIPTION

The Altares b-72-A/94-B-8 facility is sweet; it produces natural gas, LPG's, and condensate.

The facility handles gas from the immediate area and delivers the gas into the Spectra T-North system at d-28-H/94-B-8 and the TC Energy North Montney Mainline.

LPG's (C3+) are separated from the gas stream and are stored on location in LPG storage bullets. The LPG is transported via pipeline to Pembina (delivery point into Pembina b-72-A). Produced water is transferred to the c-62-A water hub via pipeline.

The Phase I & II facility production design was 4814 E^3m^3/day (170MMSCFD) inlet gas facility. The current Phase III expansion was commissioned in February 2022 which increased the design capacity from 4814 E^3m^3/day to 8354 E^3m^3/day (295 MMSCFD).

Phase 1 consists of the following major pieces of equipment:
- Inlet separation
- Four (4) compressors
- Flare stack
- Water storage
- Condensate storage – 6 tanks each 2000 bbl capacity
- LPG storage – 5 bullets each 2500 bbl capacity
- Office and control room building, maintenance building
- Shallow cut refrigeration plant
- Condensate Stabilization unit – 3,000 bbl/d
- Four (4) power generators

Phase 2 consists of the following major pieces of equipment:
- Inlet separation
- Four (4) compressors
- Condensate storage – 6 tanks each 2000 bbl capacity
- LPG storage – 5 bullets each 2500 bbl capacity
- Shallow cut refrigeration plant
- Warehouse building
- One (1) power generator

Phase 3 consists of the following major pieces of equipment:
- Two (2) additional inlet separators
- Two (2) additional recycle compressors
- One (1) additional BTEX compressor
- Four (4) additional inlet compressors (CAT 3612)
- Inlet compressors to be equipped with process heat recover exchangers
- Refrigeration package with electric compression
- Condensate stabilizer package
- One (1) additional high pressure flare stack and knockout drum
- One (1) additional process heat medium
- One (1) utility glycol heating system including process heat recovery
- Four (4) additional power generators; Three (3) generators will be operating with one (1) standby
- One (1) Instrument air package

EPZ INFORMATION

The facility has an EPZ of 192 m. A 1.6 km Canadian Environmental Protection Act (CEPA) Hazard Zone has been assigned around the Altares b-72-A plant.

ON-SITE STORAGE

Condensate Storage:	LPG storage:
▪ 12 Tanks each 2000 bbl capacity	▪ 12 bullets each 2500 bbl capacity

NEAREST URBAN CENTRE / DWELLING

The nearest urban centre is the Halfway First Nation Reserve located 21.70 km. The nearest occupied dwelling is 0.5 km north of the b-72-A facility.

LAND USE / TERRAIN

Pacific Canbriam's operations are located in forested areas west and north-west of Fort St. John on the eastern slopes of the Rocky Mountains with average elevation of 1200 metres. These areas are predominantly used by trappers, grazing lease holders, forest management and for seasonal recreation such as hunting and fishing.

HYDROLOGY

There are several unnamed creeks are within the area.

HIGHWAYS

No highways intersect with the hazard zone in this field.

SITE ACCESS

Refer to access map on the following pages.

OTHER AREA OPERATORS & TIE-INS

OIL & GAS	
PETRONAS Energy	844.299.2566
Plateau Pipelines / Pembina	800.360.4706

TIE-INS*

There are no tie-ins with the above mentioned companies.

SAFETY EQUIPMENT

OPERATOR / TRUCK SAFETY EQUIPMENT

Operator field trucks will carry personal protective equipment, first aid kits and fire extinguishers.

NOTIFICATION

Operators attend to the b-72-A facility 24 hours/day The plant can also be monitored remotely. The wells have remote shut down capability. There is a minimum of 2 operators in the PCE Operations Camp available for call-out's.

COMMUNICATIONS

Cellular telephones are the primary communication devices to be employed during an emergency. Cellular reception and coverage is good in the Altares and Farrell Creek areas.

RADIO FREQUENCIES

All operators truck radios will be programmed with the Pacific Canbriam Altares Field VHF Radio Frequency. Plant operators will use programmed handheld personal radios for communications within plant boundaries.

Pacific Canbriam Radio Frequencies

b-24-H Plant / Pacific Canbriam Altares Field VHF	TX168.3000	RX162.945
b-72-A Plant UHF	TX459.5000	RX459.5000

Area Radio Frequencies

The frequencies and tones listed below should be programmed into all Pacific Canbriam contractors, representatives, and personnel's mobile radios in order to communicate with repeaters in each area.

Kobes Creek Road from km 24.5 to km 46.3	RR 08 – 150.4400
Beryl Prairie Road (entire length)	RR 03 – 150.1400
Haystack Road (entire length)	RR 13 – 150.530
The Core Road (entire length)	RR 04 – 150.1850
Camp Road	RR 21 – 151.010
The West Altares Road	RR 03 – 150.140
33 Access Road	RR 29

ROADBLOCK KITS / IGNITION KITS

Pacific Canbriam will establish roadblocks at the edge of the 100 m EPZ and evacuate the area in the event of an incident. Roadblocks for pipelines would tend to be short term while the line is shut down and depressurized.
At Pacific Canbriam discretion the setback distance may be reduced if supported by LEL monitoring results.

Roadblock and Mobile Helicopter Landing Pad Kits, if required, would be obtained from the **b-72-A Facility** and dispatched at a Level 1 Emergency. The number of Rovers, Roadblocks and Air Monitors required to be determined at the time of incident. Refer to the ERP cabinet for specific kit locations.

Roadblock Kits

Stop paddle, reflective traffic vest, amber beacon, flashlight with spare batteries, reflective barricade, personal electronic monitor (minimum tri-head), self-contained breathing apparatus, radio (public protection frequency, truck or portable), area map and hard hat.

Mobile Helicopter Landing Pad Kits

Air traffic wands, turbo flares, road flares, reflective flares, reflective PPE & pylons.

AGENCY CONTACTS

IMMEDIATE CONTACT REQUIRED AT ANY LEVEL OF EMERGENCY:		
BC Energy Regulator (BCER) – Incident Reporting Line (via EMCR)		800.663.3456
Emergency Management and Climate Readiness (EMCR)		
BCER 24 Hour Line	Fort St. John	250.794.5200
WorkSafe BC		888.621.7233
IMMEDIATE CONTACT REQUIRED IF ANY RESIDENTS ARE CONTACTED AT LEVEL 1 OR HIGHER:		
RCMP	Hudson's Hope	911 250.783.5241
Peace River Regional District	Dawson Creek	800.670.7773 250.784.3200
Northern Health Authority	HEMBC On Call	855.554.3622

PROVINCIAL GOVERNMENT CONTACTS

BC One Call	Call Before You Dig	800.474.6886
BC Drug & Poison Information Centre	BC DPIC	800.567.8911
BC Ministry of Environment & Climate Change Strategy	Peace Region	250.787.3411
	Report Poachers & Polluters	877.952.RAPP (877.952.7277)
BC Ministry of Forests	Peace Natural Resource District	250.784.1200
BC Ministry of Transportation & Infrastructure	Peace District Office North Peace Contractor	250.787.3237 800.842.4122
CANUTEC	Dangerous Goods Emergencies	888.226.8832 613.996.6666 From Cell: *666
Emergency Response Assistance Canada (ERAC)	(ERP2-0010-364)	800.265.0212
NAV Canada	Flight Information Center	866.541.4101
Public Works Association of BC (PWABC)	executivedirector@pwabc.ca	
Technical Safety BC		866.566.7233
WorkSafe BC		888.621.7233

EMERGENCY SERVICES

AMBULANCES		
Air Ambulance (STARS)	Emergency Link	888.888.4567
	#3687 – PCE b-72-A/94-B-08	
BC Ambulance Services	Fort St. John	911 800.461.9911
BC Emergency Health Service	Cell / SAT phone/ Outside BC	250.374.5937
Bailey Helicopters Ltd.	Fort St. John	250.785.2518
HOSPITALS		
Chetwynd Hospital and Health Centre	Chetwynd	250.788.2236
Dawson Creek & District Hospital	Dawson Creek	250.782.8501
Fort St. John Hospital and Peace Villa	Fort St. John	250.262.5200
Fort St. John Health Unit	Fort St. John	250.263.6000
Hudson's Hope Health Center	Hudson's Hope	250.783.9991
FIRE DEPARTMENTS		
Hudson's Hope Fire & Rescue		911 250.783.9901

2024 ANNUAL ERP UPDATE

ALTARES b-72-A/94-B-8 FACILITY

SERVICE CONTRACTORS

MOBILE AIR MONITORING		
Firemaster Oilfield Services	Central Dispatch	403.342.7500
HSE Integrated Ltd.	Province Wide	888.346.8260
Trojan Safety Services	Central Dispatch	250.785.9557
OILFIELD FIRE FIGHTING / SAFETY CONTRACTORS / WELL CONTROL SPECIALISTS / IGNITION		
Firemaster Oilfield Services	Central Dispatch	403.342.7500
HSE Integrated Ltd.	Province Wide	888.346.8260
Safety Boss	24 Hour Emergency	800.882.4967
Superior Fire Control Ltd.	24 Hour Emergency	877.882.0035
CRISIS COMMUNICATIONS		
Petron Communications	Fort St. John	250.785.3333
T&T Communications	Fort St. John	250.785.0310
SAFETY SERVICES		
HSE Integrated Ltd.	Province Wide	888.346.8260
Trojan Safety Services	Central Dispatch	250.785.9557
United Safety Ltd.	Central Dispatch	800.432.1809
SPILL RESPONSE		
Emergency Response Assistance Canada (ERAC)	(LPG Spills Only) AB/BC	800.265.0212
Clean Harbors	Province Wide	800.645.8265
Troyer Ventures Ltd.	Fort Nelson Fort St. John	250.774.5332 250.785.5332
Ambipar Response	Fort St. John	866.574.7928
BULK FUEL DELIVERY		
Smith Fuel Services	24/7 Dispatch	250.785.3466
TRUCKING COMPANIES		
Cascade Energy Services LP	24 Hour Dispatch	780.876.8900
CEDA	24 Hour Dispatch	250.784.5151
D.W Wilson Services Ltd.	Fort St. John	250.785.7737
Energetic Services Inc.	Fort St. John	250.785.4761
Fedderly Transportation Ltd.	Fort St. John	250.787.0398
Formula Powell L.P. Trucking	Fort St. John	250.785.4222
Fort St. John Water Inc	Fort St. John	250.785.0862
Maxim Industries Inc.	Fort St. John	250.785.7775
Oculus Transport Ltd	Fort St. John	250.264.2252
Raven Oilfield Rentals	Fort St. John	800.799.7188
Troyer Ventures Ltd.	Fort Nelson Fort St. John	250.774.5332 250.785.5332

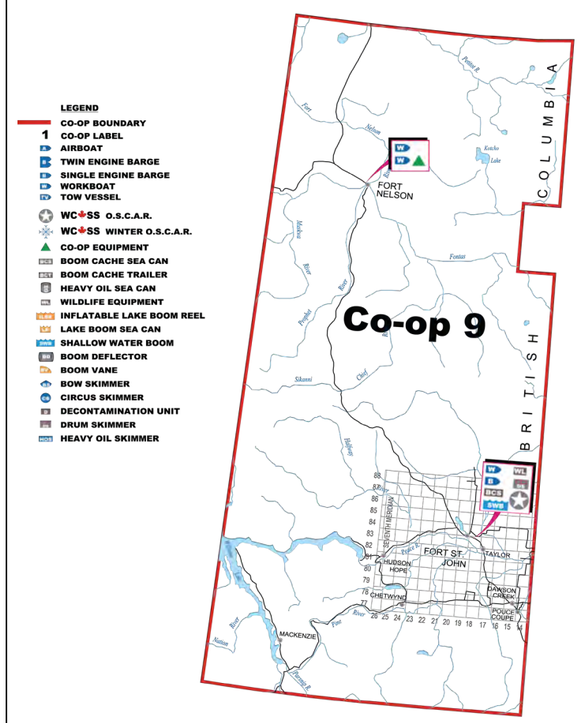
SERVICE CONTRACTORS (Continued)

UTILITIES		
ATCO Electric	Province Wide	800.668.5506
BC Hydro	Province Wide	888.769.3766
Telus	Province Wide	310.2255 *611
ELECTRICAL / INSTRUMENTATION CONTRACTOR		
CDN Controls Ltd.	Fort St. John	855.530.8151
Epscan Industries Ltd.	Fort St. John	250.787.9659
Techmation Electric & Controls	Fort St. John	250.261.6532
PTW Energy Services	Dawson Creek	250.782.6909
ENVIRONMENTAL SERVICES		
Clean Harbors (WCSS Spill Response Trailer)	Fort St. John	250.785.4577
Roy Northern Land & Environmental	Fort St. John	250.261.6644
Matrix Solutions Inc	24 Hour Spill Response	877.774.5525
Eco-Web Ecological Consulting	Fort St. John	250.787.1110
EMERGENCY RESPONSE MANAGEMENT		
Behr Integrated Solutions	Calgary	403.444.6940
TRANSPORTATION		
Diversified Transportation Ltd.	Prince George	250.563.5431 250.617.7710
Standard Bus Contracting Ltd	Chetwynd	250.788.2415
Avis Car and Truck Rental	Fort St. John Grande Prairie	250.785.5515 780.539.4101
Driving Force	Fort St. John Grande Prairie	250.787.0634 780.814.9596
HELICOPTER COMPANIES		
Qwest Helicopters	Fort Nelson	250.774.5302
Bailey Helicopters	Fort St. John	250.785.2518
Yellowhead Helicopters	24 Hour Emergency Fort St. John	888.566.4401 250.785.2331
ROAD SERVICES		
Dawson Road Maintenance Ltd.	Fort St. John	800.842.4122
Argo Road Maintenance (South Peace) Inc.	Dawson Creek – Pouce Coupe	800.663.7623
PILOT HOT SHOT AND TRAFFIC CONTROL		
Big League Oilfield Services	Fort St. John	250.787.9812
Peace Hot Shot & Picker Services	Fort St. John	250.785.8432
Energetic Traffic Control	Fort St. John	250.793.3331
PUMPING SERVICES		
BJ Energy Solutions	Clairmont	780.539.5210
Trican Well Service	Fort St. John	888.989.8975

SERVICE CONTRACTORS (Continued)

WCSS **See website for more info (www.wcss.ab.ca)*

COOP 9	
24 Hour Emergency Contact	866.541.8888
Regional Custodian	
North River Midstream Carl Reimer	250.262.3446 250.262.3456
Equipment is located at North River Midstream: 13217 Westcoast Frontage Charlie Lake, BC V0C 1H0 Mile 53 Alaska Hwy	
COOP Custodian	
Troyer Ventures Ltd.	250.774.5332
Equipment is located at 4850 - 46 Avenue Fort Nelson, BC V0C 1R0	



Equipment Summary	Transport Requirements
52' OSCAR Trailer	Semi-truck
40' Boom Cache Sea Can	Winch tractor / Trailer
20' Wildlife Sea Can	Winch tractor / Trailer
Work Boat	½-ton truck w/ 2" ball hitch
Drum Skimmer w /Power Pak	½-ton truck
Single Engine Barge	1-ton truck w/ 2-5/16" ball hitch & electric brakes
400' Shallow Water Boom	½-ton truck

RANGE TENURE

ID	COMPANY / NAME	EMERGENCY
RAN073263	Ray Jackson (Horseshoe Creek Outfitters)	250.783.0561 250.263.1919

TRAPPERS

TRAPPER ID	NAME	EMERGENCY
735T004	Anilee Rose Anderson	250.793.9273
735T004	Allen George Chatten	N/A
735T004	Bryan Dale Chatten	N/A
735T004	Allen Dean Chatten	N/A

GUIDES & OUTFITTERS

ID	COMPANY / NAME	EMERGENCY
701264	Ray Jackson (Horseshoe Creek Outfitters)	250.783.0561 250.263.1919

RIGHTS HOLDERS

ID	COMPANY / NAME	EMERGENCY
Forest Tenure	CANFOR	250.782.3302
Forest Tenure	Jacobus Haagsman	250.783.5389
Forest Tenure	Louisiana Pacific Canada Ltd.	250.782.3302

SURFACE DEVELOPMENT INFORMATION

There are 6 surface developments inside the CEPA Hazard Zone.

In the event of an incident, ensure all members of the public are notified and provided with response information. If required use rovers and roadblocks to clear and isolate the areas in close proximity to the incident.

UNIQUE FEATURES AFFECTING EMERGENCY RESPONSE

None

RECEPTION CENTRES

Northern Grand Hotel	9830 100 Avenue Fort St. John, BC V1J 1Y5	250.787.0521
Stillwater Inn & Suites	9504 Canyon Drive Hudson's Hope, BC V0C 1V0	250.783.5400

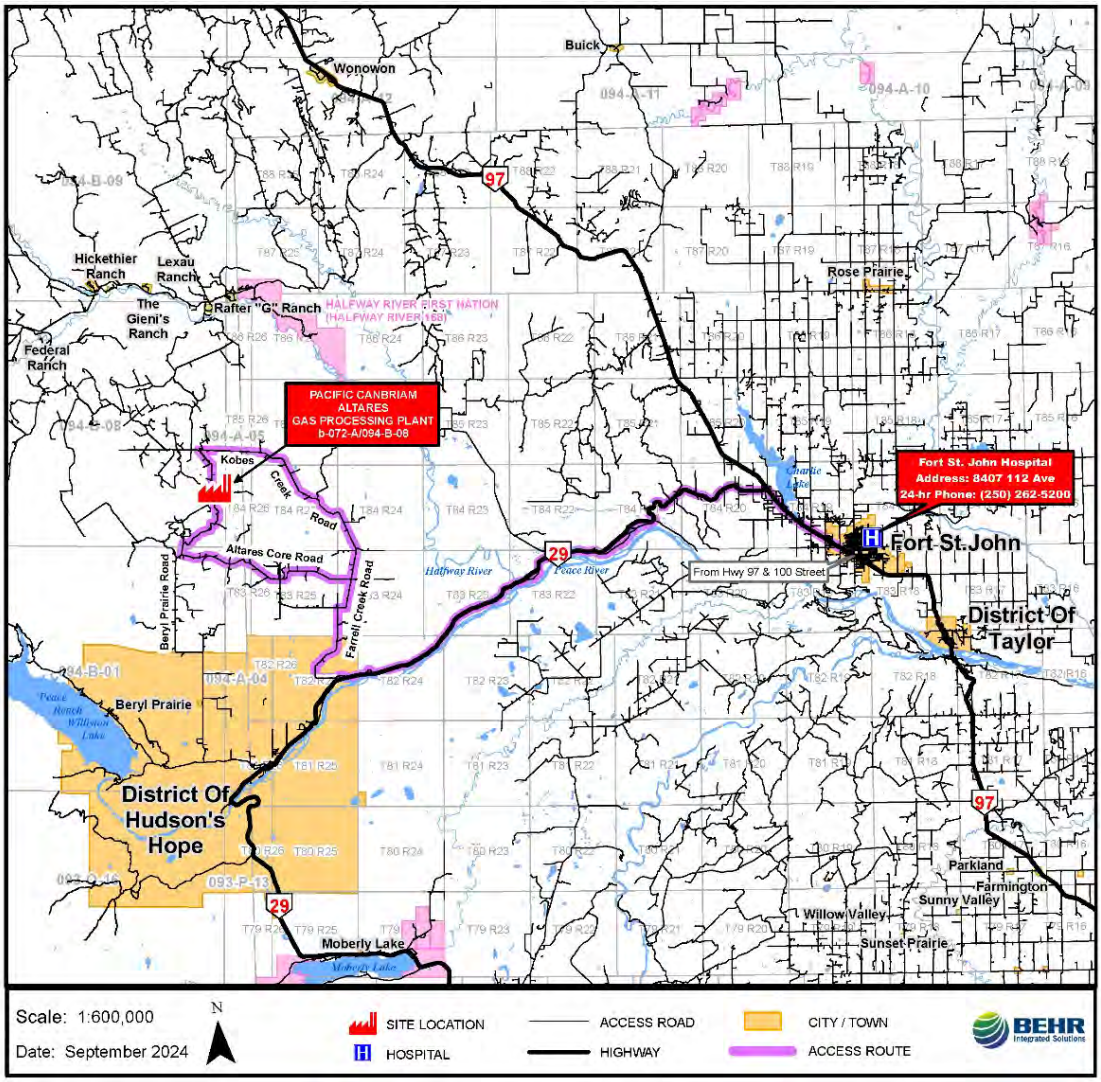
To Altares Gas Plant b-072-A / 94-B-08 – Total Distance 117 km

From Intersection of Hwy 97 and 100th Street, Fort St. John, BC

- Travel northwest on Hwy 97 for 12.5 km to Hwy 29 (Don Phillips Way).
- Turn left and travel southwest on Hwy 29 for 60.8 km.
- Turn right and travel west (then north) on Farrell Creek Road for 23.8 km.
- Continue travelling northwest onto Kobes Creek FSR for 20.8 km (preferred route).
- Turn left and travel south on Beryl Prairie FSR for 4.1 km.
- Turn left onto lease road to arrive into plant area.

Or

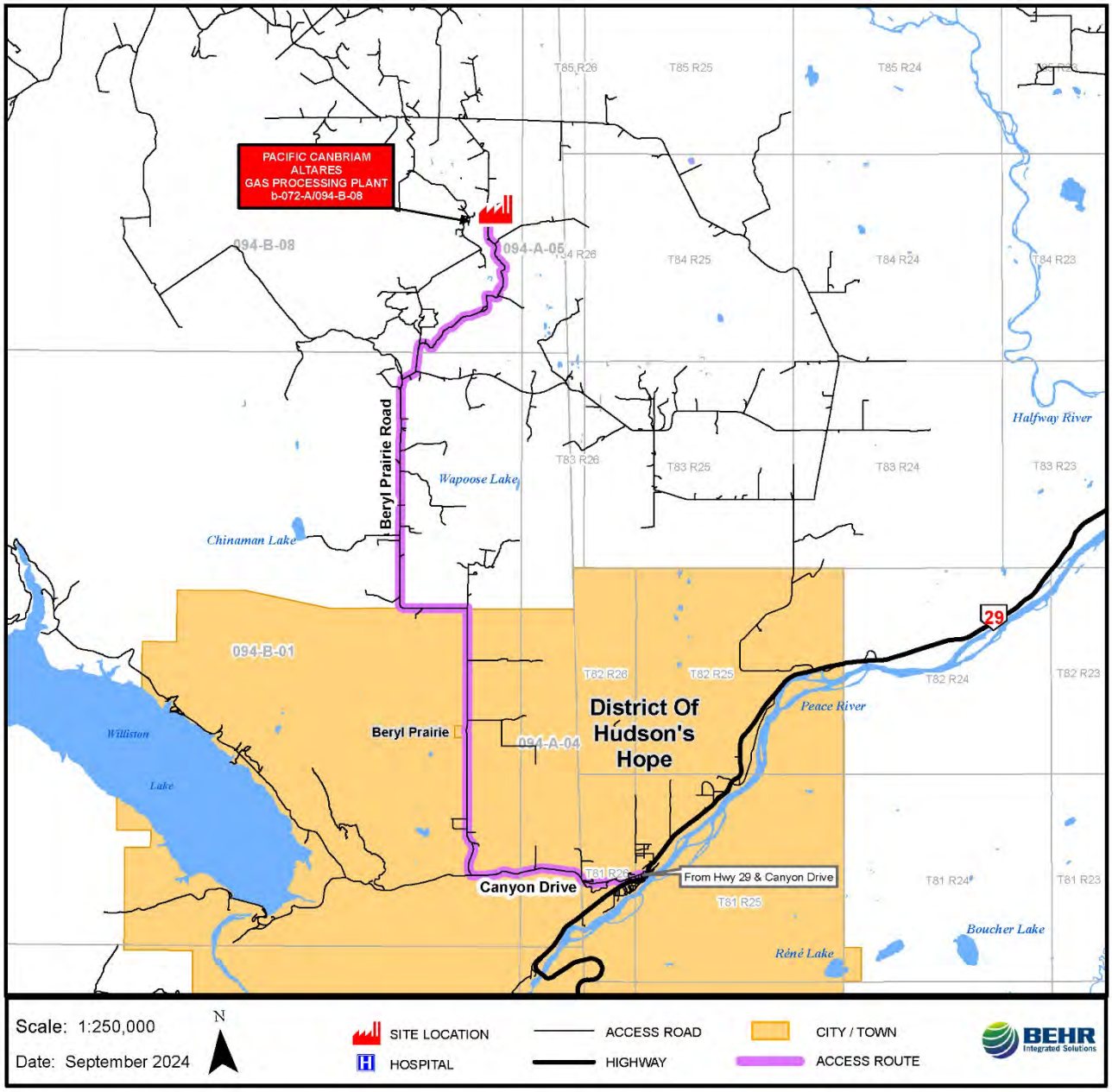
- Travel northwest on Hwy 97 for 12.5 km to Hwy 29 (Don Phillips Way).
- Turn left and travel southwest on Hwy 29 for 60.8 km.
- Turn right and travel west (then north) on Farrell Creek Road for 17.0 km.
- Turn left and travel west on Altares Core Road for 8.9 km.
- Continue west on Progress Connector for 0.8 km.
- Continue west on PDR 623 Progress Farrell Core Road for 11.5 km.
- Turn right and travel north on Beryl Prairie Road for 5.0 km.
- Continue north on Beryl Prairie FSR for 6.0 km.
- Turn left onto lease road to arrive into plant area.



To Altares Gas Plant b-072-A / 94-B-08 – Total Distance 46.3 km

From Intersection of Hwy 29 and Canyon Drive, Hudson's Hope, BC

- Travel west on Canyon Drive for 8.5 km.
- Turn right and continue north on Beryl Prairie Road for 24.7 km.
- Continue north on PDR 623 Progress Farrell Core Road for 2.6 km.
- Continue north on Beryl Prairie Road for 5.0 km.
- Continue north on Beryl Prairie FSR for 6.0 km.
- Turn left onto lease road to arrive in plant area.



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E2 Substances and Environmental Emergency Response Plan

Background & Purpose

Pacific Canbriam Energy Limited owns / operates work sites where Propane, Condensate and Natural Gas Liquids are produced as a result of their natural gas refining process. It is stored while awaiting shipment to market. The purpose of this Plan is to provide workers with basic information on how to implement The Pacific Canbriam Emergency Response Assistance Plan in the event of an emergency.

Emergency Response Assistance Canada (ERAC)

The mission of ERAC is to provide safe, timely, effective and compliant services that include the following:

- Dangerous goods response plans, drills and exercises to Plan Participants
- Dangerous goods responder training
- First responder training
- Emergency response

ERAC maintains a dedicated 24 hours, 7 days a week, plan activation telephone number that is answered by experienced Response Managers.

The telephone number to activate the ERAP through ERAC, in the event of an emergency during road transport, is **800.265.0212.**

Emergency Response Assistance Plan (ERAP)

Pacific Canbriam Energy Limited. has a registered ERAP in place with Transport Canada and Emergency Response Assistance Canada (ERAC) for shipments of Natural Gas Liquids (NGL) and Propane by road or rail transport.

ERAP Activation Number: 800.265.0212

ERAP Reference Numbers:
ERP2-0010-364 Valid for UN1075 LPG

The ERAP reference number and the Emergency Response Assistance Canada (ERAC) activation phone number must appear on all dangerous goods shipping documents and on signage at the tank location.

ERAP Response
As soon as you are made aware of an incident involving your dangerous goods, whether by the ERAP incident report or other means, you must decide how you will respond to the release or anticipated release. The person who submitted and received approval for the ERAP (or a

person delegated to do so that has been identified in the plan), is responsible for the implementation of the ERAP. Your options are:

Tier 1: Implementing the ERAP to Tier 1 means that you are responding, generally by telephone, by remotely monitoring the response to the release or anticipated release. None of the emergency response resources found in the ERAP are brought to the site of the incident during Tier 1.

Tier 2: Implementing the ERAP to Tier 2 means that you are responding at the site of the incident by monitoring the response to the release or anticipated release on site or remotely and bringing ERAP emergency response resources (response personnel and/or equipment) to the location of the release or anticipated release. If the incident warrants you to bring emergency response resources to the site immediately, you can skip Tier 1 and implement the plan directly to Tier 2.

A person with an approved ERAP must implement it to Tier 1 or Tier 2 in response to a release or anticipated release of dangerous goods.

ERAP Implementation Report
An ERAP Implementation Report must be made each time the approved ERAP is implemented to either a Tier 1 or Tier 2. You must, as soon as possible, after you addressed a request for technical or emergency response advice, call CANUTEC at 1.888.CANUTEC or 613.996.6666 to make a report.

ERAP Implementation Report

Date: _____ **Time:** _____

Name: _____ **Number:** _____

Authorized person to use the ERAP (if applicable): _____

ERAP Reference Number: **ERP2-0010-364:** Valid for UN1075 LPG

Shipping Name: _____

UN Number: _____

What Tier was the ERAP implemented to? **Tier 1** ☐ **Tier 2** ☐

Measures taken to respond to the release or anticipated release:

_____

_____

_____

_____

_____

ERAP Incident Report

An ERAP incident report must be made by the person who has the charge, management or control of a means of containment to the person at the ERAP telephone number and must be made after an incident has occurred, which causes a release or anticipated release of the dangerous goods in the course of handling or transporting, and which endangers, or could endanger, public safety.

ERAP Incident Report

Date: _____ **Time:** _____

Location of release: _____

Name: _____ **Number:** _____

ERAP Reference Number: **ERP2-0010-364:** Valid for UN1075 LPG

Shipping Name: _____

UN Number: _____

Mode of transport: _____

Total quantity before release: _____

Quantity estimated to have been released: _____

Description of containment measures: _____

_____

_____

_____

_____

Has means of containment been damaged to the extent that its' integrity could be compromised?

Yes ☐ **No** ☐

Is a transfer of the dangerous goods to another means of containment anticipated or required?

Yes ☐ **No** ☐

Describe the type of incident that led to the release or anticipated release, including a collision, rollover, derailment, overfill, fire, explosion or load-shift:

_____

_____

_____

Liquefied Petroleum Gases (LPG)
Propane is a flammable gas that is sometimes referred to as LP-Gas, LPG, or Liquefied Petroleum Gas. LPG is primarily made up of propane-butane mixtures, but might also contain small percentages of ethane, ethylene, propylene, isobutane, or butylene, all of which can cause slight variations in the LPG properties (eg. flammable range, vapour pressure, etc.).

Physical properties provide responders with knowledge of how LP gases will behave both within and after being released from its container. Physical properties of LP gases include:

- They are tasteless, colorless, and usually odourless. In order to detect propane leaks and reduce gas losses, a commercial odorant called Mercaptan may be added.
- Capable of being either a liquid or gas, however, under ambient conditions, propane will be a gas.
- Most LP gases can be stored and transported as liquids under pressure and can easily vaporize into gas under the proper conditions.
- Under normal outdoor temperatures liquid LP gases expand rapidly into gas. One cubic foot of liquid propane will boil off and produce 270 cubic feet of propane vapour.
- LP gases will expand when heat is applied. If stored inside a container, this expansion will increase the volume of the liquid and the pressure inside the container.
- LP gases are not toxic, but they present possible inhalation hazards. If released in a confined space, propane can displace oxygen and act as a simple asphyxiant.

Boiling Liquid Expanding Vapour Explosion (BLEVE)
A BLEVE may occur when a sealed container of liquefied gas, such as a propane tank, is exposed to a fire. The fire causes the container wall temperature to heat up and the internal tank pressure to rise rapidly. While the pressure vessel may be equipped with a pressure relief valve, the stress applied by the increased pressure and the deterioration of the container wall causes the container to rupture. The super heated liquid is released, expands and vaporizes in seconds, resulting in a catastrophic explosion.

It is important that the vessel is kept cool with water spray and the external fire is controlled and not allowed to come within close distance of the storage tank. Personnel are advised to withdraw immediately if sound from venting devices increases, or tank discoloration is observed.

Approach to Developing a Plan

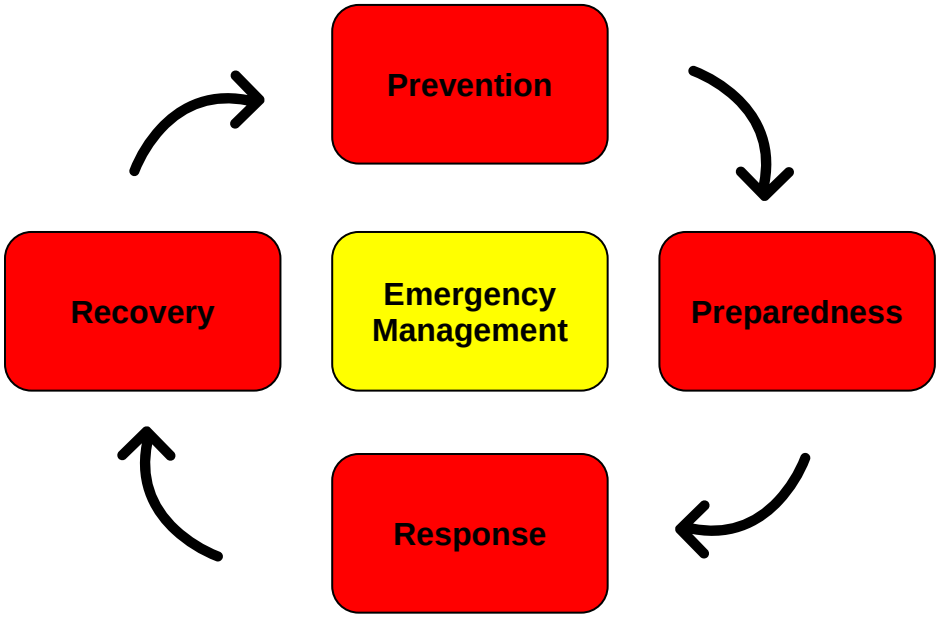
The purpose of emergency planning is to reduce and/or eliminate the risks of natural or human-induced disasters for human life and the environment.

E2 plans should integrate all relevant aspects of risk management. Undesirable events such as the release of hazardous substances could occur as a result of process, procedure or equipment failures. E2 plans should account for these scenarios by providing proactive identification, assessment, and mitigation measures.

A risk assessment conducted at a facility will:

1. Identify multiple scenarios that could occur that would lead to the release of the substance from the facility
2. Assess the probability of such scenarios occurring
3. Predict the impact distances from the scenarios for each substance
4. Describe the consequences of each scenario on human health and the environment.

