



Document Control #:  
HAY-HS-PL-0001



# HAY RIVER AREA

## Emergency Response Plan March 31, 2024 (CER Regulated)

Harvest Operations Corp. 24 Hour Emergency – 1-800-760-2826  
BCER / EMCR 24 Hour Emergency # – 1-800-663-3456  
AER 24 Hour Emergency # – 1-800-222-6514  
CER Emergency # - 819-953-7876

**This Page Has Been Left Blank Intentionally**

**10.0 FIELD SITE SPECIFIC SECTION**

**CONTENTS**

OVERVIEW.....	10-1
CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) – E2.....	10-1
TELEPHONE DIRECTORY.....	10-3
BRITISH COLUMBIA GOVERNMENT CONTACT MATRIX.....	10-3
ALBERTA GOVERNMENT CONTACT MATRIX.....	10-4
HARVEST OPERATIONS EMERGENCY CONTACTS.....	10-5
HAY RIVER AREA CONTACTS.....	10-5
HARVEST CORPORATE EMERGENCY MANAGAGEMENT SUPPORT TEAM.....	10-7
GOVERNMENT CONTACTS.....	10-9
BC GOVERNMENT AGENCIES.....	10-9
AB GOVERNMENT AGENCIES.....	10-13
FEDERAL GOVERNMENT CONTACTS – CANADA ENERGY REGULATOR (CER) REGULATED PIPELINES / FACILITIES.....	10-15
FEDERAL GOVERNMENT CONTACTS – TRANSPORTATION SAFETY BOARD (TSB).....	10-16
EMERGENCY SERVICES.....	10-17
HAY RIVER MEDICAL EMERGENCY PROCEDURES.....	10-19
STARS EMERGENCY LINK CENTRE.....	10-21
GOVERNMENT ROLES & RESPONSIBILITIES.....	10-25
WESTERN CANADIAN SPILL SERVICES (WCSS).....	10-35
SUPPORT SERVICES.....	10-38
FACILITY DATA.....	10-43
DIRECTIONS TO FACILITIES.....	10-43
SAFETY PROCEDURES.....	10-44
EMERGENCY NOTIFICATION AND CALL-DOWN FLOW DIAGRAM.....	10-45
EMERGENCY ALARMS.....	10-46
MUSTER LOCATIONS.....	10-46
COMMUNICATIONS.....	10-47
SAFETY EQUIPMENT.....	10-49
MUTUAL AID AGREEMENTS.....	10-51
BRIDGING STATEMENT.....	10-51
WILDFIRE RESPONSE.....	10-53
WILDFIRE RESPONSE ZONE(S).....	10-53
HAZARD ANALYSIS.....	10-55
GENERAL HEALTH EFFECTS OF HYDROGEN SULPHIDE (H <sub>2</sub> S).....	10-57
GENERAL HEALTH EFFECTS OF SULPHUR DIOXIDE (SO <sub>2</sub> ).....	10-58
TECHNICAL DATA.....	10-59
CANADIAN ENERGY REGULATOR REGULATED PIPELINE LISTINGS.....	10-59
PUBLIC / ENVIRONMENTAL PROTECTION.....	10-61
LAND USE – EMERGENCY PLANNING DATA.....	10-61
AREA UNIQUE FEATURES.....	10-61
RECREATIONAL AREAS.....	10-61
ROADBLOCKS.....	10-62
TRANSIENT ACTIVITY.....	10-62
RECEPTION CENTRE(S).....	10-62
AREA INDUSTRIAL OPERATORS.....	10-63
SCHOOL DIVISION INFORMATION.....	10-63
PUBLIC INFORMATION PACKAGE.....	10-63
AREA STAKEHOLDERS.....	10-69
SURFACE DEVELOPMENT INFORMATION.....	10-69
STAKEHOLDER / SURFACE DEVELOPMENT / PUBLIC COMMUNICATION.....	10-69



EMERGENCY PLANNING BASE AREA MAP - MAP NUMBERING SYSTEM ..... 10-69  
AREA MAPPING ..... 10-69  
TRAPPERS ..... 10-71  
WILDLIFE MANAGEMENT UNIT HOLDERS (WMU) – GUIDES/OUTFITTERS ..... 10-73  
GRAZING LEASE HOLDER(S)..... 10-74  
FOREST MANAGEMENT AGREEMENT (FMA) HOLDERS..... 10-74  
NON-RESIDENT LANDOWNERS ..... 10-74  
CONFIDENTIAL SURFACE DEVELOPMENT OCCUPANTS..... 10-75

**REVISION RECORD**

This Emergency Response Plan (ERP) is reviewed for accuracy on a regular basis and updated as required to ensure regulations and corporate policies are adhered to. To ensure this copy of the plan remains current, record any revisions you receive on the following record form.

REVISION RECORD			
Revision #	Update #	Date	Change Details / Comments
7	-	July 13 2018	Annual update and submission. Minor updates to telephone directory. Addition of WCSS Area A contact information.
8	-	July 20, 2019	Annual update and submission. Named page 32 Blank Page
8	1	January 30, 2020	Added Hazard Analysis and General Health Effects of H <sub>2</sub> S and SO <sub>2</sub> .
9	-	March 31, 2020	Annual Update: <ul style="list-style-type: none"> <li>Review and update to all contact information, technical data, surface development listings and equipment.</li> </ul>
10	-	March 31, 2021	Annual Update: <ul style="list-style-type: none"> <li>Review and update to all contact information, technical data, surface development listings and equipment.</li> </ul>
11	-	March 31, 2022	Annual Update: <ul style="list-style-type: none"> <li>Review and update to all contact information, technical data, surface development listings and equipment.</li> </ul>
12	-	March 31, 2023	Annual Update: <ul style="list-style-type: none"> <li>Review and update to all contact information, technical data, surface development listings and equipment.</li> </ul>
13	-	March 31, 2024	Annual Update: <ul style="list-style-type: none"> <li>Review and update to all contact information, technical data, surface development listings and equipment.</li> </ul>

## DISTRIBUTION LIST

Responsibility for ensuring revisions and updates are distributed to the listed recipients lies with Harvest Emergency Management. It is the responsibility of the recipients to ensure updates and revisions are input to their emergency response binders as directed.

DISTRIBUTION LIST			
Copy #	Attention	Location	Distribution Type

*Note: The manual distribution listing has been removed from the publicly posted version of the Emergency Response Plan (ERP) for the protection of private or confidential information*

C-F – Confidential (Full Listing)  
HC – Hard Copy

C-S – Confidential (Summary Listing)  
D – Digital Copy

NC – Non Confidential

## REVISION REQUEST FORM

ERP REVISION REQUEST FORM	
<p>This form is to be used to advise Harvest Operation Corp. Emergency Management department of requested changes or additions to an Emergency Response Plan(s). Requests can be made by returning the completed form to:</p> <p><b>Harvest Operations Corp.</b>  <b>Attn: Emergency Management &amp; Safety – Rick Lalonde</b>  <b>1000, 700 – 9<sup>th</sup> Avenue SW</b>  <b>Calgary, AB</b>  <b>T2P 3V4</b></p> <p>Or by e-mail to:  <b>rick.lalonde@harvestenergy.ca</b></p>	
<b>Date</b>	Click here to enter a date.
<b>Person making request</b>	
<b>Position</b>	
<b>Emergency Response Plan Name</b>	
<b>Emergency Response Plan Version</b>	
<b>Section Number</b>	
<b>Page Number</b>	
Details of Revision Request / Change	
To be completed by Emergency Management Team	
<b>Request review by</b>	
<b>Date</b>	Click here to enter a date.
<b>Request approved</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Date of follow up with requestor on actions to be taken</b>	Click here to enter a date.
<b>Comments</b>	

**This Page Has Been Left Blank Intentionally**



## OVERVIEW

Harvest Operations Corp. own and operate numerous wells and associated pipelines in its Hay River area. Production is predominantly sweet oil and gas with the highest H<sub>2</sub>S concentration encountered in the field being 40ppm. Production is gathered at the Harvest oil and gas battery in NTS xxxxxxxxxxxxxxxx where sweet oil is transferred via a Canada Energy Regulator (CER) regulated pipeline to a Harvest meter station in LSD xxxxxxxxxxxxxxxx or trucked from location. Other CER regulated assets include a sweet water source pipeline that transports source water from Harvest well sites in xxxxxxxxxxxxxxxx and xxxxxxxxxxxxxxxx in Alberta to the Harvest battery at xxxxxxxxxxxxxxxx located in British Columbia.

Based on the regulations for oil and gas production set out by the BC Energy Regulator and Canada Energy Regulator, Harvest has prepared this site-specific Emergency Response Plan (ERP) to guide responders to effectively and quickly respond to any incident in the area which could impact the public or environment. This site specific plan is meant to be used in conjunction with Harvest Operations Corp's Corporate Emergency Response Plan. Together these two plans outline the duties of Harvest's emergency response team when dealing with incidents. The greatest risk and potential hazard in the Harvest Hay River Area is a liquids spill that could impact the environment. Details on technical data for the wells, pipelines and facilities and their associated emergency planning zones are in the Technical Data section of this ERP.

### **CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) – E2**

Environment Canada requires any petroleum operator who has charge, management or control of substances in excess of threshold limits listed in Schedule 1 (CEPA) to:

- File a declaration with the minister.
- Prepare an environmental emergency response plan (E2 Plan).
- Test and maintain the E2 Plan.

There are no substances in excess of threshold limits listed in Schedule 1 of the Canadian Environmental Protection Act (CEPA) stored in the Harvest Hay River Area. Therefore, an Environmental Emergency Response Plan (E2 Plan) is not required.



**This Page Has Been Left Blank Intentionally**

**TELEPHONE DIRECTORY**

**BRITISH COLUMBIA GOVERNMENT CONTACT MATRIX**

Incident Type	Agency																		
	BC Energy Regulator (BCER)	Canada Energy Regulator (CER)	Transportation Safety Board (TSB)	Local Authority (Regional Dist. / Municipality / City / Town)	Emergency Management & Climate Readiness (EMCR)	RCMP / Local Police	Health Emergency Management BC	Ministry of Transportation & Infrastructure	Ministry of Environment & Climate Change Strategy	BC Ministry of Forests	WorkSafe BC	Technical Safety BC	NAV Canada – NOTAM	Canadian Coast Guard	Navigable Water/Office of Boating Safety	CANUTEC – Federal & Regional	Fisheries and Oceans Canada (DFO)	BC One-Call (BC1C)	Western Canada Spill Services (WCSS)
Public Impact	✓	k	k	✓	✓	✓	b	c	✓					j	f				
Sour Hydrocarbon or HVP Release	✓	k	k	✓	✓	✓	b	c	✓	g	d		h		f		e	✓	
LVP Hydrocarbon Liquid Release	✓	k	k	✓	✓	✓	b	c	✓	g	d		h		f	i	e	✓	✓
Sweet Hydrocarbon Release	✓	k	k	✓	✓	✓	b	c	✓	g	d		h		f		e	✓	✓
Produced Water or Steam Release	a	k	k	✓	✓		b	c	✓		d		h		f		e		✓
Toxic Material Release	a	k	k	✓	✓	✓	b	c	✓	g	d				f		e		
Rail or Trucking Incident	✓	k	k		✓	✓	b	c		g	d				f	i	e		
Pressure Vessel or Piping Incident (On-site)	a				✓		b		✓	g	d	✓				i			
Fire / Explosion	a	k	k	✓	✓	✓	b	c	✓	✓	d		h			i			
Operation of Facilities Beyond Designed Limits	a	k	k		✓			c			d								
Serious Injury or Death (Incl. Vehicle Accidents)	✓	k	k		✓	✓		c			✓			j					
Motor Vehicle Accident (No Injuries)						✓		c											
Electrical Incident	a				✓		b			g	d	✓							
Security Incident	a				✓	✓	b				d					i			

- a) Contact the BCER for incident occurring at Operations regulated by the BCER
- b) Contact Health Emergency Management BC / Northern Health Authority if incident affects public health or any member has been contacted during a product release
- c) Contact BC Ministry of Transportation & Infrastructure if incident impacts one, two or three digit numbered Highways; rural roads are the responsibility of the Local Authority
- d) Contact WorkSafe BC if there is a serious injury or death as result of an incident (worker related issues)
- e) Contact DFO if there is a release into a water body of any substance deleterious to fish (only if fish bearing water body)
- f) Contact if spill / release enters / impacts waterways
- g) Contact BC Ministry of Forests if incident involves a fire that could affect Crown timber.
- h) Contact if airspace is impacted
- i) Contact if Federally transport related – Rail & Air
- j) Contact if search and rescue assistance is required
- k) Cross border pipelines only – Contact the CER through the TSB 24 hour emergency number for incidents occurring at facilities regulated by the CER.

ALBERTA GOVERNMENT CONTACT MATRIX

Incident Type	Agency																		
	Alberta Energy Regulator (AER)	Local Authority (County / Municipality / City / Town)	Alberta Emergency Management Agency (AEMA)	RCMP / Local Police	Alberta Health Services (AHS)	Alberta Transportation & Economic Corridors	Alberta Environment & Protected Areas	Alberta Forestry & Parks	Occupational Health & Safety (OH&S)	Workers' Compensation Board (WCB)	Alberta Boilers Safety Association (ABSA)	Municipal Affairs – Public Safety Division	NAV Canada – NOTAM	Canadian Coast Guard	Navigable Water/Office of Boating Safety	CANUTEC – Federal & Regional	Fisheries & Oceans Canada (DFO)	Utility Safety Partners (Formerly Alberta One-Call)	Western Canada Spill Services (WCSS)
Public Impact	✓	✓	✓	✓	b	c	✓				✓		j	f					
Sour Hydrocarbon or HVP Release	✓	✓	✓	✓	b	c	✓		g	d	k		h	f		e	✓		
LVP Hydrocarbon Liquid Release	✓	✓	✓	✓	b	c	✓		g	d	k		h	f	i	e	✓	✓	
Sweet Hydrocarbon Release	✓	✓	✓	✓	b	c	✓		g	d	k		h	f		e	✓	✓	
Produced Water or Steam Release	a	✓	✓		b	c	✓		g	d	k		h	f		e		✓	
Toxic Material Release	a	✓	✓	✓	b	c	✓		g	d	k			f		e			
Rail or Trucking Incident	✓		✓	✓	b	c			g	d				f	i	e			
Pressure Vessel or Piping Incident (On-site)	a		✓		b		✓		g	d	✓				i				
Fire / Explosion	a	✓	✓	✓	b	c	✓	✓	g	d	k		h		i				
Operation of Facilities Beyond Designed Limits	a		✓			c			g	d	k								
Serious Injury or Death (Incl. Vehicle Accidents)	✓		✓	✓		c			g	✓	k			j					
Motor Vehicle Accident (No Injuries)				✓		c													
Electrical Incident	a		✓		b				g	d		✓							
Security Incident	a		✓	✓	b				g	d					i				

- a) Contact the AER for incident occurring at Operations regulated by the AER
- b) Contact AHS if incident affects public health or any member has been contacted during a product release
- c) Contact Alberta Transportation if incident impacts one, two or three digit numbered Highways; rural roads are the responsibility of the Local Authority
- d) Contact WCB if there is a serious injury or death as result of an incident (worker related issues) (within 24 hours for a fatality or 72 hours for a serious injury)
- e) Contact DFO if there is a release into a water body of any substance deleterious to fish (only if fish bearing water body)
- f) Contact if spill / release enters / impacts waterways
- g) Contact if danger to worker exists (within 24 hours for a fatality or 72 hours for a serious injury)
- h) Contact if airspace is impacted
- i) Contact if Federally transport related – Rail & Air
- j) Contact if search and rescue assistance is required
- k) Contact if pressure equipment is impacted

HARVEST OPERATIONS EMERGENCY CONTACTS	
Contact	Telephone #
<b>Harvest Operations Corp. 24 Hour Emergency # (Number also utilized for internal contact of Incident Director On-Call)</b>	<b>1-800-760-2826</b>
Harvest Main Reception	403-265-1178
Harvest Fax	
Corporate ECC # – Room 1026	
Corporate Address	1000, 700 – 9 <sup>th</sup> Avenue S.W. Calgary, AB T2P 3V4
Alternate Corporate ECC - if main Corporate ECC is not accessible	
Sylvan Lake ECC #	
Sylvan Lake Office Address	

HAY RIVER AREA CONTACTS				
Hay River Facility				
Main Facility -				
Medic –				
Conference Room –				
Kitchen –				
Satellite Phone 1 –				
Satellite Phone 2 –				
Contact	Title	Office	Extension # from Main	Cellular
	Ops Specialist			
	Lead Operator			
	Lead Operator			
Crew 1				
	South Run Op.			
	North Run Op.			
Crew 2				
	South Run Op.			
	North Run Op.			
Crew 3				
	Plant Operator			
	East Run Op.			
Crew 4				
	Mechanical			
	Plant Operator			
	East Run Op.			

**Note:** Each crew works a two week shift with crew change days happening on a Wednesday. The Mid-shift crew changes out on the middle Wednesday allowing for vacation coverage and to ensure there is always a full complement of operators at any given time. All on-shift crew members are housed at the on-site Harvest camp (“The House”).

*Note: Names, Phone numbers, communication channels and addresses (mailing and e-mail) not publicly posted by the owner, have been removed from the publicly posted Emergency Response Plan for the protection of private and/or confidential information.*



**This Page Has Been Left Blank Intentionally**



HARVEST CORPORATE EMERGENCY MANAGEMENT SUPPORT TEAM				
Contact	Title	Office	Home	Cellular
<b>President &amp; CEO</b> (Does not hold a designated role within the Corporate EMST team)				
<b>Designated Incident Director(s)</b>				
<b>Designated CECC Information Support Lead(s)</b>				
<b>Designated CECC Safety Support Lead(s)</b>				
<b>Designated CECC Liaison Support Lead(s)</b>				
<b>Designated CECC Operations Support Lead(s)</b>				
<b>Designated Telephoner(s)</b>				
<b>Designated CECC Planning Support Lead(s)</b>				
<b>Designated CECC Documentation Unit</b>				
<b>Designated CECC Situation Unit</b>				
<b>Designated CECC Logistics Support Lead(s)</b>				



<b>HARVEST CORPORATE EMERGENCY MANAGEMENT SUPPORT TEAM</b>				
<b>Contact</b>	<b>Title</b>	<b>Office</b>	<b>Home</b>	<b>Cellular</b>
<b>Designated CECC Finance / Administration Support Lead(s)</b>				
<b>Additional Support Personnel</b>				

*Note: Names, Phone numbers, communication channels and addresses (mailing and e-mail) not publicly posted by the owner, have been removed from the publicly posted Emergency Response Plan for the protection of private and/or confidential information.*



**GOVERNMENT CONTACTS**

The Harvest Hay River Area emergency response plan covers assets located in British Columbia regulated by the BC Energy Regulator and cross border pipelines regulated by the Canada Energy Regulator. Therefore, Government Agency contact lists are provided for British Columbia, Alberta and Federal.

<b>BC GOVERNMENT AGENCIES</b>			
<b>Organization</b>	<b>Contact</b>	<b>Location</b>	<b>Telephone #</b>
<b>Emergency Management and Climate Readiness (EMCR)</b>	ECC – Incident Reporting Line		1-800-663-3456
	Northeast Region Office	Prince George	250-612-4172
	EMCR’s Incident Reporting Line is meant as a one-call emergency notification number for regulators of oil and gas activities/incidents within the province of British Columbia. EMCR will contact the BC Energy Regulator (BCER), BC Ministry of Environment & Climate Change Strategy, Transportation of Dangerous Goods and Environment & Climate Change Canada as required based on the incident being reported.		
<b>BC Energy Regulator (BCER)</b>	1 <sup>st</sup> call EMCR Incident Reporting Line		1-800-663-3456
	Fort St. John Office (24 hour)	Fort St. John	250-794-5200
<b>FrontCounter BC</b>		Toll Free	1-877-855-3222
		Fort Nelson	250-774-5511 (o)
	Single point of contact service for provincial natural resource ministries and agencies.		
<b>BC Ministry of Environment &amp; Climate Change Strategy</b>	Report a Poacher or Polluter	Province-wide	1-877-952-RAPP(7277)
	Peace Regional Office	Fort St. John	250-787-3411
	<b>Spill / Release Reporting – includes LPG releases from a CEPA registered facility</b>		
	Incident Reporting Line		1-800-663-3456
<b>BC Ministry of Forests</b>	Fort Nelson Natural Res. Dist.	Fort Nelson	250-774-5511
<b>Wildfire Service</b>	Report a Wildfire	Province-wide	1-800-663-5555
	Fire Information Line	Province-wide	1-888-336-7378
	Prince George Fire Centre	Prince George	250-561-4628
<b>Local Authority Regional District</b>	<b>Northern Rockies Regional Municipality</b>		
	Main Office	Fort Nelson	250-774-2541
	24 Hour Emergency #		911
	Fire Hall		
	, Emg. Program Coord.		
	Fire Chief		
	Deputy Fire Chief		
	Fire Services Assistant		
	<b>Adjacent First Nations Reserves</b>		
	Dene Tha’ First Nation	Chateh	780-321-3775
, Director of Lands	(c)		

<b>BC GOVERNMENT AGENCIES</b>			
<b>Organization</b>	<b>Contact</b>	<b>Location</b>	<b>Telephone #</b>
<b>Local Authority Regional District – Cont'd.</b>	<b>Adjacent First Nations Reserves – Cont'd.</b>		
	Fort Nelson First Nation	Fort Nelson	250-774-7257
	, Land		
	Prophet River First Nation	Prophet River	250-773-6555
	, Director Lands & Resources		
	The adjacent First Nations Bands do not have reserves located within Harvest's Hay River boundary and as such are not considered a local authority; however, each Band listed lays claim to this territory as traditional lands and should be notified of emergency incidents that occur as a results of Harvest's Hay River operations.		
<b>Health Emergency Management BC (HEMBC) / Northern Health Authority</b>	On-call 24 hour emergency #	Province-wide	1-855-554-3622
	, Director HEMBC, Northern BC	Prince George	
	, HEMBC Specialist		
<b>RCMP</b>	Emergency #	British Columbia	911 / 250-774-2777
	Northern Rockies RCMP Det.	Fort Nelson	250-774-2700 (o)
<b>BC Ministry of Transportation and Infrastructure</b>	<b>Peace District</b>		
	Main Office	Fort St. John	250-787-3237
	, District Manager		
	, Ops Mgr. North Peace		
	<b>Highway Maintenance Contractor</b>		
	Dawson Road Maintenance		1-800-842-4122
	North Peace is maintained by Dawson Road Maintenance and covers an area north of the Peace River (Taylor Bridge) to Mile 83 (km 133)of the Alaska Highway and side roads north of Mile 83 (km 133).		
<b>DriveBC</b>			
DriveBC displays current road conditions within the province of BC; planned and current road maintenance; and access to highway webcams.			<a href="http://www.drivebc.ca">www.drivebc.ca</a>
<b>Public Services &amp; Procurement Canada (Alaska Highway and Liard Highway maintenance)</b>	Office	Fort Nelson	250-774-6956
	<b>Highway Maintenance Contractor</b>		
	White Bear Industries Ltd.	Terrace	250-635-3169
	The Alaska Highway north of Mile 83 (km133) to the Yukon Border is the responsibility of Public Services & Procurement Canada (federal). The Contracted highway maintenance contractor is White Bear Industries.		
<b>WorkSafe BC</b>	24 Hour Reporting Line	Province-wide	1-888-621-7233
	Fort St. John Regional Office	Fort St. John	1-800-663-4630 250-785-1283 (o)

<b>BC GOVERNMENT AGENCIES</b>			
<b>Organization</b>	<b>Contact</b>	<b>Location</b>	<b>Telephone #</b>
<b>Technical Safety BC</b>	Incident Reporting Line - Boiler, Pressure Vessels & Refrigeration - Electrical - Elevating Devices - Gas	Province-wide	1-866-566-7233
<b>NAV Canada</b>	Notice To Airmen (NOTAM) – Closure of Air Space	Federal	
	Flight Information Centre – Pilot Briefing Service / Flight Planning	Canada-wide	
		Edmonton FIC	
		Kamloops FIC	
<b>Transport Canada</b>	Emergency # - SITCEN		1-888-857-4003
	Pacific Regional Office	Vancouver	604-666-2955
	Navigation Protection Program	Vancouver	
	Security & Boating Safety –	Vancouver	
<b>CANUTEC</b> (Canadian Transport Emergency Centre)	Emergency #	Federal	1-888-226-8832 / 613-996-6666
<b>Fisheries and Oceans Canada (DFO)</b>	Pacific Region - HO	Vancouver	604-666-0384
		Prince George	250-561-5366
<b>Canadian Coast Guard</b>	24 Hour Emergency # - BC Rescue Centre	Federal	1-800-567-5111
	Marine Pollution Reporting	Provincial	1-800-889-8852
<b>HealthLink BC</b>	24 Hour Expertise & Advice	Province-wide	811
<b>BC Drug &amp; Poison Information Centre</b>	24 Hour Expertise & Advice	Province-wide	1-800-567-8911 or 604-682-5050