Prevention, preparedness, response and recovery are the four pillars involved in E2 plan development. Below are some general concepts associated with each of these pillars.



Prevention

Environmental emergencies can be averted, or their severity limited by identifying in advance the cause of their probable frequency, potential consequences, and impacts.

Preventing environmental emergencies begins with evaluating the risks associated with the regulated substance(s) stored at the facility. Studying past spill events at the site and at similar sites in Canada allows for a more accurate prediction of the range of potential scenarios, including worst-case scenarios. This understanding is critical to assessing a facility's capabilities and resources for dealing with a crisis.

Preparedness

In preparing an E2 plan, it is important to involve key people, particularly first responders and representatives of potentially affected stakeholder groups in and around Pacific Canbriam Energy's facilities. Such consultation enhances the level and effectiveness of preparedness. When preparing the E2 plan, you should resolve identified gaps, consider options such as upgrading equipment, expanding staff, and increasing communication with and among neighbouring facilities, community officials, public safety agencies, etc. The communication of risk to surrounding communities is an important component of both prevention and preparedness activities.

Pacific Canbriam Energy Limited must identify and include reference in their plan to adequate training and resources to enable responders to respond to potential emergencies. Preparedness planning should reveal, depending on the significance and possible escalating nature of particular events, a facility's capabilities, and resources to effectively respond to an event adequately.

Response

Response to an environmental emergency is intended to include all aspects of managing the emergency situation until the emergency phase of the event is considered over. These needs can vary greatly in scope, depending on the nature and magnitude of the emergency. Effective emergency response includes, but is not limited to, the following:

- quick activation of the emergency plan
- adequate resource mobilization
- rapid assessment of the probable path and impacts of the emergency
- proper notification of the emergency to first responders and affected parties, including alerting, and warning the public
- maintenance of communication systems between stakeholders
- evacuating, confining, and accounting for personnel and members of the public present at a facility, if needed
- adequate reporting.

Quick and effective response relies on sound planning and pre-established partnerships. Effective emergency response calls for co-operation between industries, communities, local organizations and government through partnerships formed before emergencies occur. Such partnerships can be strengthened through the regular testing of the E2 plan with all of those involved. Communication from the facility to off-site agencies, to the public and among responders is important and necessary for a coordinated and successful response effort.

Recovery

Recovery from an environmental emergency is more than just the recovery of the spilled product. Recovery refers to the restoration of any part of the environment damaged by or during the emergency. Recovery affects both the operating entity itself and the surrounding community. The issue of recovery is best managed through discussions among all involved parties to assess the damage and agree on a restoration plan. The level of environmental restoration is determined by many factors, such as the size, persistence and toxicity, or hazardous nature of a release. Recovery of an area to its natural state is not always possible. Thus, restoration plans are situation-specific and would need to be defined in terms of acceptability to affected stakeholders.

Pacific Canbriam Energy Limited, in consultation with public authorities, should initiate recovery processes as soon as possible, striving for a rapid recovery from environmental damage. Those leading the recovery effort must be aware that rapid response without assessing the risks associated with the recovery effort can lead to increased damage and longer recovery times for the environment. The recovery process can either begin during response or can be initiated in stages until normal operations are restored. Planning for the recovery phase during the preparedness phase will improve recovery time and reduce impacts on the environment.

Emergency Scenarios

While the potential for a liquid petroleum gas release is low, it is important that personnel are familiar with product handling scenarios that may result in an actual emergency.

Possible Emergency Scenarios		
Stationary Tank Product Leak / Spill		
Potential Causes	▪ Loading / unloading incidents ▪ Container degradation ▪ Container rupture	▪ Container damage (due to vandalism, vehicle incident, effects from extreme weather, etc.)
Potential Hazards	▪ Fire / explosion, tank failure, vapour cloud. ▪ Evacuation of operations personnel and local residents.	▪ Local roads closed and traffic and/or business disrupted. ▪ Remote area may hinder prompt arrival of responders.
Potential Risks	▪ Responder injury ▪ Public injury ▪ Environmental damage	▪ Property damage ▪ Loss of revenue
Prevention	▪ Training / exercises ▪ Preventative maintenance ▪ JSA (job safety analyses) ▪ Clean work areas ▪ Personnel on-site daily ▪ Frequent inspections ▪ Frequent testing ▪ Truck loading / unloading procedures	▪ Barriers ▪ Break away valves ▪ Check valves ▪ ESD valves ▪ Positive grounding procedures ▪ Pressure safety valve ▪ Alarms / detectors ▪ Audits
Preparedness	▪ Training / exercises ▪ Warning sirens ▪ Safety equipment maintained and tested	▪ Mutual aid agreements ▪ Member of WCSS
Response	▪ Ensure safety of all personnel. ▪ Assess the need to shut off flow of product to the tank, activate Emergency Shut Down procedures if warranted. ▪ Call emergency services, as required. ▪ Contact Supervisor. ▪ Conduct an assessment of the situation and determine the Level of Emergency. ▪ Mobilize additional resources, as required ▪ Supervisor contacts the Area Manager who makes a decision on whether to enact the Corporate ERP.	▪ The Pacific Canbriam Supervisor contacts the appropriate regulatory agencies. ▪ The Fire Department implements a strategy to control the vapour cloud and bring in additional resources. In the event of a fire, water will be needed to extinguish or cool tanks or equipment ▪ If the emergency escalates, the Fire Department and / or the Incident Commander may call ERAC and implement the ERAP.
Recovery	▪ Incident investigation ▪ Develop a restoration plan ▪ Perform appropriate repairs ▪ Investigate the need to upgrade or improve facility equipment / processes	▪ Keep all affected parties informed of the situation ▪ Restore any part of the environment damaged by or during the emergency

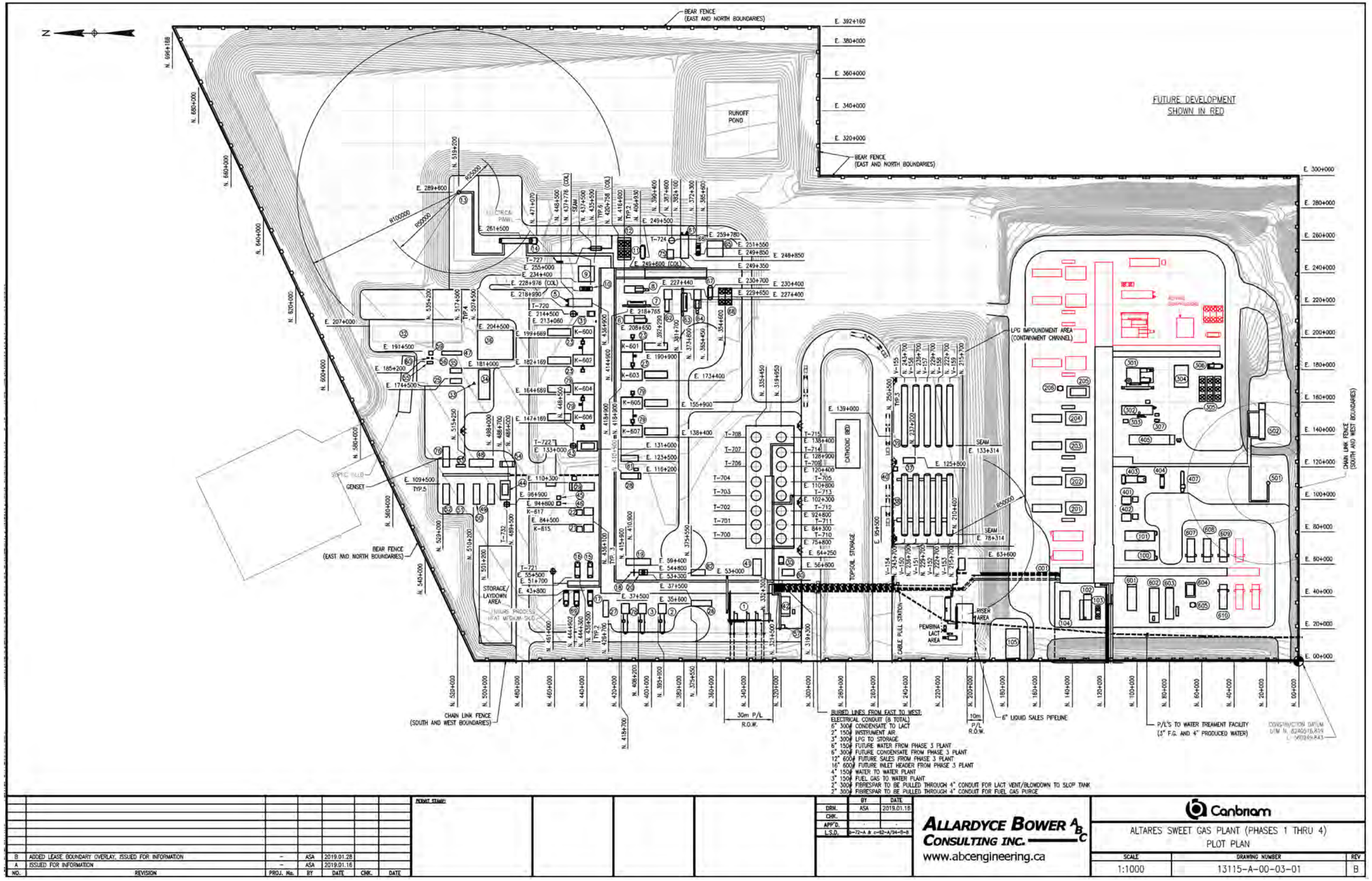
Possible Emergency Scenarios		
Tank Truck Transport Incident		
Potential Causes	▪ Vehicle incident ▪ Severe weather	▪ Driver in medical distress ▪ Driver fatigue
Potential Hazards	▪ Fire / explosion, tank failure, vapour cloud. ▪ Local roads closed and traffic disrupted. ▪ Remote area may hinder prompt arrival of responders.	▪ Potential of transport truck fluids (fuel, oil, etc.) impacting a waterway.
Potential Risks	▪ Responder injury ▪ Public injury ▪ Environmental damage	▪ Property damage ▪ Loss of revenue
Prevention	▪ Training / exercises ▪ Preventative maintenance ▪ JSA (job safety analyses)	▪ Truck loading / unloading procedures ▪ Driver abstract checks
Preparedness	▪ Training / exercises ▪ Safety equipment maintained and tested	▪ Mutual aid agreements ▪ Member of WCSS
Response	▪ The first priority, if it is safe to do so, is to protect the driver, the public and the environment. ▪ If you are first on the scene, call emergency services. ▪ Contact Supervisor. ▪ The Pacific Canbriam Supervisor contacts the appropriate regulatory agencies. ▪ If the incident occurs on a private road owned by Pacific Canbriam, the Pacific Canbriam Supervisor will contact the Area Manager who will make a decision on whether to enact the Corporate ERP.	▪ On a public roadway, the Police or Fire Department will control the scene and may contact CANUTEC, who will notify ERAC. ▪ The Fire Department implements a strategy to control the vapour cloud and bring in additional resources. In the event of a fire, water will be needed to extinguish or cool the transport tank. ▪ If the emergency escalates, the Fire Department and / or the Incident Commander may call ERAC and implement the ERAP.
Recovery	▪ Incident investigation ▪ Develop a restoration plan ▪ Perform appropriate repairs ▪ Investigate the need to upgrade or improve facility equipment	▪ Keep all affected parties informed of the situation ▪ Restore any part of the environment damaged by or during the emergency

Area Specifics

Altares b-72-A/94-B-8 Storage Tanks														
E2 ID	CAS #	UN #	Facility Name	Location	Substance	Hazard Category	Storage Type	Tank Volumes	Maximum Capacity of Largest Vessel	Maximum Quantity Expected on Site	Suggested Spill Evacuation Radius (m)	Suggested Fire Evacuation Radius (m)	Calculated Evacuation Radius (m)	Suggested BLEVE Evacuation Radius (m)
Altares b-72-A Facility														
4891	64741-48-6	1075	Altares b-72-A Facility	b-72-A/94-B-8	LPG	Explosion Hazard (E)	12 Bullets	397.47 m^3	211 metric tonnes	2110 metric tonnes	**800**	**1600**		**See page 21**
4891	64741-47-5	1268	Altares b-72-A Facility	b-72-A/94-B-8	Condensate	Combustible (C)	12 Tanks	2000 bbl	106.70 metric tonnes	506.70 metric tonnes	**300**	**800**		

Note: The suggested evacuation radius for Condensate and LPG is based on the distance listed in the Emergency Response Guidebook (2024).

Sensitive Receptors within the CEPA Response Zones			
Receptor	Potential Impact	Distance from Gas Plant	Contact Information
Trapline 735T004	Public Safety / Environmental	Gas Plant is inside Trapper Boundary	Contact information for Trappers are on the second page of this plan.
Guide / Outfitter 750015	Public Safety / Environmental	Gas Plant is inside WMU Boundary	Contact information for Guides / Outfitters are on the second page of this plan.
Range Tenure RAN073263	Public Safety / Environmental	Gas Plant is inside Range Tenure Boundary	Contact information for Range Tenures are on the second page of this plan.
Surface Developments - 6	Public Safety	Nearest surface development is approximately 0.5 km.	Contact information for residents / businesses can be found at the back of this section
Manned Oil and Gas Facilities	Public Safety	Nearest surface development is approximately 0.5 km.	Contact information for residents / businesses can be found at the back of this section


FUTURE DEVELOPMENT SHOWN IN RED
RUNOFF POND
BEAR FENCE (EAST AND NORTH BOUNDARIES)
CHAIN LINK FENCE (SOUTH AND WEST BOUNDARIES)
LPG IMPOUNDMENT AREA (CONTAINMENT CHANNEL)
STORAGE/ LAYDOWN AREA
TOPSOIL STORAGE
CATHODIC BED
CABLE PULL STATION
PEMBINA LACT AREA
RISER AREA
GENSET
30m P/L R.O.W.
10m P/L R.O.W.
BURIED LINES FROM EAST TO WEST:
ELECTRICAL CONDUIT (8 TOTAL)
6" 300# CONDENSATE TO LACT
2" 150# INSTRUMENT AIR
3" 300# LPG TO STORAGE
6" 150# FUTURE WATER FROM PHASE 3 PLANT
6" 300# FUTURE CONDENSATE FROM PHASE 3 PLANT
12" 600# FUTURE SALES FROM PHASE 3 PLANT
16" 600# FUTURE INLET HEADER FROM PHASE 3 PLANT
4" 150# WATER TO WATER PLANT
3" 150# FUEL GAS TO WATER PLANT
2" 300# FIBRESPAR TO BE PULLED THROUGH 4" CONDUIT FOR LACT VENT/BLOWDOWN TO SLOP TANK
2" 300# FIBRESPAR TO BE PULLED THROUGH 4" CONDUIT FOR FUEL GAS PURGE
6" LIQUID SALES PIPELINE
P/L'S TO WATER TREAMENT FACILITY (3" F.G. AND 4" PRODUCED WATER)
CONSTRUCTION DATUM
PERMIT STAMP
DRN. ASA 2019.01.18
CHK.
APP'D.
L.S.D. b-72-A & c-62-A/94-B-8
ALLARDYCE BOWER ABC CONSULTING INC.
www.abcengineering.ca
Canbriam
ALTARES SWEET GAS PLANT (PHASES 1 THRU 4)
PLOT PLAN
SCALE 1:1000
DRAWING NUMBER 13115-A-00-03-01
REV B
B ADDED LEASE BOUNDARY OVERLAY, ISSUED FOR INFORMATION – ASA 2019.01.28
A ISSUED FOR INFORMATION – ASA 2019.01.16
NO. REVISION PROJ. No. BY DATE CHK. DATE

Characteristics and Dangers of Condensate

- Highly flammable.
- Will be easily ignited by heat, sparks or flames.
- Vapours may form explosive mixtures with air.
- Vapours may travel to source of ignition and flash back.
- Most vapours are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapour explosion hazard indoors, outdoors or in sewers
- Those substances designated with a **(P)** may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.
- May cause toxic effects if inhaled or absorbed through skin.
- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire will produce irritating, corrosive and / or toxic gases.
- Vapours may cause dizziness or suffocation.
- Runoff from fire control or dilution water may cause pollution.

Characteristics and Dangers of Liquid Petroleum Gases (LPG)

- Extremely flammable.
- Will be easily ignited by heat, sparks or flames.
- Will form explosive mixtures with air.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Vapors may travel to source of ignition and flash back.
- Cylinders exposed to fire may vent and release flammable gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.
- Vapors may cause dizziness or asphyxiation without warning, especially when in closed or confined areas.
- Some vapors may be irritating if inhaled at high concentrations.
- Contact with gas or liquefied gas may cause burns, severe injury and / or frostbite.
- Fire may produce irritating and / or toxic gases.

Liquefied Petroleum Gas (LPG)

Gases – Flammable (Including Refrigerated Liquids) – Guide 115 – Taken from the Emergency Response Guidebook 2024

Potential Hazards

Fire or Explosion

- **Extremely flammable.**
- May be easily ignited by heat, sparks or flame.
- Will form explosive mixtures with air.
- Vapours from liquefied gas are initially heavier than air and spread along the ground.

CAUTION: Methane is lighter than air and will rise.

- Vapours may travel to source of ignition and flashback.
- Cylinders exposed to fire may vent and release toxic and flammable gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

Health

- Vapors may cause dizziness or asphyxiation without warning, especially when in closed or confined areas.
- Some may be irritating if inhaled at high concentrations.
- Contact with gas, liquefied gas or cryogenic liquids may cause burns, severe injury and/or frostbite.
- Fire may produce irritating and/or toxic gases.

Public Safety

- **Call 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Many gases are heavier than air and will spread along the ground and collect in low or confined areas (sewers, basements, tanks, etc.).

Protective Clothing

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection**.
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.

Evacuation

- Immediate Precautionary Measure
  - Isolate spill or leak area for at least 100 metres (330 feet) in all directions.
- Large Spill
  - Consider initial downwind evacuation for at least 800 metres (0.5 mile)
- Fire
  - If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.
  - In fires involving Liquefied Petroleum Gases (LPG) (UN1075), also refer to BLEVE table on page 21.

Liquefied Petroleum Gas (LPG)

Emergency Response

Fire

Do not extinguish a leaking gas fire unless leak can be stopped.

Small Fire

- Dry chemical or CO_2.

Large Fire

- Water spray or fog.
- If it can be done safely, move undamaged containers away from the area around the fire.

Fire Involving Tanks

- Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks in direct contact with flames.
- For massive fire, use unmanned master stream devices or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) from immediate area.
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- Prevent spreading of vapors through sewers, ventilation systems and confined areas.
- Isolate area until gas has dispersed.

CAUTION: When in contact with refrigerated / cryogenic liquids, many materials become brittle and are likely to break without warning.

Liquefied Petroleum Gas (LPG)

Emergency Response

First Aid

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect
- themselves and avoid contamination.
- Move victim to fresh air if it can be done safely.
- Administer oxygen if breathing is difficult.
- If victim is not breathing:
  - DO NOT perform mouth-to-mouth resuscitation; the victim may have ingested or inhaled the substance.
  - If equipped and pulse detected, wash face and mouth, then give artificial respiration using a proper respiratory medical device (bag-valve mask, pocket mask equipped with a one-way valve or other device).
  - If no pulse detected or no respiratory medical device available, provide continuous compressions. Conduct a pulse check every two minutes or monitor for any signs of spontaneous respirations.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For severe burns, immediate medical attention is required.
- Effects of exposure (inhalation, ingestion, or skin contact) to substance may be delayed.
- Keep victim calm and warm.
- Keep victim under observation.
- For further assistance, contact your local Poison Control Center.
- **Note:** Basic Life Support (BLS) and Advanced Life Support (ALS) should be done by trained professionals.

Specific First Aid:

- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, only medical personnel should attempt thawing frosted parts.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.

Condensate

Flammable Liquids (Water – Immiscible / Noxious) – Guide 128 –
Taken from the Emergency Response Guidebook 2024

Potential Hazards

Fire or Explosion

- **Highly flammable: Will be easily ignited by heat, sparks or flames.**
- Vapours may form explosive mixtures with air.
- Vapours may travel to source of ignition and flash back.
- Most vapours are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapour explosion hazard indoors, outdoors or in sewers
- Those substances designated with a **(P)** may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.
- Substance may be transported hot.

Health

- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire may produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or asphyxiation, especially when in closed or confined areas.
- Runoff from fire control or dilution water may cause environmental contamination.

Public Safety

- **Call 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Ventilate closed spaces before entering, but only if properly trained and equipped.

Protective Clothing

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing provides only thermal protection **but only limited chemical protection.**

Evacuation

- Immediate Precautionary Measure
  - Isolate spill or leak area for at least 50 metres (150 feet) in all directions.
- Large Spill
  - Consider initial downwind evacuation for at least 300 metres (1000 feet)
- Fire
  - If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 metres (1/2 mile) in all directions; also, consider initial evacuation for 800 metres (1/2 mile) in all directions.

Condensate

Emergency Response

Fire

Caution: The majority of these products have a very low flash point. Use of water spray when fighting fire may be inefficient.

Small Fire

- Dry chemical, CO_2, water spray or regular foam. If regular foam is ineffective or unavailable, use alcohol-resistant foam.

Large Fire

- Water spray, fog or regular foam. If regular foam is ineffective or unavailable, use alcohol-resistant foam.
- Avoid aiming straight or solid streams directly onto the product.
- If it can be done safely, move undamaged containers away from the area around the fire.

Fire Involving Tanks or Car / Trailer Loads

- Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- For petroleum crude oil, do not spray water directly into a breached tank car. This can lead to a dangerous boil over.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks in direct contact with flames.
- For massive fire, use unmanned master stream devices or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

Spill or Leak

- Eliminate all ignition sources (no smoking, flares, sparks or flames) from immediate area.
- All equipment used when handling the product must be grounded.
- Do not touch or walk though spilled material.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapour-suppressing foam may be used to reduce vapours.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- Use clean, non-sparking tools to collect absorbed material.

Large Spill

- Dike far ahead of liquid spill for later disposal.
- Water spray may reduce vapour but may not prevent ignition in closed spaces.

Condensate

Emergency Response

First Aid

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect
- themselves and avoid contamination.
- Move victim to fresh air if it can be done safely.
- Administer oxygen if breathing is difficult.
- If victim is not breathing:
  - DO NOT perform mouth-to-mouth resuscitation; the victim may have ingested or inhaled the substance.
  - If equipped and pulse detected, wash face and mouth, then give artificial respiration using a proper respiratory medical device (bag-valve mask, pocket mask equipped with a one-way valve or other device).
  - If no pulse detected or no respiratory medical device available, provide continuous compressions. Conduct a pulse check every two minutes or monitor for any signs of spontaneous respirations.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For severe burns, immediate medical attention is required.
- Effects of exposure (inhalation, ingestion, or skin contact) to substance may be delayed.
- Keep victim calm and warm.
- Keep victim under observation.
- For further assistance, contact your local Poison Control Center.
- **Note:** Basic Life Support (BLS) and Advanced Life Support (ALS) should be done by trained professionals.

Specific First Aid:

- Wash skin with soap and water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.

WARNING: The data given is approximate and should only be used with extreme caution. These times can vary from situation to situation. LPG tanks have been known to BLEVE within minutes, therefore, never risk life based on these times.

BLEVE (USE WITH CAUTION)

Capacity		Diameter		Length		Propane Mass		Minimum Time To Failure For Severe Torch	Approximate Time To Empty For Engulfing Fire	Fireball Radius		Emergency Response Distance		Minimum Evacuation Distance		Preferred Evacuation Distance		Cooling Water Flow Rate	
Litres	Gallons	m	ft	m	ft	kg	lb	Minutes	Minutes	m	ft	m	ft	m	ft	m	ft	Litres/min	USgal/min
100	26.4	0.3	1	1.5	4.9	40	88	4	8	10	33	90	295	154	505	307	1007	97	26
400	106	0.61	2	1.5	4.9	160	353	4	12	16	52	90	295	244	801	488	1601	195	52
2000	528	0.96	3.1	3	9.8	800	1764	5	18	28	92	111	364	417	1368	834	2736	435	115
4000	1057	1	3.3	4.9	16.1	1600	3527	5	20	35	115	140	459	525	1722	1050	3445	615	163
8000	2113	1.25	4.1	6.5	21.3	3200	7055	6	22	44	144	176	577	661	2169	1323	4341	870	230
22000	5812	2.1	6.9	6.7	22	8800	19401	7	28	62	203	247	810	926	3038	1852	6076	1443	381
42000	11095	2.1	6.9	11.8	38.7	16800	37038	7	32	77	253	306	1004	1149	3770	2200	7218	1994	527
82000	21662	2.75	9	13.7	45	32800	72312	8	40	96	315	383	1257	1435	4708	2200	7218	2786	736
140000	36984	3.3	10.8	17.2	56.4	56000	123459	9	45	114	374	457	1499	1715	5627	2200	7218	3640	962

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Reporting

Canadian Environmental Protection Act (CEPA) Reporting Requirements
These reporting requirements are set out by Environment & Climate Change Canada, however, notification and reporting is made through Emergency Management & Climate Readiness (EMCR) **1.800.663.3456**
Section 201 of CEPA 1999 sets out the obligation to notify the environmental emergencies to the Department. This section requires that, when an environmental emergency occurs in respect of any of the substances listed under the Regulations or interim orders (eg. Schedule 1 of the Regulations), any person who owned or had the charge, management, or control of the substance immediately before the environmental emergency, or any person who caused or contributed to the environmental emergency, must, as soon as possible, notify the regional enforcement or any other person designated by the regulations.
▪ A **verbal notification** is to be made by telephone **as soon as possible** in the circumstances to EMCR **1.800.663.3456**. ▪ A **written report (Schedule 8 Notice)** must be submitted in the online E2 reporting system **as soon as possible** in the circumstances. The system is accessed through the Single Window Information Management (SWIM) system (available at: https://ec.ss.ec.gc.ca). Section 18 of the Regulations clarifies that written reports must be provided only when the environmental emergency meets at least one of the following three criteria: **(a)** has or may have an immediate or long-term harmful effect on the environment; **(b)** constitutes or may constitute a danger to the environment on which human life depends; or **(c)** constitutes or may constitute a danger in Canada to human life or health. If there is any doubt as to whether the incident is a reportable environmental emergency, the incident should be reported, and a written report should be provided.
Environmental emergencies involving substances listed in Schedule 1 of the Regulations are required to be reported as soon as possible. The obligation to report environmental emergencies applies whether or not the quantities of substances or container capacity are met or are above the specified quantity threshold.

Fisheries and Oceans Canada (DFO) Reporting Requirements

If there is a release into a water body of **any** substance deleterious to fish, contact Fisheries and Oceans Canada (DFO) (only if fish bearing waterbody) at **1.800.889.8852.**

Transport Canada Reporting Requirements

If a spill occurs during the transportation or handling of a Transportation of Dangerous Goods regulated product where the volume exceeds those specified in the following table, the spill must be immediately reported to the local police, EMCR at **1.800.663.3456 and** CANUTEC – **1.888.226.8832**

TRANSPORT CANADA REPORTING REQUIREMENTS

Any spill or release that goes off-lease that has caused, is causing, or may cause an adverse effect, must immediately be reported to the local police, EMCR – 1.800.663.3456 and CANUTEC – 1.888.226.8832

Class	Division	Characteristics of Dangerous Goods	Quantity	Packing Group
1 Explosives (Sections 2.9 – 2.12)	1.1	A substance or article with a mass explosion hazard	Any quantity	II – Hazardous Substances
	1.2	A substance or article with a projection hazard but not a mass explosion hazard		
	1.3	A substance or article which has a fire hazard and either a minor blast hazard or a minor projection hazard or both, but does not have a mass explosion hazard		
	1.4	A substance or article which presents no significant hazard beyond the package in the event of ignition or initiation during transport		
	1.5	A very insensitive substance with a mass explosion hazard		
	1.6	Extremely insensitive article with no mass explosion hazard		
2 Gases (Sections 2.13 – 2.17)	2.1	A flammable gas which is easily ignited and burns	Any quantity	Not Applicable
	2.2	A non-flammable, non-toxic, non-corrosive gas		
	2.3	A toxic gas		
3 Flammable Liquids (Sections 2.18 – 2.19)	*	A flammable liquid with a closed-cup flash point less than or equal to 60.0°C	Any quantity (Packing Group I or II) 30 L or 30 kg (Packing Group III)	I – Very Hazardous Substances or II - Hazardous Substances, or III – Moderately Hazardous Substances
4 Flammable Solids (Sections 2.20 – 2.22)	4.1	A flammable solid which is readily combustible and may cause fire through friction or from heat retained from manufacturing	Any quantity (Packing Group I or II) 30 L or 30 kg (Packing Group III)	I – Very Hazardous Substances or II - Hazardous Substances, or III – Moderately Hazardous Substances
	4.2	A spontaneously combustible substance that ignites when exposed to air		
	4.3	A water-reactive substance which emits flammable gas when it comes into contact with water		
5 Oxidizing Substances, Organic Peroxides (Sections 2.23 – 2.25)	5.1	An oxidizing substance which may yield oxygen and contribute to the combustion of other material	Any quantity (Packing Group I or II) 30 L or 30 kg (Packing Group III)	I – Very Hazardous Substances or II - Hazardous Substances, or III – Moderately Hazardous Substances
	5.2	An organic peroxide which releases oxygen readily and may be liable to explosive decomposition, or sensitive to heat, shock or friction		
6 Toxic and Infectious Substances (Sections 2.26 – 2.36)	6.1	A toxic substance that is liable to cause harm to human health	Any quantity (Packing Group I or II) 30 L or 30 kg (Packing Group III)	I – Very Hazardous Substances or II - Hazardous Substances, or III – Moderately Hazardous Substances
	6.2	An infectious substance	Any quantity	A or B
7 Radioactive Materials (Sections 2.37 – 2.39)	None	Radioactive materials as defined in the Packaging and Transport of Nuclear Substance Regulations	A level of ionizing radiation greater than the level established in section 39 of the "Packaging and Transport of Nuclear Substance Regulations 2015"	Not Applicable
8 Corrosive Substances (Sections 2.40 – 2.42)	None	Solids or liquids such as acids or alkalis materials that cause destruction of the skin or corrode metals	Any quantity (Packing Group I or II) 30 L or 30 kg (Packing Group III)	I – Very Hazardous Substances or II - Hazardous Substances, or III – Moderately Hazardous Substances
9 Miscellaneous Products, Substances or Organisms (Sections 2.43 – 2.45)	None	A regulated substance that cannot be assigned to any other class. It includes genetically modified micro-organisms, marine pollutants and substances transported at elevated temperatures	30 L or 30 kg	II – Hazardous Substances or III – Moderately Hazardous Substances, or without packing group

Training and Exercises

Environmental emergency exercises involve a simulation relating to an emergency that can reasonably be expected to occur with substance(s) at the facility that are subject to the Regulations. The simulations are meant to explore, learn from and prepare for scenarios described within the E2 plan that potentially have harmful effects on the environment or human life or health. Exercising the E2 plan provides those who are responsible for the plan with valuable information regarding the facility's readiness to respond to one or multiple elements of their plan. Any lessons learned via the exercise can be used to update and improve the plan.

The Regulations require that E2 plans be exercised on an annual basis. A full-scale exercise must also be conducted every five years. Based on these exercises, the E2 plans must be reviewed and updated, as required. Pacific Canbriam Energy Limited is required to keep a record of the results of these annual and full-scale simulation exercises, including the date and summary of the exercise, the results of the exercise and any modifications made to the plan as a result. Up-to-date exercise records are kept separately from this document within Pacific Canbriam Energy Limited's record management system.

Types of E2 Plan Exercises

Annual Simulation Exercise

This is an exercise that simulates the response to an environmental emergency that involves the release of one Schedule 1 substance from each of the hazard categories present at the facility. Examples that fulfill the requirements include:

Drills
These are supervised activities that allow emergency response team members to validate a specific operation or function, usually focused on one or two key skills such as shutdown procedures or valve operation. Drills can also be used to determine if plans can be executed as designed, to assess whether more training is required, or to reinforce best practices.

Tabletop Exercises
This type of exercise is presented by a facilitator in an informal setting with no hands-on practice or fieldwork. This type of exercise is intended to generate discussion about various issues regarding a hypothetical, simulated emergency. Tabletop exercises can boost general awareness, validate plans and procedures, rehearse concepts, and / or assess the types of systems needed to guide the prevention of, protection from, mitigation of, response to, and recovery from a defined incident.

Functional Exercises
These exercises provide a more realistic simulation of an emergency compared to a tabletop exercise. They are typically conducted in "real-time" in a classroom setting or a designated site for a Command Post. The Command Post Team "takes action" – making decisions, simulating the deployment of resources, and responding to new developments.

In comparison to a full-scale exercise, a functional exercise involves fewer participants, and the movement of personnel and equipment is simulated.

Full-Scale Simulation Exercise
This is an action-based simulation exercise requiring the deployment of personnel, resources, and equipment. The scenario must involve at least one Schedule 1 substance located at the facility. Full-scale exercises are typically the most complex and resource-intensive because they are staged in a realistic field environment with equipment deployment and involve many participants performing assigned tasks in real-time. Full-scale exercises give the team an opportunity to practice and validate their plans, policies, and a wide variety of the skills covered in response team training. Volunteers may play the role of victims and mock injuries can be staged. These exercises may involve other agencies, although role players representing other agencies can be used if desired.

Cycle for Annual Exercises

A different simulation exercise for each hazard category must be carried out annually so that all the environmental emergencies identified in the E2 plan will be exercised over time. If the facility has more than one substance from the same hazard category, you must simulate one environmental emergency identified in the E2 plan for one substance in that hazard category. ECCC recommends rotating substances when available, if applicable.

Example Exercise Cycle		
	Condensate	**LPG**
Hazard Category	Combustible (C)	Explosion (E)
Probable Case	Spill / Leak	Spill / Leak
Worst Case	Fire / BLEVE	Fire / BLEVE
Year 1	Condensate – Flash Fire	LPG – Fire / BLEVE
Year 2	Condensate – Spill / Leak	LPG – Spill / Leak
Year 3	Condensate – Pool Fire	LPG – Fire / BLEVE
Year 4	Condensate – Spill / Leak	LPG – Spill / Leak
Year 5	Full Scale for any (1) of the Hazard Categories – any scenario.	

Training Requirements

Pacific Canbriam Energy Limited is responsible for ensuring the readiness and expertise of their personnel required to activate the E2 Plan.

The following table summarizes the training that has been or will be provided to prepare personnel at the facility who will respond in the event of an environmental emergency.