*Note: Names, Phone numbers, communication channels and addresses (mailing and e-mail) not publicly posted by the owner, have been removed from the publicly posted Emergency Response Plan for the protection of private and/or confidential information.*

**This Page Has Been Left Blank Intentionally**

<b>AB GOVERNMENT AGENCIES</b>			
<b>Organization</b>	<b>Contact</b>	<b>Location</b>	<b>Telephone #</b>
<b>Alberta Energy Regulator (AER)</b>	Energy / Environmental Emergency Line		1-800-222-6514
	Northwest Field Operations	Grande Prairie	780-538-5138
<b>Local Authority County / Municipality</b>	<b>Mackenzie County</b>		780-927-3718
	High Level Sub-Office		780-926-5600
	After Hour Emergency #		1-888-511-6323
	Director of Emergency Management		
	, Deputy DEM		
<b>Alberta Emergency Management Agency (AEMA)</b>	24 Hour #	Province-wide	1-866-618-2362
	<b>Northwest Region</b>		
	, Emergency Management Field Officer		
	, Emergency Management Field Officer		
	On-call Office of the Fire Commissioner representative will be contacted by the 24 hour operator and the on-call rep will return the call to the Operating Company.		
<b>RCMP</b>	Emergency #		911
	Chateh RCMP Detachment	Chateh, AB	780-321-3753
<b>Alberta Health Services (AHS)</b>	Provincial AHS 24 Hour Emergency #		1-844-755-1788 <a href="mailto:edp@ahs.ca">edp@ahs.ca</a>
	AHS-EPH Provincial #		1-833-476-4743 <a href="mailto:ERP@ahs.ca">ERP@ahs.ca</a>
	Note: The Alberta Health Services / Environmental Public Health zone responsible for the area serviced by this site-specific ERP is the <b>North Zone</b>		
<b>Alberta Transportation &amp; Economic Corridors / Transportation of Dangerous Goods (TDG)</b>	24 Hour # / TDG Reporting – Alberta EDGE		1-800-272-9600
	<b>Peace River District</b>		
	District Office (CMA 501)	Peace River	780-624-6280
	<b>Highway Maintenance Contractor</b>		
	LaPrairie Works Inc.		1-800-828-3908
<b>Alberta Environment &amp; Protected Areas</b>	Report a Poacher		1-800-642-3800
	Lands Management - Information		310-LAND (5263)
	<b>Peace District – North Region</b>		
	Fort Vermilion Switchboard		780-841-8698
	, Lands Officer	NW-01 Working Zn	
	<b>Spill / Release Reporting – includes LPG releases from a CEPA registered facility</b>		
	Energy / Environmental Response Line		1-800-222-6514

<b>AB GOVERNMENT AGENCIES</b>			
<b>Organization</b>	<b>Contact</b>	<b>Location</b>	<b>Telephone #</b>
<b>Alberta Environment &amp; Protected Areas – Cont’d.</b>	<b>Fish &amp; Wildlife</b>		
	High Level Office	High Level	780-841-0132
	Enforcement Services Office		780-624-6405
<b>Alberta Forestry &amp; Parks</b>	Report a Wildfire		310-FIRE (3473)
	<b>Wildfire Management</b>		
	High Level Forest Area	High Level	780-926-3761
	Wildfire Information Officer		
	<b>Parks</b>		
	Emergency #		911
	Illegal Activity / Public Safety	Province-wide	310-LAND (5263)
	Contact Centre		1-877-537-2757
<b>Occupational Health &amp; Safety (OH &amp; S)</b>	Inquiries / Incident Reporting	Province-wide	1-866-415-8690
<b>Workers’ Compensation Board (WCB)</b>	General Inquiries	Province-wide	1-866-922-9221
	Reporting Line		1-800-661-1993 (fax)
<b>Alberta Boilers Safety Association (ABSA)</b>	Reporting Line	Edmonton	780-437-9100
<b>Municipal Affairs – Public Safety Division</b>	Business Hours	Province-wide	1-866-421-6929
	After Hours contact OH & S		1-866-415-8690
<b>NAV Canada</b>	Notice To Airmen (NOTAM) – Closure of Air Space	Federal	
		Provincial	
	Flight Information Centre – Pilot Briefing Service / Flight Planning	Canada-wide	
		Edmonton FIC	
<b>Transport Canada</b>	Emergency # - SITCEN		1-888-857-4003
	Prairie & Northern Region – Duty line	Winnipeg	204-984-1625
	Navigation Protection Program	Winnipeg	1-844-425-7787
	<b>Office of Boating Safety</b>	Edmonton	
	<b>CANUTEC</b> (Canadian Transport Emergency Centre)	Emergency #	Federal
<b>Fisheries and Oceans Canada</b>	Central & Arctic Region - HO	Sarnia, ON	1-866-290-3731
		Edmonton	1-855-852-8320
<b>Canadian Coast Guard</b>	24 Hour Emergency # - AB Rescue Centre	Federal	1-800-267-7270
	Marine Pollution Reporting	Provincial	1-800-889-8852
<b>Alberta Health Link</b>	24 Hour Expertise & Advice	Province-wide	811 / 1-866-408-5465
<b>Poison &amp; Drug Information Service</b>	24 Hour Expertise & Advice	Province-wide	1-800-332-1414

*Note: Names, Phone numbers, communication channels and addresses (mailing and e-mail) not publicly posted by the owner, have been removed from the publicly posted Emergency Response Plan for the protection of private and/or confidential information.*

<b>FEDERAL GOVERNMENT CONTACTS – CANADA ENERGY REGULATOR (CER) REGULATED PIPELINES / FACILITIES</b>			
<b>Organization</b>	<b>Contact</b>	<b>Location</b>	<b>Telephone #</b>
<b>Transportation Safety Board (TSB)</b>	CER regulated pipeline emergency reporting (Incident Line)		819-997-7887 (24 Hour)
	Facsimile		819-953-7876
	e-mail		<a href="mailto:pipelinenotifications@tsb.gc.ca">pipelinenotifications@tsb.gc.ca</a>
<b>Canada Energy Regulator (CER)</b>	Inquiries	Calgary	403-292-4800
	Emergency Number (Incident Line) <i>For all CER regulated operations other than pipelines.</i>	Calgary	403-299-2773
	<p>“Significant Incidents” (as defined below) on any CER regulated pipeline or facility should be reported immediately (ASAP and no later than three hours of the incident being discovered) to the TSB’s Reporting Hotline as well as electronically in the CER’s Online Event Reporting System (OERS) at <a href="https://apps.cer-rec.gc.ca/ERS/Home/Index/">https://apps.cer-rec.gc.ca/ERS/Home/Index/</a>. All other events not deemed “significant” must be reported within 24 hours of occurrence or discovery to the Online Reporting System. OERS also allows for incidents to be reported on a precautionary basis when there is doubt as to whether the incident should be reported or not. From the precautionary report, the CER will determine if the incident is reportable and act accordingly.</p>		
<b>Significant Incidents</b>			
<p><b>Incident</b> – As defined by Canadian Energy Regulator Onshore Pipeline Regulations (amended Sept. 27, 2022) Section 1 - An occurrence that results in:</p> <ul style="list-style-type: none"> <li>(a) The death of or serious injury (the fracture of a major bone; the amputation of a body part; the loss of sight on one or both eyes; internal hemorrhage; third degree burns; unconsciousness; or the loss of a body part or function of a body part) to a person;</li> <li>(b) A significant adverse effect on the environment;</li> <li>(c) An unintended fire or explosion;</li> <li>(d) An unintended or uncontained release of LVP hydrocarbons in excess of 1.5 m<sup>3</sup>;</li> <li>(e) An unintended or uncontrolled release of gas or HVP hydrocarbons;</li> <li>(f) The operation of pipeline beyond its design limits as determined under CSA Z662 or CSA Z276 or any operating limits imposed by the Regulator.</li> </ul> <p>Section 52 (1) – A company shall immediately notify the Regulator of any incident relating to the construction, operation or abandonment of its pipeline and shall submit a preliminary and detailed incident report to the Regulator as soon as practicable.</p> <p>Transportation Safety Board reporting requirements in addition to the CER Incident reporting requirements listed above include:</p> <ul style="list-style-type: none"> <li>• Any unintended or uncontrolled release of sour natural gas or hydrogen sulfide;</li> <li>• A significant adverse effect on the environment (a release of any chemical or physical substance at a concentration or volume sufficient to cause an irreversible, long-term, or continuous change to the ambient environment in a manner that causes harm to human life, wildlife, or vegetation);</li> <li>• A fire, ignition or explosion that poses a threat to the safety of any person, property or the environment;</li> <li>• A rupture which causes and instantaneous release that immediately impacts the operation of a pipeline segment such that the pressure of the segment cannot be maintained;</li> <li>• A toxic plume, which is a band of service fluid or other contaminant (e.g. hydrogen sulfide or smoke) resulting from an occurrence that causes people, including employees, to take protective measures (e.g. muster, shelter-in-place or evacuation)</li> </ul>			

<b>FEDERAL GOVERNMENT CONTACTS – CANADA ENERGY REGULATOR (CER) REGULATED PIPELINES / FACILITIES</b>			
<b>Organization</b>	<b>Contact</b>	<b>Location</b>	<b>Telephone #</b>
<b>Roles &amp; Responsibilities</b>			
<p>As lead regulatory agency, the CER:</p> <ul style="list-style-type: none"> <li>• Monitors, observes and assesses the overall effectiveness of the company’s emergency response in terms of:               <ul style="list-style-type: none"> <li>○ Emergency Management</li> <li>○ Safety</li> <li>○ Security</li> <li>○ Environment</li> <li>○ Integrity of operations and facilities; and</li> <li>○ Energy Supply</li> </ul> </li> <li>• Investigates the event, either in cooperation with the Transportation Safety Board of Canada, under the Canada Labour Code, or as per the Canadian Energy Regulator Act or CPGOA (whichever is applicable)</li> <li>• Inspects the pipeline or facility</li> <li>• Examines the integrity of the pipeline or facility</li> <li>• Requires appropriate repair methods are being used</li> <li>• Requires appropriate environmental remediation of contaminated areas is conducted</li> <li>• Coordinates stakeholder and Aboriginal community feedback regarding environmental clean-up and remediation</li> <li>• Confirms that a company is following its Emergency Procedures Manual(s) commitments, plans, procedures, and CER regulations and identifies non-compliances</li> <li>• Initiates enforcement actions as required</li> <li>• Approves the restart of the pipeline.</li> </ul> <p style="text-align: right;"><i>CER Emergency Procedures Manuals Appendix A March 26, 2015</i></p>			
<b>FEDERAL GOVERNMENT CONTACTS – TRANSPORTATION SAFETY BOARD (TSB)</b>			
<b>Roles &amp; Responsibilities</b>			
<p>The mandate of the TSB is to advance transportation safety in the marine, pipeline, rail and air modes of transportation by:</p> <ul style="list-style-type: none"> <li>• Conducting independent investigations, including public enquiries when necessary, into selected transportation occurrences in order to make findings as to their causes and contributing factors.</li> <li>• Identifying safety deficiencies, as evidenced by transportation occurrences.</li> <li>• Making recommendations designed to eliminate or reduce any such safety deficiencies.</li> <li>• Reporting publicly on investigations and on the findings in relation thereto.</li> </ul> <p>As part of its ongoing investigations, the TSB also reviews developments in transportation safety and identifies safety risks that it believes government and the transportation industry should address to reduce injury and loss.</p> <p>To instill confidence in the public regarding the transportation accident investigation process, it is essential that an investigating agency be independent and free from any conflicts of interest when investigating accidents, identifying safety deficiencies, and making safety recommendations. As such, the TSB is an independent agency, separate from other government agencies and departments that reports to Parliament through the President of the Queen's Privy Council for Canada. Our independence enables us to be fully objective in making findings as to causes and contributing factors, and in making transportation safety recommendations.</p> <p>In making its findings as to the causes and contributing factors of a transportation occurrence, it is not the function of the Board to assign fault or determine civil or criminal liability. However, the Board does not refrain from fully reporting on the causes and contributing factors merely because fault or liability might be inferred from the Board's findings. No finding of the Board should be construed as assigning fault or determining civil or criminal liability. Findings of the Board are not binding on the parties to any legal, disciplinary, or other proceedings.</p>			



**EMERGENCY SERVICES**

Due to the remote location of the Harvest Hay River Facility, ground access is only available from Alberta through Rainbow Lake. Emergency Services for both Alberta and British Columbia area listed below to meet both BCER and CER requirements. Consideration should be given to type of service required and access when sourcing services.

<b>EMERGENCY SERVICES</b>			
<b>Organization</b>	<b>Contact</b>	<b>Location</b>	<b>Telephone #</b>
<b>Police</b>	Emergency #	British Columbia	911 / 250-774-2777
	Northern Rockies RCMP Detachment	Fort Nelson, BC	250-774-2700 (o)
	Chateh RCMP Detachment	Chateh, AB	911 / 780-321-3753
<b>Fire</b>	Emergency #	British Columbia	911 / 250-774-2222
	Rainbow Lake Fire Department	Rainbow Lake	911 / 780-956-3354
	Note: This area of BC is not covered by municipal firefighting services. All firefighting needs should be sourced from contract oilfield firefighting services (see Fire Fighting Services under the Support Services table below for a list of providers).		
<b>Ambulance</b>	Emergency #	British Columbia	911 / 250-774-2344
	BC Emergency Health Services (Ambulance including Air)	Province-wide	1-800-461-9911
	When calling from Sat phone or outside of BC		250-374-5937
	STARS – See STARS Emergency Link Centre below.		
<b>Hospital</b>	Fort Nelson General Hospital	Fort Nelson	250-774-8100
	Fort St. John Hospital	Fort St. John	250-262-5200
	Northwest Health Centre	High Level	780-841-3200

**Note: 911 Services in the Northern Rockies Regional Municipality became operational in 2021.**

*Note: Names, Phone numbers, communication channels and addresses (mailing and e-mail) not publicly posted by the owner, have been removed from the publicly posted Emergency Response Plan for the protection of private and/or confidential information.*

**This Page Has Been Left Blank Intentionally**

## **HAY RIVER MEDICAL EMERGENCY PROCEDURES**

**For all medical emergencies contact 911 services (The Northern Rockies Regional Municipality installed 911 services in 2021; however, the BC Ambulance emergency number at 250-774-2344 should remain operational). The Ambulance emergency number dispatch centre has the ability to mobilize an air ambulance (helicopter and fixed wing) or ground ambulance, along with paramedic personnel based on the situation. It is vital that the Hay River medic communicate with EMS personnel to determine the best course of action.**

The senior Harvest representative on-site is responsible for ensuring emergency transportation is requested and that, if utilizing air transport, a landing location is provided by NTS or by GPS coordinates. A landing pad has been established at the Hay XXXXXXXXXXXXXXX facility east of the control room at coordinates XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX. This location is also on file with STARS and has a site registration number of XXXX. The final decision to transport the patient via air ambulance will be made by BC ambulance, AB EMS personnel, STARS Emergency Link Centre medical personnel or a combination of these listed representatives. If required, the patient will be transported to the hospital at High level via the air ambulance with the paramedics. If a non-medical helicopter is called to support a medical emergency, inform the helicopter services of the height and weight of the patient and if a stretcher is being utilized. In situations where non-medical helicopters are utilized, the Hay River medic will fly with the patient to either rendezvous with Rainbow Lake EMS or fly directly to the hospital at High Level.

In situations where a helicopter cannot be utilized, e.g. night time, bad weather etc., the Hay River medic should communicate with EMS to determine whether:

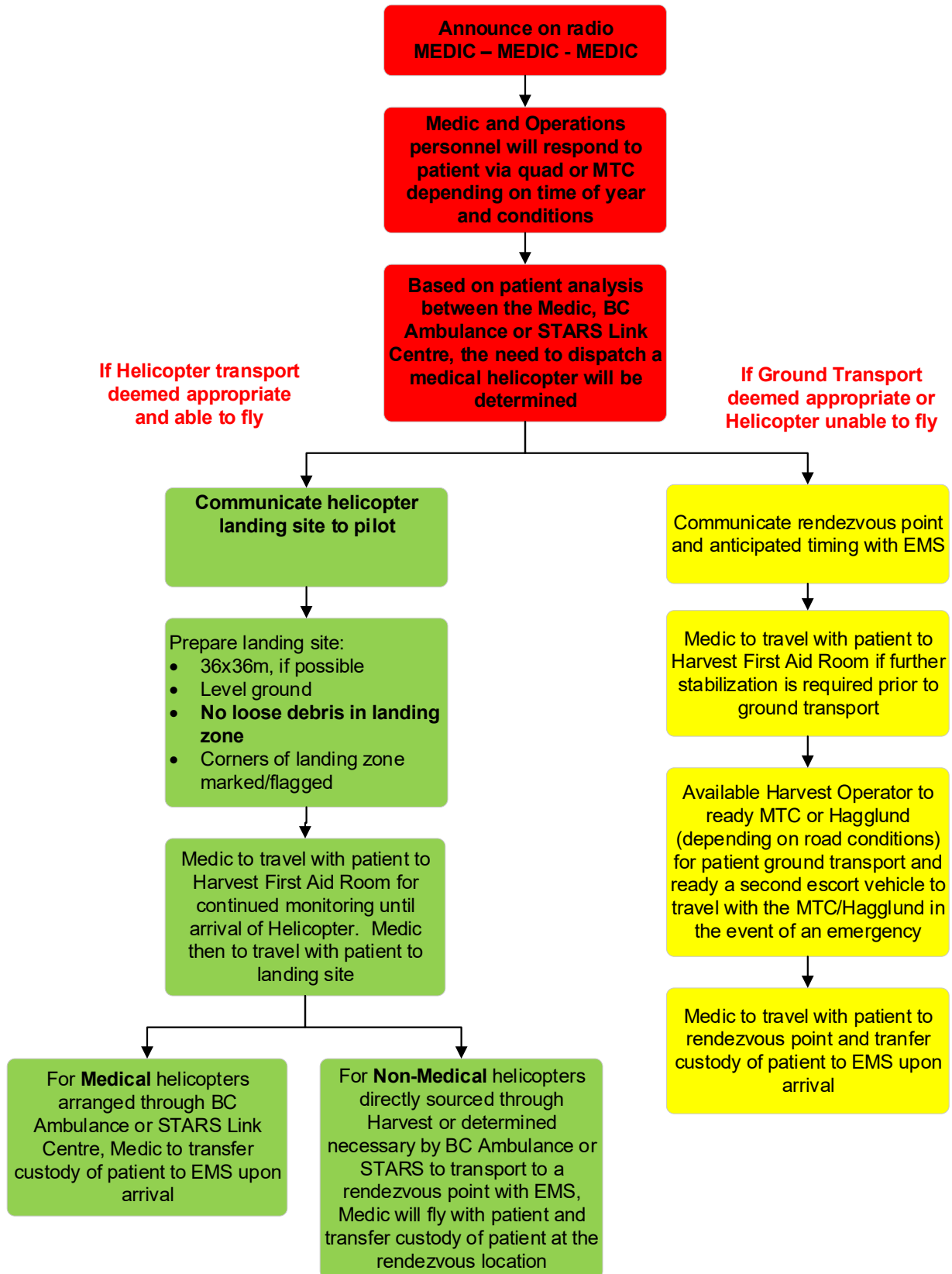
- the patient can wait until such time as the air ambulance is available or can be mobilized.
- the patient must be transported via the Mobile Treatment Centre to rendezvous with the ground ambulance.

In situations where the patient is transported using ground transportation from the plant site (using MTC or other road vehicle), at least one other Harvest representative should escort the medical transport vehicle in a second vehicle to ensure the medical transport arrives at its intended destination and assist in emergency situations e.g. the medical transport vehicle is involved in an incident. Where medical air transport is utilized, a Harvest representative will travel via ground to the intended medical facility to ensure the air transport has arrived; and the patient and/or medic are not stranded or left alone at the facility. If medical staff determine the patient requires long-term stay at the medical facility, the senior Harvest representative at the Hay River facility will determine if the Harvest support personnel should return to the Hay River Plant or remain at the medical facility with the patient.

**Note:** if the Harvest road is in too poor a condition for the Mobile Treatment Centre, then the patient will be transported in the Hagglund vehicle to rendezvous with the ground ambulance. While the medic remains the care giver to the patient, whenever possible the medic should remain in communication with EMS personnel to inform them of the patient's condition and ETA at the rendezvous point.

In situations where the Harvest Superintendent is not the most senior Harvest representative on-site, the most senior representative on-site must ensure that the Superintendent and/or Operations Manager is notified and kept informed of the situation.

### Medical Emergency Procedures Flowchart



**STARS EMERGENCY LINK CENTRE**

STARS EMERGENCY LINK CENTRE			
Organization	Contact	Location	Telephone #
STARS – Emergency Link Centre	Edmonton / Grande Prairie		1-888-888-4567
Direct			
Use 'Direct' line when calling from a satellite phone			

The STARS Emergency Link Centre (ELC) is an advanced 24-hour communications centre providing one-call access to a variety of resources. If calling for an Ambulance, Police or Fire from a cellular or satellite telephone, call the STARS Emergency Link Centre. If calling from a landline, call directly to 911. **The Centre will patch you through to the closest available emergency service regardless of your location in Alberta.**

Around the province, the ELC plays several important roles. These roles range from receiving the first call for help from an organization or individual, to being called by a partner in the Chain of Survival for assistance with an emergency. The Chain of Survival can link local emergency services, emergency physicians and appropriate transportation providers into one conversation.

In all cases, the ELC's primary job is to connect all of the emergency and medical services into a single conversation to determine the most effective medical response for the patient and the particular situation. This includes the immediate coordination of medical advice, medical referral and transportation as required.

Note: ELC is not a replacement for 911; however, when calling from a cellphone some cellular towers have the potential to direct the caller to a 911 call centre not associated with the area. In non-remote areas utilize 911, but in remote areas call the ELC who will connect you to the appropriate first responders. ELC is also not a replacement for day-to-day medical coverage administered by on-site medics, for example.


HARVEST OPERATIONS REGISTERED STARS SITES				
STARS Site ID	Facility Name	Location	Latitude	Longitude

STARS RADIO COMMUNICATIONS FREQUENCIES FOR MOBILES		
Channel	Mobile Rx Frequency (MHz)	Mobile Tx Frequency (MHz)
LAD #1		
LAD #2		
LAD #3		
LAD #4		
STARS Air Ambulance has access to all four LAD radio frequencies. When calling the STARS Emergency Link Centre, indicate what LAD Channel is preferred. The Link Centre will communicate the channel with the pilots allowing for radio communications with the helicopter, if required.		

*Note: Names, Phone numbers, communication channels and addresses (mailing and e-mail) not publicly posted by the owner, have been removed from the publicly posted Emergency Response Plan for the protection of private and/or confidential information.*

**This Page Has Been Left Blank Intentionally**

**STARS®**  
**LANDING ZONE  
INFORMATION CARD**




**STEP 1**

Advise your dispatch centre which channel you will be using to communicate with STARS.

**STEP 2**

Select an area for the landing zone that is downwind from the incident site (unless hazardous materials or gases are present).



INCIDENT SITE



**STEP 3**

Select an area for the landing zone that is a minimum of 36 metres (or 120 feet, or 36 paces) from the incident site.



INCIDENT SITE

**36 METRES**

(120 FEET OR 36 PACES)



**STEP 4**

Select a flat, level surface for the landing zone; preferably pavement or concrete, if available.



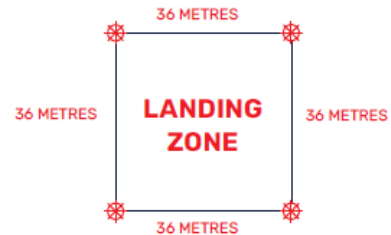
**STEP 5**

Ensure the landing zone area is clear of wires, poles, trees and debris.



**STEP 6**

Mark out a 36 metre by 36 metre (120 feet x 120 feet, or 36 paces x 36 paces) square, and mark the corners with LED beacons, heavy pylons or any other bright conspicuous objects easily seen from the air.



**STEP 7**

Brief STARS crew via radio or cell phone and stand at the middle of the upwind side of the landing zone with the wind at your back.

Monitor radio frequency to communicate with the STARS team.

As the helicopter approaches, go down on one knee and DO NOT MOVE from your position.

Do not approach the helicopter at any time unless escorted by the STARS crew.

**LANDING ZONE HAND SIGNALS**



**ALL CLEAR TO LAND**



**ALL CLEAR TO DEPART**



**ABORT LANDING**

# **LANDING ZONE BRIEFING FOR STARS CREW**



### STEP 1

Identify yourself and confirm the Landing Zone Officer is present, with the landing zone secure.

### STEP 2

Communicate the location of the landing zone using N/E/S/W to reference the incident scene or other landmarks.

### STEP 3

Identify the type of surface for the landing zone (field, road, other).