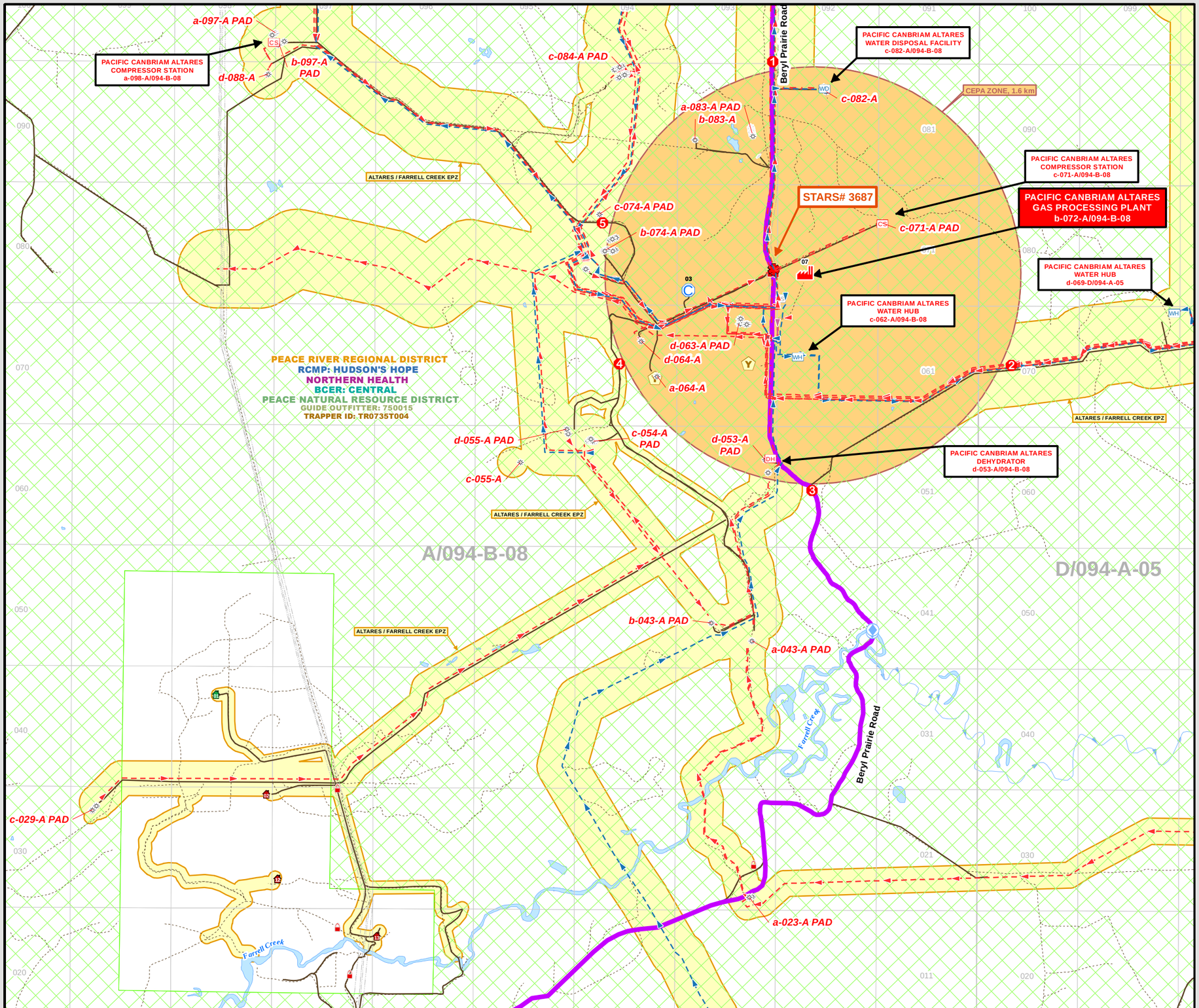
Training Record			
Position	**Training**	**Date**	**Renewal**
Incident Commander	ERP / E2 Plan	Up-to-date training records are kept separately from this document within Pacific Canbriam Energy Limited's record management system.	
	ICS 100		
	ICS 200		
	WHMIS		
	H2S Alive		
Safety Officer	ICS 100		
	ICS 200		
	WHMIS		
Information Officer	ICS 100		
	ICS 200		
	Media Relations Training		
	Public Relations Training		

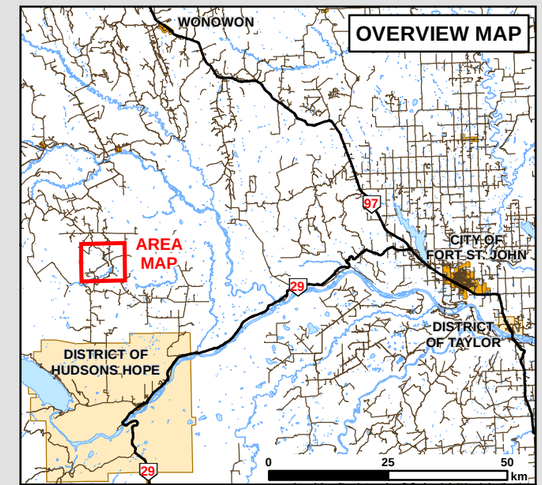
Exercise Record				
Date of Exercise	Location	Hazard Category	Type of Emergency	Annual / Full Scale

Safety Data Sheets (SDS)

The following SDS that are applicable to the Pacific Canbriam b-72-A/94-B-8 Facility are located on Pacific Canbriam's sdsBinders online system:

- Condensate (Sweet)
- LPG (Sweet)





CLIENT FACILITY TYPE

- GAS PROCESSING PLANT
- CENTRAL TREATMENT PLANT
- CENTRAL PROCESSING FACILITY
- INJECTION PLANT
- COMPRESSOR
- PUMP STATION
- PIPELINE TERMINAL
- DEHYDRATOR
- WASTE PROCESSING
- METER STATION
- HEADER / RISER
- BATTERY
- SATELLITE
- CHECK VALVE
- BLOCK VALVE
- EMERGENCY SHUTDOWN VALVE
- PROPANE BULLET
- TANK

CLIENT PIPELINE TYPE

- OIL SOUR - OPERATING
- OIL SWEET - OPERATING
- OIL PRODUCTS - DISCONTINUED
- GAS SOUR - OPERATING
- GAS SWEET - OPERATING
- GAS PRODUCTS - DISCONTINUED
- WATER SOUR - OPERATING
- WATER SWEET - OPERATING
- WATER - DISCONTINUED
- HVP - OPERATING
- HVP - DISCONTINUED
- LVP - OPERATING
- LVP - DISCONTINUED
- STEAM / AIR - OPERATING
- STEAM / AIR - DISCONTINUED
- MISC - OPERATING
- MISC - DISCONTINUED

SURFACE DEVELOPMENT

- RESIDENCE OCCUPIED
- BUSINESS OCCUPIED
- RESIDENCE SENSITIVE
- BUSINESS SENSITIVE
- RESIDENCE SEASONAL
- PUBLIC FACILITY
- STRUCTURE VACANT
- STRUCTURE ABANDONED
- STRUCTURE OUTSIDE OF EPZ

NON-CLIENT OPERATORS

- GAS PROCESSING PLANT
- FACILITY
- WELL
- PIPELINE

CLIENT WELL TYPE

- WELL - GAS
- WELL - OIL
- WELL - WATER SOURCE
- WELL - WATER INJECTION
- WELL - OBSERVATION
- WELL - LOCATION
- WELL - GAS SUSPENDED
- WELL - OIL SUSPENDED

EMERGENCY RESPONSE

- EPZ (EMERGENCY PLANNING ZONE)
- IIZ (INITIAL ISOLATION ZONE)
- CEPA ZONE
- EPZ (EXISTING SYSTEM)
- EGRESS
- ERP ACCESS

GENERAL CULTURE

- EVACUATION / RECEPTION CENTER
- EVACUATION ROUTE
- INCIDENT COMMAND POST
- STARS SITE
- FIRE HALL
- HOSPITAL
- MEDICAL CENTER
- SECURITY CHECKPOINT
- SCHOOL
- PLACE OF WORSHIP
- CEMETERY
- RAIL FACILITY
- INDUSTRY CAMP
- GRAVEL PIT
- STORAGE YARD
- GOLF COURSE
- CAMPGROUND
- CAMPGROUND PRIVATE
- CAMPGROUND UNDEVELOPED
- PICNIC / REST AREA
- CAMPSITE
- ROADBLOCK
- DEAD END
- GATED ACCESS
- AIRPORT
- AIR STRIP
- HELI PAD
- FORESTRY TOWER
- OTHER TOWER
- COMMUNICATION TOWER
- AIR MONITORING SITE
- ELECTRICAL SUBSTATION
- RAIL CROSSING
- HISTORIC SITE
- WATER CROSSING
- BRIDGE
- WCSS CONTROL POINT
- CLIENT CONTROL POINT
- CONTROL POINT LABEL
- BOAT LAUNCH
- SOLAR FARM
- WIND FARM
- SPECIAL INTEREST GROUP
- HIGHWAY - PRIMARY
- HIGHWAY - SECONDARY
- MAIN ACCESS ROAD
- OTHER ACCESS
- RAIL
- LOCAL AUTHORITY
- LAW ENFORCEMENT
- HEALTH AUTHORITY
- REGULATOR AUTHORITY
- SPILL COOP
- NATURAL RESOURCE DISTRICT (B.C. Only)
- FOREST MANAGEMENT AREA (AB Only)
- WMU / GUIDE OUTFITTER
- TRAPLINE
- PROVINCE
- WATER
- POPULATED PLACE
- FIRST NATION / MÉTIS SETTLEMENT
- RECREATIONAL AREA (AB Only)
- PARK / PROTECTED AREA
- GRAZING / RANGE TENURE
- LANDOWNER
- RIGHTS HOLDER
- MILITARY AREA
- FENCE BOUNDARY
- FACILITY BOUNDARY

PACIFIC CANBRIAM ENERGY

NEBC FIELD SUPPLEMENT 2024
ALTARES b-72-A/094-B-08 AREA MAP

BEHR Integrated Solutions
www.behrintegrated.com

Drawn By: TMV
Scale: 1:30,000 — Project No.: 14676
Map Projection: NAD 83 UTM 10 — Revision: 0 - SEPT 2024

0 0.5 1 1.5 2 2.5
Kilometers

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Area Occupant Data

Confidential Data

Confidential data collected during the Public Involvement Program will only be included in manuals labelled as ***Confidential***.

All manuals will contain contact information for publicly listed data for area occupants within the HPZ that may include Trappers, Grazing Lease Holders and Industrial Operators. Refer to each site-specific area in the *Assets and Equipment Section* for this information.

The following reports are only included in copies of the confidential ERP:

Surface Development – Summary Report
- Includes contact information for all surface developments within the HPZ.
- Report sorted by Map Coordinates.

Special Needs Contacts within the EPZ – Summary Report
- Includes residents who have indicated they may require early response actions due to medical needs or communication barriers.
- Report sorted by Map Coordinates.

School / Student – Summary Report
- Includes children who may be in school during an incident.
- Report sorted by Map Coordinates.

Surface Development – Detail Report (per location)
- Includes all information pertaining to a specific location.
- The individual detail reports are sorted by Map Coordinates.

Surface Development – Summary Report (Alphabetical)
- Includes contact information for all surface developments within the HPZ.

Report is sorted Alphabetically.

Public Information Package

A public information package was prepared and delivered to area occupants during the public involvement process. A copy of the public information package is included in all manuals.

EPZ STAKEHOLDER SUMMARY REPORT

Pacific Canbriam Energy/Altares Plant b-72-A/94-B-08

The following report provides an overview of all Stakeholders identified within the Emergency Planning Zone, based on information gathered during the most recent Public Notification and Consultation Campaign, and other situational awareness data gathered during the most recent Emergency Response Plan update.

EMERGENCY PLANNING ZONE (EPZ) OVERVIEW	
Surface Developments within the EPZ	6
Occupants living / working within the EPZ (includes all Students)	77
Students attending school who live within the EPZ	3
Surface Developments with Sensitivities (There may be more than one sensitivity per Surface Development)	3

OCCUPANT SENSITIVITIES OVERVIEW (Sensitivities are identified for response activities and for consultation awareness)	
Aboriginal Community Member	0
Evacuation Assistance	0
Language / Comprehension Barrier	0
Not Contacted During Public Notification / Consultation Campaign	3
Other Special Needs	0
Potentially Contentious Occupant	1
Requires Early Notification	0
Sensitive to Industry Development	0

SURFACE DEVELOPMENTS OVERVIEW	
PRIVATE PROPERTY (Locations where people live)	
Residences – Abandoned	0
Residences – Not contacted	3
Residences – Occupied Full Time	1
Residences – Seasonal / Part Time	0
Residences – Vacant	0
Building - Unoccupied	0
Resident Surface Developments within the EPZ	4
Unoccupied Surface Developments within the EPZ	0

PUBLIC FACILITIES (Locations where members of the public may congregate)	
Airport/Airstrip	0
Boat Launch - Recreational	0
Camp site – Off-Road	0
Campground - Official	0
Campsite - Developed	0
Cemetery	0
Community Center	0
Evacuation / Reception Centre	0

Golf Course	0
Helispot	0
Hospital	0
Picnic / Rest Area	0
Place of Worship	0
Public Facility	0
School	0
Public Facility Locations within the EPZ	0

NON RESIDENT LAND USERS (Locations where people may be working)	
Business / Industrial Land Users	
Business	0
Other O&G Operator Battery	0
Other O&G Operator Camp	1
Other O&G Operator Compressor	0
Other O&G Operator Plant	1
Business / Other O&G Operator Locations within the EPZ	2

Other Land Users (Locations where people may be working periodically)	
Air Monitoring Site / Trailer	0
Electrical Sub Station	0
Gravel Pit	0
Guide / Outfitter	0
Landowner	0
Military / Base	0
Registered Trapline / Trapper	0
Rights Holder / Allotment User	0
Security Gate / Checkpoint	0
Solar Farm	0
Special Interest Group	0
Spill Control Point	0
Storage / Laydown Yard	0
Tower - Communication	0
Tower - Forestry	0
Tower - Other	0
Wind Farm	0
Other Non - Resident Land Users within the EPZ (This total does not include Businesses / Industrial Locations above)	0

ALTARES / FARRELL CREEK FIELD 2024 ANNUAL UPDATE

PUBLIC INFORMATION PACKAGE

OVERVIEW

Pacific Canbriam Energy Limited. is committed to protecting public safety and the environment. Our history as a company has demonstrated this commitment and our ability to safely conduct exploration and production operations.

As part of our ongoing safety program, we are contacting you to provide you with important information regarding our operations in your area.

Pacific Canbriam operates sweet and sour (H2S) wells, pipelines and facilities within the Peace River Regional District of Northeastern British Columbia.

The BC Energy Regulator (BCER) requires Pacific Canbriam to prepare and distribute an information package, detailing their operations, to all persons, residences, local authorities and publicly used facilities within and immediately adjacent to the Emergency Planning Zones associated with their area activities. This package is required to contain information about proposed or existing operations, the procedures in place to respond to an emergency and public protection measures.

EMERGENCY RESPONSE PLAN

An Emergency Response Plan (ERP) is a comprehensive plan designed to protect the public and includes criteria for assessing an emergency situation and procedures for mobilizing response personnel and agencies as well as procedures for establishing communications and the coordination of resources in the event of an incident. The extent of the information contained within the ERP is determined by the identified potential hazards.

The purpose of an ERP is to ensure a timely and effective response to emergencies in order to protect people, the environment, property and business. An ERP addresses the worst case emergency scenarios, potential hazards to the public, and systems required for adequate response.

HAZARD PLANNING ZONE (HPZ)

A HPZ is determined based upon the potential release rate calculated for a proposed well. Once a release rate has been established, a formula is used to determine the corresponding radius of the HPZ. This information is then incorporated into the creation of the ERP to deal with any events that might risk the safety and welfare of those inside the HPZ. The ERP must properly account for all of the individuals and assets found within this radius.

PACIFIC CANBRIAM 24 HOUR EMERGENCY NUMBER: 1.877.269.2877

PERSONAL INFORMATION & CONFIDENTIALITY

Consultations with residents and others in the EPZ to gather and/or confirm personal information is a BCER requirement for the purpose of preparing and maintaining an ERP. All information requested will be confidential and will be used solely in case of an emergency.

By providing the requested information, response plans can be designed with your particular circumstances in mind and will enhance communication, identify response priorities and improve Pacific Canbriam's ability to respond in the event of an emergency.

EMERGENCY CONTACTS

Thank you for taking the time to review this package. Should you have any further questions or concerns please feel free to contact any of the numbers below.

Pacific Canbriam Contact Information

Pacific Canbriam 24 Hour Emergency Number:	1.877.269.2877
Nauman Rasheed Chief Operating Officer	Bus: 403.817.9041
Zitin Lamba Manager, Operations	Bus: 403.817.9052 Ext 2152

BC Energy Regulator (BCER)

24-Hr Number Public Inquiry & Emergency Reporting Line	800.500.BCER (2237)
BCER 24 Hour Number Fort St. John	250.794.5200
BCER Emergency Operations Centre Fax Line	250.794.5385

Regional District

Peace River Regional District Dawson Creek Office Fort St. John Office	800.670.7773 250.784.3200 250.785.8084

Reception Centres

Ramada by Wyndham Northern Grand Hotel & Conference Centre	9830 100 Avenue Fort St. John, BC	250.787.0521
Stillwater Inn & Suites	9504 Canyon Drive Hudson's Hope, BC	250.783.5400

CALL OR CLICK BEFORE YOU DIG!
800.474.6886
WWW.BCONECALL.BC.CA

ABOUT SOUR GAS

Hydrogen Sulphide (H_2S) is a colourless, flammable, toxic gas. It affects people differently depending on concentration and length of exposure. At very low concentrations it has an offensive odour (similar to rotten eggs); however, it is undetectable by odour at higher concentrations. A person can be exposed to H_2S concentrations of up to 1 part per million for up to 8 hours (government exposure limits) without a breathing apparatus.

In the unlikely event of an emergency, the ERP will be activated and the safety of the public will be maximized through evacuation, sheltering or ignition procedures. If you suspect H_2S or SO_2 in the air please remain indoors and contact the Pacific Canbriam 24 hour emergency number on the first and last page of this package.

HYDROGEN SULPHIDE (H_2S)

- Found in decaying organic matter, natural oil and gas, silos and sewers
- Found at gas temperatures above -60°C
- Flammable – burns to form SO_2
- Odour of rotten eggs at low concentrations- kills all sense of smell at higher concentrations
- Will tend to disperse more slowly in sheltered or calm low lying areas
- Extremely toxic
- At lower concentrations (20-50 ppm) irritates mucous membranes (eyes, throat, lungs), causes headaches, dizziness, nausea, may cause pulmonary edema (fluid in the lungs) upon prolonged exposure
- High concentrations (500-1000 ppm) may cause paralysis of the respiratory centre in the brain – breathing stops, suffocation begins

GENERAL HEALTH EFFECTS OF H_2S

Concentration	Effects
0.01-0.3 ppm	Detectable by odour.
1-5 ppm	Moderate to strong offensive odour may cause nausea, tearing of the eyes, headaches or loss of sleep upon prolonged exposure. Effects are moderate.
10 ppm	Ceiling limit. (WorkSafe BC)
20-50 ppm	Slight eye and lung irritation. May cause eye damage after several days of exposure, may cause digestive upset and loss of appetite.
100 ppm	Eye and lung irritation.
150 ppm	Kills sense of smell, severe eye and lung irritation.
500 ppm	Serious damage to eyes within 30 minutes, severe lung irritation, unconsciousness and death within 4 to 8 hours.
1000 ppm	Breathing stops within 1 or 2 breaths.

It is important to note that burning sour gas turns the H_2S to Sulphur Dioxide (SO_2). The heat from the fire will carry the SO_2 and smoke up into the air where it will be dispersed over a large area. By the time the SO_2 comes back to ground level, the concentrations would normally only be detectable with the use of an electronic gas detection monitor. These levels should be well below the levels that provincial environment regulations accept.

EVACUATION - CONTINUED

Evacuation of the public outside the EPZ is mandatory when H_2S levels reach 10 ppm in un-evacuated areas. Pacific Canbriam will provide air monitoring, starting at a Level 1 Emergency, to determine H_2S levels.

As public safety is the primary goal during an incident, primary response efforts will be concentrated on members of the public. Response efforts for livestock and pets will be addressed at the time of incident based on the response needs and responder capabilities.

SHELTER IN PLACE

Shelter in place is the practice of remaining indoors during a sudden outdoor release of a hazardous substance.

Shelter in place is not a viable option for recreational users or transients, due to their inability to safely shelter.

Shelter in Place Instructions

- Immediately gather everyone indoors and remain there.
- Close and lock all windows and outside doors – if possible, tape the gaps around the door frames.
- Extinguish indoor wood burning fires - if possible, close the damper.
- Turn off appliances or equipment that either uses inside air, blows out inside air or sucks in outside air, such as:
  - Stoves
  - Fireplaces
  - Clothes dryers
  - Air conditioners
  - Bathroom and kitchen fans
  - Built in vacuum systems
- Turn off heat and hot water pilot lights.
- Leave all inside doors open.
- Wait in an interior upstairs room.
- Avoid using the telephone, except for emergencies, so that you can be contacted by emergency personnel.
- Stay tuned to local radio for possible information updates or for further instructions.
- Even if you see people outside do not leave until told to do so.
- If you are unable to follow these instructions, please notify company emergency response personnel.
- After the hazardous substance has passed through the area you will receive an all clear message from emergency response personnel along with instructions to:
  - Ventilate your building by opening all windows and doors.
  - Turn on fans, turn up thermostats, and furnace circulating fans.
- Once the building is completely ventilated return all equipment to normal.

IGNITION

If safety of the public cannot be assured by evacuation or sheltering, the sour gases escaping from the well will be ignited, this results in the H_2S being burned and converted to sulphur dioxide (SO_2).

- Ignition must take place when one of the following conditions has been met:
- Although required, evacuation of the response zones has not taken place.
- Monitoring results indicate H_2S concentrations in excess of 10 ppm over a 3-minute average in un-evacuated parts of the EPZ.
- Monitored H_2S concentrations exceed 1 ppm (1-hour average) in urban density developments.
- Monitoring is not taking place due to weather or other unforeseen circumstances.
- The release cannot be brought under control in the short term.

EPZ CALCULATIONS

H_2S EPZ CALCULATIONS:	MIN.	MAX.
Cumulative Release Volumes	0 m^3	0 m^3
H_2S Release Rates	0 m^3/s	0.0138 m^3/s
H_2S Concentrations	0 %	9.97 %
Hazard Planning Zones	0 m	192 m

LEVELS OF EMERGENCY

Level 1 - Moderate Emergency – ERP is activated

There is no immediate danger to the public or environment as no H_2S has been released; and the emergency is confined to the lease or company property. A Level 1 Emergency is declared at the earliest sign of difficulty controlling the well and when all problems are contained within the well site area. These problems are usually handled without difficulty using techniques and equipment readily available on site. A Level 1 Emergency creates little or no media interest.

Level 2 – Major Emergency – ERP is activated

There is the potential for risk to the public or environment, as the emergency could extend beyond company property. However, control is still possible. A Level 2 Emergency creates local or regional media interest and outside and provincial agencies must be notified.

Level 3 - Serious Emergency – ERP is activated

There exists an immediate danger to the public or environment as control of the situation has been lost. A Level 3 Emergency creates Provincial or National media interest and immediate multi-agency and provincial government involvement is required.

PUBLIC PROTECTION

In the unlikely event that an emergency situation occurs which causes or creates a potentially dangerous situation to occupants within the EPZ, the best method of public protection would be implemented. Depending on an incident's specifics, Pacific Canbriam will implement the following method(s) of public protection.

EVACUATION

In case of a Level 1 Emergency, those residents/occupants who may require additional time to evacuate or cannot safely shelter in place will be contacted, advised of the situation and informed of the proper reception centre to evacuate to. A list of reception centres is provided at the back of this package.

In the event of a Level 2 or 3 Emergency, all residents/occupants within the EPZ would be contacted and instructed to evacuate immediately to the Reception Centre.

Pacific Canbriam will provide you with the safest route out of the emergency area to the Reception Centre. If you require assistance to evacuate, Pacific Canbriam personnel will be available to assist you. Upon arrival at the Reception Centre, please check in with the Pacific Canbriam representatives as they will be available to answer any questions or concerns you may have.

If you choose not to go the Reception Centre, we ask that you please tell the Pacific Canbriam representative where you are going and provide updated contact information so that we may confirm your safety and keep you informed. You will be advised when it is safe to return home. Pacific Canbriam will provide you with a Claims Form so that you can be reimbursed for reasonable out-of-pocket expenses resulting from the evacuation.

SULPHUR DIOXIDE (SO_2)

- Formed by the combustion of H_2S or sulphur and is non-flammable
- Found as a gas at temperatures above -10°C
- Has the odour that occurs when a wooden match is extinguished
- Highly irritating – dissolves to form sulphuric acid
- At lower concentrations irritates eyes, nose and throat, causes difficulty in breathing and shortness of breath
- Causes pulmonary edema at high concentrations – may be fatal
- Effects on heavy smokers are more severe

GENERAL HEALTH EFFECTS OF SO_2

Concentration	Effects
0.13 ppm	24 hour evacuation level (MWLAP Level B criteria).
0.34 ppm	One hour average evacuation level (MWLAP Level B criteria).
2 ppm	Eight hour Occupational Exposure Limit (WorkSafeBC).
3-5 ppm	Odour threshold.
5 ppm	15 minute Occupational Exposure Limit (WorkSafeBC).
8-12 ppm	Throat irritation, coughing, constriction in chest, tearing and smarting of the eyes.
10-50 ppm	Exposure 5 -15 minutes: increased irritation of the eyes, nose, throat, choking, coughing and in some cases, wheezing as a sign of narrowing of the airways (which increases the resistance of the air-flow).
150 ppm	Short–term endurance lost due to severe eye irritation and because of the effects on the membranes of the nose, throat and lungs.
500 ppm	Highly dangerous after an exposure of 30-60 minutes.
1000-2000 ppm	May be fatal with continued exposure.

CEPA E2

The Canadian Environmental Protection Act, 1999 - Environmental Emergency (CEPA E2) Regulations aim at enhancing the protection of the environment and human health in environmental emergency situations by promoting prevention and ensuring preparedness, response and recovery.

The Regulations contain a list of substances and other hazardous substances which, if they enter the environment as a result of an environmental emergency:

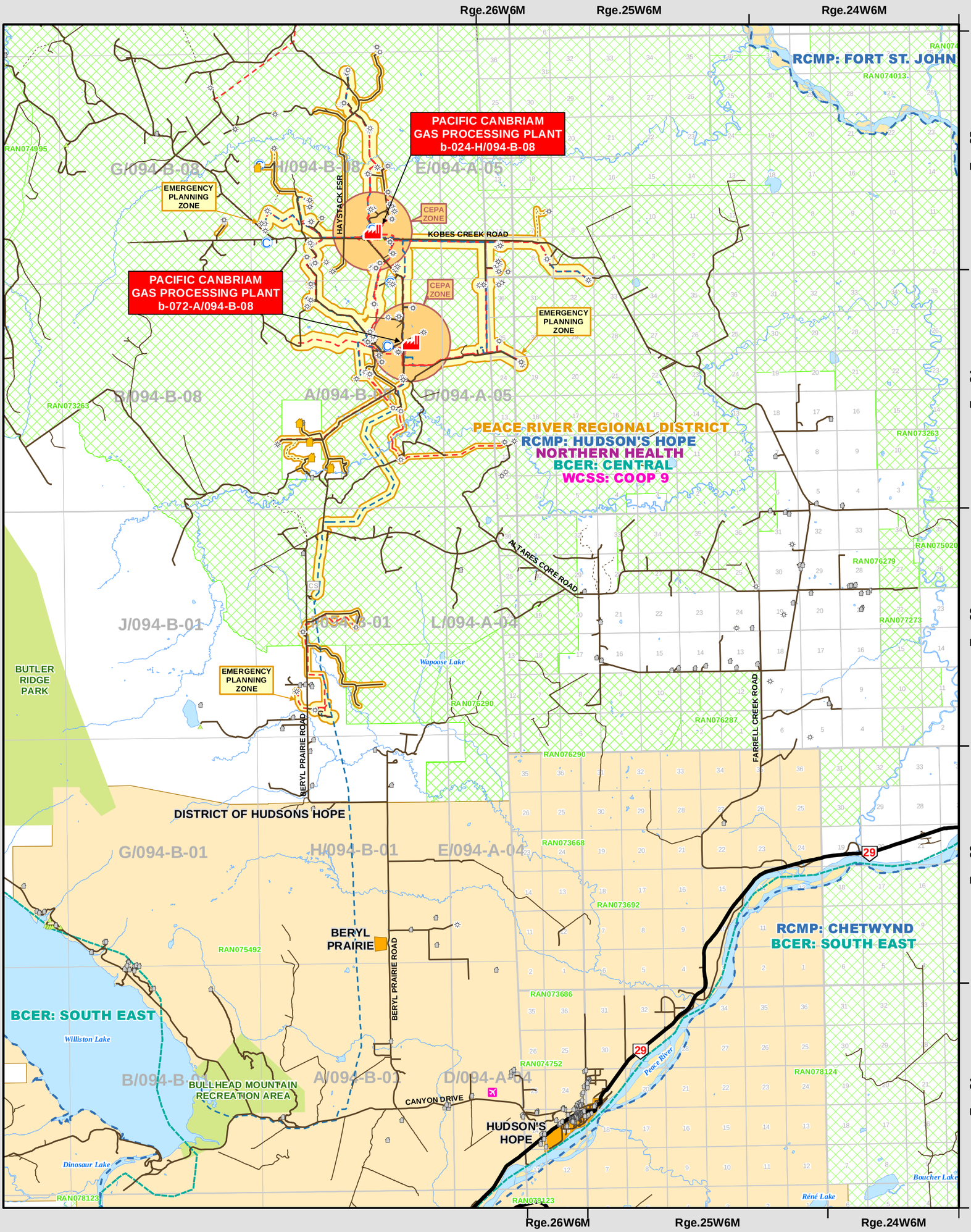
- Have or may have an immediate or long-term harmful effect on the environment or its biological diversity.
- Constitute or may constitute a danger to the environment on which human life depends, or Constitute or may constitute a danger in Canada to human life or health.

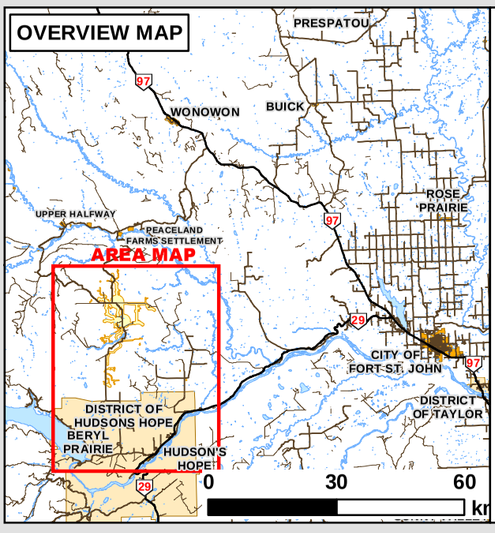
Any person in Canada who owns or manages a listed substance in a quantity at or over the prescribed minimum quantity is required to provide Environment and Climate Change Canada (ECCC) with information on the quantity of the substance, along with the facility location, a report that an environmental emergency plan has been prepared and a notice indicating that the emergency plan has been implemented within 90 days, six months and one year of the coming into force of the Regulations, respectively.