### STEP 4

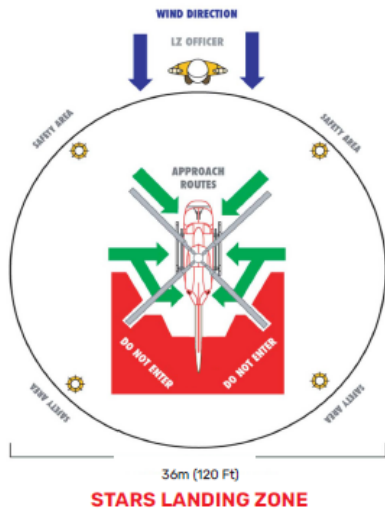
State what marking the corners of the landing zone: LED beacons, heavy pylons or any other bright conspicuous objects easily seen from the air.

### STEP 5

Communicate the wind direction and approximate speed.

### STEP 6

Identify the hazards in the area of the landing zone such as wires, poles, trees, or hazardous materials using N/E/S/W in reference to the landing zone.



### SPECIAL CONSIDERATION

Remove any loose debris and indicate if there is snow or dust in the landing zone. If dusty, water down the landing zone, if possible, prior to the helicopter's arrival. As marshaller, maintain your position at the middle of the upwind side of the landing zone, go down on one knee and **DO NOT MOVE** from your position as the helicopter lands.

If you have any questions or comments regarding this landing zone information card or would like to watch our landing zone video, please visit [stars.ca](http://stars.ca)



**EMERGENCY LINK CENTRE 1-888-888-4567**

This number can also be used to provide a landing briefing to the STARS crew if radio communications are not available.

**SITE #**

**LOCATION**



**GOVERNMENT ROLES & RESPONSIBILITIES**

**Emergency Management & Climate Readiness (EMCR)**

**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.

**British Columbia Energy Regulator (BCER)**

- Oversees the operator's response to an incident
- Notified by EMCR of incidents within BCER's jurisdiction (on lease)
- Establishes communication with the operator
- Confirms incident level with operator
- Confirms downgrade of incident level
- Issues road closure order upon request from the operator
- Request NOTAM order from NAV Canada upon request from the operator
- May send an BCER representative to the Operator's On-Site Command Post and/or Reception Centre
- May establish a government EOC at the BCER office
- Confirms ignition decision with operator if time permits
- Confirms media releases to be sent out by operator

**RCMP**

- Assists in evacuation if required
- Assists in traffic control
- Assist the coroner in the event of a fatality in which there is no criminal wrong-doing
- Conducts investigation in situations of criminal activity

*Note: RCMP must be notified in case of a fatality.*

<b>WorkSafe BC</b>
<ul style="list-style-type: none"> <li>• WorkSafe BC must be notified immediately in the event of a serious accident or death at the work site as to the time, place and nature of the serious accident or death.</li> <li>• WorkSafe BC is to be notified of any other reportable incident to the BCER/EMCR (below).</li> <li>• When the response plan has been put into effect WorkSafe BC evaluates the safety of occupants at the work site, and ensures that necessary precautions are taken to protect the worker's health and safety during the emergency.</li> <li>• Ensure that the appropriate employers provide equipment and personnel required On-Site to monitor worksite hazards.</li> <li>• May provide a representative to the emergency operations centre as required.</li> </ul>
<p><b>Workers Compensation Act - Part 2 Division 10 – Employer Accident Reporting and Investigation</b>  <b>Immediate notice of certain accidents 68</b></p> <p>(1) An employer must immediately notify the Board of the occurrence of any accident that</p> <p>(a) resulted in serious injury to or the death of a worker,</p> <p>(b) involved a major structural failure or collapse of a building, bridge, tower, crane, hoist, temporary construction support system or excavation,</p> <p>(c) involved the major release of a hazardous substance,</p> <p>(d) involved a fire or explosion that has a potential for causing serious injury to a workers, or</p> <p>(e) was an <b>incident required by regulation</b> to be reported.</p>
<b>BC Ministry of Environment &amp; Climate Change Strategy</b>
<p>Provincial response ensues when there is a threat to provincial resources, the local/industry response capability is exceeded, there is a strong public expectation, and/or when requested by another jurisdiction. Provincial response most often occurs when an incident takes place in B.C. that poses a threat to the province's people, infrastructure and/or environment. Each provincial emergency response is conducted in accordance with a provincial-level response plan, such as for water-related hazards, marine oil spills, inland oil spills and hazardous material incidents.</p> <ul style="list-style-type: none"> <li>• A Ministry representative (Environmental Emergency Response Officer – EERO) will provide regulatory oversight and monitor the situation to ensure that the Responsible Party (RP) is taking the appropriate actions and is successful in responding to the incident.</li> <li>• May provide a representative to the Off-Site Command Centre (OSCC) and the BCER Emergency Operations Centre (EOC) and /or the Provincial Emergency Operations Centre (PREOC) on a 24-hour basis. In a larger scale incident, based on risk, additional ministry resources such as IMTs (Incident Management Teams) may be deployed to establish unified command and monitor, augment, or take over the response if the Responsible Party fails to take appropriate action as deemed necessary by the EERO or Provincial Incident Commander.</li> <li>• May assist the RP to ensure that other required agencies and affected stakeholders are contacted</li> <li>• Monitors all discharges to the land, atmosphere and all water bodies</li> <li>• May provide assistance with hazardous waste management</li> <li>• May conduct sampling for monitoring and enforcement purposes</li> </ul>
<b>BC Ministry of Forests</b>
<p>If a forest fire (designated as a provincial emergency only) is associated with the emergency, Forestry Personnel:</p> <ul style="list-style-type: none"> <li>• Will fight forest fires within their jurisdiction.</li> </ul>
<b>BC Ministry of Transportation &amp; Infrastructure</b>
<ul style="list-style-type: none"> <li>• Provides authorization and assistance for roadblocks on major provincial roads and assists in securing roadblock equipment.</li> </ul>

Northern Rockies Regional Municipality – British Columbia		
<b>24 Hour Emergency #</b>		
<b>Emergency Program Coordinator</b>		
<b>Fire Chief</b>		
<b>Deputy Fire Chief</b>		
<b>Fire Services Assistant</b>		
<b>Main Office #</b>		250-774-2541
<b>Main Office Fax</b>		
<b>MD Web Address</b>		<a href="http://www.northernrockies.ca">www.northernrockies.ca</a>
<b>Location</b>		
<b>Notification</b>		
<b>Roles &amp; Responsibilities</b>		
<b>Available Resources</b>		
<b>Emergency Operations Centre(s)</b>		
<b>Unified Command</b>		
<b>Verified with</b>		

*Information collected during consultations with supporting agencies including available support and resources, phone numbers, communication channels and addresses (mailing and e-mail) not publicly posted by the owner, have been removed from the publicly posted Emergency Response Plan for the protection of private and/or confidential information.*



Mackenzie County - Alberta	
<b>24 Hour Emergency #</b>	
<b>Director of Emergency Management</b>	
<b>Deputy Director of Emergency Management</b>	
<b>Main Office #</b>	780-927-3718
<b>Main Office Fax</b>	
<b>High Level Sub Office</b>	
<b>MD Web Address</b>	<a href="http://www.mackenziecounty.com">www.mackenziecounty.com</a>
<b>Location</b>	
<b>Notification</b>	
<b>Roles &amp; Responsibilities</b>	
<b>Emergency Operations Centre(s)</b>	
<b>Reception Centre(s)</b>	
<b>Unified Command</b>	
<b>Verified with</b>	

*Information collected during consultations with supporting agencies including available support and resources, phone numbers, communication channels and addresses (mailing and e-mail) not publicly posted by the owner, have been removed from the publicly posted Emergency Response Plan for the protection of private and/or confidential information.*





Health Emergency Management BC (HEMBC) / Northern Health	
<b>HEMBC 24 Hour On-Call #</b>	
<b>Web Address</b>	
<b>Director, HEMBC, Northern BC</b>	
<b>HEMBC Specialist</b>	
<b>Location</b>	
<b>Roles &amp; Responsibilities</b>	
<b>Roles &amp; Responsibilities - Continued</b>	
<b>Verified with</b>	

*Information collected during consultations with supporting agencies including available support and resources, phone numbers, communication channels and addresses (mailing and e-mail) not publicly posted by the owner, have been removed from the publicly posted Emergency Response Plan for the protection of private and/or confidential information.*





Alberta Health Services (AHS)	
Provincial AHS 24 Hour Emergency #	
Provincial EPH Main Office #	
AHS Electronic Intake for O & G ERP Materials	
Notification	
 Environmental Public Health Roles & Responsibilities	•
 Environmental Public Health Roles & Responsibilities - Continued	•
Available Resources	•
Active H <sub>2</sub> S Environments	
Verified with	

*Information collected during consultations with supporting agencies including available support and resources, phone numbers, communication channels and addresses (mailing and e-mail) not publicly posted by the owner, have been removed from the publicly posted Emergency Response Plan for the protection of private and/or confidential information.*



**WESTERN CANADIAN SPILL SERVICES (WCSS)**

Note: The Hay River field is within the WCSS boundary of Coop 8 (based on access to the facility/field from Alberta). Coop 9 has been listed as it is immediately adjacent to the Hay River operations.

WESTERN CANADIAN SPILL SERVICES (WCSS)				
Position	Contact	Company	Location	Telephone #
<b>WCSS Corporate</b>				
<b>WCSS 24 Hour Emergency Contact #</b>				<b>1-866-541-8888</b>
<b>President &amp; COO</b>		WCSS	Calgary	
<b>Operations Mgr.</b>		WCSS	Acheson	
<b>Equipment Coord.</b>		WCSS	Acheson	
<b>Coop 8 &amp; 9 Administrator</b>		WCSS	Calgary	
<b>Coop 8</b>				
<b>Chairman</b>		Cenovus	Rainbow Lake Area	
<b>Alternate Chairman</b>		Plains Midstream Canada ULC	Rainbow Lake Area	
<b>Regional Custodian</b>		Cenovus	Rainbow Lake	
	<b>Equipment Location:</b>  <b>Equipment Summary &amp; Transport Requirements:</b> <ul style="list-style-type: none"> <li>• 20' ISRU Sea Can (winch tractor/trailer)</li> <li>• Drum Skimmer w/ Power Pak (1/2-ton truck)</li> </ul> <b>Transport:</b> Contact Custodian to arrange pick-up			
<b>Coop Custodian</b>		Muzzy's Contracting	Zama City	
	<b>Equipment Location:</b>  <b>Equipment Summary &amp; Transport Requirements:</b> <ul style="list-style-type: none"> <li>• 20' ISRU Sea Can (winch tractor/trailer)</li> </ul> <b>Directions:</b> Call Bruce Muzichuk			

*Note: Names, Phone numbers, communication channels and addresses (mailing and e-mail) not publicly posted by the owner, have been removed from the publicly posted Emergency Response Plan for the protection of private and/or confidential information.*

WESTERN CANADIAN SPILL SERVICES (WCSS)				
Position	Contact	Company	Location	Telephone #
<b>Coop 9</b>				
<b>Chairman</b>		North River Midstream	FSJ Area	
<b>Alternate Chairman</b>		Canadian Natural Resources	Fort Nelson Area	
<b>Regional Custodian</b>		Clean Harbors Production	Fort St. John	
	<b>Equipment Location:</b> <b>Equipment Summary:</b> <ul style="list-style-type: none"> <li>• 52' OSCAR Trailer (semi-truck)</li> <li>• 40' Boom Cache Sea Can (winch tractor/trailer)</li> <li>• 20' Wildlife Sea Can (winch tractor/trailer)</li> <li>• Work Boat (1/2-ton truck w/ 2" ball hitch)</li> <li>• Drum Skimmer w/ Power Pak (1/2-ton truck)</li> <li>• Single Engine Barge (1-ton truck w/ 2-5/16" ball hitch &amp; electric brakes)</li> <li>• 400' Shallow Water Boom (1/2-ton truck)</li> </ul>			
<b>Coop Custodian</b>		Troyer Ventures Ltd.	Fort Nelson	
	<b>Equipment Location:</b> <b>Equipment Summary &amp; Transport Requirements:</b> <ul style="list-style-type: none"> <li>• 20' ISRU Sea Can (winch tractor/trailer)</li> <li>• Work Boats (2) (1/2-ton truck w/ 2" ball hitch)</li> </ul>			

Further WCSS information can be accessed at [www.wcss.ab.ca](http://www.wcss.ab.ca)

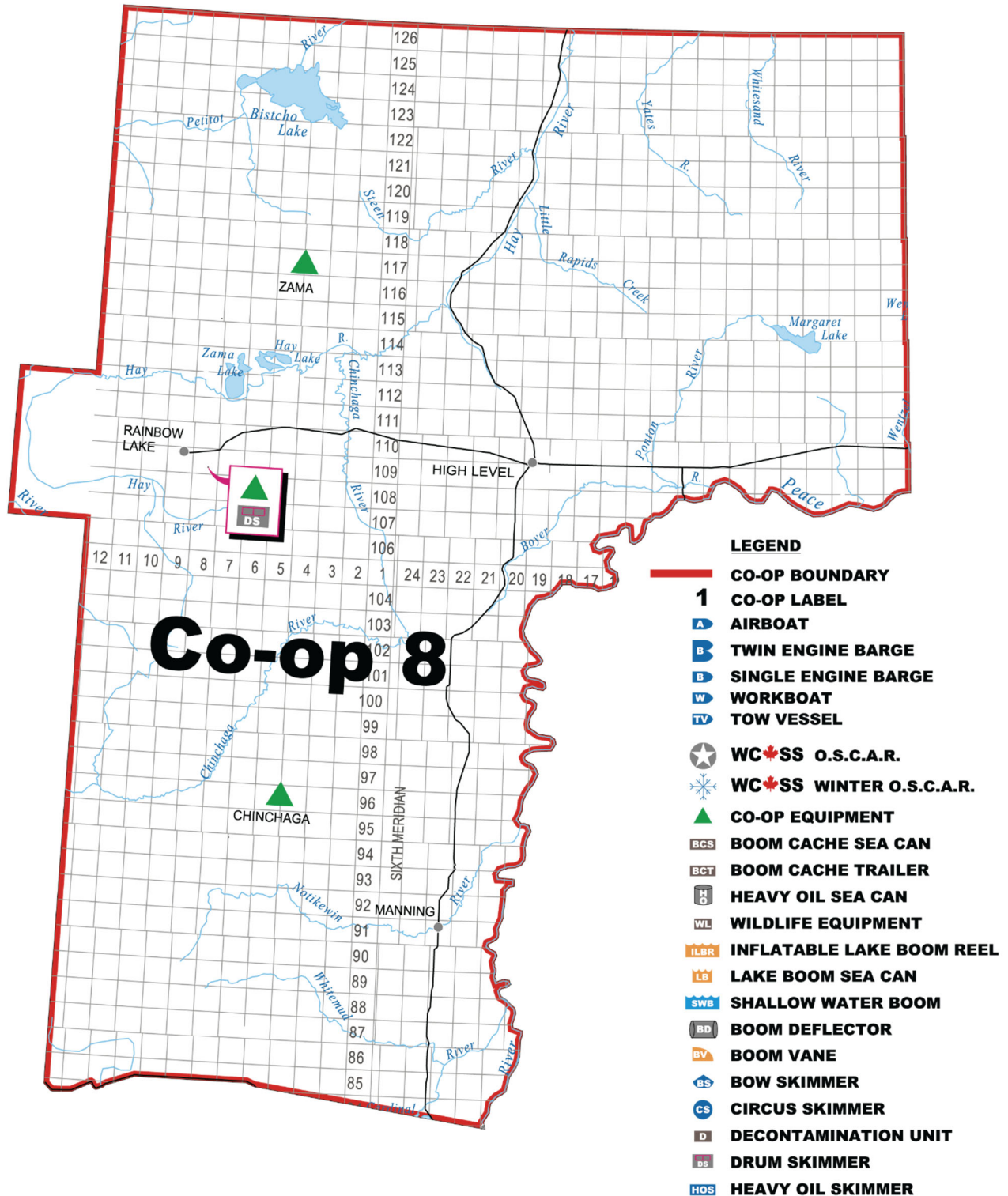
**WCSS Control Points**

There are no WCSS 'critical' control points located downstream of the Harvest Operations Hay River field. Control points are pre-determined locations which would allow access for spill response equipment. Other locations may be utilized during a response based on location of the incident and conditions present at the time. Detailed maps of control point locations can be accessed on the WCSS website at <https://wcss.ab.ca/maps/>. Note that the referenced website may list non-critical control points identified by WCSS. Information about these non-critical sites are not updated or maintained and it is the responsibility of Harvest Operations to determine the usability of these sites prior to launch of equipment.

WCSS CRITICAL CONTROL POINTS					
Control Point #	Location	Watercourse	km point	Upstream Control Point	Downstream Control Point
<b>Coop 8 – Downstream of Hay River Field</b>					
---	---	---	---	---	---
<b>Coop 9 – Downstream of Hay River Field</b>					
---	---	---	---	---	---

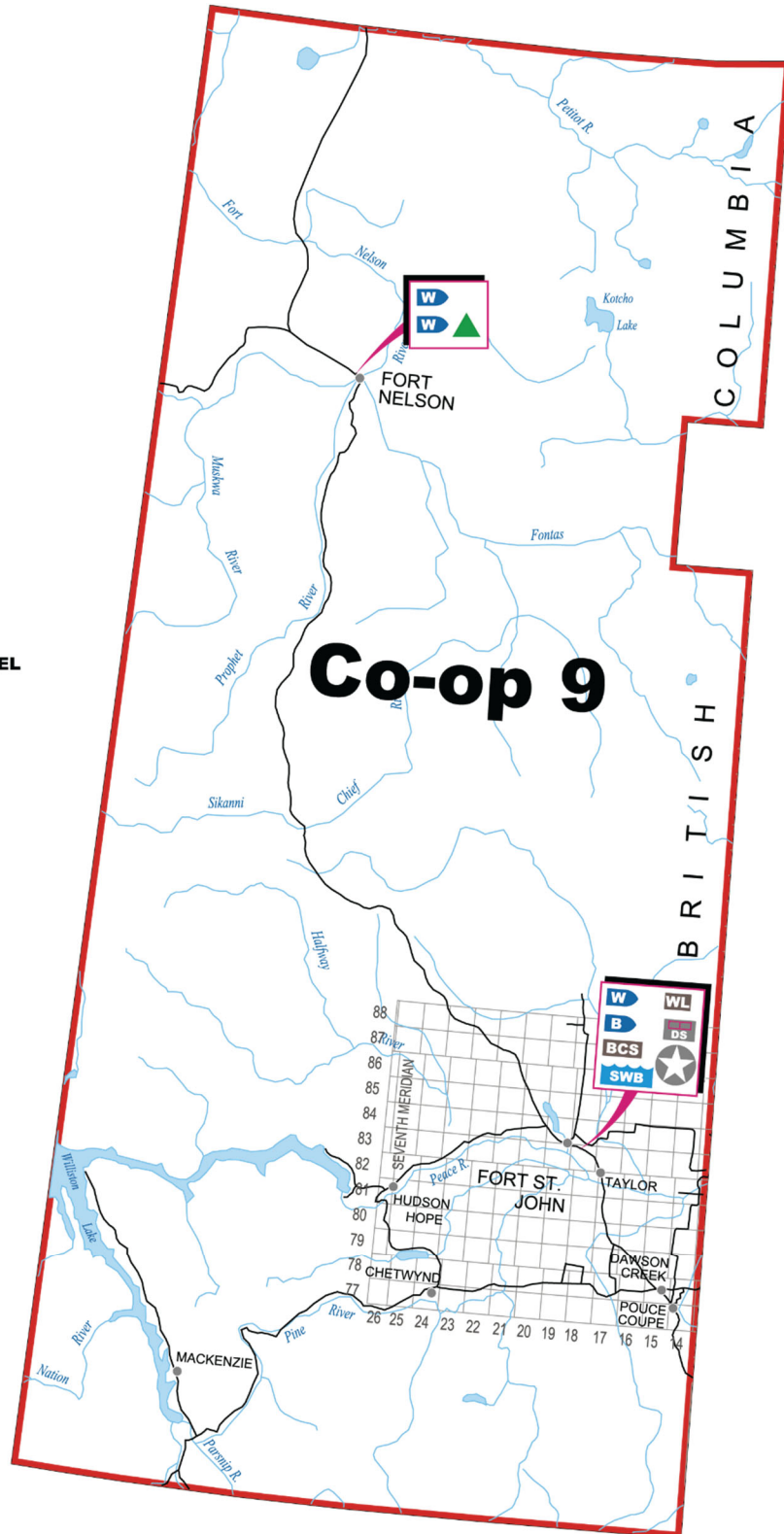
*Note: Names, Phone numbers, communication channels and addresses (mailing and e-mail) not publicly posted by the owner, have been removed from the publicly posted Emergency Response Plan for the protection of private and/or confidential information.*

Coop 8



Coop 9

- LEGEND**
- CO-OP BOUNDARY**
  - 1** **CO-OP LABEL**
  - A **AIRBOAT**
  - B **TWIN ENGINE BARGE**
  - B **SINGLE ENGINE BARGE**
  - W **WORKBOAT**
  - TV **TOW VESSEL**
  - ★ **WC+SS O.S.C.A.R.**
  - ❄ **WC+SS WINTER O.S.C.A.R.**
  - ▲ **CO-OP EQUIPMENT**
  - BCS **BOOM CACHE SEA CAN**
  - BCT **BOOM CACHE TRAILER**
  - H O **HEAVY OIL SEA CAN**
  - WL **WILDLIFE EQUIPMENT**
  - ILBR **INFLATABLE LAKE BOOM REEL**
  - LB **LAKE BOOM SEA CAN**
  - SWB **SHALLOW WATER BOOM**
  - BD **BOOM DEFLECTOR**
  - BV **BOOM VANE**
  - BS **BOW SKIMMER**
  - CS **CIRCUS SKIMMER**
  - D **DECONTAMINATION UNIT**
  - DS **DRUM SKIMMER**
  - HOS **HEAVY OIL SKIMMER**



**SUPPORT SERVICES**

Note: Support services listed that are bolded are Harvest Operations preferred vendors.

<b>SUPPORT SERVICES</b>			
<b>Company Name</b>	<b>Location</b>	<b>Main Telephone</b>	<b>24 Hour #</b>
<b>Accommodations</b>			
Noralta Motor Inn	Rainbow Lake, AB 101 Rainbow Dr. E	780-956-5665	
Best Western Plus (Mirage)	High Level, AB 9616 Highway 58 N	780-821-1000	
Flamingo Inn	High Level, AB 9802 – 97 Street	780-926-8844	
Quality Inn & Suites	High Level, AB 9704 – 97 Street	780-926-4222	
Super 8	High Level, AB 9502 – 114 Ave.	780-841-3448	
<b>Air Monitoring</b>			
<b>Firemaster</b>	<b>Grande Prairie, AB</b>	<b>780-539-4400</b>	<b>1-877-342-3473</b>
<b>HSE Integrated</b>	<b>Grande Prairie, AB</b>	<b>780-532-2088</b>	<b>1-888-346-8260</b>
	<b>Fort St. John, BC</b>	<b>250-785-6333</b>	
Trojan Safety Services	Grande Prairie, AB	780-567-3440	250-785-9557
	Fort St. John, BC	250-785-9557	
<b>Communication Services</b>			
Red Rabbit Communications	High Level, AB	780-926-8887	
Expert Mobile Comms.	Grande Prairie, AB	780-539-3962	
Petron Communications Ltd.	Fort St. John, BC	250-785-3333	
<b>Construction Equipment</b>			
Dechant Construction Ltd.	High Level, AB	780-926-4411	
Knelsen Sand & Gravel Ltd.	High Level, AB	780-926-3170	
Pinnacle Services	High Level, AB	780-841-3484	
RKM Contracting Ltd.	High Level, AB	780-926-4274	
MasTec Canada	Grande Prairie, AB	780-532-3350	
<b>Cranes / Picker Trucks</b>			
MSS Trucking & Well Srv.	Grimshaw, AB	780-332-4777	
Pinnacle Services	High Level, AB	780-841-3484	
<b>RKM Contracting Ltd.</b>	<b>High Level, AB</b>	<b>780-926-4274</b>	
Silvertip Oilfield Services	Manning, AB	780-836-3792	
<b>Ruskin Construction Ltd.</b>	<b>Grande Prairie, AB</b>	<b>780-538-1919</b>	1-800-535-3055
<b>Electrical Contractors</b>			
PTW Energy Services Ltd.	Rainbow Lake, AB	780-956-2249	
Laforce Electric Ltd.	High Level, AB	780-926-6319	
REW Electric Inc	High Level, AB	780-926-2245	
<b>Environmental Contractors / Spill Response Consultants</b>			
<b>Earthmaster Environ.</b>	<b>Calgary &amp; Edson, AB</b>	<b>403-201-5111</b>	
<b>Ridgeline Canada Inc.</b>	<b>Grande Prairie, AB</b>	<b>780-532-9883</b>	<b>1-866-574-7928</b>