The emergency plan will have to address the types of emergencies that might reasonably occur, including both on-site and off-site consequences, and the associated prevention, preparedness, response and recovery issues

SUMMARY OF OPERATING CONDITIONS

CEPA Isolation Zone for a Large Spill	800 m
CEPA Isolation Zone & Evacuation Zone for a Fire	1600 m





CLIENT FACILITY TYPE
- GAS PROCESSING PLANT
- COMPRESSOR
- PIPELINE TERMINAL
- BATTERY
- WELL
- STRUCTURE INSIDE OF EPZ
- STRUCTURE OUTSIDE OF EPZ
- EPZ (EMERGENCY PLANNING ZONE)
- CEPA ZONE

CLIENT PIPELINE TYPE
- OIL SOUR - OPERATING
- OIL SWEET - OPERATING
- OIL PRODUCTS - DISCONTINUED
- GAS SOUR - OPERATING
- GAS SWEET - OPERATING
- GAS PRODUCTS - DISCONTINUED
- WATER SOUR - OPERATING
- WATER SWEET - OPERATING
- WATER - DISCONTINUED
- HVP - OPERATING
- HVP - DISCONTINUED
- LVP - OPERATING
- LVP - DISCONTINUED
- STEAM - OPERATING
- STEAM - DISCONTINUED
- MISC - OPERATING
- MISC - DISCONTINUED

GENERAL CULTURE
- EVACUATION CENTER
- EVACUATION ROUTE
- FIRE HALL
- HOSPITAL
- MEDICAL CENTER
- SCHOOL
- PLACE OF WORSHIP
- CEMETERY
- INDUSTRY CAMP
- GRAVEL PIT
- STORAGE YARD
- GOLF COURSE
- CAMPGROUND
- DEAD END
- GATED ACCESS
- AIRPORT
- AIR STRIP
- FORESTRY/OTHER TOWER
- COMMUNICATION TOWER
- SOLAR FARM
- WIND FARM
- HIGHWAY - PRIMARY
- HIGHWAY - SECONDARY
- MAIN ACCESS ROAD
- OTHER ACCESS
- RAIL
- LOCAL AUTHORITY
- LAW ENFORCEMENT
- HEALTH AUTHORITY
- REGULATOR AUTHORITY
- PROVINCE
- WATER
- POPULATED PLACE
- FIRST NATION / MÉTIS SETTLEMENT
- PARK/PROTECTED AREA
- MILITARY AREA

PACIFIC CANBRIAM ENERGY

NEBC FIELD OPERATIONS SUPPLEMENT 2024
ALTARES / FARRELL CREEK AREA MAP
PUBLIC INFORMATION HANDOUT MAP

BEHR Integrated Solutions
www.behrintegrated.com

Drawn By: TMV
Scale: 1:150,000 — Project No.: 14676
Map Projection: NAD 83 UTM 10 — Revision: 0 - SEPT. 2024

0 2.5 5 7.5 10 km

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2024 ANNUAL ERP UPDATE

GROUNDBIRCH AREA

PACIFIC CANBRIAM ENERGY LIMITED 24 HOUR EMERGENCY LINE: 1.877.269.2877		
Pacific Canbriam Energy Limited Head Office	403.269.2874 Fax: 403.269.7637	2100, 215 – 2 Street SW, Calgary, AB T2P 1M4
Fort St. John Field Office	250.785.8322	10628 Peck Lane Fort St. John, BC

FORT ST. JOHN FIELD CONTACT NUMBERS		
Jeleena Cawley	Bus: 250.785.8322 Ext. 1 → Ext. 2	Cell: 250.948.8386
Reception or Administrative Support	Bus: 250.785.8322 Ext. 1 → Ext. 1	
Conference Room	Bus: 250.785.8322 Ext. 1 → Ext. 4	
SUPERINTENDENTS		
Steve Gonwick	Bus: 250.785.8322 Ext. 4 → Ext. 2	Cell: 250.793.8000
Cole Tymchuk	Bus: 250.785.8322 Ext. 5 → Ext. 2	Cell: 780.712.1984
ALTARES b-24-H PLANT		
b-24-H Control Room	Bus: 250.785.8322 Ext. 2 → Ext. 1	
b-24-H Field Office	Bus: 250.785.8322 Ext. 2 → Ext. 2	
b-24-H Conference Room	Bus: 250.785.8322 Ext. 2 → Ext. 3	
b-24-H Camp/On Call	Bus: 250.785.8322 Ext. 2 → Ext. 4	
ALTARES b-72-A PLANT		
b-72-A Camp/On Call	Bus: 250.785.8322 Ext. 3 → Ext. 1	
b-72-A Conference Room	Bus: 250.785.8322 Ext. 3 → Ext. 2	
b-72-A Control Room	Bus: 250.785.8322 Ext. 3 → Ext. 3	
Altares b-72-A Plant Operations		
Lyndon Toews	Bus: 250.785.8322 Ext. 4 → Ext. 1	Cell: 250.981.8199
Trevor Bickerstaff	Bus: 250.785.8322 Ext. 4 → Ext. 4	Cell: 780.522.7304
Field Lead Neil Schilling	Bus: 250.785.8322 Ext. 4 → Ext. 3	Cell: 250.401.1085
Field Lead Ryan Sephton		Cell: 604.556.4090
Altares b-72-A Maintenance		
Trevor Ebbert	Bus: 250.785.8322 Ext. 5 → Ext. 1	Cell: 250.948.8381
Chris Bouwsema	Bus: 250.785.8322 Ext. 5 → Ext. 1	Cell: 780.515.0423
ALTARES b-73-A CAMP		
b-73-A Camp	Bus: 250.785.8322 Ext. 8	780.940.2434
c-62-A WATER PLANT		
c-62-A Water Hub	Bus: 250.785.8322 Ext. 4	
Water Hub Lead Corey Reschke	Bus: 250.785.8322 Ext. 7	250.783.0603

CORPORATE CONTACTS		
Chief Operating Officer	Nauman Rasheed	403.817.9041 Ext. 2141 403.899.0339
Manager, Production & Facilities	Jeff Pakish	403.817.9048 Ext. 2148 403.512.1293
Manager, Drilling & Completions	Steve Bernard	403.300.2434 Ext. 2434 403.519.8442
Manager, Operations	Zitin Lamba	403.817.9052 Local 2152 403.618.6166
Sr. Environmental Coordinator	Jason Zurkan	403.866.6115

FACILITY DESCRIPTION

Pacific Canbriam owns several wells, and one pipeline in the Groundbirch field (all wells are shut-in and are suspended). The pipeline has been abandoned and blinded. Production is both sweet and sour gas.

EPZ INFORMATION

The maximum expected H_2S concentration for the wells is 0% with a maximum EPZ of 100 m. The maximum expected H_2S concentration for the pipeline is 0.75% with a maximum EPZ of 0 m. The maximum expected facility EPZ is 100 m.

Pacific Canbriam's policy is to assign a 100 m Emergency Planning Zone (EPZ) around any sweet well or pipeline if the pipeline is inactive. If the pipeline is within 100 m of a structure, Pacific Canbriam may model that specific pipeline segment to determine if the EPZ encompasses the structure.

ON-SITE STORAGE

There are no Liquified Petroleum Gas (LPG) bullets in the Groundbirch field.

NEAREST URBAN CENTRE / DWELLING

The nearest urban centre is Groundbirch, BC, 10.70 km west of the Pacific Canbriam wellsite in 10-20-078-18 W6M

LAND USE / TERRAIN

The Groundbirch Area encompasses a rural area containing residences, energy operations, trapping, guiding, and outfitting. The Area encompasses several rivers and creeks.

HYDROLOGY

Coulee Creek, Dinner Creek, Favels Creek, Pine River, Stewart Creek and numerous unnamed creeks and small bodies of water are within the Groundbirch Area.

HIGHWAYS

Highway 97 (John Hart Hwy) runs east / west through the Groundbirch field, but does not intersect with any HPZ's in this field.

SITE ACCESS

Refer to access map on the following pages.

OTHER AREA OPERATORS & TIE-INS

OIL & GAS

Plateau Pipelines / Pembina	800.360.4706
Westcoast Energy (Enbridge)	800.663.9931

TIE-INS*

There are no tie-ins with other companies in the Groundbirch Field.

SAFETY EQUIPMENT

OPERATOR / TRUCK SAFETY EQUIPMENT

Operator field trucks will carry personal protective equipment, first aid kits and fire extinguishers.

NOTIFICATION

The Groundbirch field is shut-in / abandoned with no operating facilities in the area. Pacific Canbriam Operators check assets annually. A release from explosion, mechanical failure, rupture or well blowout would be discovered by PCE operations staff in the area. The wells are not monitored with an alarm or SCADA system. The foremen and field operators can be called out via cell phones 24 hours a day using the Pacific Canbriam 24 Hour number.

COMMUNICATIONS

Pacific Canbriam or the contractor must provide a means of periodically checking on the well-being of the worker. Checks will be made at such intervals and by such means as are appropriate to the nature, hazard, and circumstances of the employment.

The following communications systems cover all the Groundbirch area operations:

- Blackline Lone Worker with Real-Time Monitoring and two-way voice calling.
- Cellular telephones (Cellular service inside the Pacific Canbriam Groundbirch Field is fair.)

RADIO FREQUENCIES

Some roads inside the Groundbirch field are radio assisted. All personnel using these roads should have a two-way radio in order to communicate with other road users. Due to the terrain and weather conditions, it is important to call location and direction of travel in order to safely meet and pass oncoming traffic. At the beginning of all roads, signs are posted with the road's name, radio frequency and km post.

Radio assisted road communication works as follows. Road users must call the road name, kilometer location and travel direction.

NOTE:

- When traveling "Up" (increasing) the road, call even km's and when traveling "Down" (decreasing) the road, call odd km's.
- When identifying km, call the km the user is entering, exiting or passing.
- When entering a road at km 0, the road user must call "name of road, 0 km, UP". [Example: "Harold Ellis Road, 0 KM, UP".]

When exiting a road (km markers decreasing), the road user must call "name of road, km, DOWN". [Example: "Harold Ellis Road, 0 km, DOWN".] The frequencies and tones listed below should be programmed into all Pacific Canbriam contractors, representatives, and personnel's mobile radios in order to communicate with repeaters in each area.

Area Radio Frequencies	
Wrangler Road	RR-22 – 151.300

ROADBLOCK KITS / IGNITION KITS

Pacific Canbriam will establish roadblocks at the edge of the 100 m EPZ and evacuate the area in the event of an incident. Roadblocks for pipelines would tend to be short term while the line is shut down and depressurized.
At Pacific Canbriam discretion the setback distance may be reduced if supported by LEL monitoring results.

Roadblock and Mobile Helicopter Landing Pad Kits, if required, would be obtained from the **b-72-A Facility** and dispatched at a Level 1 Emergency. The number of Rovers, Roadblocks and Air Monitors required to be determined at the time of incident. Refer to the ERP cabinet for specific kit locations.

Roadblock Kits

Stop paddle, reflective traffic vest, amber beacon, flashlight with spare batteries, reflective barricade, personal electronic monitor (minimum tri-head), self-contained breathing apparatus, radio (public protection frequency, truck or portable), area map and hard hat.

Mobile Helicopter Landing Pad Kits

Air traffic wands, turbo flares, road flares, reflective flares, reflective PPE & pylons.

AGENCY CONTACTS

IMMEDIATE CONTACT REQUIRED AT ANY LEVEL OF EMERGENCY:		
BC Energy Regulator (BCER) – Incident Reporting Line (via EMCR)		800.663.3456
Emergency Management and Climate Readiness (EMCR)		
BCER 24 Hour Line	Fort St. John	250.794.5200
WorkSafe BC		888.621.7233
IMMEDIATE CONTACT REQUIRED IF ANY RESIDENTS ARE CONTACTED AT LEVEL 1 OR HIGHER:		
RCMP	Dawson Creek Chetwynd	911 250.784.3700 250.788.9221
Peace River Regional District	Dawson Creek	800.670.7773 250.784.3200
Northern Health Authority	HEMBC On Call	855.554.3622

PROVINCIAL GOVERNMENT CONTACTS		
BC One Call	Call Before You Dig	800.474.6886
BC Drug & Poison Information Centre	BC DPIC	800.567.8911
BC Ministry of Environment & Climate Change Strategy	Peace Region	250.787.3411
	Report Poachers & Polluters	877.952.RAPP (877.952.7277)
BC Ministry of Forests	Peace Natural Resource District	250.784.1200
BC Ministry of Transportation & Infrastructure	Peace District Office South Peace Contractor	250.787.3237 800.663.7623
CANUTEC	Dangerous Goods Emergencies	888.226.8832 613.996.6666 From Cell: *666
Emergency Response Assistance Canada (ERAC)	(ERP2-0010-364)	800.265.0212
NAV Canada	Flight Information Center	866.541.4101
Public Works Association of BC (PWABC)	executivedirector@pwabc.ca	
Technical Safety BC		866.566.7233
WorkSafe BC		888.621.7233

EMERGENCY SERVICES

AMBULANCES		
Air Ambulance (STARS)	Emergency Link	888.888.4567
BC Ambulance Services	Fort St. John	911 800.461.9911
BC Emergency Health Service	Cell / SAT phone/ Outside BC	250.374.5937
Bailey Helicopters Ltd.	Fort St. John	250.785.2518
HOSPITALS		
Chetwynd Hospital and Health Centre	Chetwynd	250.788.2236
Dawson Creek & District Hospital	Dawson Creek	250.782.8501
Fort St. John Hospital and Peace Villa	Fort St. John	250.262.5200
Fort St. John Health Unit	Fort St. John	250.263.6000
Hudson's Hope Health Center	Hudson's Hope	250.783.9991
FIRE DEPARTMENTS		
Chetwynd Volunteer Fire Department		911 250.788.2424

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GROUNDBIRCH AREA

SERVICE CONTRACTORS

MOBILE AIR MONITORING		
Firemaster Oilfield Services	Central Dispatch	403.342.7500
HSE Integrated Ltd.	Province Wide	888.346.8260
Trojan Safety Services	Central Dispatch	250.785.9557
OILFIELD FIRE FIGHTING / SAFETY CONTRACTORS / WELL CONTROL SPECIALISTS / IGNITION		
Firemaster Oilfield Services	Central Dispatch	403.342.7500
HSE Integrated Ltd.	Province Wide	888.346.8260
Safety Boss	24 Hour Emergency	800.882.4967
Superior Fire Control Ltd.	24 Hour Emergency	877.882.0035
CRISIS COMMUNICATIONS		
Petron Communications	Fort St. John	250.785.3333
T&T Communications	Fort St. John	250.785.0310
SAFETY SERVICES		
HSE Integrated Ltd.	Province Wide	888.346.8260
Trojan Safety Services	Central Dispatch	250.785.9557
United Safety Ltd.	Central Dispatch	800.432.1809
SPILL RESPONSE		
Emergency Response Assistance Canada (ERAC)	(LPG Spills Only) AB/BC	800.265.0212
Clean Harbors	Province Wide	800.645.8265
Troyer Ventures Ltd.	Fort Nelson Fort St. John	250.774.5332 250.785.5332
Ambipar Response	Fort St. John	866.574.7928
BULK FUEL DELIVERY		
Smith Fuel Services	24/7 Dispatch	250.785.3466
TRUCKING COMPANIES		
Cascade Energy Services LP	24 Hour Dispatch	780.876.8900
CEDA	24 Hour Dispatch	250.784.5151
D.W Wilson Services Ltd.	Fort St. John	250.785.7737
Energetic Services Inc.	Fort St. John	250.785.4761
Fedderly Transportation Ltd.	Fort St. John	250.787.0398
Formula Powell L.P. Trucking	Fort St. John	250.785.4222
Fort St. John Water Inc	Fort St. John	250.785.0862
Maxim Industries Inc.	Fort St. John	250.785.7775
Oculus Transport Ltd	Fort St. John	250.264.2252
Raven Oilfield Rentals	Fort St. John	800.799.7188
Troyer Ventures Ltd.	Fort Nelson Fort St. John	250.774.5332 250.785.5332

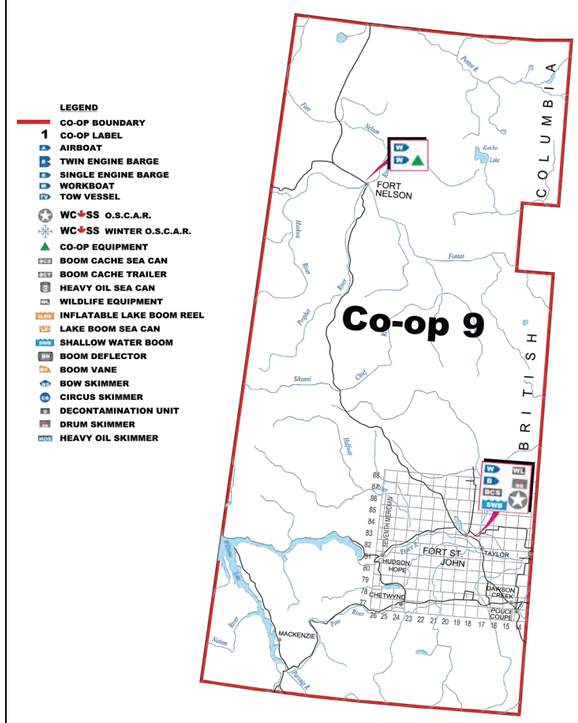
SERVICE CONTRACTORS (Continued)

UTILITIES		
ATCO Electric	Province Wide	800.668.5506
BC Hydro	Province Wide	888.769.3766
Telus	Province Wide	310.2255 *611
ELECTRICAL / INSTRUMENTATION CONTRACTOR		
CDN Controls Ltd.	Fort St. John	855.530.8151
Epscan Industries Ltd.	Fort St. John	250.787.9659
Techmation Electric & Controls	Fort St. John	250.261.6532
PTW Energy Services	Dawson Creek	250.782.6909
ENVIRONMENTAL SERVICES		
Clean Harbors (WCSS Spill Response Trailer)	Fort St. John	250.785.4577
Roy Northern Land & Environmental	Fort St. John	250.261.6644
Matrix Solutions Inc	24 Hour Spill Response	877.774.5525
Eco-Web Ecological Consulting	Fort St. John	250.787.1110
EMERGENCY RESPONSE MANAGEMENT		
Behr Integrated Solutions	Calgary	403.444.6940
TRANSPORTATION		
Diversified Transportation Ltd.	Prince George	250.563.5431 250.617.7710
Standard Bus Contracting Ltd	Chetwynd	250.788.2415
Avis Car and Truck Rental	Fort St. John Grande Prairie	250.785.5515 780.539.4101
Driving Force	Fort St. John Grande Prairie	250.787.0634 780.814.9596
HELICOPTER COMPANIES		
Qwest Helicopters	Fort Nelson	250.774.5302
Bailey Helicopters	Fort St. John	250.785.2518
Yellowhead Helicopters	24 Hour Emergency Fort St. John	888.566.4401 250.785.2331
ROAD SERVICES		
Dawson Road Maintenance Ltd.	Fort St. John	800.842.4122
Argo Road Maintenance (South Peace) Inc.	Dawson Creek – Pouce Coupe	800.663.7623
PILOT HOT SHOT AND TRAFFIC CONTROL		
Big League Oilfield Services	Fort St. John	250.787.9812
Peace Hot Shot & Picker Services	Fort St. John	250.785.8432
Energetic Traffic Control	Fort St. John	250.793.3331
PUMPING SERVICES		
BJ Energy Solutions	Clairmont	780.539.5210
Trican Well Service	Fort St. John	888.989.8975

SERVICE CONTRACTORS (Continued)

WCSS **See website for more info (www.wcss.ab.ca)*

COOP 9	
24 Hour Emergency Contact	866.541.8888
Regional Custodian	
North River Midstream Carl Reimer	250.262.3446 250.262.3456
Equipment is located at North River Midstream: 13217 Westcoast Frontage Charlie Lake, BC V0C 1H0 Mile 53 Alaska Hwy	
COOP Custodian	
Troyer Ventures Ltd.	250.774.5332
Equipment is located at 4850 - 46 Avenue Fort Nelson, BC V0C 1R0	



Equipment Summary	Transport Requirements
52' OSCAR Trailer	Semi-truck
40' Boom Cache Sea Can	Winch tractor / Trailer
20' Wildlife Sea Can	Winch tractor / Trailer
Work Boat	½-ton truck w/ 2" ball hitch
Drum Skimmer w /Power Pak	½-ton truck
Single Engine Barge	1-ton truck w/ 2-5/16" ball hitch & electric brakes
400' Shallow Water Boom	½-ton truck

GRAZING LEASES

GRAZING ID	NAME	EMERGENCY
None		

TRAPPERS

TRAPPER ID	NAME	EMERGENCY
732T009	Tom Smith	250.401.8687
732T009	Colden Lukey	250.788.6988
732T010	Vacant	N/A
732T011	Bryce Swier	403.704.5559
732T011	Jason Fickle	250.219.7350
732T011	Cody Wrangler	780.835.8746
732T013	Vacant	N/A

GUIDES & OUTFITTERS

ID	COMPANY / NAME	EMERGENCY
701271	Lael Brewster (South Slope Outfitters)	250.788.5611
701271	Dean Keitsch (Certificate Holder)	778.874.9053

RIGHTS HOLDERS

ID	COMPANY / NAME	EMERGENCY
None		

SURFACE DEVELOPMENT INFORMATION

There are 4 surface developments inside the EPZs.

In the event of an incident, ensure all members of the public are notified and provided with response information. If required use rovers and roadblocks to clear and isolate the areas in close proximity to the incident.

UNIQUE FEATURES AFFECTING EMERGENCY RESPONSE

None

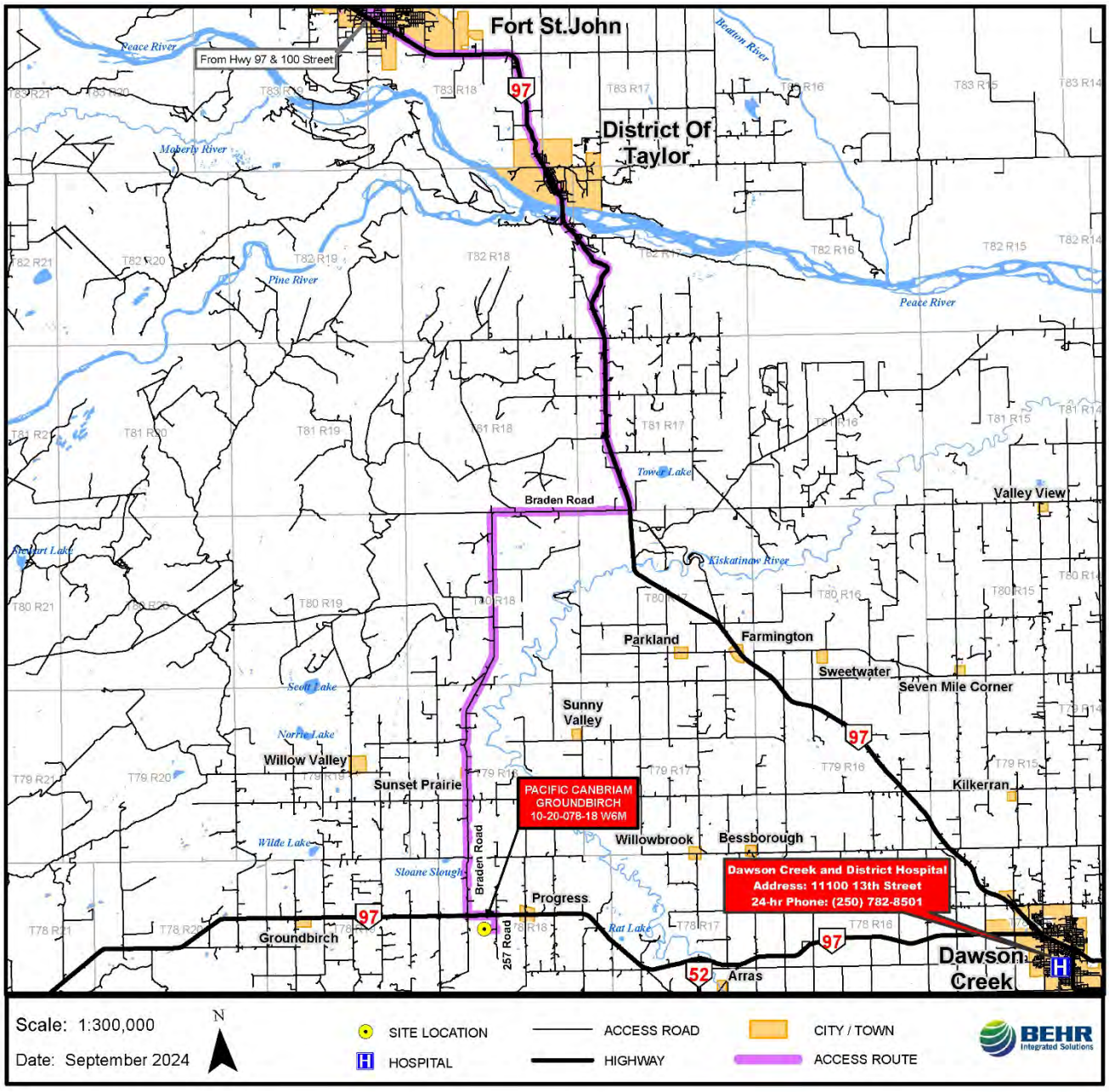
RECEPTION CENTRES

Northern Grand Hotel	9830 100 Avenue Fort St. John, BC V1J 1Y5	250.787.0521
Stillwater Inn & Suites	9504 Canyon Drive Hudson's Hope, BC V0C 1V0	250.783.5400

To Groundbirch Wellsite 10-20-078-18 W6M – Total Distance 71.8 km

From Intersection of Hwy 97 and 100th Street, Fort St. John, BC

- Travel east (then south) on Hwy 97 (Alaska Highway) for 36.7 km.
- Turn right and travel west (then south) on Braden Road for 30.8 km.
- Turn left and travel east on Hwy 97 (John Hart Highway) for 1.6 km.
- Turn right and travel south on 257 Road for 0.8 km.
- Turn right and travel west into wellsite.



Groundbirch - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Status	Substance	Distance to Nearest Residence (km)	Assigned HPZ (m)
Suspended											
017696	100/10-20-078-18W6/0	10-20-078-18 W6M	640886.50	6183264.07	PACIFIC CANBRIAM GROUNDBIRCH 10-20-078-18	-	-	Gas	Suspended	0.80	100
017696	100/10-20-078-18W6/2	10-20-078-18 W6M	640886.50	6183264.07	PACIFIC CANBRIAM GROUNDBIRCH 10-20-078-18	-	-	N/A	Suspended	0.80	100
024637	100/04-03-079-20W6/2	11-04-079-20 W6M	620776.69	6187557.86	PACIFIC CANBRIAM ET AL HZ GROUNDBIRCH 11-04-079-20	-	-	N/A	Suspended	> 2 km	100
Cased											
020083	100/07-33-078-21W6/0	07-33-078-21 W6M	613510.04	6185627.58	PACIFIC CANBRIAM HZ GROUNDBIRCH 07-33-078-21	0	-	N/A	Drilled & Cased	> 2 km	100
020083	100/07-33-078-21W6/2	07-33-078-21 W6M	613510.04	6185627.58	PACIFIC CANBRIAM HZ GROUNDBIRCH 07-33-078-21	-	-	N/A	Drilled & Cased	> 2 km	100
024637	100/11-04-079-20W6/0	11-04-079-20 W6M	620776.69	6187557.86	PACIFIC CANBRIAM ET AL HZ GROUNDBIRCH 11-04-079-20	-	-	N/A	Drilled & Cased	> 2 km	100

BCER has requested a minimum 100m EPZ be applied to sweet assets and all assets that are not abandoned.

Groundbirch - Pipelines

License	Line	From Location	From Facility	From Valve	To Location	To Facility	To Valve	Substance	Status	MOP (kPa)	OD (mm)	WT (mm)	Length (km)	H_2S (%)	Cumulative H_2S Release Volume (m^3)	Assigned HPZ (km)	Foot-notes
Deactivated																	
22034	1	11-04-079-20W6	WE		16-35-078-21W6	WE		NG	D	0	114.30	n/av.	4.660	0.75	-	0.010	1

Footnotes:

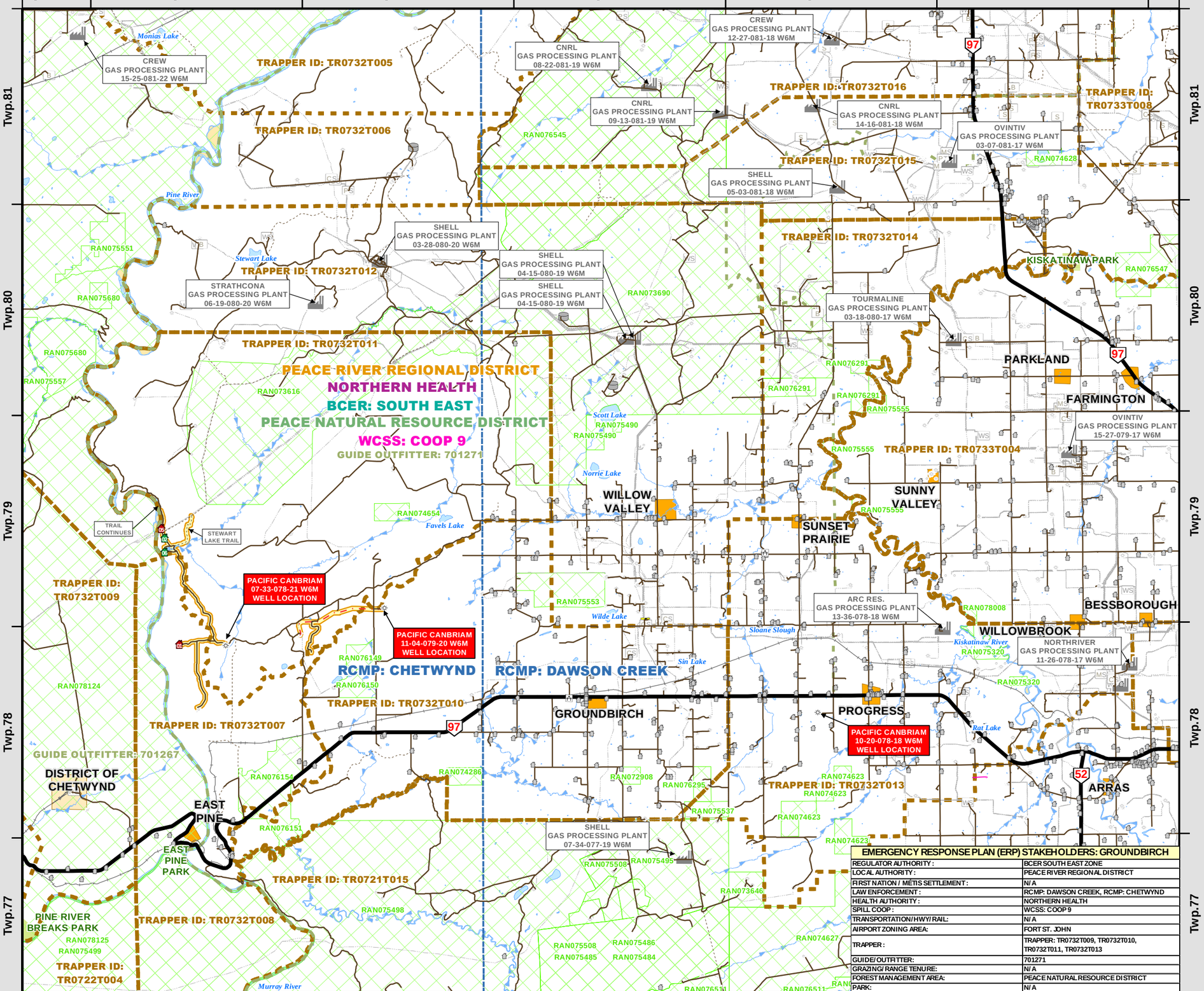
1. Pacific Canbriam Energy Limited has confirmed this pipeline segment has been pigged, purged and blind ended.

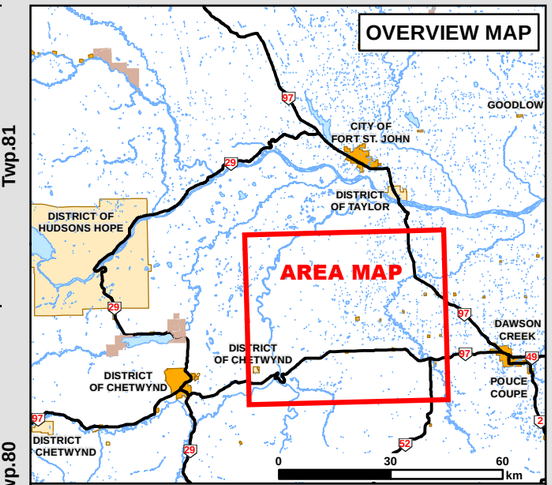
Pipeline Legend:	
Facility:	B = Battery BE = Blind End CS = Compressor Station DH = Dehydrator GP = Gas Plant GS = Gathering System MS = Meter Station
	PL = Pipeline S = Satellite WE = Well
Substance:	CO = Crude Oil FG = Fuel Gas FW = Fresh Water NG = Natural Gas OE = Oil Well Effluent OM = Oil Emulsion SC = Sour Crude
	SE = Sour Effluent SG = Sour Gas SW = Salt Water
Status:	A = Abandoned D = Deactivated I = Inactive O = Operating Q = Active R = Removed S = Suspended TBC = To Be Constructed
Valve:	CV = Check Valve ESD = Emergency Shut Down Valve
Other:	L = Length OD = Outside Diameter WT = Wall Thickness MOP = Maximum Operating Pressure GLR = Gas to Liquid Ratio

Groundbirch - Facilities

Facility Licence #	Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Facility Type	Status	Distance to Nearest Residence or public facility (km)	H_2S Release Volume (m^3)	Assigned HPZ (km)
Active								
23786	11-04-079-20W6	620780.23	6187560.56	Well Facility	Suspended	>2	-	0.100

All operating and suspended facilities were assigned a minimum 100 m HPZ to comply with the *All Hazards Approach* utilized in BC.





CLIENT FACILITY TYPE
- GAS PROCESSING PLANT
- CENTRAL TREATMENT PLANT
- CENTRAL PROCESSING FACILITY
- INJECTION PLANT
- COMPRESSOR
- PUMP STATION
- PIPELINE TERMINAL
- DEHYDRATOR
- WASTE PROCESSING
- METER STATION
- HEADER / RISER
- BATTERY
- SATELLITE
- CHECK VALVE
- BLOCK VALVE
- EMERGENCY SHUTDOWN VALVE
- PROPANE BULLET
- TANK

CLIENT PIPELINE TYPE
- OIL SOUR - OPERATING
- OIL SWEET - OPERATING
- OIL PRODUCTS - DISCONTINUED
- GAS SOUR - OPERATING
- GAS SWEET - OPERATING
- GAS PRODUCTS - DISCONTINUED
- WATER SOUR - OPERATING
- WATER SWEET - OPERATING
- WATER - DISCONTINUED
- HVP - OPERATING
- HVP - DISCONTINUED
- LVP - OPERATING
- LVP - DISCONTINUED
- STEAM / AIR - OPERATING
- STEAM / AIR - DISCONTINUED
- MISC - OPERATING
- MISC - DISCONTINUED

SURFACE DEVELOPMENT
- RESIDENCE OCCUPIED
- BUSINESS OCCUPIED
- RESIDENCE SENSITIVE
- BUSINESS SENSITIVE
- RESIDENCE SEASONAL
- PUBLIC FACILITY
- STRUCTURE VACANT
- STRUCTURE ABANDONED
- STRUCTURE OUTSIDE OF EPZ

NON-CLIENT OPERATORS
- GAS PROCESSING PLANT
- FACILITY
- WELL
- PIPELINE

CLIENT WELL TYPE
- WELL - GAS
- WELL - OIL
- WELL - WATER SOURCE
- WELL - WATER INJECTION
- WELL - OBSERVATION
- WELL - LOCATION
- WELL - GAS SUSPENDED
- WELL - OIL SUSPENDED

EMERGENCY RESPONSE
- EPZ (EMERGENCY PLANNING ZONE)
- IIZ (INITIAL ISOLATION ZONE)
- CEPA ZONE
- EPZ (EXISTING SYSTEM)
- EGRESS
- ERP ACCESS

GENERAL CULTURE
- EVACUATION / RECEPTION CENTER
- EVACUATION ROUTE
- INCIDENT COMMAND POST
- STARS SITE
- FIRE HALL
- HOSPITAL
- MEDICAL CENTER
- SECURITY CHECKPOINT
- SCHOOL
- PLACE OF WORSHIP
- CEMETERY
- RAIL FACILITY
- INDUSTRY CAMP
- GRAVEL PIT
- STORAGE YARD
- GOLF COURSE
- CAMPGROUND
- CAMPGROUND PRIVATE
- CAMPGROUND UNDEVELOPED
- PICNIC / REST AREA
- CAMPSITE
- ROADBLOCK
- DEAD END
- GATED ACCESS
- AIRPORT
- AIR STRIP
- HELI PAD
- FORESTRY TOWER
- OTHER TOWER
- COMMUNICATION TOWER
- AIR MONITORING SITE
- ELECTRICAL SUBSTATION
- RAIL CROSSING
- HISTORIC SITE
- WATER CROSSING
- BRIDGE
- WCSS CONTROL POINT
- CLIENT CONTROL POINT
- CONTROL POINT LABEL
- BOAT LAUNCH
- SOLAR FARM
- WIND FARM
- SPECIAL INTEREST GROUP
- HIGHWAY - PRIMARY
- HIGHWAY - SECONDARY
- MAIN ACCESS ROAD
- OTHER ACCESS
- RAIL
- LOCAL AUTHORITY
- LAW ENFORCEMENT
- HEALTH AUTHORITY
- REGULATOR AUTHORITY
- SPILL COOP
- NATURAL RESOURCE DISTRICT (B.C. Only)
- FOREST MANAGEMENT AREA (AB Only)
- WMU / GUIDE OUTFITTER
- TRAPLINE
- PROVINCE
- WATER
- POPULATED PLACE
- FIRST NATION / MÉTIS SETTLEMENT
- RECREATIONAL AREA (AB Only)
- PARK / PROTECTED AREA
- GRAZING / RANGE TENURE
- LANDOWNER
- RIGHTS HOLDER
- MILITARY AREA
- FENCE BOUNDARY
- FACILITY BOUNDARY

PACIFIC CANBRIAM ENERGY

NEBC FIELD SUPPLEMENT 2024
GROUNDBIRCH AREA MAP

EMERGENCY RESPONSE PLAN (ERP) STAKEHOLDERS: GROUNDBIRCH

REGULATOR AUTHORITY :	BCER SOUTH EAST ZONE
LOCAL AUTHORITY :	PEACE RIVER REGIONAL DISTRICT
FIRST NATION / MÉTIS SETTLEMENT :	N/ A
LAW ENFORCEMENT :	RCMP: DAWSON CREEK, RCMP: CHETWYND
HEALTH AUTHORITY :	NORTHERN HEALTH
SPILL COOP :	WCSS: COOP 9
TRANSPORTATION/ HWY/ RAIL:	N/ A
AIRPORT ZONING AREA:	FORT ST. JOHN
TRAPPER :	TRAPPER: TR0732T009, TR0732T010, TR0732T011, TR0732T013
GUIDE/ OUTFITTER:	701271
GRAZING/ RANGE TENURE:	N/ A
FOREST MANAGEMENT AREA:	PEACE NATURAL RESOURCE DISTRICT
PARK:	N/ A

BEHR Integrated Solutions
www.behrintegrated.com

Drawn By: TMV
Scale: 1:175,000 — Project No.: 14676
Map Projection: NAD 83 UTM 10 — Revision: 0 - SEPT. 2024

0 2 4 8 12 Kilometers

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Area Occupant Data

Confidential Data

Confidential data collected during the Public Involvement Program will only be included in manuals labelled as ***Confidential***.

All manuals will contain contact information for publicly listed data for area occupants within the HPZ that may include Trappers, Grazing Lease Holders and Industrial Operators. Refer to each site-specific area in the *Assets and Equipment Section* for this information.

The following reports are only included in copies of the confidential ERP:

Surface Development – Summary Report
- Includes contact information for all surface developments within the HPZ.
- Report sorted by Map Coordinates.

Special Needs Contacts within the EPZ – Summary Report
- Includes residents who have indicated they may require early response actions due to medical needs or communication barriers.
- Report sorted by Map Coordinates.

School / Student – Summary Report
- Includes children who may be in school during an incident.
- Report sorted by Map Coordinates.

Surface Development – Detail Report (per location)
- Includes all information pertaining to a specific location.
- The individual detail reports are sorted by Map Coordinates.

Surface Development – Summary Report (Alphabetical)
- Includes contact information for all surface developments within the HPZ.

Report is sorted Alphabetically.

Public Information Package

A public information package was prepared and delivered to area occupants during the public involvement process. A copy of the public information package is included in all manuals.

EPZ STAKEHOLDER SUMMARY REPORT

Pacific Canbriam Energy/Groundbirch

The following report provides an overview of all Stakeholders identified within the Emergency Planning Zone, based on information gathered during the most recent Public Notification and Consultation Campaign, and other situational awareness data gathered during the most recent Emergency Response Plan update.

EMERGENCY PLANNING ZONE (EPZ) OVERVIEW	
Surface Developments within the EPZ	4
Occupants living / working within the EPZ (includes all Students)	8
Students attending school who live within the EPZ	0
Surface Developments with Sensitivities (There may be more than one sensitivity per Surface Development)	2

OCCUPANT SENSITIVITIES OVERVIEW (Sensitivities are identified for response activities and for consultation awareness)	
Aboriginal Community Member	0
Evacuation Assistance	0
Language / Comprehension Barrier	0
Not Contacted During Public Notification / Consultation Campaign	1
Other Special Needs	0
Potentially Contentious Occupant	0
Requires Early Notification	1
Sensitive to Industry Development	0

SURFACE DEVELOPMENTS OVERVIEW	
PRIVATE PROPERTY (Locations where people live)	
Residences – Abandoned	0
Residences – Not contacted	1
Residences – Occupied Full Time	3
Residences – Seasonal / Part Time	0
Residences – Vacant	0
Building - Unoccupied	0
Resident Surface Developments within the EPZ	4
Unoccupied Surface Developments within the EPZ	0

PUBLIC FACILITIES (Locations where members of the public may congregate)	
Airport/Airstrip	0
Boat Launch - Recreational	0
Camp site – Off-Road	0
Campground - Official	0
Campsite - Developed	0
Cemetery	0
Community Center	0
Evacuation / Reception Centre	0

Golf Course	0
Helispot	0
Hospital	0
Picnic / Rest Area	0
Place of Worship	0
Public Facility	0
School	0
Public Facility Locations within the EPZ	0

NON RESIDENT LAND USERS (Locations where people may be working)	
Business / Industrial Land Users	
Business	0
Other O&G Operator Battery	0
Other O&G Operator Camp	0
Other O&G Operator Compressor	0
Other O&G Operator Plant	0
Business / Other O&G Operator Locations within the EPZ	0

Other Land Users (Locations where people may be working periodically)	
Air Monitoring Site / Trailer	0
Electrical Sub Station	0
Gravel Pit	0
Guide / Outfitter	0
Landowner	0
Military / Base	0
Registered Trapline / Trapper	0
Rights Holder / Allotment User	0
Security Gate / Checkpoint	0
Solar Farm	0
Special Interest Group	0
Spill Control Point	0
Storage / Laydown Yard	0
Tower - Communication	0
Tower - Forestry	0
Tower - Other	0
Wind Farm	0
Other Non - Resident Land Users within the EPZ (This total does not include Businesses / Industrial Locations above)	0

GROUNDBIRCH FIELD 2024 ANNUAL UPDATE

PUBLIC INFORMATION PACKAGE

OVERVIEW

Pacific Canbriam Energy Limited is committed to protecting public safety and the environment. Our history as a company has demonstrated this commitment and our ability to safely conduct exploration and production operations.

As part of our ongoing safety program, we are contacting you to provide you with important information regarding our operations in your area.

Pacific Canbriam operates sweet and sour (H_2S) wells, pipelines and facilities within the Peace River Regional District of Northeastern British Columbia.

The BC Energy Regulator (BCER) requires Pacific Canbriam to prepare and distribute an information package, detailing their operations, to all persons, residences, local authorities and publicly used facilities within and immediately adjacent to the Emergency Planning Zones associated with their area activities. This package is required to contain information about proposed or existing operations, the procedures in place to respond to an emergency and public protection measures.

EMERGENCY RESPONSE PLAN

An Emergency Response Plan (ERP) is a comprehensive plan designed to protect the public and includes criteria for assessing an emergency situation and procedures for mobilizing response personnel and agencies as well as procedures for establishing communications and the coordination of resources in the event of an incident. The extent of the information contained within the ERP is determined by the identified potential hazards.

The purpose of an ERP is to ensure a timely and effective response to emergencies in order to protect people, the environment, property and business. An ERP addresses the worst case emergency scenarios, potential hazards to the public, and systems required for adequate response.

HAZARD PLANNING ZONE (HPZ)

A HPZ is determined based upon the potential release rate calculated for a proposed well. Once a release rate has been established, a formula is used to determine the corresponding radius of the HPZ. This information is then incorporated into the creation of the ERP to deal with any events that might risk the safety and welfare of those inside the HPZ. The ERP must properly account for all of the individuals and assets found within this radius.

PACIFIC CANBRIAM 24 HOUR EMERGENCY NUMBER: 1.877.269.2877

PERSONAL INFORMATION & CONFIDENTIALITY

Consultations with residents and others in the EPZ to gather and/or confirm personal information is a BCER requirement for the purpose of preparing and maintaining an ERP. All information requested will be confidential and will be used solely in case of an emergency.

By providing the requested information, response plans can be designed with your particular circumstances in mind and will enhance communication, identify response priorities and improve Pacific Canbriam's ability to respond in the event of an emergency.

EMERGENCY CONTACTS

Thank you for taking the time to review this package. Should you have any further questions or concerns please feel free to contact any of the numbers below.

Pacific Canbriam Contact Information

Pacific Canbriam 24 Hour Emergency Number:	1.877.269.2877
Nauman Rasheed Chief Operating Officer	Bus: 403.817.9041
Zitin Lamba Manager, Operations	Bus: 403.817.9052 Ext 2152

BC Energy Regulator (BCER)

24-Hr Number Public Inquiry & Emergency Reporting Line	800.500.BCER (2237)
BCER 24 Hour Number Fort St. John	250.794.5200
BCER Emergency Operations Centre Fax Line	250.794.5385

Regional District

Peace River Regional District Dawson Creek Office Fort St. John Office	800.670.7773 250.784.3200 250.785.8084

Reception Centres

Ramada by Wyndham Northern Grand Hotel & Conference Centre	9830 100 Avenue Fort St. John, BC	250.787.0521
Stillwater Inn & Suites	9504 Canyon Drive Hudson's Hope, BC	250.783.5400

CALL OR CLICK BEFORE YOU DIG!
800.474.6886
WWW.BCONECALL.BC.CA

HYDROGEN SULPHIDE (H_2S) - Continued

It is important to note that burning sour gas turns the H_2S to Sulphur Dioxide (SO_2). The heat from the fire will carry the SO_2 and smoke up into the air where it will be dispersed over a large area. By the time the SO_2 comes back to ground level, the concentrations would normally only be detectable with the use of an electronic gas detection monitor. These levels should be well below the levels that provincial environment regulations accept.

SULPHUR DIOXIDE (SO_2)

- Formed by the combustion of H_2S or sulphur and is non-flammable
- Found as a gas at temperatures above -10°C
- Has the odour that occurs when a wooden match is extinguished
- Highly irritating – dissolves to form sulphuric acid
- At lower concentrations irritates eyes, nose and throat, causes difficulty in breathing and shortness of breath
- Causes pulmonary edema at high concentrations – may be fatal
- Effects on heavy smokers are more severe

GENERAL HEALTH EFFECTS OF SO_2

Concentration	Effects
0.13 ppm	24 hour evacuation level (MWLAP Level B criteria).
0.34 ppm	One hour average evacuation level (MWLAP Level B criteria).
2 ppm	Eight hour Occupational Exposure Limit (WorkSafeBC).
3-5 ppm	Odour threshold.
5 ppm	15 minute Occupational Exposure Limit (WorkSafeBC).
8-12 ppm	Throat irritation, coughing, constriction in chest, tearing and smarting of the eyes.
10-50 ppm	Exposure 5 -15 minutes: increased irritation of the eyes, nose, throat, choking, coughing and in some cases, wheezing as a sign of narrowing of the airways (which increases the resistance of the air-flow).
150 ppm	Short–term endurance lost due to severe eye irritation and because of the effects on the membranes of the nose, throat and lungs.
500 ppm	Highly dangerous after an exposure of 30-60 minutes.
1000-2000 ppm	May be fatal with continued exposure.

IGNITION - CONTINUED

- Monitoring results indicate H2S concentrations in excess of 10 ppm over a 3-minute average in un-evacuated parts of the EPZ.
- Monitored H_2S concentrations exceed 1 ppm (1-hour average) in urban density developments.
- Monitoring is not taking place due to weather or other unforeseen circumstances.
- The release cannot be brought under control in the short term.

ABOUT SOUR GAS

Hydrogen Sulphide (H_2S) is a colourless, flammable, toxic gas. It affects people differently depending on concentration and length of exposure. At very low concentrations it has an offensive odour (similar to rotten eggs); however, it is undetectable by odour at higher concentrations. A person can be exposed to H_2S concentrations of up to 1 part per million for up to 8 hours (government exposure limits) without a breathing apparatus.

In the unlikely event of an emergency, the ERP will be activated and the safety of the public will be maximized through evacuation, sheltering or ignition procedures. If you suspect H_2S or SO_2 in the air please remain indoors and contact the Pacific Canbriam 24 hour emergency number on the first and last page of this package.

HYDROGEN SULPHIDE (H_2S)

- Found in decaying organic matter, natural oil and gas, silos and sewers
- Found at gas temperatures above -60°C
- Flammable – burns to form SO_2
- Odour of rotten eggs at low concentrations- kills all sense of smell at higher concentrations
- Will tend to disperse more slowly in sheltered or calm low lying areas
- Extremely toxic
- At lower concentrations (20-50 ppm) irritates mucous membranes (eyes, throat, lungs), causes headaches, dizziness, nausea, may cause pulmonary edema (fluid in the lungs) upon prolonged exposure
- High concentrations (500-1000 ppm) may cause paralysis of the respiratory centre in the brain – breathing stops, suffocation begins

GENERAL HEALTH EFFECTS OF H_2S

Concentration	Effects
0.01-0.3 ppm	Detectable by odour.
1-5 ppm	Moderate to strong offensive odour may cause nausea, tearing of the eyes, headaches or loss of sleep upon prolonged exposure. Effects are moderate.
10 ppm	Ceiling limit. (WorkSafe BC)
20-50 ppm	Slight eye and lung irritation. May cause eye damage after several days of exposure, may cause digestive upset and loss of appetite.
100 ppm	Eye and lung irritation.
150 ppm	Kills sense of smell, severe eye and lung irritation.
500 ppm	Serious damage to eyes within 30 minutes, severe lung irritation, unconsciousness and death within 4 to 8 hours.
1000 ppm	Breathing stops within 1 or 2 breaths.

EVACUATION - CONTINUED

If you choose not to go the Reception Centre, we ask that you please tell the Pacific Canbriam representative where you are going and provide updated contact information so that we may confirm your safety and keep you informed. You will be advised when it is safe to return home. Pacific Canbriam will provide you with a Claims Form so that you can be reimbursed for reasonable out-of-pocket expenses resulting from the evacuation.

Evacuation of the public outside the EPZ is mandatory when H_2S levels reach 10 ppm in un-evacuated areas. Pacific Canbriam will provide air monitoring, starting at a Level 1 Emergency, to determine H_2S levels.

As public safety is the primary goal during an incident, primary response efforts will be concentrated on members of the public. Response efforts for livestock and pets will be addressed at the time of incident based on the response needs and responder capabilities.

SHELTER IN PLACE

Shelter in place is the practice of remaining indoors during a sudden outdoor release of a hazardous substance.

Shelter in place is not a viable option for recreational users or transients, due to their inability to safely shelter.

- Immediately gather everyone indoors and remain there.
- Close and lock all windows and outside doors – if possible, tape the gaps around the door frames.
- Extinguish indoor wood burning fires - if possible, close the damper.
- Turn off appliances or equipment that either uses inside air, blows out inside air or sucks in outside air, such as:
  - Stoves
  - Fireplaces
  - Clothes dryers
  - Air conditioners
  - Bathroom and kitchen fans
  - Built in vacuum systems
  - Turn off heat and hot water pilot lights.
- Leave all inside doors open.
- Wait in an interior upstairs room.
- Avoid using the telephone, except for emergencies, so that you can be contacted by emergency personnel.
- After the hazardous substance has passed through the area you will receive an all clear message from emergency response personnel along with instructions to:
  - Ventilate your building by opening all windows and doors.
  - Turn on fans, turn up thermostats, and furnace circulating fans.
- Once the building is completely ventilated return all equipment to normal.

IGNITION

If safety of the public cannot be assured by evacuation or sheltering, the sour gases escaping from the well will be ignited, this results in the H_2S being burned and converted to sulphur dioxide (SO_2).

- Ignition must take place when one of the following conditions has been met:
- Although required, evacuation of the response zones has not taken place.

EPZ CALCULATIONS

H_2S EPZ CALCULATIONS:	MIN.	MAX.
Cumulative Release Volumes	0 m^3	0 m^3
H_2S Release Rates	0 m^3/s	0 m^3/s
H_2S Concentrations	0 %	0.75 %
Hazard Planning Zones	0 m	100 m

LEVELS OF EMERGENCY

Level 1 - Moderate Emergency – ERP is activated

There is no immediate danger to the public or environment as no H2S has been released; and the emergency is confined to the lease or company property. A Level 1 Emergency is declared at the earliest sign of difficulty controlling the well and when all problems are contained within the well site area. These problems are usually handled without difficulty using techniques and equipment readily available on site. A Level 1 Emergency creates little or no media interest.

Level 2 – Major Emergency – ERP is activated

There is the potential for risk to the public or environment, as the emergency could extend beyond company property. However, control is still possible. A Level 2 Emergency creates local or regional media interest and outside and provincial agencies must be notified.

Level 3 - Serious Emergency – ERP is activated

There exists an immediate danger to the public or environment as control of the situation has been lost. A Level 3 Emergency creates Provincial or National media interest and immediate multi-agency and provincial government involvement is required.

PUBLIC PROTECTION

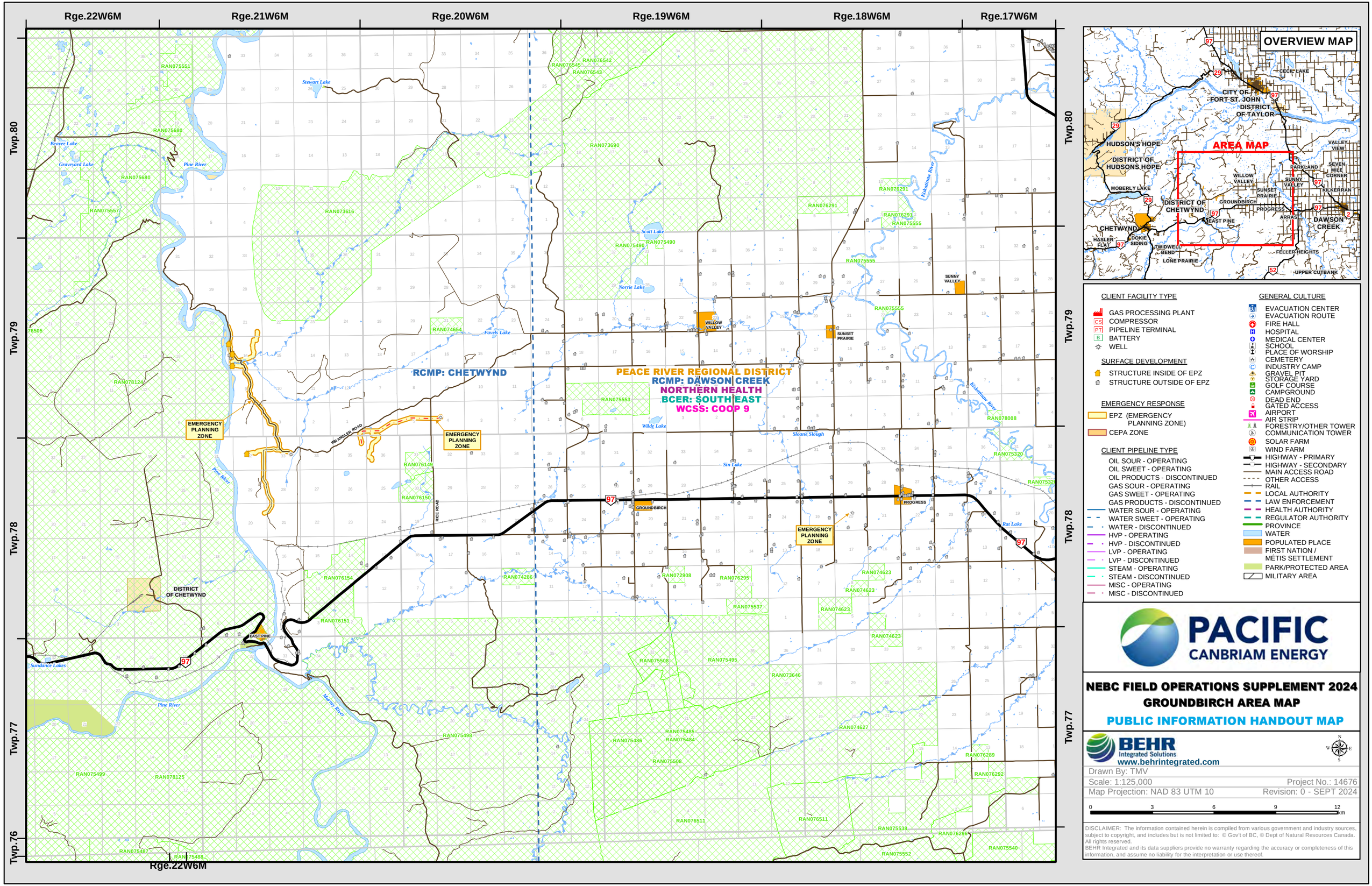
In the unlikely event that an emergency situation occurs which causes or creates a potentially dangerous situation to occupants within the EPZ, the best method of public protection would be implemented. Depending on an incident's specifics, Pacific Canbriam will implement the following method(s) of public protection.

EVACUATION

In case of a Level 1 Emergency, those residents/occupants who may require additional time to evacuate or cannot safely shelter in place will be contacted, advised of the situation and informed of the proper reception centre to evacuate to. A list of reception centres is provided at the back of this package.

In the event of a Level 2 or 3 Emergency, all residents/occupants within the EPZ would be contacted and instructed to evacuate immediately to the Reception Centre.

Pacific Canbriam will provide you with the safest route out of the emergency area to the Reception Centre. If you require assistance to evacuate, Pacific Canbriam personnel will be available to assist you. Upon arrival at the Reception Centre, please check in with the Pacific Canbriam representatives as they will be available to answer any questions or concerns you may have.



Rge.22W6M
Rge.21W6M
Rge.20W6M
Rge.19W6M
Rge.18W6M
Rge.17W6M
Twp.80
Twp.79
Twp.78
Twp.77
Twp.76
RCMP: CHETWYND
PEACE RIVER REGIONAL DISTRICT
RCMP: DAWSON CREEK
NORTHERN HEALTH
BCER: SOUTH EAST
WCSS: COOP 9
EMERGENCY PLANNING ZONE
DISTRICT OF CHETWYND
WILLOW VALLEY
SUNSET PRAIRIE
SUNNY VALLEY
GROUNDBIRCH
PROGRESS
EAST PINE
WRANGLER ROAD
RICE ROAD
Stewart Lake
Beaver Lake
Graveyard Lake
Pine River
Scott Lake
Norrie Lake
Favels Lake
Wilde Lake
Sloane Slough
Sin Lake
Kiskatinaw River
Rat Lake
Sundance Lakes
Murray River
OVERVIEW MAP
AREA MAP
CITY OF FORT ST. JOHN
DISTRICT OF TAYLOR
HUDSON'S HOPE
DISTRICT OF HUDSONS HOPE
MOBERLY LAKE
DISTRICT OF CHETWYND
CHETWYND
HASLER FLAT
DOKIE SIDING
TWIDWELL BEND
LONE PRAIRIE
FELLER HEIGHTS
UPPER CUTBANK
DAWSON CREEK
KILKERRAN
PARKLAND
SEVEN MILE CORNER
VALLEY VIEW
CECIL LAKE
CLIENT FACILITY TYPE
GAS PROCESSING PLANT
COMPRESSOR
PIPELINE TERMINAL
BATTERY
WELL
SURFACE DEVELOPMENT
STRUCTURE INSIDE OF EPZ
STRUCTURE OUTSIDE OF EPZ
EMERGENCY RESPONSE
EPZ (EMERGENCY PLANNING ZONE)
CEPA ZONE
CLIENT PIPELINE TYPE
OIL SOUR - OPERATING
OIL SWEET - OPERATING
OIL PRODUCTS - DISCONTINUED
GAS SOUR - OPERATING
GAS SWEET - OPERATING
GAS PRODUCTS - DISCONTINUED
WATER SOUR - OPERATING
WATER SWEET - OPERATING
WATER - DISCONTINUED
HVP - OPERATING
HVP - DISCONTINUED
LVP - OPERATING
LVP - DISCONTINUED
STEAM - OPERATING
STEAM - DISCONTINUED
MISC - OPERATING
MISC - DISCONTINUED
GENERAL CULTURE
EVACUATION CENTER
EVACUATION ROUTE
FIRE HALL
HOSPITAL
MEDICAL CENTER
SCHOOL
PLACE OF WORSHIP
CEMETERY
INDUSTRY CAMP
GRAVEL PIT
STORAGE YARD
GOLF COURSE
CAMPGROUND
DEAD END
GATED ACCESS
AIRPORT
AIR STRIP
FORESTRY/OTHER TOWER
COMMUNICATION TOWER
SOLAR FARM
WIND FARM
HIGHWAY - PRIMARY
HIGHWAY - SECONDARY
MAIN ACCESS ROAD
OTHER ACCESS
RAIL
LOCAL AUTHORITY
LAW ENFORCEMENT
HEALTH AUTHORITY
REGULATOR AUTHORITY
PROVINCE
WATER
POPULATED PLACE
FIRST NATION / MÉTIS SETTLEMENT
PARK/PROTECTED AREA
MILITARY AREA
PACIFIC CANBRIAM ENERGY
NEBC FIELD OPERATIONS SUPPLEMENT 2024
GROUNDBIRCH AREA MAP
PUBLIC INFORMATION HANDOUT MAP
BEHR Integrated Solutions
www.behrintegrated.com
Drawn By: TMV
Scale: 1:125,000
Project No.: 14676
Map Projection: NAD 83 UTM 10
Revision: 0 - SEPT 2024
0 3 6 9 12 km
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2024 ANNUAL ERP UPDATE — KOBES AREA

PACIFIC CANBRIAM ENERGY

PACIFIC CANBRIAM ENERGY LIMITED
24 HOUR EMERGENCY LINE: 1.877.269.2877

Pacific Canbriam Energy Limited Head Office	403.269.2874 Fax: 403.269.7637	2100, 215 – 2 Street SW Calgary, AB T2P 1M4
Fort St. John Field Office	250.785.8322	10628 Peck Lane Fort St. John, BC

FORT ST. JOHN FIELD CONTACT NUMBERS

Jeleena Cawley	Bus: 250.785.8322 Ext. 1 → Ext. 2	Cell: 250.948.8386
Reception or Administrative Support	Bus: 250.785.8322 Ext. 1 → Ext. 1	
Conference Room	Bus: 250.785.8322 Ext. 1 → Ext. 5	
SUPERINTENDENTS		
Steve Gonwick	Bus: 250.785.8322 Ext. 4 → Ext. 2	Cell: 250.793.8000
Cole Tymchuk	Bus: 250.785.8322 Ext. 4 → Ext. 3	Cell: 780.712.1984
ALTARES b-24-H PLANT		
b-24-H Control Room	Bus: 250.785.8322 Ext. 2 → Ext. 1	
b-24-H Field Office	Bus: 250.785.8322 Ext. 2 → Ext. 2	
b-24-H Conference Room	Bus: 250.785.8322 Ext. 2 → Ext. 3	
b-24-H Camp/On Call	Bus: 250.785.8322 Ext. 2 → Ext. 4	
ALTARES b-72-A PLANT		
b-72-A Camp/On Call	Bus: 250.785.8322 Ext. 3 → Ext. 1	
b-72-A Conference Room	Bus: 250.785.8322 Ext. 3 → Ext. 2	
b-72-A Control Room	Bus: 250.785.8322 Ext. 3 → Ext. 3	
Altares b-72-A Plant Operations		
Lyndon Toews	Bus: 250.785.8322 Ext. 4 → Ext. 1	Cell: 250.981.8199
Trevor Bickerstaff	Bus: 250.785.8322 Ext. 4 → Ext. 4	Cell: 780.522.7304
Field Lead Neil Schilling	Bus: 250.785.8322 Ext. 4 → Ext. 3	Cell: 250.401.1085
Field Lead Ryan Sephton		Cell: 604.556.4090
Altares b-72-A Maintenance		
Trevor Ebbert	Bus: 250.785.8322 Ext. 5 → Ext. 1	Cell: 250.948.8381
Chris Bouwsema	Bus: 250.785.8322 Ext. 5 → Ext. 1	Cell: 780.515.0423
ALTARES b-73-A CAMP		
b-73-A Camp	Bus: 250.785.8322 Ext. 8	780.940.2434
c-62-A WATER PLANT		
c-62-A Water Hub	Bus: 250.785.8322 Ext. 4	
Water Hub Lead Corey Reschke	Bus: 250.785.8322 Ext. 7	250.783.0603

CORPORATE CONTACTS

Chief Operating Officer	Nauman Rasheed	403.817.9041 Ext. 2141 403.899.0339
Manager, Production & Facilities	Jeff Pakish	403.817.9048 Ext. 2148 403.512.1293
Manager, Drilling & Completions	Steve Bernard	403.300.2434 Ext. 2434 403.519.8442
Manager, Operations	Zitin Lamba	403.817.9052 Local 2152 403.618.6166
Sr. Environmental Coordinator	Jason Zurkan	403.866.6115

FACILITY DESCRIPTION

Pacific Canbriam owns and operates two compressor stations, one water injection facility (currently shut-in), has numerous producing wells and associated pipelines and numerous suspended wells in its Kobes field operations. The wells in the area contain both sweet and sour gas. All of the sour wells in the area are currently shut-in. Remaining sweet production is gathered at the Kobes Main Compressor Station in NTS b-24-A/94-B-9 compressed and dehydrated before it is pipelined to the Enbridge sour pipeline tie-in in NTS d-25-A/94-B-9.

EPZ INFORMATION

The maximum expected H_2S concentration for the wells is 4% with a maximum EPZ of 163 m. The maximum expected H_2S concentration for the pipelines is 6.5% with a maximum EPZ of 1.368 km. The maximum expected facility EPZ is 1.368 km.

Pacific Canbriam's policy is to assign a 100 m Emergency Planning Zone (EPZ) around any sweet well or pipeline if the pipeline is inactive. If the pipeline is within 100 m of a structure, Pacific Canbriam may model that specific pipeline segment to determine if the EPZ encompasses the structure.

ON-SITE STORAGE

There are no Liquified Petroleum Gas (LPG) bullets in the Kobes field.

CLOSEST URBAN CENTRE

The nearest urban centre is Wonowon, BC, 27.49 km northeast of the Pacific Canbriam Kobes Main Compressor Station in NTS b-24-A/94-B-9.

LAND USE / TERRAIN

The Kobes Area encompasses a rural area containing residences, energy operations, forestry operations, gravel pit operations, trapping, cattle grazing and guiding and outfitting.

HYDROLOGY

Aikman Creek, Allen Creek, Cameron River, Chiefs Cabin Creek, Cromie Creek, Grayling Creek, Halfway River, Kobes Creek, and numerous unnamed creeks and small bodies of water are within the Kobes Area.

HIGHWAYS

No highways intersect with the HPZ's in this field.

SITE ACCESS

Refer to access map on the following pages.

OTHER AREA OPERATORS & TIE-INS

OIL & GAS

AltaGas Holdings Inc.	866.826.3830	Plateau / Pembina	800.360.4706
CNRL	888.878.3700	TC Energy (Nova Gas)	888.982.7222
ConocoPhillips	800.661.9525	Tidewater Midstream	866.544.9875
Crew Energy Inc.	866.384.6240	Tourmaline Oil Corp.	877.504.4252
Northriver Midstream	844.667.8477	Westcoast Energy (Enbridge)	800.663.9931
PETRONAS Energy	844.299.2566		

TIE-INS*

The following tie-in table illustrates the interaction of the tie-ins in the Pacific Canbriam Kobes field. If an emergency occurs and one of the following tie-ins is impacted by the emergency, then Pacific Canbriam will contact the appropriate company:

Tie-in Location	Tie-in Product	Pacific Canbriam Sends/Receives Product at tie-in	Tie-in Company	Tie-in Emergency Response Plan (ERP)
d-25-A/94-B-9	Sweet Gas	Sends	Enbridge	Enbridge Fort St. John Gathering System ERP
d-21-B/94-B-9 (Not in service)	Sweet Gas	Receives	Enbridge	Enbridge Fort St. John Gathering System ERP
c-20-H/94-B-9	Sweet Gas	Receives	Crew Energy	Crew Energy Inc. Kobes Facilities ERP

SAFETY EQUIPMENT

OPERATOR / TRUCK SAFETY EQUIPMENT

Operator field trucks will carry personal protective equipment, first aid kits and fire extinguishers.

NOTIFICATION

The Kobes field is equipped with a Supervisory Control and Data Acquisition (SCADA) system. The SCADA system monitors all the wells in the Kobes field as well as the Kobes Main Compressor Station in NTS b-24-A/94-B-9 and the North Kobes Compressor Station in NTS c-97-G/94-B-9 (shut-in). The information from the SCADA system can be monitored remotely. The SCADA system has the ability to open and close the emergency shutdown (ESD) valves at the two compressor stations and the wells.

SAFETY EQUIPMENT

NOTIFICATION - CONTINUED

The SCADA system is also automated and can close the ESD valves based on the following detection systems:

- Power failure
- The Kobes Main Compressor Station b-24-A/94-B-9 operates on a BC Hydro line power and also has a backup generator.
- The North Kobes Compressor Station c-97-G/94-B-9 (shut-in) operates on a power generator and also has a backup system.
- H_2S detection in the Kobes Main Compressor Station b-24-A/94-B-9, the North Kobes Compressor Station c-97-G/94-B-9 (shut-in) and the a-A87-G/94-B-9 well
- LEL detection in the Kobes Main Compressor Station b-24-A/94-B-9, the North Kobes Compressor Station c-97-G/94-B-9 (shut-in) and the a-A87-G/94-B-9 well
- Fire detection in the Kobes Main Compressor Station b-24-A/94-B-9, the North Kobes Compressor Station c-97-G/94-B-9 (shut-in) and the a-A87-G/94-B-9 well
- High/low process and pipeline pressures
- High/low tank levels

A blue flashing light is used to indicate H_2S over 5 ppm. A red flashing light is used to indicate fire detection, LEL detection and on-site process alarms at the compressor stations.