<b>SUPPORT SERVICES</b>			
<b>Company Name</b>	<b>Location</b>	<b>Main Telephone</b>	<b>24 Hour #</b>
<b>Environmental Contractors / Spill Response Consultants – Cont'd.</b>			
Vertex	Grande Prairie, AB		780-532-7707
	Rycroft, AB	780-765-3311	780-864-8820
Rapid Response Industrial	Grande Prairie, AB		1-844-774-4911
SWAT Consulting Inc.	Grande Prairie, AB		1-866-610-7928
Ecofor Consulting BC Ltd.	Fort St. John, BC	250-787-6009	
Highmark Environmental	Fort St. John, BC		250-261-6994
<b>Fire Fighting Services</b>			
Firemaster	Grande Prairie, AB	780-539-4400	1-877-342-3473
HSE Integrated	Grande Prairie, AB	780-532-2088	1-888-346-8260
	Fort St. John, BC	250-785-6333	
Safety Boss	Grande Prairie, AB	780-831-2910	1-800-882-4967
	Fort St. John, BC	250-785-2721	
Superior Fire Control	Grande Prairie, AB	780-882-0070	1-877-882-0035
Trojan Safety Services	Grande Prairie, AB	780-567-3440	250-785-9557
	Fort St. John, BC	250-785-9557	
<b>Helicopters</b>			
Delta Helicopters Ltd.	High Level, AB	780-926-3848	1-800-665-3564
	Rainbow Lake, AB	780-956-3988	
Alpine Helicopters Inc.	High Level, AB	780-217-3005	
Gemini Helicopters	Grande Prairie, AB	780-539-4354	
Yellowhead Helicopters	Fort St. John, BC	250-785-2331	
Qwest Helicopters	Fort Nelson, BC	250-774-5302	
<b>Line Locators</b>			
Utility Safety Partners (Formally Alberta One-Call)	Province-wide	1-800-242-3447	1-800-242-3447
BC One-Call	Province-wide		1-800-474-6886
3-D Line Locating	Province-wide	780-217-1235	1-888-748-2224
Blohm Contracting Ltd.	Rainbow Lake, AB	780-956-1969	
<b>Rental Companies</b>			
Northern Services	High Level, AB		780-926-3959
Pinnacle Services	High Level, AB	780-841-3484	
RKM Contracting Ltd.	High Level, AB	780-926-4274	
Select Equipment Rentals	High Level, AB	780-926-3667	
Silvertip Oilfield Services	Manning, AB	780-836-3792	
Northern Mat & Bridge	Grande Prairie, AB	780-538-4135	



<b>SUPPORT SERVICES</b>			
<b>Company Name</b>	<b>Location</b>	<b>Main Telephone</b>	<b>24 Hour #</b>
<b>Safety Contractors &amp; Services / Including Ignition Services</b>			
<b>Firemaster</b>	<b>Grande Prairie, AB</b>	<b>780-539-4400</b>	<b>1-877-342-3473</b>
<b>HSE Integrated</b>	<b>Grande Prairie, AB</b>	<b>780-532-2088</b>	<b>1-888-346-8260</b>
	<b>Fort St. John, BC</b>	<b>250-785-6333</b>	
Trojan Safety Services	Grande Prairie, AB	780-567-3440	250-785-9557
	Fort St. John, BC	250-785-9557	
United Safety	Fort St. John, BC	250-261-5515	1-800-432-1809
	Grande Prairie, AB	780-538-1256	
<b>Snubbing &amp; Freezing Services</b>			
High Arctic Energy Services	Whitecourt, AB	780-778-8411	1-800-668-7143
Precision Well Servicing	Clairmont, AB	780-539-4440	
Snubco Group	Nisku, AB	780-955-3550	1-888-476-8226
<b>Supply Stores</b>			
<b>Apex Distribution</b>	<b>Grande Prairie, AB</b>	<b>780-513-1909</b>	
	<b>Fort St. John, BC</b>	<b>250-787-0929</b>	
Baron Oilfield Supply	Fairview, AB	780-835-5744	
	Fort Nelson, BC	250-774-7572	
	Fort St. John, BC	250-785-2511	
DNOW	Fort St. John, BC	250-785-5677	
	Peace River, AB	780-624-3200	
Gregg Distributors Ltd.	High Level, AB	780-926-2521	
<b>MRC Global</b>	<b>Fort St. John, BC</b>	<b>250-787-1091</b>	
	<b>Grande Prairie, AB</b>	<b>780-532-9542</b>	
Swift Oilfield Supply	Fort St. John, BC	250-794-9829	1-888-423-6979
	Grande Prairie, AB	587-495-6268	
<b>Telephone Emergency Services</b>			
Telephone Operator Assistance	Dial 0		
<b>Trucking – Oilfield / Water / Vacuum / Tank</b>			
Radar Road Transport Ltd.	Fort Nelson, BC		250-774-4203
Northern Vac Services	Fort St. John, BC	250-785-5435	
H2Oil Energy Inc.	Grande Prairie, AB	780-513-5995	
MSS Trucking & Well Srv.	Grimshaw, AB	780-332-4777	
Hirt's Vacuum Truck Srv.	High Level, AB	780-926-4568	
<i>Note: Names, Phone numbers, communication channels and addresses (mailing and e-mail) not publicly posted by the owner, have been removed from the publicly posted Emergency Response Plan for the protection of private and/or confidential information.</i>			

<b>SUPPORT SERVICES</b>			
<b>Company Name</b>	<b>Location</b>	<b>Main Telephone</b>	<b>24 Hour #</b>
<b>Trucking – Oilfield / Water / Vacuum / Tank – Cont’d.</b>			
Formula Powell	High Level, AB	780-926-4040	
La Crete Transport	High Level, AB	780-926-5755	
Pinnacle Services	High Level, AB	780-841-3484	
<b>RKM Contracting Ltd.</b>	<b>High Level, AB</b>	<b>780-926-4274</b>	
Attack Oilfield Services	Manning, AB	780-836-3609	
Silvertip Oilfield Services	Manning, AB	780-836-3792	
Eldon’s Transport Ltd.	Rainbow Lake, AB	780-956-3208	
Warner Trucking Ltd.	Rainbow Lake, AB	780-956-3639	
<b>Utility Services</b>			
Apex Utilities Inc.		1-866-222-2067	1-866-222-2068
Altalink		403-267-3400	1-866-667-3400
ATCO Electric		780-420-3770	1-800-668-5506
ATCO Gas & Pipelines Ltd.		310-5678	1-800-511-3447
BC Hydro			1-888-769-3766
Enmax Power Corporation		310-2010	403-245-7222
EPCOR Distribution Inc.	Power	310-4300	403-514-6100
	Natural Gas		1-800-511-3447
Fortis Alberta Inc.			310-9473
Fortis BC	Power		1-866-436-7847
	Natural Gas		1-800-663-9911
Pacific Northern Gas (NE)			1-800-663-1173
<b>Well Control Services</b>			
Capstrone Blowout Rec.	Airdrie, AB	587-600-6194	1-866-347-3911
<b>Firemaster</b>	<b>Grande Prairie, AB</b>	<b>780-539-4400</b>	<b>1-877-342-3473</b>
Safety Boss	Grande Prairie, AB	780-831-2910	1-800-882-4967
	Fort St. John, BC	250-785-2721	
Superior Fire Control	Grande Prairie, AB	780-882-0070	1-877-882-0035
<b>Wildlife Management</b>			
Eco-Web	Fort St. John, BC	250-787-1110	
Environmental Dynamics Inc	Grande Prairie, AB	780-532-5375	
<b>Wildlife Rehabilitation</b>			
WILDNorth	Edmonton, AB	780-914-4118	
Medicine River Wildlife Centre	Spruce View, AB	403-728-3467	

**FACILITY DATA**

The Hay River Area encompasses the area from Township 107 to Township 114, Range 10 to Range 12 west of the sixth Meridian on the Alberta side of the border and Series 94, Map Area I, Map Sheets 7 (Blocks I & J), 8 (Blocks I, J, K & L), 9 (Blocks A through L), 10 (Blocks A, B, G, H, I & J), 15 (Blocks A & B) & 16 (Blocks A, B, C & D) on the British Columbia side of the Border. Area is heavily forested and development is predominantly oil & gas development and forestry.

**DIRECTIONS TO FACILITIES**

DIRECTIONS TO FACILITIES			
Facility	Latitude	Longitude	Directions
			•
			•

*Note: Information that Harvest deems to be a security risk has been removed from the publicly posted version of the Emergency Response Plan for the security of operations and protection of private and confidential information.*

## **SAFETY PROCEDURES**

On discovery of a potential emergency situation, follow the Seven Initial Emergency Response Steps:

1. **EVACUATE** - Get away from the hazard and direct others to a safe area.
2. **ALARM** - Alert others to the danger and situation.
3. **CALL FOR HELP**- Emergency services; if you cannot contact your supervisor, contact the Incident Director by calling the Harvest 24 Hour Emergency Number at **XXXXXXXXXXXX**, and asking to be connected to the Incident Director On-Call.
4. **ASSESS** - Assess hazards: do not rush in and endanger yourself. Account for all personnel. Monitor air quality with persona monitors. Consider potential ignition sources and how to eliminate them.
5. **RESCUE** - Protect yourself at all times, use appropriate personal protective equipment (PPE). Remove casualty to a safe area, ensure medical aid has been called for and administer first aid.
6. **SECURE THE AREA** - Prevent unauthorized access. If possible, take steps to protect people, the environment and property.
7. **ACT AS INCIDENT COMMANDER** - Until relieved by the appropriate person.

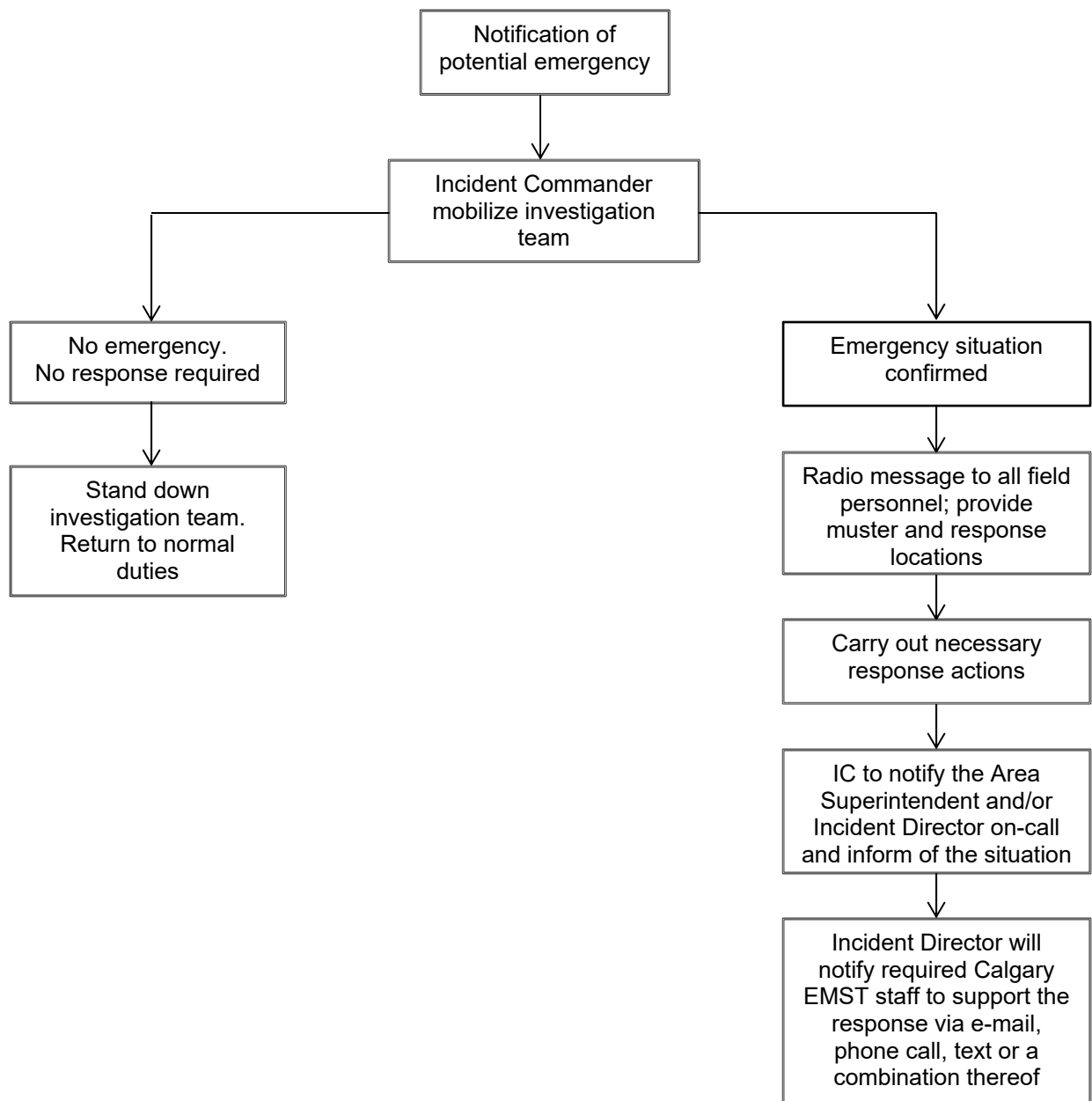
*Note: Names, Phone numbers, communication channels and addresses (mailing and e-mail) not publicly posted by the owner, have been removed from the publicly posted Emergency Response Plan for the protection of private and/or confidential information.*

**EMERGENCY NOTIFICATION AND CALL-DOWN FLOW DIAGRAM**

Harvest may be notified of a potential emergency situation by many different methods:

- System alarm
- Pressure/flow alarm
- Automatic detection equipment
- Discovery by operations personnel
- Call from member of the public or regulatory agency

A telephone call from a member of the public or from a regulatory agency may be received at Harvest’s Hay River control room or via Harvest’s 24 hour emergency number. Once notification has been received call-down notifications should occur as per the following diagram:





**EMERGENCY ALARMS**

The Harvest XXXXXXXXXXXXXXXX is manned 11 hours/day, 7 days/ week; however, operations personnel are on location 24 hours/day 7 days/week. Day shift hours are between 07:00 and 18:00. Outside of these times the system can be monitored from a satellite control at the Harvest Hay River Camp. After hours response to the battery is immediate because the camp is located in close proximity to the battery. The fluid volumes in the Harvest Hay River Area are monitored by a Supervisory Control and Data Acquisition (SCADA) system.