The SCADA system will warn the control room if there are potential problems or unusual conditions. The b-24-A/94-B-9 compressor station is inspected daily, the c-97-G/94-B-9 compressor is shut in and is not inspected daily. Kobes field operators are on-call after hours.

COMMUNICATIONS

Pacific Canbriam or the contractor must provide a means of periodically checking on the well-being of the worker. Checks will be made at such intervals and by such means as are appropriate to the nature, hazard, and circumstances of the employment.

The following communications systems cover all the Kobes area operations:

- Blackline Lone Worker with Real-Time Monitoring and two-way voice calling.
- Cellular telephones (Cellular service inside the Kobes field is fair.)

RADIO FREQUENCIES

All roads inside the Kobes field are radio assisted. All personnel using these roads should have a two-way radio in order to communicate with other road users. Due to the terrain and weather conditions, it is important to call location and direction of travel in order to safely meet and pass oncoming traffic. At the beginning of all roads, signs are posted with the road's name, radio frequency and km post.

Radio assisted road communication works as follows. Road users must call the road name, kilometer location and travel direction.

NOTE:

- When traveling "Up" (increasing) the road, call even km's and when traveling "Down" (decreasing) the road, call odd km's.
- When identifying km, call the km the user is entering, exiting, or passing.
- When entering a road at km 0, the road user must call "name of road, 0 km, UP". [Example: "Harold Ellis Road, 0 km, UP".]
- When exiting a road (km markers decreasing), the road user must call "name of road, km, DOWN". [Example: "Harold Ellis Road, 0 km, DOWN".]

The frequencies and tones listed below should be programmed into all Pacific Canbriam contractors, representatives, and personnel's mobile radios in order to communicate with repeaters in each area.

Area Radio Frequencies	
Haystack Forest Service Road	RR-13 – 150.530
Iron Creek Road	RR 18 – 150.710
Pilsner Road	RR-7 – 150.260
Harold Ellis Road	RR-7 – 150.260
Upper Halfway Road	Mile 95 Road – 153.380

ROADBLOCK KITS / IGNITION KITS

Pacific Canbriam will establish roadblocks at the edge of the 100 m EPZ and evacuate the area in the event of an incident. Roadblocks for pipelines would tend to be short term while the line is shut down and depressurized.

At Pacific Canbriam discretion the setback distance may be reduced if supported by LEL monitoring results.

Roadblock and Mobile Helicopter Landing Pad Kits, if required, would be obtained from the b-72-A Facility and dispatched at a Level 1 Emergency. The number of Rovers, Roadblocks and Air Monitors required to be determined at the time of incident. Refer to the ERP cabinet for specific kit locations.

Roadblock Kits

Stop paddle, reflective traffic vest, amber beacon, flashlight with spare batteries, reflective barricade, personal electronic monitor (minimum tri-head), self-contained breathing apparatus, radio (public protection frequency, truck or portable), area map and hard hat.

Mobile Helicopter Landing Pad Kits

Air traffic wands, turbo flares, road flares, reflective flares, reflective PPE & pylons.

AGENCY CONTACTS

IMMEDIATE CONTACT REQUIRED AT ANY LEVEL OF EMERGENCY:

BC Energy Regulator (BCER) – Incident Reporting Line (via EMCR)		800.663.3456
Emergency Management and Climate Readiness (EMCR)		
BCER 24 Hour Line		Fort St. John
Halfway River First Nations	Office 24 Hour	250.772.5058 250.329.8911
CANFOR	Office John Rowe Wes Neumeier Carmen Anderson Kristine Bock	250.782.3302 250.261.1886 250.261.9200 250.990.0015 250.321.1784
WorkSafe BC		888.621.7233

IMMEDIATE CONTACT REQUIRED IF ANY RESIDENTS ARE CONTACTED AT LEVEL 1 OR HIGHER:

RCMP	Emergency Fort St. John Hudson's Hope	911 250.787.8140 250.783.5241
Peace River Regional District	Dawson Creek	800.670.7773 250.784.3200
Northern Health Authority	HEMBC On Call	855.554.3622

PROVINCIAL GOVERNMENT CONTACTS

BC One Call	Call Before You Dig	800.474.6886
BC Drug & Poison Information Centre	BC DPIC	800.567.8911
BC Ministry of Environment & Climate Change Strategy	Peace Region	250.787.3411
	Report Poachers & Polluters	877.952.RAPP (877.952.7277)
BC Ministry of Forests	Peace Natural Resource District	250.784.1200
BC Ministry of Transportation & Infrastructure	Peace District Office North Peace Contractor	250.787.3237 800.842.4122
CANUTEC	Dangerous Goods Emergencies	888.226.8832 613.996.6666 From Cell: *666
Emergency Response Assistance Canada (ERAC)	(ERP2-0010-364)	800.265.0212
NAV Canada	Flight Information Center	866.541.4101
Public Works Association of BC (PWABC)	executivedirector@pwabc.ca	
Technical Safety BC		866.566.7233
WorkSafe BC		888.621.7233

EMERGENCY SERVICES

AMBULANCES

Air Ambulance (STARS)	Emergency Link	888.888.4567
BC Ambulance Services	Fort St. John	911 800.461.9911
BC Emergency Health Service	Cell / SAT phone/ Outside BC	250.374.5937
Bailey Helicopters Ltd.	Fort St. John	250.785.2518

HOSPITALS

Chetwynd Hospital and Health Centre	Chetwynd	250.788.2236
Dawson Creek & District Hospital	Dawson Creek	250.782.8501
Fort St. John Hospital and Peace Villa	Fort St. John	250.262.5200
Fort St. John Health Unit	Fort St. John	250.263.6000
Hudson's Hope Health Center	Hudson's Hope	250.783.9991

FIRE DEPARTMENTS

Hudson's Hope Fire & Rescue		911 250.783.9901

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KOBES AREA

SERVICE CONTRACTORS

MOBILE AIR MONITORING		
Firemaster Oilfield Services	Central Dispatch	403.342.7500
HSE Integrated Ltd.	Province Wide	888.346.8260
Trojan Safety Services	Central Dispatch	250.785.9557
OILFIELD FIRE FIGHTING / SAFETY CONTRACTORS / WELL CONTROL SPECIALISTS / IGNITION		
Firemaster Oilfield Services	Central Dispatch	403.342.7500
HSE Integrated Ltd.	Province Wide	888.346.8260
Safety Boss	24 Hour Emergency	800.882.4967
Superior Fire Control Ltd.	24 Hour Emergency	877.882.0035
CRISIS COMMUNICATIONS		
Petron Communications	Fort St. John	250.785.3333
T&T Communications	Fort St. John	250.785.0310
SAFETY SERVICES		
HSE Integrated Ltd.	Province Wide	888.346.8260
Trojan Safety Services	Central Dispatch	250.785.9557
United Safety Ltd.	Central Dispatch	800.432.1809
SPILL RESPONSE		
Emergency Response Assistance Canada (ERAC)	(LPG Spills Only) AB/BC	800.265.0212
Clean Harbors	Province Wide	800.645.8265
Troyer Ventures Ltd.	Fort Nelson Fort St. John	250.774.5332 250.785.5332
Ambipar Response	Fort St. John	866.574.7928
BULK FUEL DELIVERY		
Smith Fuel Services	24/7 Dispatch	250.785.3466
TRUCKING COMPANIES		
Cascade Energy Services LP	24 Hour Dispatch	780.876.8900
CEDA	24 Hour Dispatch	250.784.5151
D.W Wilson Services Ltd.	Fort St. John	250.785.7737
Energetic Services Inc.	Fort St. John	250.785.4761
Fedderly Transportation Ltd.	Fort St. John	250.787.0398
Formula Powell L.P. Trucking	Fort St. John	250.785.4222
Fort St. John Water Inc	Fort St. John	250.785.0862
Maxim Industries Inc.	Fort St. John	250.785.7775
Oculus Transport Ltd	Fort St. John	250.264.2252
Raven Oilfield Rentals	Fort St. John	800.799.7188
Troyer Ventures Ltd.	Fort Nelson Fort St. John	250.774.5332 250.785.5332

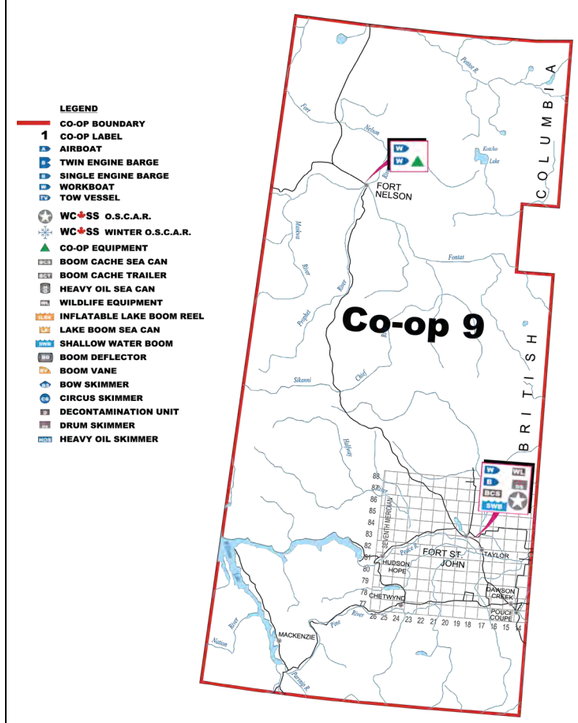
SERVICE CONTRACTORS (Continued)

UTILITIES		
ATCO Electric	Province Wide	800.668.5506
BC Hydro	Province Wide	888.769.3766
Telus	Province Wide	310.2255 *611
ELECTRICAL / INSTRUMENTATION CONTRACTOR		
CDN Controls Ltd.	Fort St. John	855.530.8151
Epscan Industries Ltd.	Fort St. John	250.787.9659
Techmation Electric & Controls	Fort St. John	250.261.6532
PTW Energy Services	Dawson Creek	250.782.6909
ENVIRONMENTAL SERVICES		
Clean Harbors (WCSS Spill Response Trailer)	Fort St. John	250.785.4577
Roy Northern Land & Environmental	Fort St. John	250.261.6644
Matrix Solutions Inc	24 Hour Spill Response	877.774.5525
Eco-Web Ecological Consulting	Fort St. John	250.787.1110
EMERGENCY RESPONSE MANAGEMENT		
Behr Integrated Solutions	Calgary	403.444.6940
TRANSPORTATION		
Diversified Transportation Ltd.	Prince George	250.563.5431 250.617.7710
Standard Bus Contracting Ltd	Chetwynd	250.788.2415
Avis Car and Truck Rental	Fort St. John Grande Prairie	250.785.5515 780.539.4101
Driving Force	Fort St. John Grande Prairie	250.787.0634 780.814.9596
HELICOPTER COMPANIES		
Qwest Helicopters	Fort Nelson	250.774.5302
Bailey Helicopters	Fort St. John	250.785.2518
Yellowhead Helicopters	24 Hour Emergency Fort St. John	888.566.4401 250.785.2331
ROAD SERVICES		
Dawson Road Maintenance Ltd.	Fort St. John	800.842.4122
Argo Road Maintenance (South Peace) Inc.	Dawson Creek – Pouce Coupe	800.663.7623
PILOT HOT SHOT AND TRAFFIC CONTROL		
Big League Oilfield Services	Fort St. John	250.787.9812
Peace Hot Shot & Picker Services	Fort St. John	250.785.8432
Energetic Traffic Control	Fort St. John	250.793.3331
PUMPING SERVICES		
BJ Energy Solutions	Clairmont	780.539.5210
Trican Well Service	Fort St. John	888.989.8975

SERVICE CONTRACTORS (Continued)

WCSS **See website for more info (www.wcss.ab.ca)*

COOP 9	
24 Hour Emergency Contact	866.541.8888
Regional Custodian	
North River Midstream Carl Reimer	250.262.3446 250.262.3456
Equipment is located at North River Midstream: 13217 Westcoast Frontage Charlie Lake, BC V0C 1H0 Mile 53 Alaska Hwy	
COOP Custodian	
Troyer Ventures Ltd.	250.774.5332
Equipment is located at 4850 - 46 Avenue Fort Nelson, BC V0C 1R0	



Equipment Summary	Transport Requirements
52' OSCAR Trailer	Semi-truck
40' Boom Cache Sea Can	Winch tractor / Trailer
20' Wildlife Sea Can	Winch tractor / Trailer
Work Boat	½-ton truck w/ 2" ball hitch
Drum Skimmer w /Power Pak	½-ton truck
Single Engine Barge	1-ton truck w/ 2-5/16" ball hitch & electric brakes
400' Shallow Water Boom	½-ton truck

RANGE TENURE

ID	COMPANY / NAME	EMERGENCY
RAN073258 RAN074983 RAN076675	Norman (Neil) Ward (Roundup 80 Ranch)	403.512.0518
RAN074995	George & Sarah Weitzel (Crystal Springs Ranch)	250.262.7681 250.262.7328
RAN075019	Bill Stadler Karl Oysmueller (Peaceland Farms Ltd.)	250.261.8646 250.263.3803 250.772.5010
RAN073263	Ray Jackson / Frank Miles (Horseshoe Creek Outfitters)	250.783.0561 250.263.1919

TRAPPERS

TRAPPER ID	NAME	EMERGENCY
735T003	Graham Brooks	250.261.4544
735T004	Anilee Rose Anderson	250.793.9273
735T004	Allen George Chatten	N/A
735T004	Bryan Dale Chatten	N/A
735T004	Allen Dean Chatten	N/A
735T006	Albert Achla	N/A
735T006	John Wokeley	N/A
744T001	Halfway River First Nation	250.785.5058
744T003	Wesley Shaw	250.261.0456
744T004	Terry Hart	250.262.7922
744T004	Robert Armstrong	250.262.6501

GUIDES & OUTFITTERS

ID	COMPANY / NAME	EMERGENCY
750015	Luther Jackson	250.783.0561

RIGHTS HOLDERS

ID	COMPANY / NAME	EMERGENCY
Forest Tenure	AltaGas Holdings Inc.	866.826.3830
Forest Tenure	BC Timber Sales (BCTS) – Peace-Liard	250.784.1200
Forest Tenure	CANFOR	250.788.2231
Forest Tenure	CNRL (Painted Pony Energy)	888.878.3700
Forest Tenure	Louisiana Pacific Canada Ltd.	250.782.3302 ext 227
Forest Tenure	TC Energy (Nova Gas)	888.982.7222
Forest Tenure	Tourmaline Oil Corp.	877.504.4252

SURFACE DEVELOPMENT INFORMATION

There are 7 surface developments inside the EPZs. Note, there is random backcountry camping throughout the EPZ, especially south of the Halfway River. In the event of an incident, ensure all members of the public are notified and provided with response information. If required, use rovers and roadblocks to clear and isolate the areas in close proximity to the incident.

UNIQUE FEATURES AFFECTING EMERGENCY RESPONSE

Entities To Be Contacted During Any Level of Emergency

Halfway River First Nations

- The Halfway River First Nations is a First Nations Settlement located outside the Pacific Canbriam Kobes Field EPZ. Courtesy contact information was gathered about the Halfway River First Nations.

Canadian Forest Products Ltd. (CANFOR)

- CANFOR has active logging, herbicide applications, site preparation, and tree planting ongoing during non-winter months within EPZ. Temporary camp sites entities may be in EPZ for a brief period of time (i.e., less than one week). For all Levels of Emergencies, Pacific Canbriam will contact CANFOR to contact the temporary campsites that are within or near the Kobes EPZ.

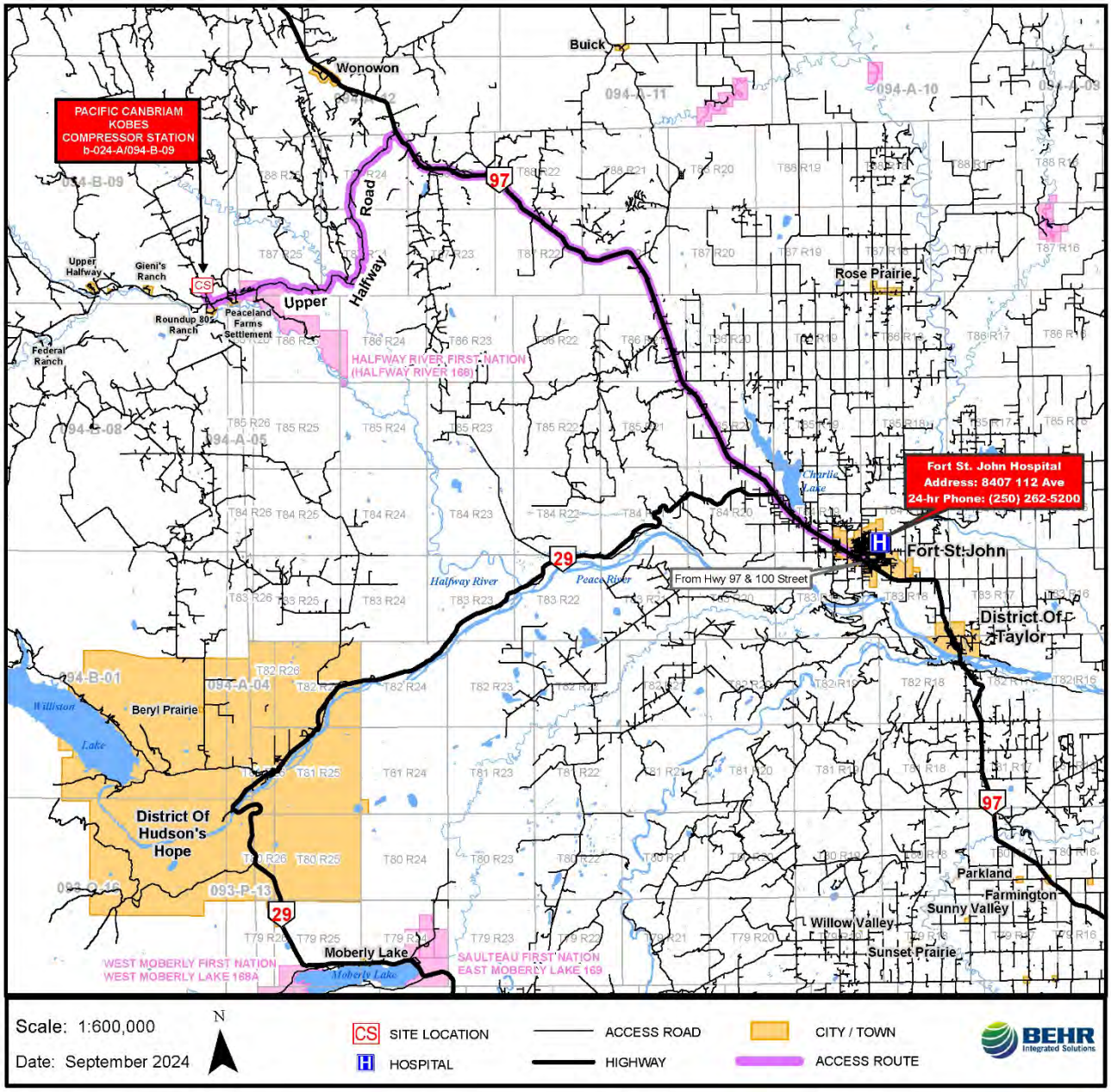
RECEPTION CENTRES

Northern Grand Hotel	9830 100 Avenue Fort St. John, BC V1J 1Y5	250.787.0521
Stillwater Inn & Suites	9504 Canyon Drive Hudson's Hope, BC V0C 1V0	250.783.5400

To Kobes Compressor Station b-024-A / 94-B-09 – Total Distance 118 km

From Intersection of Hwy 97 and 100th Street, Fort St. John, BC

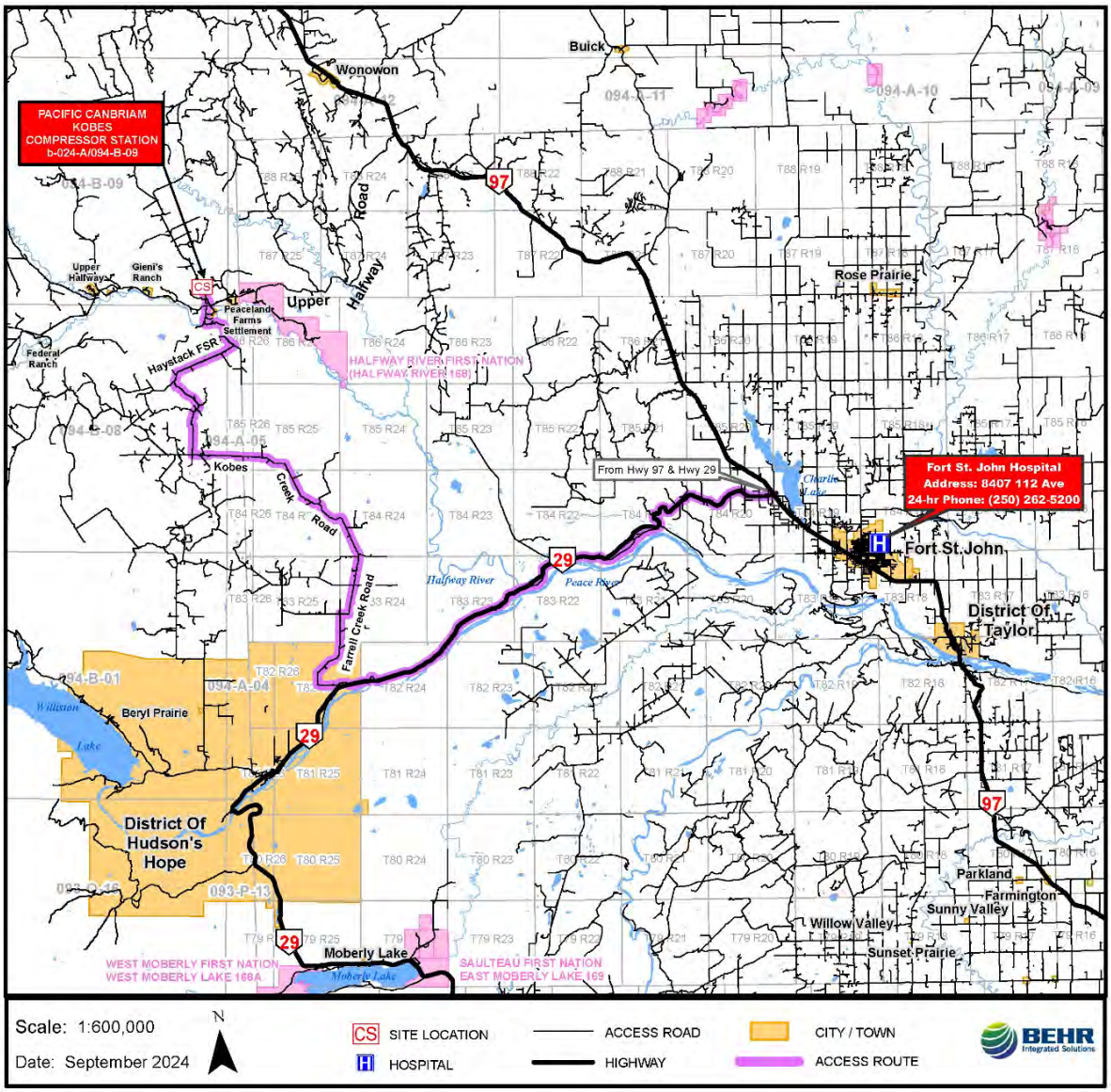
- Travel northwest on Hwy 97 for 75.7 km.
- Turn left and travel southwest on Upper Halfway Road – Mile 95 Road (Radio Frequency 153.380) for 38.9 km.
- Turn right and travel north on Kobes Harold Ellis Road – PDR 277 (Radio Frequency 153.530) for 2.3 km.
- Turn left and travel west into compressor station.



To Kobes Compressor Station b-024-A / 94-B-09 – Total Distance 145 km

From Intersection of Hwy 97 and Hwy 29 (Don Phillips Way), Fort St. John, BC

- Travel southwest on Hwy 29 for 60.7 km.
- Turn right and travel northwest on Farrell Creek Road for 25.1 km.
- Continue northwest onto Kobes Creek FSR for 20.2 km.
- Turn right and travel north on Haystack FSR (Radio Frequency 150.500) for 25.5 km (The Halfway River Bridge is limited to vehicles that are ¾ ton or smaller).
- Turn right and travel east on Upper Halfway Road – Mile 95 Road (Radio Frequency 153.380) for 0.3 km.
- Turn left and travel north on Kobes Harold Ellis Road – PDR 277 (Radio Frequency 153.530) for 2.3 km.
- Turn left and travel west into compressor station.



Kobes - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Status	Substance	Distance to Nearest Residence (km)	Assigned HPZ (m)
Operating											
026507	200/d-037-I/094-B-08/0	c-015-I/094-B-08	557779.54	6254686.16	PACIFIC CANBRIAM HZ KOBES C-A015-I/094-B-08	0	0.0000	Gas	Producing	> 2 km	100
028382	200/c-041-J/094-B-08/2	c-029-I/094-B-08	554717.13	6255375.89	PACIFIC CANBRIAM HZ ALTARES C- 029-I/094-B-08	0	0.0000	Gas	Producing	> 2 km	100
027892	200/b-078-I/094-B-08/2	c-057-I/094-B-08	556448.41	6258113.90	PACIFIC CANBRIAM HZ KOBES C- 057-I/094-B-08	0	0.0000	Gas	Producing	> 2 km	100
011440	200/a-056-A/094-B-09/0	c-056-A/094-B-09	557018.31	6267482.41	PACIFIC CANBRIAM KOBES C-A056-A/094-B-09	26,000	0.0000	Gas	Shut-in	0.80	100
011440	200/a-056-A/094-B-09/2	c-056-A/094-B-09	557018.31	6267482.41	PACIFIC CANBRIAM KOBES C-A056-A/094-B-09	26,000	0.0120	Gas	Producing	0.80	154
022651	200/d-068-A/094-B-09/2	d-068-A/094-B-09	555707.07	6268253.84	PACIFIC CANBRIAM KOBES D-A068-A/094-B-09	N/Avail.	-	Gas	Producing	0.60	100
022651	200/d-068-A/094-B-09/3	d-068-A/094-B-09	555707.07	6268253.84	PACIFIC CANBRIAM KOBES D-A068-A/094-B-09	N/Avail.	-	Gas	Producing	0.60	100
022651	200/d-068-A/094-B-09/4	d-068-A/094-B-09	555707.07	6268253.84	PACIFIC CANBRIAM KOBES D-A068-A/094-B-09	N/Avail.	-	Gas	Producing	0.60	100
022651	200/d-068-A/094-B-09/5	d-068-A/094-B-09	555707.07	6268253.84	PACIFIC CANBRIAM KOBES D-A068-A/094-B-09	N/Avail.	-	Gas	Producing	0.6	100
028380	200/a-052-B/094-B-09/0	c-063-B/094-B-09	551549.31	6268438.34	PACIFIC CANBRIAM HZ KOBES C- 063-B/094-B-09	N/Avail.	-	Gas	Producing	> 2 km	100
027583	200/c-023-G/094-B-09/0	d-002-G/094-B-09	552825.89	6272205.28	PACIFIC CANBRIAM HZ KOBES D-A002-G/094-B-09	0	0.0000	Gas	Producing	> 2 km	100
029245	200/c-041-F/094-B-09/0	c-029-G/094-B-09	546816.46	6274026.55	PACIFIC CANBRIAM HZ KOBES C-B029-G/094-B-09	N/Avail.	-	Gas	Producing	> 2 km	100
029244	200/b-051-F/094-B-09/0	c-029-G/094-B-09	546824.50	6274032.53	PACIFIC CANBRIAM HZ KOBES C-A029-G/094-B-09	N/Avail.	-	Gas	Producing	> 2 km	100
Cased											
028382	200/a-040-I/094-B-08/0	c-029-I/094-B-08	554717.13	6255375.89	PACIFIC CANBRIAM HZ ALTARES C- 029-I/094-B-08	-	-	N/A	Drilled & Cased	> 2 km	100
023066	200/b-019-A/094-B-09/3	c-019-A/094-B-09	554875.30	6263497.91	PACIFIC CANBRIAM KOBES C-019-A/094-B-09	-	-	N/A	Drilled & Cased	0.60	100
028381	200/c-029-A/094-B-09/0	c-029-A/094-B-09	554735.36	6264693.45	PACIFIC CANBRIAM HZ KOBES C-029-A/094-B-09	-	-	N/A	Drilled & Cased	1.70	100
022214	200/d-048-A/094-B-09/0	d-048-A/094-B-09	555772.51	6266478.35	PACIFIC CANBRIAM HZ KOBES D-048-A/094-B-09	0	-	N/A	Drilled & Cased	1.80	100
019531	200/a-057-F/094-B-09/0	a-057-F/094-B-09	541234.46	6276237.49	PACIFIC CANBRIAM KOBES A-057-F/094-B-09	-	-	N/A	Drilled & Cased	> 2 km	100
019531	200/a-057-F/094-B-09/2	a-057-F/094-B-09	541234.46	6276237.49	PACIFIC CANBRIAM KOBES A-057-F/094-B-09	-	-	N/A	Drilled & Cased	> 2 km	100
027449	200/d-002-G/094-B-09/0	d-002-G/094-B-09	552816.85	6272201.16	PACIFIC CANBRIAM KOBES D-002-G/094-B-09	-	-	N/A	Drilled & Cased	> 2 km	100
000251	200/d-021-G/094-B-09/3	d-021-G/094-B-09	553419.19	6273916.08	PACIFIC CANBRIAM KOBES D-021-G/094-B-09	-	-	N/A	Drilled & Cased	> 2 km	100
Suspended											
000141	200/d-094-I/094-B-08/2	d-094-I/094-B-08	559129.73	6261764.77	PACIFIC CANBRIAM KOBES D-094-I/094-B-08	1,900	0.0003	Gas	Suspended	0.8	100
000141	200/d-094-I/094-B-08/3	d-094-I/094-B-08	559129.73	6261764.77	PACIFIC CANBRIAM KOBES D-094-I/094-B-08	9,900	0.0021	Gas	Suspended	0.8	100
014105	200/b-045-J/094-B-08/0	b-045-J/094-B-08	550296.56	6256766.14	PACIFIC CANBRIAM ET AL ALTARES B-045-J/094-B-08	800	0.0000	N/A	Suspended	> 2 km	100
014105	200/b-045-J/094-B-08/2	b-045-J/094-B-08	550296.56	6256766.14	PACIFIC CANBRIAM ET AL ALTARES B-045-J/094-B-08	600	0.0000	Gas	Suspended	> 2 km	100

Kobes - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Status	Substance	Distance to Nearest Residence (km)	Assigned HPZ (m)
Suspended											
000489	200/b-024-A/094-B-09/0	b-024-A/094-B-09	558428.91	6264182.40	PACIFIC CANBRIAM KOBES B-024-A/094-B-09	6,800	0.0004	Gas	Suspended	> 2 km	100
022214	200/b-079-A/094-B-09/2	d-048-A/094-B-09	555772.51	6266478.35	PACIFIC CANBRIAM HZ KOBES D-048-A/094-B-09	0	0.0000	Gas	Suspended	1.8	100
022651	200/d-068-A/094-B-09/0	d-068-A/094-B-09	555707.07	6268253.84	PACIFIC CANBRIAM KOBES D-A068-A/094-B-09	40,000	0.0125	Gas	Suspended	0.6	157
000314	200/b-098-A/094-B-09/3	a-099-A/094-B-09	555019.82	6270660.16	PACIFIC CANBRIAM KOBES A-099-A/094-B-09		0.0000	N/A	Suspended	1.9	100
000314	200/a-099-A/094-B-09/0	a-099-A/094-B-09	555019.82	6270660.16	PACIFIC CANBRIAM KOBES A-099-A/094-B-09	12,500	0.0043	Gas	Suspended	1.9	100
000314	200/a-099-A/094-B-09/2	a-099-A/094-B-09	555019.95	6270659.94	PACIFIC CANBRIAM KOBES A-099-A/094-B-09		0.0000	Gas	Suspended	1.9	100
000314	200/a-099-A/094-B-09/4	a-099-A/094-B-09	555019.82	6270660.16	PACIFIC CANBRIAM KOBES A-099-A/094-B-09		0.0000	Gas	Suspended	1.9	100
017791	200/c-055-G/094-B-09/0	c-055-G/094-B-09	549944.56	6276661.68	PACIFIC CANBRIAM ET AL KOBES C-055-G/094-B-09		0.0000	Gas	Suspended	> 2 km	100
024284	200/a-096-G/094-B-09/2	c-074-G/094-B-09	550769.32	6278268.89	PACIFIC CANBRIAM HZ KOBES C-074-G/094-B-09	0	0.0000	Gas	Suspended	> 2 km	100
013366	200/c-097-G/094-B-09/3	c-097-G/094-B-09	548544.84	6280281.00	PACIFIC CANBRIAM ET AL KOBES C-097-G/094-B-09		0.0000	N/A	Suspended	> 2 km	100
013366	200/c-097-G/094-B-09/4	c-097-G/094-B-09	548544.84	6280281.00	PACIFIC CANBRIAM ET AL KOBES C-097-G/094-B-09		0.0000	Gas	Suspended	> 2 km	100
Abandoned / Abandoned Zone											
013237	200/c-015-I/094-B-08/0	c-015-I/094-B-08	557727.53	6254665.19	PACIFIC CANBRIAM KOBES C-015-I/094-B-08	2,200		N/A	Abandoned		-
013237	200/c-015-I/094-B-08/2	c-015-I/094-B-08	557727.59	6254665.19	PACIFIC CANBRIAM KOBES C-015-I/094-B-08	3,000		Gas	Abandoned Zone		-
013237	200/c-015-I/094-B-08/3	c-015-I/094-B-08	557727.59	6254665.19	PACIFIC CANBRIAM KOBES C-015-I/094-B-08			Gas	Abandoned Zone		-
019238	200/b-051-I/094-B-08/0	b-051-I/094-B-08	560855.56	6257860.68	PACIFIC CANBRIAM KOBES B- 051-I/094-B-08	30,000		Gas	Abandoned		-
027892	200/c-057-I/094-B-08/0	c-057-I/094-B-08	556458.60	6258116.60	PACIFIC CANBRIAM HZ KOBES C- 057-I/094-B-08			N/A	Abandoned Zone		-
006667	200/b-062-I/094-B-08/0	b-062-I/094-B-08	560253.00	6258461.66	PACIFIC CANBRIAM KOBES B-062-I/094-B-08	16,400		Gas	Abandoned		-
006667	200/b-062-I/094-B-08/2	b-062-I/094-B-08	560253.00	6258461.66	PACIFIC CANBRIAM KOBES B-062-I/094-B-08	16,400		Gas	Abandoned		-
006667	200/b-062-I/094-B-08/3	b-062-I/094-B-08	560253.00	6258461.66	PACIFIC CANBRIAM KOBES B-062-I/094-B-08	16,400		Gas	Abandoned		-
013224	202/b-062-I/094-B-08/0	b-062-I/094-B-08	560143.90	6258841.28	PACIFIC CANBRIAM KOBES B-A062-I/094-B-08	30,000		Gas	Abandoned		-
013224	202/b-062-I/094-B-08/2	b-062-I/094-B-08	560143.90	6258841.28	PACIFIC CANBRIAM KOBES B-A062-I/094-B-08	30,000		Gas	Abandoned		-
013224	202/b-062-I/094-B-08/3	b-062-I/094-B-08	560143.90	6258841.28	PACIFIC CANBRIAM KOBES B-A062-I/094-B-08	30,000		Gas	Abandoned		-
000299	200/c-073-I/094-B-08/0	c-073-I/094-B-08			PACIFIC CANBRIAM KOBES C-073-I/094-B-08	19,600		Gas	Abandoned Zone		-
000496	200/b-082-I/094-B-08/0	b-082-I/094-B-08			PACIFIC CANBRIAM KOBES B- 082-I/094-B-08	1,400		Gas	Abandoned		-
011458	200/c-072-I/094-B-08/2	a-083-I/094-B-08			PACIFIC CANBRIAM KOBES A- 083-I/094-B-08	3,100		Gas	Abandoned Zone		-
011458	200/a-083-I/094-B-08/0	a-083-I/094-B-08	559790.03	6260690.44	PACIFIC CANBRIAM KOBES A- 083-I/094-B-08	20,100		Gas	Abandoned		-
012176	202/d-094-I/094-B-08/0	a-094-I/094-B-08			PACIFIC CANBRIAM KOBES A- 094-I/094-B-08	8,000		N/A	Abandoned		-

Kobes - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Status	Substance	Distance to Nearest Residence (km)	Assigned HPZ (m)
Abandoned / Abandoned Zone											
012176	202/d-094-I/094-B-08/2	a-094-I/094-B-08			PACIFIC CANBRIAM KOBES A- 094-I/094-B-08			Gas	Abandoned Zone		-
012176	202/d-094-I/094-B-08/3	a-094-I/094-B-08			PACIFIC CANBRIAM KOBES A- 094-I/094-B-08			N/A	Abandoned		-
012176	202/d-094-I/094-B-08/4	a-094-I/094-B-08			PACIFIC CANBRIAM KOBES A- 094-I/094-B-08			Gas	Abandoned Zone		-
012176	202/d-094-I/094-B-08/5	a-094-I/094-B-08			PACIFIC CANBRIAM KOBES A- 094-I/094-B-08			Gas	Abandoned Zone		-
012176	202/d-094-I/094-B-08/6	a-094-I/094-B-08			PACIFIC CANBRIAM KOBES A- 094-I/094-B-08			Gas	Abandoned Zone		-
000141	200/d-094-I/094-B-08/0	d-094-I/094-B-08			PACIFIC CANBRIAM KOBES D-094-I/094-B-08	11,300		N/A	Abandoned		-
000372	200/a-003-A/094-B-09/0	a-003-A/094-B-09			PACIFIC CANBRIAM KOBES A- 003-A/094-B-09	1,500		Gas	Abandoned		-
006666	200/d-015-A/094-B-09/0	d-015-A/094-B-09			PACIFIC CANBRIAM KOBES D- 015-A/094-B-09	7,100		Gas	Abandoned Zone		-
006666	200/d-015-A/094-B-09/2	d-015-A/094-B-09			PACIFIC CANBRIAM KOBES D- 015-A/094-B-09			Gas	Abandoned		-
006666	200/d-015-A/094-B-09/3	d-015-A/094-B-09			PACIFIC CANBRIAM KOBES D- 015-A/094-B-09			Gas	Abandoned		-
006666	200/d-015-A/094-B-09/4	d-015-A/094-B-09			PACIFIC CANBRIAM KOBES D- 015-A/094-B-09			N/A	Abandoned		-
023723	200/a-016-A/094-B-09/0	a-016-A/094-B-09			PACIFIC CANBRIAM KOBES A- 016-A/094-B-09			N/A	Abandoned Zone		-
022360	200/d-017-A/094-B-09/0	d-017-A/094-B-09	556716.67	6263883.45	PACIFIC CANBRIAM KOBES D-017-A/094-B-09	-	-	N/A	Abandoned Zone		-
023066	200/b-019-A/094-B-09/0	c-019-A/094-B-09			PACIFIC CANBRIAM KOBES C-019-A/094-B-09			N/A	Abandoned		-
023066	200/b-019-A/094-B-09/2	c-019-A/094-B-09			PACIFIC CANBRIAM KOBES C-019-A/094-B-09			N/A	Abandoned		-
017829	200/c-025-A/094-B-09/0	c-025-A/094-B-09			PACIFIC CANBRIAM KOBES C- 025-A/094-B-09	13,400		Gas	Abandoned		-
000177	200/b-035-A/094-B-09/0	b-035-A/094-B-09			PACIFIC CANBRIAM KOBES B-035-A/094-B-09	22,700		Gas	Abandoned Zone		-
000177	200/b-035-A/094-B-09/2	b-035-A/094-B-09			PACIFIC CANBRIAM KOBES B-035-A/094-B-09	9,900		Gas	Abandoned Zone		-
002588	200/d-057-A/094-B-09/0	d-057-A/094-B-09			PACIFIC CANBRIAM KOBES D- 057-A/094-B-09	23,200		Gas	Abandoned		-
002588	200/d-057-A/094-B-09/2	d-057-A/094-B-09			PACIFIC CANBRIAM KOBES D- 057-A/094-B-09			N/A	Abandoned		-
002588	200/d-057-A/094-B-09/3	d-057-A/094-B-09			PACIFIC CANBRIAM KOBES D- 057-A/094-B-09			Gas	Abandoned		-
002588	200/d-057-A/094-B-09/4	d-057-A/094-B-09			PACIFIC CANBRIAM KOBES D- 057-A/094-B-09			N/A	Abandoned		-
017261	200/d-065-A/094-B-09/0	d-065-A/094-B-09			PACIFIC CANBRIAM ET AL KOBES D- 065-A/094-B-09			Gas	Abandoned Zone		-
021931	200/d-079-A/094-B-09/0	d-079-A/094-B-09			PACIFIC CANBRIAM KOBES D-079-A/094-B-09	35,000		Gas	Abandoned Zone		-
011418	200/d-086-A/094-B-09/0	d-086-A/094-B-09			PACIFIC CANBRIAM KOBES D- 086-A/094-B-09			N/A	Abandoned		-
011418	200/d-086-A/094-B-09/2	d-086-A/094-B-09			PACIFIC CANBRIAM KOBES D- 086-A/094-B-09	15,000		Gas	Abandoned		-
022977	200/d-090-A/094-B-09/0	d-090-A/094-B-09			PACIFIC CANBRIAM KOBES D-090-A/094-B-09			Gas	Abandoned Zone		-
018174	200/b-098-A/094-B-09/0	b-098-A/094-B-09			PACIFIC CANBRIAM KOBES B-098-A/094-B-09	35,000		Gas	Abandoned Zone		-

Kobes - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Status	Substance	Distance to Nearest Residence (km)	Assigned HPZ (m)
Abandoned / Abandoned Zone											
018174	200/b-098-A/094-B-09/2	b-098-A/094-B-09			PACIFIC CANBRIAM KOBES B-098-A/094-B-09			Gas	Abandoned Zone		-
023847	200/d-062-B/094-B-09/0	d-062-B/094-B-09			PACIFIC CANBRIAM KOBES D- 062-B/094-B-09			N/A	Abandoned		-
021791	200/a-022-F/094-B-09/0	a-022-F/094-B-09	544908.61	6273125.36	PACIFIC CANBRIAM PAINT POT A- 022-F/094-B-09	-		N/A	Abandoned Zone		-
021791	200/a-022-F/094-B-09/2	a-022-F/094-B-09			PACIFIC CANBRIAM PAINT POT A- 022-F/094-B-09			N/A	Abandoned Zone		-
023015	200/d-013-G/094-B-09/0	d-013-G/094-B-09			PACIFIC CANBRIAM KOBES D-013-G/094-B-09			Gas	Abandoned Zone		-
000251	200/d-021-G/094-B-09/0	d-021-G/094-B-09			PACIFIC CANBRIAM KOBES D-021-G/094-B-09	23,500		Gas	Abandoned Zone		-
000251	200/d-021-G/094-B-09/2	d-021-G/094-B-09	553419.19	6273916.08	PACIFIC CANBRIAM KOBES D-021-G/094-B-09	28,500		Gas	Abandoned Zone		-
027589	200/c-029-G/094-B-09/0	c-029-G/094-B-09			PACIFIC CANBRIAM KOBES C-029-G/094-B-09			N/A	Abandoned Zone		-
021986	200/a-041-G/094-B-09/0	a-041-G/094-B-09			PACIFIC CANBRIAM KOBES A-041-G/094-B-09			N/A	Abandoned Zone		-
019487	200/c-052-G/094-B-09/0	b-052-G/094-B-09			PACIFIC CANBRIAM ET AL KOBES B- 052-G/094-B-09			N/A	Abandoned		-
019487	200/c-052-G/094-B-09/2	b-052-G/094-B-09			PACIFIC CANBRIAM ET AL KOBES B- 052-G/094-B-09			N/A	Abandoned		-
019487	200/c-052-G/094-B-09/3	b-052-G/094-B-09			PACIFIC CANBRIAM ET AL KOBES B- 052-G/094-B-09			N/A	Abandoned		-
019487	200/c-052-G/094-B-09/4	b-052-G/094-B-09			PACIFIC CANBRIAM ET AL KOBES B- 052-G/094-B-09			Gas	Abandoned		-
016249	200/d-066-G/094-B-09/0	d-066-G/094-B-09			PACIFIC CANBRIAM ET AL KOBES D- 066-G/094-B-09			Gas	Abandoned		-
016249	200/d-066-G/094-B-09/2	d-066-G/094-B-09			PACIFIC CANBRIAM ET AL KOBES D- 066-G/094-B-09			Gas	Abandoned		-
016249	200/d-066-G/094-B-09/3	d-066-G/094-B-09			PACIFIC CANBRIAM ET AL KOBES D- 066-G/094-B-09			Gas	Abandoned		-
024284	200/c-074-G/094-B-09/0	c-074-G/094-B-09			PACIFIC CANBRIAM HZ KOBES C-074-G/094-B-09	0		N/A	Abandoned Zone		-
014126	200/d-077-G/094-B-09/0	a-087-G/094-B-09			PACIFIC CANBRIAM ET AL KOBES A-A087-G/094-B-09	2,900		Water Disposal	Abandoned Zone		-
014126	200/d-077-G/094-B-09/2	a-087-G/094-B-09			PACIFIC CANBRIAM ET AL KOBES A-A087-G/094-B-09			N/A	Abandoned Zone		-
014126	200/d-077-G/094-B-09/3	a-087-G/094-B-09			PACIFIC CANBRIAM ET AL KOBES A-A087-G/094-B-09			Gas	Abandoned Zone		-
017507	200/d-088-G/094-B-09/0	d-088-G/094-B-09			PACIFIC CANBRIAM ET AL KOBES D- 088-G/094-B-09			Gas	Abandoned		-
007021	200/c-096-G/094-B-09/0	c-096-G/094-B-09			PACIFIC CANBRIAM ET AL TOWNSEND C-096-G/094-B-09	8,800		Gas	Abandoned Zone		-
007021	200/c-096-G/094-B-09/2	c-096-G/094-B-09			PACIFIC CANBRIAM ET AL TOWNSEND C-096-G/094-B-09			Gas	Abandoned Zone		-
007021	200/c-096-G/094-B-09/3	c-096-G/094-B-09			PACIFIC CANBRIAM ET AL TOWNSEND C-096-G/094-B-09			N/A	Abandoned Zone		-
007021	200/c-096-G/094-B-09/4	c-096-G/094-B-09			PACIFIC CANBRIAM ET AL TOWNSEND C-096-G/094-B-09			Gas	Abandoned Zone		-
013366	200/c-097-G/094-B-09/0	c-097-G/094-B-09			PACIFIC CANBRIAM ET AL KOBES C-097-G/094-B-09	15,200		N/A	Abandoned Zone		-
013366	200/c-097-G/094-B-09/2	c-097-G/094-B-09			PACIFIC CANBRIAM ET AL KOBES C-097-G/094-B-09			N/A	Abandoned Zone		-
023061	200/b-010-H/094-B-09/0	b-010-H/094-B-09			PACIFIC CANBRIAM KOBES B-010-H/094-B-09			Gas	Abandoned Zone		-

Kobes - Wells

License	UWI	Surface Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Well Name	H_2S (ppm)	H_2S Release Rate (m^3/sec)	Status	Substance	Distance to Nearest Residence (km)	Assigned HPZ (m)
Abandoned / Abandoned Zone											
017993	200/b-019-H/094-B-09/0	b-019-H/094-B-09			PACIFIC CANBRIAM KOBES B-019-H/094-B-09	20,000		N/A	Abandoned Zone		-
017993	200/b-019-H/094-B-09/2	b-019-H/094-B-09			PACIFIC CANBRIAM KOBES B-019-H/094-B-09	20,000		Gas	Abandoned Zone		-
000164	200/a-020-H/094-B-09/0	a-020-H/094-B-09			PACIFIC CANBRIAM KOBES A-020-H/094-B-09	13,900		Gas	Abandoned Zone		-
000164	200/a-020-H/094-B-09/2	a-020-H/094-B-09	554206.44	6272471.28	PACIFIC CANBRIAM KOBES A-020-H/094-B-09	N/Avail.		Gas	Abandoned		-
000164	200/a-020-H/094-B-09/3	a-020-H/094-B-09	554206.44	6272471.28	PACIFIC CANBRIAM KOBES A-020-H/094-B-09			N/A	Abandoned		-
000164	200/a-020-H/094-B-09/4	a-020-H/094-B-09	554206.44	6272471.28	PACIFIC CANBRIAM KOBES A-020-H/094-B-09			N/A	Abandoned		-
000164	200/a-020-H/094-B-09/5	a-020-H/094-B-09	554206.44	6272471.28	PACIFIC CANBRIAM KOBES A-020-H/094-B-09			N/A	Abandoned		-
019486	200/a-024-K/094-B-09/0	a-024-K/094-B-09			PACIFIC CANBRIAM CAMERON A- 024-K/094-B-09			N/A	Abandoned		-

BCER has requested a minimum 100m EPZ be applied to sweet assets and all assets that are not abandoned.

Kobes - Pipelines

License	Line	From Location	From Facility	From Valve	From Valve Easting (Zone 10)	From Valve Northing (Zone 10)	To Location	To Facility	To Valve	To Valve Easting (Zone 10)	To Valve Northing (Zone 10)	Substance	Status	MOP (kPa)	OD (mm)	WT (mm)	Length (km)	H_2S (%)	Cumulative H_2S Release Volume (m^3)	Assigned HPZ (km)	Foot-notes
Operating																					
9986	1	B-082-I/094-B-08		ESD	557726	6254667	A-026-I/094-B-08		CV	560155	6260330	SNG	O	9309	219.10	5.60	9.100	0.25	98.6	0.332	1
23130	1	D-055-G/094-B-09	UKN				D-021-G/094-B-09	UKN				SNG	O	4960	168.30	4.80	4.514	6.50	352.4	1.042	1
1026	3	D-021-G/094-B-09		CV	553513	6273718	A-020-H/094-B-09					SNG	O	4960	168.30	4.80	1.829	6.50	495.2	1.368	1
9903	1	A-020-H/094-B-09					D-010-H/094-B-09		CV	554211	6272202	SNG	O	4960	219.10	6.35	0.320	0.25	1.6	0.198	1
9903	2	D-010-H/094-B-09					A-035-A/094-B-09					SNG	O	4960	219.10	5.56	8.203	0.25	44.9	0.156	1
9903	3	A-035-A/094-B-09					D-025-A/094-B-09		CV	558306	6264784	SNG	O	4960	219.10	6.35	0.322	0.25	44.9	0.156	1
25688	1	D-025-A/094-B-09					D-025-A/094-B-09					SNG	O	7584	114.30	6.02	0.029	0.25	45.1	0.156	1
9763	2	D-025-A/094-B-09					D-025-A/094-B-09					SNG	O	7584	168.30	4.80	0.030	0.25	45.1	0.156	1
6034	1	D-025-A/094-B-09		ESD	558302	6264802	D-025-A/094-B-09					SNG	O	4960	168.30	6.40	0.046	0.25	1.9	0.120	1
6034	2	D-025-A/094-B-09					B-024-A/094-B-09		CV	558494	6264210	SNG	O	4960	168.30	6.40	0.636	0.25	1.9	0.120	1
1025	8	B-024-A/094-B-09		ESD	558454	6264251	D-025-A/094-B-09		CV	558290	6264677	SNG	O	7584	168.30	4.80	0.750	0.25	3.6	0.153	1
19827	1	B-024-A/094-B-09	UKN				A-031-B/094-B-09	PL				FG	O	9930	114.30	4.80	5.326	0.00		0.100	1
22394	1	C-015-I/094-B-08	PL	CV/ESD	557726	6254665	B-082-G/094-B-08	PL	ESD/CV	552418	6250936	NG	O	9930	168.30	4.80	7.641	0.00		0.132	1
22719	1	D-002-G/094-B-09	WE				A-020-H/094-B-09	PL				NG	O	4960	114.30	4.00	1.600	0.00		0.100	1
22743	1	C-057-I/094-B-08	WE	CV	556450	6258111	C-015-I/094-B-08	PL	ESD/CV	557726	6254665	NG	O	9930	168.30	4.80	3.854	0.00		0.133	1
23041	1	C-029-I/094-B-08	WE				B-046-I/094-B-08	PL				NG	O	4960	114.30	4.00	2.664	0.00		0.100	1
23043	1	C-063-B/094-B-09	WE				D-002-G/094-B-09	PL				NG	O	9930	114.30	4.00	5.100	0.00		0.100	1
23333	1	C-029-G/094-B-09	WE				D-055-G/094-B-09	PL	ESD	550181	6276410	NG	O	9930	114.30	4.00	5.650	0.00		0.100	1
25665	1	B-046-I/094-B-08					A-026-I/094-B-08					NG	O	4960	114.30	4.00	2.089	0.00		0.100	1
Inactive																					
8970	1	D-083-G/094-B-08					B-082-G/094-B-08					SNG	I	9930	114.30	4.80	0.500	1.00	5.8	0.125	1, 2
Deactivated																					
67	1	D-013-G/094-B-09	WE				D-021-G/094-B-09	PL	BE	553513	6273718	SNG	D	4960	88.90	4.80	2.013	6.50		0.010	3
139	1	B-010-H/094-B-09	WE				A-020-H/094-B-09	PL	BE	554148	6272436	SNG	D	4960	88.90	4.80	1.114	6.50		0.010	3
140	1	D-090-A/094-B-09	WE				A-099-A/094-B-09	PL	BE	555018	6270666	SNG	D	4960	88.90	4.80	0.768	6.50		0.010	3
1025	7	A-014-A/094-B-09					B-024-A/094-B-09		CV	558495	6264179	SNG	D	4960	168.30	4.80	1.266	6.50		0.010	3
1025	10	A-004-A/094-B-09					D-004-A/094-B-09					SNG	D	4960	168.30	4.80	0.569	6.50		0.010	3
1025	11	D-004-A/094-B-09					A-014-A/094-B-09					SNG	D	4960	168.30	6.35	0.348	6.50		0.010	3
1026	1	D-021-G/094-B-09		BE	553513	6273718	D-021-G/094-B-09		BE	553513	6273718	SNG	D	4960	88.90	4.80	0.152	6.50		0.010	3
2993	1	C-056-A/094-B-09		BE	558023	6267496	C-056-A/094-B-09		BE	556923	6267333	SNG	D	4960	114.30	6.02	0.245	6.50		0.010	3
4433	1	C-073-I/094-B-08					A-083-I/094-B-08		ESD	559930	6260358	SNG	D	4960	114.30	4.78	0.542	6.50		0.010	3
4433	2	B-082-I/094-B-08		BE			A-083-I/094-B-08		BE	559757	6260598	SNG	D	4960	88.90	5.49	0.397	6.50		0.010	3
4433	3	A-083-I/094-B-08		ESD	559786	6260506	D-094-I/094-B-08		CV	559130	6261764	SNG	D	4960	114.30	4.78	1.484	6.50		0.010	3

Kobes - Pipelines

License	Line	From Location	From Facility	From Valve	From Valve Easting (Zone 10)	From Valve Northing (Zone 10)	To Location	To Facility	To Valve	To Valve Easting (Zone 10)	To Valve Northing (Zone 10)	Substance	Status	MOP (kPa)	OD (mm)	WT (mm)	Length (km)	H_2S (%)	Cumulative H_2S Release Volume (m^3)	Assigned HPZ (km)	Foot-notes
Deactivated																					
4433	4	D-094-I/094-B-08		CV	559158	6261852	A-004-A/094-B-09					SNG	D	4960	168.30	5.56	0.340	6.50		0.010	3
4433	7	A-083-I/094-B-08		ESD	559790	6260502	A-083-I/094-B-08		ESD	559930	6260358	SNG	D	4960	114.30	6.02	0.154	6.50		0.010	3
4433	9	A-099-A/094-B-09					B-099-A/094-B-09		CV	555018	6270666	SNG	D	4960	88.90	4.78	0.238	6.50		0.010	3
4531	4	D-015-A/094-B-09		BE	558353	6263950	B-024-A/094-B-09		BE	558427	6264186	SNG	D	4960	114.30	4.78	0.260	6.50		0.010	3
4655	3	B-062-I/094-B-08		ESD	560258	6258465	C-073-I/094-B-08		CV	559492	6260029	SNG	D	4960	88.90	3.96	2.240	6.50		0.010	3
5433	1	B-035-A/094-B-09		BE			D-025-A/094-B-09		BE	558390	6264579	SNG	D	4960	114.30	8.56	0.685	6.50		0.010	3
5433	2	D-025-A/094-B-09		BE			B-024-A/094-B-09		BE			SNG	D	4960	114.30	8.56	0.615	6.50		0.010	3
7851	1	A-083-I/094-B-08		BE	559786	6260667	A-083-I/094-B-08		BE	559719	6260651	SNG	D	4960	114.30	4.76	0.091	6.50		0.010	3
9763	1	C-097-G/094-B-09					D-025-A/094-B-09					SNG	D	9930	168.30	4.80	19.153	6.50		0.010	3
9938	1	C-096-G/094-B-09		ESD	549194	6280096	C-097-G/094-B-09		CV, ESD	548633	6280073	SNG	D	9930	88.90	4.80	0.575	2.30		0.010	3
10286	1	D-086-A/094-B-09		BE	557168	6270401	B-088-A/094-B-09		BE	555373	6269520	SNG	D	9930	88.90	4.80	2.125			0.010	3
10287	1	A-087-G/094-B-09		BE	548916	6278509	C-097-G/094-B-09		BE	548633	6280073	SNG	D	4960	168.30	5.60	1.732	6.50		0.010	3
11910	1	D-066-G/094-B-09		BE			A-087-G/094-B-09		BE	549364.57	6277431.4	SNG	D	4960	168.30	5.60	1.740	6.50		0.010	3
12860	1	D-065-A/094-B-09		BE	557978	6268257	D-057-A/094-B-09		BE	556538	6267590	SNG	D	9930	88.90	4.80	1.790	1.50		0.010	3
13309	1	A-099-G/094-B-09					C-097-G/094-B-09					FG	D	9930	88.90	4.80	1.700	0.00		0.010	3
13428	1	C-025-A/094-B-09		BE	557957	6264744	B-024-A/094-B-09		BE	558434	6264259	SNG	D	9930	114.30	4.80	0.860	1.50		0.010	3
13768	1	B-098-A/094-B-09	WE	BE	555487	6270802	A-099-A/094-B-09	PL	BE	555016	6270661	SNG	D	4960	114.30	4.80	0.550	6.50		0.010	3
14814	1	C-097-G/094-B-09	CS	BE			A-087-G/094-B-09	PL	BE			SW	D	4964	168.30	5.60	1.700	1.00		0.010	3
14814	2	C-097-G/094-B-09	PL	BE			A-087-G/094-B-09		BE			FG	D	1896	88.90	3.20	1.700	0.00		0.010	3
18826	1	D-079-A/094-B-09	WE	BE	554883	6269268	C-078-A/094-B-09	PL	BE	555308	6269494	SNG	D	4960	88.90	4.80	0.510	6.50		0.010	3
19138	1	B-051-I/094-B-08	WE	ESD	560848	6257866	B-062-I/094-B-08	PL	CV	560258	6258465	SNG	D	4960	88.90	5.50	0.983	6.50		0.010	3
19158	1	D-048-A/094-B-09	WE	BE	555769	6266490	D-057-A/094-B-09	PL	BE	556601	6267350	SNG	D	4960	114.30	4.80	1.278	6.50		0.010	3
19565	1	B-019-H/094-B-09	WE	BE	554752	6272557	A-020-H/094-B-09	PL	BE	554148	6272436	SNG	D	4960	88.90	4.80	0.855	6.50		0.010	3
19997	1	D-068-A/094-B-09	WE	BE	555705	6268268	D-068-A/094-B-09	PL	BE	555939	6268352	SNG	D	4960	88.90	4.80	0.270	6.50		0.010	3
21205	1	C-074-G/094-B-09	WE	BE	550782	6278274	D-066-G/094-B-09	PL	BE	549422	6277470	SNG	D	4960	114.30	4.80	1.766	6.50		0.010	3
23041	2	B-046-I/094-B-08					B-051-I/094-B-08					NG	D	4960	114.30	4.00	4.131	0.00		0.010	3
23130	2	D-055-G/094-B-09		BE			D-066-G/094-B-09		BE			SNG	D	0	168.30	4.80	1.486	6.50		0.010	3
Cancelled / Abandoned																					
1025	1	B-035-A/094-B-09					D-025-A/094-B-09					SNG	A	8300	88.90	4.88	0.488				
1025	2	A-099-A/094-B-09					A-099-A/094-B-09					SNG	A	8300	88.90	4.80	0.183				
1025	3	A-003-A/094-B-09					A-004-A/094-B-09					SNG	A	8300	88.90	4.80	0.640				
1025	4	D-094-I/094-P-08					D-025-A/094-B-09					SNG	A		38.10	3.70	3.962				
1025	5	A-003-A/094-B-09					A-004-A/094-B-09					SNG	A		25.40	3.37	0.640				

Kobes - Pipelines

License	Line	From Location	From Facility	From Valve	From Valve Easting (Zone 10)	From Valve Northing (Zone 10)	To Location	To Facility	To Valve	To Valve Easting (Zone 10)	To Valve Northing (Zone 10)	Substance	Status	MOP (kPa)	OD (mm)	WT (mm)	Length (km)	H_2S (%)	Cumulative H_2S Release Volume (m^3)	Assigned HPZ (km)	Foot-notes
Cancelled / Abandoned																					
1025	6	D-094-I/094-B-08					A-004-A/094-B-09					SNG	A		168.30	4.80	0.375				
1025	9	D-004-A/094-B-09					A-014-A/094-B-09					SNG	A	4960	168.30	4.80	0.358	6.50			
1026	2	D-021-G/094-B-09					D-021-G/094-B-09					HVP	A	0	25.40	3.37	0.152	0.00			
1026	4	D-021-G/094-B-09					A-020-H/094-B-09					HVP	A	0	38.10	4.80	1.829	0.00			
1040	1	A-083-I/094-B-08					D-094-I/094-B-08					SNG	A	6890	114.30	6.00	1.280				
1040	2	D-094-I/094-B-08					B-093-I/094-B-08					NG	A	6890	48.30	0.00	0.274				
1040	3	B-093-I/094-B-08					A-083-I/094-B-08					NG	A	6890	33.40	0.00	1.228				
1040	4	B-082-I/094-G-08					A-083-I/094-B-08					NG	A	6890	60.30	0.00	0.366				
1040	5	A-083-I/094-B-08					B-082-I/094-B-08					FG	A	6890	25.40	0.00	0.366				
1040	6	C-073-I/094-B-08					A-083-I/094-B-08						A	6890	60.30		0.465				
1040	7	A-083-I/094-B-08					C-073-I/094-B-08					FG	A	6890	25.40		0.465				
3106	1	D-057-A/094-B-09					D-057-A/094-B-09					SW	A	11600	60.30		0.090	2.00			
4433	5	B-035-A/094-B-09					B-024-A/094-B-09					SNG	A	6895	88.90	4.78	0.675				
4511	1	A-003-A/094-B-09					A-004-A/094-B-09					SNG	A	6895	88.90	3.96	0.660	1.96			
13325	1	C-055-G/094-B-09					D-066-G/094-B-09					SNG	A	9930	88.90	4.80	1.340	1.50			
15016	1	B-052-G/094-B-09	WE				C-055-G/094-B-09	PL				SNG	A	0	114.30		3.200	1.50			

All pipelines with a calculated HPZ less than 100 m were assigned a 100 m HPZ to comply with the *All Hazards Approach* utilized in BC.

Footnotes:

1. The Assigned HPZ for the natural gas and sour natural gas pipelines has been taken to be the largest of the calculated EPZ using the nomograph, the LEL/2, or Heat Radiation to 5 kW/m2 calculations with a minimum HPZ of 0.100 km.
2. Pacific Canbriam Energy Limited has confirmed this pipeline is not active.
3. Pacific Canbriam Energy Limited has confirmed this pipeline segment has been pigged, purged and blind ended.

Pipeline Legend:	
Facility:	B = Battery BE = Bind End CS = Compressor Station DH = Dehydrator GP = Gas Plant GS = Gathering System MS = Meter Station PS = Pump Station PL = Pipeline PT = Plant S = Satellite WE = Well CP = Camp
Substance:	CO = Crude Oil FG = Fuel Gas FW = Fresh Water NG = Natural Gas OE = Oil Well Effluent OM = Oil Emulsion SC = Sour Crude SE = Sour Effluent SG = Sour Gas SW = Salt Water PW = Produced Water FW = Fresh Water
Status:	A = Abandoned D = Discontinued I = Inactive O = Operating Q = Active R = Removed S = Suspended TBC = To Be Constructed X = Cancelled NIU = Not In Use NB = Not Built
Valve:	CV = Check Valve ESD = Emergency Shut Down Valve
Other:	L = Length OD = Outside Diameter WT = Wall Thickness MOP = Maximum Operating Pressure GLR = Gas to Liquid Ratio

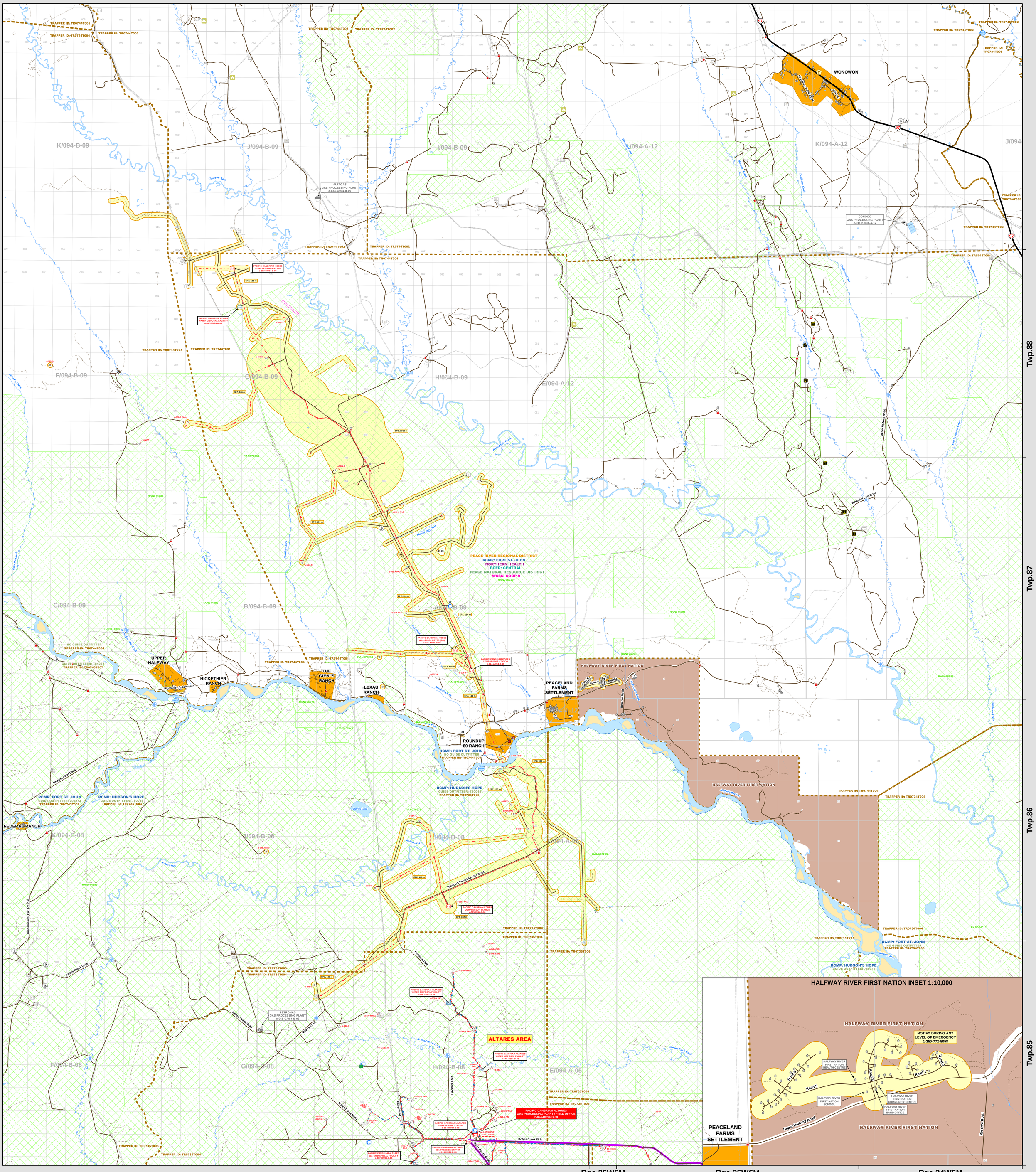
Kobes - Facilities

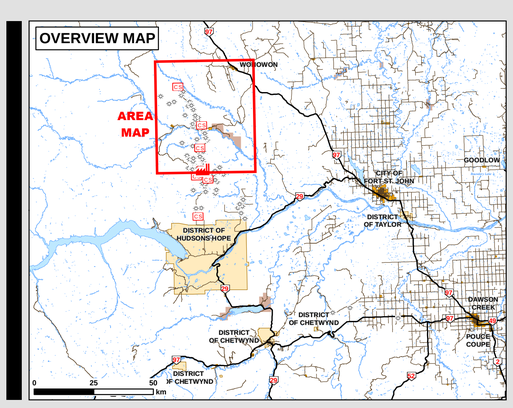
Facility Licence #	Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Facility Type	Status	Distance to Nearest Residence or public facility (km)	H_2S Release Volume (m^3)	Assigned HPZ (km)
Active								
4561	C-015-I/094-B-08	557696.00	6254687.00	Compressor station	Active	> 2 km	0.0	0.133
24724	C-015-I/094-B-08	557782.23	6254689.46	Well Facility	Active	> 2 km	0.0	0.133
25632	C-029-I/094-B-08	554719.73	6255378.76	Well Facility	Active	> 2 km	0.0	0.100
25409	C-057-I/094-B-08	556451.13	6258116.76	Well Facility	Active	> 2 km	0.0	0.133
18374	D-094-I/094-B-08	559141.74	6261779.19	Well Facility	Active	0.7	-	0.100
18941	D-015-A/094-B-09	558358.62	6263949.29	Well Facility	Active	> 2 km	-	0.100
266	B-024-A/094-B-09	558457.00	6264222.00	Compressor station	Active	> 2 km	3.6	0.153
8091	A-035-A/094-B-09	557786.99	6265011.48	Gas Sales Meter (BC)	Active	> 2 km	44.9	0.156
22441	D-079-A/094-B-09	554883.03	6269265.96	Well Facility	Active	0.7	-	0.100
22894	D-090-A/094-B-09	554305.53	6270336.56	Well Facility	Active	1.9	-	0.100
20789	B-098-A/094-B-09	555475.43	6270808.96	Well Facility	Active	1.9	-	0.100
25631	C-063-B/094-B-09	551552.23	6268441.36	Well Facility	Active	> 2 km	0.0	0.100
25269	D-002-G/094-B-09	552829.03	6272208.26	Well Facility	Active	> 2 km	0.0	0.100
22909	D-013-G/094-B-09	551777.83	6272836.06	Well Facility	Active	> 2 km	-	0.100
18075	C-029-G/094-B-09	546827.53	6274035.63	Well Facility	Active	> 2 km	0.0	0.100
7425	A-087-G/094-B-09	548846.00	6278696.00	Water disposal facility	Active	> 2 km	-	0.100
18979	C-096-G/094-B-09	549106.76	6280298.71	Well Facility	Active	> 2 km	-	0.100
9124	C-097-G/094-B-09	548511.00	6280271.00	Compressor station	Active	> 2 km	-	0.100

Kobes - Facilities

Facility Licence #	Location	Easting Coordinates (Zone 10)	Northing Coordinates (Zone 10)	Facility Type	Status	Distance to Nearest Residence or public facility (km)	H_2S Release Volume (m^3)	Assigned HPZ (km)
Active								
22934	B-010-H/094-B-09	553715.13	6271608.86	Well Facility	Active	> 2 km	-	0.100
20732	B-019-H/094-B-09	554785.83	6272571.36	Well Facility	Active	> 2 km	-	0.100
Inactive								
21108	B-051-I/094-B-08	560858.33	6257863.46	Well Facility	Not Active	> 2 km	-	0.100
22566	D-048-A/094-B-09	555775.53	6266481.36	Well Facility	Not Active	1.8	-	0.100
22747	D-068-A/094-B-09	555710.13	6268256.86	Well Facility	Not Active	0.6	-	0.157
18400	D-021-G/094-B-09	553421.86	6273919.96	Well Facility	Not Active	> 2 km	495.2	1.368
Suspended								
18407	C-073-I/094-B-08	559497.90	6260027.93	Well Facility	Suspended	0.7	-	0.100
18422	B-082-I/094-B-08	560158.08	6260331.15	Well Facility	Suspended	0.8	98.6	0.332
20685	C-025-A/094-B-09	557950.83	6264744.06	Well Facility	Suspended	> 2 km	-	0.100
20550	D-065-A/094-B-09	557975.93	6268260.96	Well Facility	Suspended	1.2	-	0.100
19400	D-086-A/094-B-09	557170.83	6270404.06	Well Facility	Suspended	1.3	-	0.100
20672	C-055-G/094-B-09	549947.73	6276664.56	Well Facility	Suspended	> 2 km	-	0.100
20231	D-066-G/094-B-09	549367.73	6277434.46	Well Facility	Suspended	> 2 km	-	0.100
23597	C-074-G/094-B-09	550772.53	6278271.86	Well Facility	Suspended	> 2 km	-	0.100
19686	C-097-G/094-B-09	548547.83	6280283.96	Well Facility	Suspended	> 2 km	-	0.100
18375	A-020-H/094-B-09	554209.27	6272473.85	Well Facility	Suspended	> 2 km	495.2	1.368

All operating and suspended facilities were assigned a minimum 100 m HPZ to comply with the All Hazards Approach utilized in BC.





ALTARES / KOBES AREA RADIO ROAD FREQUENCIES	
ROAD NAME	FREQUENCY
Haystack Forest Service Road	RR-12 – 150.500
Iron Creek Road	RR 18 – 150.710
Pilsner Road	RR-7 – 150.260
Harold Ellis Road	RR-7 – 150.260
Upper Halfway Road	Mile 95 Road – 153.380
Kobes Creek Road (km 24.5 to km 46.3)	RR 08 – 150.4400
Beryl Prairie Road (entire length)	RR 03 – 150.1400
The Core Road (entire length)	RR 04 – 150.1850
Camp Road	RR 21 – 151.010
The West Altares Road	RR 03 – 150.1400

EMERGENCY RESPONSE PLAN (ERP) STAKEHOLDERS: KOBES	
REGULATOR AUTHORITY :	BCER CENTRAL ZONE
LOCAL AUTHORITY :	PEACE RIVER REGIONAL DISTRICT
FIRST NATION / MÉTIS SETTLEMENT :	HALFWAY RIVER FIRST NATION
LAW ENFORCEMENT :	RCMP: HUDSON'S HOPE
HEALTH AUTHORITY :	NORTHERN HEALTH
SPILL COOP :	WCSS: COOP 9
TRANSPORTATION/ HWY/ RAIL:	N/ A
AIRPORT ZONING AREA:	FORT ST. JOHN
TRAPPER :	TRAPPER: TR0735T003, TR0735T004, TR0735T006, TR0744T001, TR0744T003, TR0744T004
GUIDE/ OUTFITTER:	GUIDE: 750015
GRAZING/ RANGE TENURE:	RAN073258, RAN073263, RAN074983, RAN074995, RAN075019, RAN076675
FOREST MANAGEMENT AREA:	PEACE NATURAL RESOURCE DISTRICT
PARK:	N/ A

CLIENT FACILITY TYPE
- GAS PROCESSING PLANT
- CENTRAL TREATMENT PLANT
- CENTRAL PROCESSING FACILITY
- INJECTION PLANT
- COMPRESSOR
- PUMP STATION
- PIPELINE TERMINAL
- DEHYDRATOR
- WASTE PROCESSING
- METER STATION
- HEADER / RISER
- BATTERY
- SATELLITE
- CHECK VALVE
- BLOCK VALVE
- EMERGENCY SHUTDOWN VALVE
- PROPANE BULLET
- TANK

CLIENT PIPELINE TYPE
- OIL SOUR - OPERATING
- OIL SWEET - OPERATING
- OIL PRODUCTS - DISCONTINUED
- GAS SOUR - OPERATING
- GAS SWEET - OPERATING
- GAS PRODUCTS - DISCONTINUED
- WATER SOUR - OPERATING
- WATER SWEET - OPERATING
- WATER - DISCONTINUED
- HVP - OPERATING
- HVP - DISCONTINUED
- LVP - OPERATING
- LVP - DISCONTINUED
- STEAM / AIR - OPERATING
- STEAM / AIR - DISCONTINUED
- MISC - OPERATING
- MISC - DISCONTINUED

SURFACE DEVELOPMENT
- RESIDENCE OCCUPIED
- BUSINESS OCCUPIED
- RESIDENCE SENSITIVE
- BUSINESS SENSITIVE
- RESIDENCE SEASONAL
- PUBLIC FACILITY
- STRUCTURE VACANT
- STRUCTURE ABANDONED
- STRUCTURE OUTSIDE OF EPZ

GENERAL CULTURE
- EVACUATION / RECEPTION CENTER
- EVACUATION ROUTE
- INCIDENT COMMAND POST
- STARS SITE
- FIRE HALL
- HOSPITAL
- MEDICAL CENTER
- SECURITY CHECKPOINT
- SCHOOL
- PLACE OF WORSHIP
- CEMETERY
- RAIL FACILITY
- INDUSTRY CAMP
- GRAVEL PIT
- STORAGE YARD
- GOLF COURSE
- CAMPGROUND
- CAMPGROUND PRIVATE
- CAMPGROUND UNDEVELOPED
- PICNIC / REST AREA
- CAMPSITE
- ROADBLOCK
- DEAD END
- GATED ACCESS
- AIRPORT
- AIR STRIP
- HELI PAD
- FORESTRY TOWER
- OTHER TOWER
- COMMUNICATION TOWER
- AIR MONITORING SITE
- ELECTRICAL SUBSTATION
- RAIL CROSSING
- HISTORIC SITE
- WATER CROSSING
- BRIDGE
- WCSS CONTROL POINT
- CLIENT CONTROL POINT
- CONTROL POINT LABEL
- BOAT LAUNCH
- SOLAR FARM
- WIND FARM
- SPECIAL INTEREST GROUP
- HIGHWAY - PRIMARY
- HIGHWAY - SECONDARY
- MAIN ACCESS ROAD
- OTHER ACCESS
- RAIL
- LOCAL AUTHORITY
- LAW ENFORCEMENT
- HEALTH AUTHORITY
- REGULATOR AUTHORITY
- SPILL COOP
- NATURAL RESOURCE DISTRICT (B.C. Only)
- FOREST MANAGEMENT AREA (AB Only)
- WMU / GUIDE OUTFITTER
- TRAPLINE
- PROVINCE
- WATER
- POPULATED PLACE
- FIRST NATION / MÉTIS SETTLEMENT
- RECREATIONAL AREA (AB Only)
- PARK / PROTECTED AREA
- GRAZING / RANGE TENURE
- LANDOWNER
- RIGHTS HOLDER
- MILITARY AREA
- FENCE BOUNDARY
- FACILITY BOUNDARY

NON-CLIENT OPERATORS
- GAS PROCESSING PLANT
- FACILITY
- WELL
- PIPELINE

CLIENT WELL TYPE
- WELL - GAS
- WELL - OIL
- WELL - WATER SOURCE
- WELL - WATER INJECTION
- WELL - OBSERVATION
- WELL - LOCATION
- WELL - GAS SUSPENDED
- WELL - OIL SUSPENDED

EMERGENCY RESPONSE
- EPZ (EMERGENCY PLANNING ZONE)
- IIZ (INITIAL ISOLATION ZONE)
- CEPA ZONE
- EPZ (EXISTING SYSTEM)
- EGRESS
- ERP ACCESS

PACIFIC CANBRIAM ENERGY

NEBC FIELD SUPPLEMENT 2024
KOBES AREA MAP

BEHR Integrated Solutions
www.behrintegrated.com

Drawn By: TMV
Scale: 1:50,000
Project No.: 14676
Map Projection: NAD 83 UTM 10
Revision: 0 - SEPT. 2024

0 1 2 3 4 5 6 km

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Area Occupant Data

Confidential Data

Confidential data collected during the Public Involvement Program will only be included in manuals labelled as ***Confidential***.

All manuals will contain contact information for publicly listed data for area occupants within the HPZ that may include Trappers, Grazing Lease Holders and Industrial Operators. Refer to each site-specific area in the *Assets and Equipment Section* for this information.

The following reports are only included in copies of the confidential ERP:

Surface Development – Summary Report
- Includes contact information for all surface developments within the HPZ.
- Report sorted by Map Coordinates.

Special Needs Contacts within the EPZ – Summary Report
- Includes residents who have indicated they may require early response actions due to medical needs or communication barriers.
- Report sorted by Map Coordinates.

School / Student – Summary Report
- Includes children who may be in school during an incident.
- Report sorted by Map Coordinates.

Surface Development – Detail Report (per location)
- Includes all information pertaining to a specific location.
- The individual detail reports are sorted by Map Coordinates.

Surface Development – Summary Report (Alphabetical)
- Includes contact information for all surface developments within the HPZ.

Report is sorted Alphabetically.

Public Information Package

A public information package was prepared and delivered to area occupants during the public involvement process. A copy of the public information package is included in all manuals.

EPZ STAKEHOLDER SUMMARY REPORT

Pacific Canbriam Energy/Kobes

The following report provides an overview of all Stakeholders identified within the Emergency Planning Zone, based on information gathered during the most recent Public Notification and Consultation Campaign, and other situational awareness data gathered during the most recent Emergency Response Plan update.

EMERGENCY PLANNING ZONE (EPZ) OVERVIEW	
Surface Developments within the EPZ	7
Occupants living / working within the EPZ (includes all Students)	23
Students attending school who live within the EPZ	0
Surface Developments with Sensitivities (There may be more than one sensitivity per Surface Development)	3

OCCUPANT SENSITIVITIES OVERVIEW (Sensitivities are identified for response activities and for consultation awareness)	
Aboriginal Community Member	0
Evacuation Assistance	1
Language / Comprehension Barrier	0
Not Contacted During Public Notification / Consultation Campaign	2
Other Special Needs	2
Potentially Contentious Occupant	2
Requires Early Notification	1
Sensitive to Industry Development	0

SURFACE DEVELOPMENTS OVERVIEW	
PRIVATE PROPERTY (Locations where people live)	
Residences – Abandoned	0
Residences – Not contacted	2
Residences – Occupied Full Time	0
Residences – Seasonal / Part Time	0
Residences – Vacant	0
Building - Unoccupied	0
Resident Surface Developments within the EPZ	2
Unoccupied Surface Developments within the EPZ	0

PUBLIC FACILITIES (Locations where members of the public may congregate)	
Airport/Airstrip	0
Boat Launch - Recreational	0
Camp site – Off-Road	0
Campground - Official	0
Campsite - Developed	1
Cemetery	0
Community Center	0
Evacuation / Reception Centre	0

Golf Course	0
Helispot	0
Hospital	0
Picnic / Rest Area	0
Place of Worship	0
Public Facility	0
School	0
Public Facility Locations within the EPZ	1

NON RESIDENT LAND USERS (Locations where people may be working)	
Business / Industrial Land Users	
Business	0
Other O&G Operator Battery	0
Other O&G Operator Camp	1
Other O&G Operator Compressor	0
Other O&G Operator Plant	0
Business / Other O&G Operator Locations within the EPZ	1

Other Land Users (Locations where people may be working periodically)	
Air Monitoring Site / Trailer	0
Electrical Sub Station	0
Gravel Pit	3
Guide / Outfitter	0
Landowner	0
Military / Base	0
Registered Trapline / Trapper	0
Rights Holder / Allotment User	0
Security Gate / Checkpoint	0
Solar Farm	0
Special Interest Group	0
Spill Control Point	0
Storage / Laydown Yard	0
Tower - Communication	0
Tower - Forestry	0
Tower - Other	0
Wind Farm	0
Other Non - Resident Land Users within the EPZ (This total does not include Businesses / Industrial Locations above)	3

KOBES FIELD
2024 ANNUAL UPDATE
PUBLIC INFORMATION PACKAGE

OVERVIEW

Pacific Canbriam Energy Limited is committed to protecting public safety and the environment. Our history as a company has demonstrated this commitment and our ability to safely conduct exploration and production operations.

As part of our ongoing safety program, we are contacting you to provide you with important information regarding our operations in your area.

Pacific Canbriam operates sweet and sour (H_2S) wells, pipelines and facilities within the Peace River Regional District of Northeastern British Columbia.

The BC Energy Regulator (BCER) requires Pacific Canbriam to prepare and distribute an information package, detailing their operations, to all persons, residences, local authorities and publicly used facilities within and immediately adjacent to the Emergency Planning Zones associated with their area activities. This package is required to contain information about proposed or existing operations, the procedures in place to respond to an emergency and public protection measures.

EMERGENCY RESPONSE PLAN

An Emergency Response Plan (ERP) is a comprehensive plan designed to protect the public and includes criteria for assessing an emergency situation and procedures for mobilizing response personnel and agencies as well as procedures for establishing communications and the coordination of resources in the event of an incident. The extent of the information contained within the ERP is determined by the identified potential hazards.

The purpose of an ERP is to ensure a timely and effective response to emergencies in order to protect people, the environment, property and business. An ERP addresses the worst case emergency scenarios, potential hazards to the public, and systems required for adequate response.

HAZARD PLANNING ZONE (HPZ)

A HPZ is determined based upon the potential release rate calculated for a proposed well. Once a release rate has been established, a formula is used to determine the corresponding radius of the HPZ. This information is then incorporated into the creation of the ERP to deal with any events that might risk the safety and welfare of those inside the HPZ. The ERP must properly account for all of the individuals and assets found within this radius.

PACIFIC CANBRIAM 24 HOUR EMERGENCY NUMBER: 1.877.269.2877

PERSONAL INFORMATION & CONFIDENTIALITY

Consultations with residents and others in the EPZ to gather and/or confirm personal information is a BCER requirement for the purpose of preparing and maintaining an ERP. All information requested will be confidential and will be used solely in case of an emergency.

By providing the requested information, response plans can be designed with your particular circumstances in mind and will enhance communication, identify response priorities and improve Pacific Canbriam's ability to respond in the event of an emergency.

EMERGENCY CONTACTS

Thank you for taking the time to review this package. Should you have any further questions or concerns please feel free to contact any of the numbers below.

Pacific Canbriam Contact Information

Pacific Canbriam 24 Hour Emergency Number:	1.877.269.2877
Nauman Rasheed Chief Operating Officer	Bus: 403.817.9041
Zitin Lamba Manager, Operations	Bus: 403.817.9052 Ext 2152

BC Energy Regulator (BCER)

24-Hr Number Public Inquiry & Emergency Reporting Line	800.500.BCER (2237)
BCER 24 Hour Number Fort St. John	250.794.5200
BCER Emergency Operations Centre Fax Line	250.794.5385

Regional District

Peace River Regional District Dawson Creek Office Fort St. John Office	800.670.7773 250.784.3200 250.785.8084

Reception Centres

Ramada by Wyndham Northern Grand Hotel & Conference Centre	9830 100 Avenue Fort St. John, BC	250.787.0521
Stillwater Inn & Suites	9504 Canyon Drive Hudson's Hope, BC	250.783.5400

CALL OR CLICK BEFORE YOU DIG!
800.474.6886
WWW.BCONECALL.BC.CA

HYDROGEN SULPHIDE (H_2S) - Continued

It is important to note that burning sour gas turns the H_2S to Sulphur Dioxide (SO_2). The heat from the fire will carry the SO_2 and smoke up into the air where it will be dispersed over a large area. By the time the SO_2 comes back to ground level, the concentrations would normally only be detectable with the use of an electronic gas detection monitor. These levels should be well below the levels that provincial environment regulations accept.

SULPHUR DIOXIDE (SO_2)

- Formed by the combustion of H_2S or sulphur and is non-flammable
- Found as a gas at temperatures above -10°C
- Has the odour that occurs when a wooden match is extinguished
- Highly irritating – dissolves to form sulphuric acid
- At lower concentrations irritates eyes, nose and throat, causes difficulty in breathing and shortness of breath
- Causes pulmonary edema at high concentrations – may be fatal
- Effects on heavy smokers are more severe

GENERAL HEALTH EFFECTS OF SO_2

Concentration	Effects
0.13 ppm	24 hour evacuation level (MWLAP Level B criteria).
0.34 ppm	One hour average evacuation level (MWLAP Level B criteria).
2 ppm	Eight hour Occupational Exposure Limit (WorkSafeBC).
3-5 ppm	Odour threshold.
5 ppm	15 minute Occupational Exposure Limit (WorkSafeBC).
8-12 ppm	Throat irritation, coughing, constriction in chest, tearing and smarting of the eyes.
10-50 ppm	Exposure 5 -15 minutes: increased irritation of the eyes, nose, throat, choking, coughing and in some cases, wheezing as a sign of narrowing of the airways (which increases the resistance of the air-flow).
150 ppm	Short–term endurance lost due to severe eye irritation and because of the effects on the membranes of the nose, throat and lungs.
500 ppm	Highly dangerous after an exposure of 30-60 minutes.
1000-2000 ppm	May be fatal with continued exposure.

IGNITION - CONTINUED

- Monitoring results indicate H2S concentrations in excess of 10 ppm over a 3-minute average in un-evacuated parts of the EPZ.
- Monitored H2S concentrations exceed 1 ppm (1-hour average) in urban density developments.
- Monitoring is not taking place due to weather or other unforeseen circumstances.
- The release cannot be brought under control in the short term.

ABOUT SOUR GAS

Hydrogen Sulphide (H_2S) is a colourless, flammable, toxic gas. It affects people differently depending on concentration and length of exposure. At very low concentrations it has an offensive odour (similar to rotten eggs); however, it is undetectable by odour at higher concentrations. A person can be exposed to H_2S concentrations of up to 1 part per million for up to 8 hours (government exposure limits) without a breathing apparatus.

In the unlikely event of an emergency, the ERP will be activated and the safety of the public will be maximized through evacuation, sheltering or ignition procedures. If you suspect H_2S or SO_2 in the air please remain indoors and contact the Pacific Canbriam 24 hour emergency number on the first and last page of this package.

HYDROGEN SULPHIDE (H_2S)

- Found in decaying organic matter, natural oil and gas, silos and sewers
- Found at gas temperatures above -60°C
- Flammable – burns to form SO_2
- Odour of rotten eggs at low concentrations- kills all sense of smell at higher concentrations
- Will tend to disperse more slowly in sheltered or calm low lying areas
- Extremely toxic
- At lower concentrations (20-50 ppm) irritates mucous membranes (eyes, throat, lungs), causes headaches, dizziness, nausea, may cause pulmonary edema (fluid in the lungs) upon prolonged exposure
- High concentrations (500-1000 ppm) may cause paralysis of the respiratory centre in the brain – breathing stops, suffocation begins

GENERAL HEALTH EFFECTS OF H_2S

Concentration	Effects
0.01-0.3 ppm	Detectable by odour.
1-5 ppm	Moderate to strong offensive odour may cause nausea, tearing of the eyes, headaches or loss of sleep upon prolonged exposure. Effects are moderate.
10 ppm	Ceiling limit. (WorkSafe BC)
20-50 ppm	Slight eye and lung irritation. May cause eye damage after several days of exposure, may cause digestive upset and loss of appetite.
100 ppm	Eye and lung irritation.
150 ppm	Kills sense of smell, severe eye and lung irritation.
500 ppm	Serious damage to eyes within 30 minutes, severe lung irritation, unconsciousness and death within 4 to 8 hours.
1000 ppm	Breathing stops within 1 or 2 breaths.

EVACUATION - CONTINUED

If you choose not to go the Reception Centre, we ask that you please tell the Pacific Canbriam representative where you are going and provide updated contact information so that we may confirm your safety and keep you informed. You will be advised when it is safe to return home. Pacific Canbriam will provide you with a Claims Form so that you can be reimbursed for reasonable out-of-pocket expenses resulting from the evacuation.

Evacuation of the public outside the EPZ is mandatory when H_2S levels reach 10 ppm in un-evacuated areas. Pacific Canbriam will provide air monitoring, starting at a Level 1 Emergency, to determine H_2S levels.

As public safety is the primary goal during an incident, primary response efforts will be concentrated on members of the public. Response efforts for livestock and pets will be addressed at the time of incident based on the response needs and responder capabilities.

SHELTER IN PLACE

Shelter in place is the practice of remaining indoors during a sudden outdoor release of a hazardous substance.

Shelter in place is not a viable option for recreational users or transients, due to their inability to safely shelter.

- Immediately gather everyone indoors and remain there.
- Close and lock all windows and outside doors – if possible, tape the gaps around the door frames.
- Extinguish indoor wood burning fires - if possible, close the damper.
- Turn off appliances or equipment that either uses inside air, blows out inside air or sucks in outside air, such as:
  - Stoves
  - Fireplaces
  - Clothes dryers
  - Air conditioners
  - Bathroom and kitchen fans
  - Built in vacuum systems
  - Turn off heat and hot water pilot lights.
- Leave all inside doors open.
- Wait in an interior upstairs room.
- Avoid using the telephone, except for emergencies, so that you can be contacted by emergency personnel.
- After the hazardous substance has passed through the area you will receive an all clear message from emergency response personnel along with instructions to:
  - Ventilate your building by opening all windows and doors.
  - Turn on fans, turn up thermostats, and furnace circulating fans.
- Once the building is completely ventilated return all equipment to normal.

IGNITION

If safety of the public cannot be assured by evacuation or sheltering, the sour gases escaping from the well will be ignited, this results in the H_2S being burned and converted to sulphur dioxide (SO_2).

- Ignition must take place when one of the following conditions has been met:
- Although required, evacuation of the response zones has not taken place.

EPZ CALCULATIONS

H_2S EPZ CALCULATIONS:	MIN.	MAX.
Cumulative Release Volumes	0 m^3	495.2 m^3
H_2S Release Rates	0 m^3/s	0.0132 m^3/s
H_2S Concentrations	0 %	6.5 %
Hazard Planning Zones	100 m	1368 m

LEVELS OF EMERGENCY

Level 1 - Moderate Emergency – ERP is activated

There is no immediate danger to the public or environment as no H2S has been released; and the emergency is confined to the lease or company property. A Level 1 Emergency is declared at the earliest sign of difficulty controlling the well and when all problems are contained within the well site area. These problems are usually handled without difficulty using techniques and equipment readily available on site. A Level 1 Emergency creates little or no media interest.

Level 2 – Major Emergency – ERP is activated

There is the potential for risk to the public or environment, as the emergency could extend beyond company property. However, control is still possible. A Level 2 Emergency creates local or regional media interest and outside and provincial agencies must be notified.

Level 3 - Serious Emergency – ERP is activated

There exists an immediate danger to the public or environment as control of the situation has been lost. A Level 3 Emergency creates Provincial or National media interest and immediate multi-agency and provincial government involvement is required.

PUBLIC PROTECTION

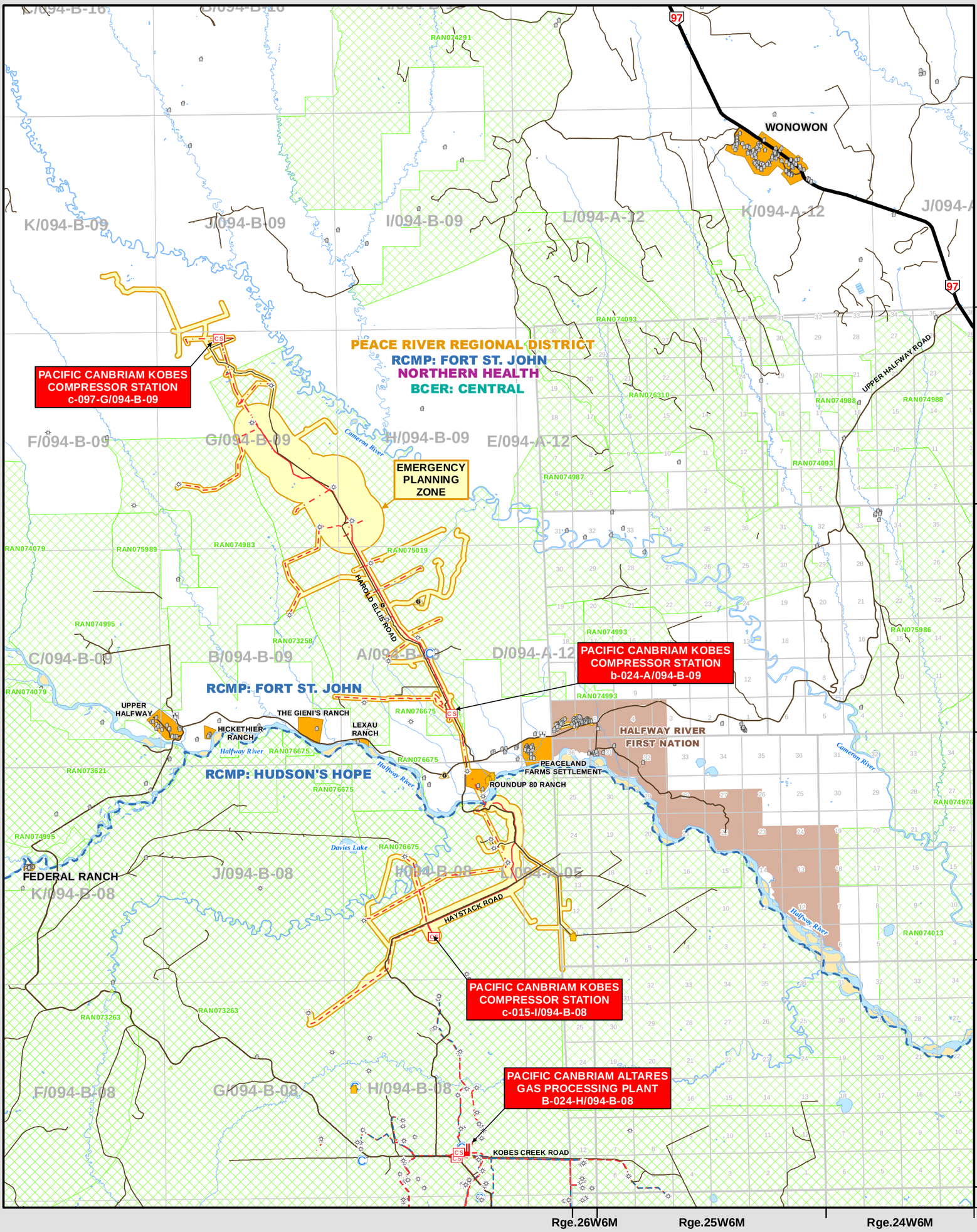
In the unlikely event that an emergency situation occurs which causes or creates a potentially dangerous situation to occupants within the EPZ, the best method of public protection would be implemented. Depending on an incident's specifics, Pacific Canbriam will implement the following method(s) of public protection.

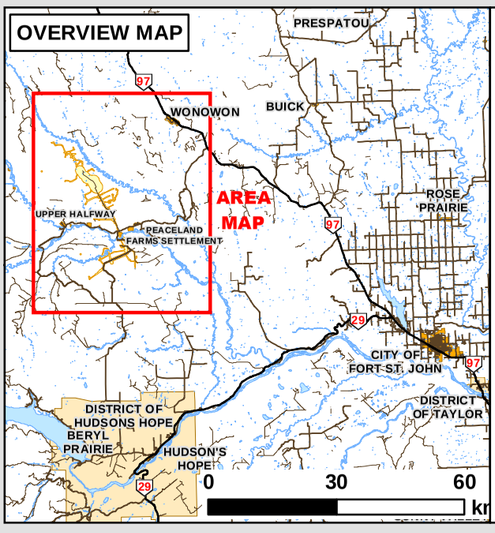
EVACUATION

In case of a Level 1 Emergency, those residents/occupants who may require additional time to evacuate or cannot safely shelter in place will be contacted, advised of the situation and informed of the proper reception centre to evacuate to. A list of reception centres is provided at the back of this package.

In the event of a Level 2 or 3 Emergency, all residents/occupants within the EPZ would be contacted and instructed to evacuate immediately to the Reception Centre.

Pacific Canbriam will provide you with the safest route out of the emergency area to the Reception Centre. If you require assistance to evacuate, Pacific Canbriam personnel will be available to assist you. Upon arrival at the Reception Centre, please check in with the Pacific Canbriam representatives as they will be available to answer any questions or concerns you may have.





CLIENT FACILITY TYPE
- GAS PROCESSING PLANT
- COMPRESSOR
- PIPELINE TERMINAL
- BATTERY
- WELL
- STRUCTURE INSIDE OF EPZ
- STRUCTURE OUTSIDE OF EPZ
- EPZ (EMERGENCY PLANNING ZONE)
- CEPA ZONE

CLIENT PIPELINE TYPE
- OIL SOUR - OPERATING
- OIL SWEET - OPERATING
- OIL PRODUCTS - DISCONTINUED
- GAS SOUR - OPERATING
- GAS SWEET - OPERATING
- GAS PRODUCTS - DISCONTINUED
- WATER SOUR - OPERATING
- WATER SWEET - OPERATING
- WATER - DISCONTINUED
- HVP - OPERATING
- HVP - DISCONTINUED
- LVP - OPERATING
- LVP - DISCONTINUED
- STEAM - OPERATING
- STEAM - DISCONTINUED
- MISC - OPERATING
- MISC - DISCONTINUED

GENERAL CULTURE
- EVACUATION CENTER
- EVACUATION ROUTE
- FIRE HALL
- HOSPITAL
- MEDICAL CENTER
- SCHOOL
- PLACE OF WORSHIP
- CEMETERY
- INDUSTRY CAMP
- GRAVEL PIT
- STORAGE YARD
- GOLF COURSE
- CAMPGROUND
- DEAD END
- GATED ACCESS
- AIRPORT
- AIR STRIP
- FORESTRY/OTHER TOWER
- COMMUNICATION TOWER
- SOLAR FARM
- WIND FARM
- HIGHWAY - PRIMARY
- HIGHWAY - SECONDARY
- MAIN ACCESS ROAD
- OTHER ACCESS
- RAIL
- LOCAL AUTHORITY
- LAW ENFORCEMENT
- HEALTH AUTHORITY
- REGULATOR AUTHORITY
- PROVINCE
- WATER
- POPULATED PLACE
- FIRST NATION / MÉTIS SETTLEMENT
- PARK/PROTECTED AREA
- MILITARY AREA

PACIFIC CANBRIAM ENERGY

NEBC FIELD OPERATIONSS SUPPLEMENT 2024
KOBES AREA MAP
PUBLIC INFORMATION HANDOUT MAP

BEHR Integrated Solutions
www.behrintegrated.com

Drawn By: TMV
Scale: 1:160,000 — Project No.: 14676
Map Projection: NAD 83 UTM 10 — Revision: 0 - SEPT. 2024

0 3 6 9 12 km

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