Surveillance by field operations personnel and control room personnel in conjunction with fire detection, gas detection and process control limits provide 24-hour manual and automatic notification of changes in facility status and emergency conditions. Detection equipment and alarms are tested regularly and are included in the preventative maintenance program.

The pipeline from the Harvest XXXXXXXXXXXXXXXX to the Harvest XXXXXXXXXXXXXXXX meter station is fitted with automatic emergency shut-down (ESD). The ESD located at the b-76-H battery will operate on a pressure differential and an alarm is actuated at the control room when there is a flow differential. The ESD located at the XXXXXXXXXXXXXXXX meter station actuates on high/low pressure only.

There are also manually operated isolation valves located on either side of the Little Hay River and Fire Creek and a check valve on the downstream side of the pipeline after it crosses the Little Hay River and Fire Creek.

If the high or low level alarm sounds and a leak from the pipeline is confirmed or detected by field personnel, the on-call operator will be mobilized to close these isolation valves. If the pressure differential in the pipeline between the Harvest Battery in XXXXXXXXXXXXXXXX and the XXXXXXXXXXXXXXXX meter station is greater than XXXX kPa or the flow differential in the pipeline reaches XX m<sup>3</sup>/day, then an audible alarm will sound for a maximum of 15 seconds unless acknowledged. The on-call operator will be notified of the alarm via voice communication over the two-way radio and will continue until it has been acknowledged.

If the pressure in the pipeline falls below XXXX kPa, the ESD at the Harvest Battery in XXXXXXXXXXXXXXXX will activate. If the pressure in the pipeline increases to above XXXX kPa the ESD at the Harvest XXXXXXXXXXXXXXXX meter station will close. In either case the on-call operator will be notified via the alarm system.

**MUSTER LOCATIONS**

MUSTER LOCATION(S)		
Field	Primary	Alternate
Hay River Facility and Camp XXXXXXXXXXXXXXXXXX	As assigned at time of incident	As assigned at time of incident

*Note: Locations of surface installments, valves and maximum operating pressures have been removed from the publicly posted version of the Emergency Response Plan for the security of operations and protection of private and confidential information.*

**COMMUNICATIONS**

Emergency communications in the Hay River Area will be conducted using cellular telephones, landlines and two-way radios. If assistance from emergency services and/or support service companies during an incident is required, they will be provided with a rendezvous location and directions to reach that location during the initial contact. Once on site, all relevant information will be passed over, and a radio and radio channel compatibility check will be carried out. If radio communication between Harvest and non-Harvest first responders proves difficult, then they will be provided with a Harvest radio or a Harvest representative will accompany the non-Harvest first responder to ensure radio communication is maintained.

Radio channels used in the Hay River Area would be as follows:

RADIO COMMUNICATIONS FREQUENCIES FOR MOBILES			
Channel	Mobile Rx Frequency (MHz)	Mobile Tx Frequency (MHz)	CTCSS
<i>Note: Names, Phone numbers, communication channels and addresses (mailing and e-mail) not publicly posted by the owner, have been removed from the publicly posted Emergency Response Plan for the protection of private and/or confidential information.</i>			
LAD #1	154.1000	154.1000	
LAD #2	158.9400	158.9400	
LAD #3	154.3250	154.3250	
<b>LAD #4</b>	<b>173.3700</b>	<b>173.3700</b>	
<b>LAD #4 is the radio frequency used for the Harvest Hay River road.</b>			
STARS Air Ambulance has access to all four LAD radio frequencies. When calling the STARS Emergency Link Centre, indicate what LAD Channel is preferred. The Link Centre will communicate the channel with the pilots allowing for radio communications with the helicopter, if required.			

**B.C. Forest Road Radio Protocol**

Drivers using a radio should call the following, unless directed otherwise by a sign posted on the road:

- **when:** starting, stopping, entering or leaving a road
- at **“must call”** signs
- **every 2 km**
- **“up”** with increase or **“down”** with decrease in km signs
- in **order** of road name, km, up/down, number of vehicles (if convoy calling), vehicle type (optional)

No call if part of convoy called by lead vehicle within 1 km.

*June 2010*





**This Page Has Been Left Blank Intentionally**



**SAFETY EQUIPMENT**

Safety Equipment		
Type	Location	Quantity
<b>Personal Protective Equipment (PPE)</b>	All Harvest Operations personnel must have on their person when working with Harvest field assets.	
Flame-resistant Clothing		
Hard Hat		
Safety Glasses		
Safety Boots		
Safety Gloves		
Personal 4-way monitor (H <sub>2</sub> S, CO <sub>2</sub> , LEL, O <sub>2</sub> )		
<b>First Aid Kit</b>		
<b>Fire Extinguisher(s)</b>		
<b>Fire Fighting Equipment</b>	<i>Note: Safety equipment locations and quantities have been removed from the publicly posted version of the Emergency Response Plan for the security of operations and protection of private and confidential information.</i>	
<b>Automated External Defibrillator (AED)</b>		
<b>Eye Wash Station(s)</b>		

Safety Equipment		
Type	Location	Quantity
Self-Contained Breathing Apparatus (SCBA)	<p><i>Note: Safety equipment locations and quantities have been removed from the publicly posted version of the Emergency Response Plan for the security of operations and protection of private and confidential information.</i></p>	
Supplied Air Breathing Apparatus		
Two-way Radio(s)		
Radio Tower(s)		
Emergency Shower		
Roadblock Kit(s)		
Reflective Road Triangle(s)		
Mobile Treatment Centre (MTC)		
All Terrain Vehicles (ATV)		
Bob Cat (Skid Steer)		
Spill Response Equipment		

Safety equipment is documented and regularly inspected to ensure readiness. Other equipment required as per the emergency situation will be called out from a safety company or other Harvest facility.

Note: A fully trained medic is on duty 24 hours/day, 7 days/week and is located at the Harvest Hay River Camp and has access to medical supplies in addition to the supplies listed above.

**MUTUAL AID AGREEMENTS**

Harvest has no formal mutual aid agreements in the Hay River Area; however, Harvest maintains a liaison with other petroleum and industrial operators in the Hay River Area on a continuing basis regarding emergency response issues.

**BRIDGING STATEMENT**

The following tie-in table illustrates the interaction of the various tie-ins with Harvest Operations in the Hay River field:

TIE-INS			
Tie-in Location	Product	Harvest Sends/Receives at Tie-in	License # of Tie-in Pipeline
<b>Tie-ins with TC Energy (Nova Gas)</b>			
<b>Tie-ins with Cenovus</b>			
<p>In the event of an emergency that impacts the tie-in, the company who identified the incident, or was first contacted about the incident, will act as initial responders. If the incident is deemed to be the other company's responsibility, the initial responders will immediately contact the responsible party to notify them of the incident and to transfer command and control of the response as soon as reasonably able. Each company will manage any emergency deemed to be their responsibility utilizing their applicable emergency response plan(s) indicated below. Once the appropriate (responsible) company has assumed command and control of the incident, they may request emergency response assistance from the other tie-in party. The company being asked to assist will provide assistance by way of personnel or equipment based on availability at time of response / request. If the incident is deemed to be the responsibility of both company's based on product release, response will be organized utilizing Unified Command between the two parties. Contact details are as follows:</p>			
Tie-in Company	Applicable ERP(s)		24 Hour Emergency Number
Harvest Operations Corp.	Corporate ERP / Hay River Area ERP		1-800-760-2826
Cenovus	Corporate ERP		1-877-458-8080
TC Energy (Nova Gas)	Corporate ERP		1-888-982-7222

Other Industrial Operators in the Hay River Area emergency planning zone(s) or in the general area are listed below under "Area Industrial Operators" in the Public Protection section. Numbers for the industrial operators listed above are also included in that listing.

*Note: Locations of tie-ins have been removed from the publicly posted version of the Emergency Response Plan for the security of operations and protection of private and confidential information.*



**This Page Has Been Left Blank Intentionally**

**WILDFIRE RESPONSE**

Manned facilities within the Hay River Area are surrounded by heavy forest which may impact human safety in the event of a Wildfire. To ensure safety of the site and personnel, two planning zones have been calculated which provide direction on timing and actions should a wildfire have the potential to threaten the facility/location. These zones act as a guide only, based on the parameters listed in the table below.

- 1. Facility Shut-In Notification:** Based on the time to shut-in or de-pressure the facility to ensure it is left in a secure state during an evacuation. Additional factors used to calculate this distance include speed of fire, options for egress, length of egress route and time to travel the route.
- 2. Evacuation Notification:** This is the distance which personnel must evacuate the area immediately to allow time to leave the area safely. If the calculated distance for Evacuation Notification is less than 1km, the distance has been changed to 1km to ensure personnel have sufficient time to organize and leave the area.

**Note:**

- All non-essential personnel to the actual shut-in procedures should evacuate immediately upon the fire reaching the “Facility Shut-in Notification” boundary.
- If a facility has appropriate Shelter-in-place capability and supplies, personnel may be instructed to Shelter-in-place by the Incident Commander if the fires current conditions impact the egress route only and not the facility/location itself. Shelter-in-place would also be implemented if Occupational Health & Safety parameters are met or exceed for smoke particulate matter at the facility/camp/location (see CAPP recommended response to wildfire smoke below).

WILDFIRE RESPONSE ZONE(S)								
Location	Fire Speed (km/h)	Multiple Access / Egress to Location (Yes / No)	Shelter-In-Place Capability (Yes / No)	Distance of Main Access / Egress Route (km)	Speed Limit (km/h)	Time to Shut-In / De-pressure Facility (Hours)	Facility Shut-In Notification (kms out)	Evacuation Notification (km out)

During an actual wildfire, fire statistics should be obtained to validate above calculation or to better predict fire behaviour and risk to personnel and assets. The following are useful links to provide current fire statistics:

**Fire Weather Index:**

**Recent and Forecast Weather Facts:** [https://weather.gc.ca/city/pages/ab-40\\_metric\\_e.html](https://weather.gc.ca/city/pages/ab-40_metric_e.html)

(click on the ‘weather’ tab, then click on the area on the map that you want to view)

**Wildfire Hazard Identification Tool:**

<https://maps.alberta.ca/WHIT/Viewer/?TermsOfUseRequired=true&Viewer=WHIT>

Vegetation Classification Chart		
Species	Flammability	Fuel Type
Black Spruce	Extreme	C2
Cured/Dead Grass and Slash	Extreme	O1, S1, S2, S3
Lodgepole or Jack Pine	High	C3
White Spruce	High	M1, M2
Western Larch	Low	C1
Young and Mature Aspen (has clean forest floor present)	Very Low	D1

*Note: Information that Harvest deems to be a security risk has been removed from the publicly posted version of the Emergency Response Plan for the security of operations and protection of private and confidential information.*

**WILDFIRE RESPONSE –Cont’d.**

The following is an excerpt from the Canadian Association of Petroleum Producers (CAPP) Guide – Emergency Preparedness Guide for Hazards Associated with Wildfires 2015. To see the complete guide, visit <http://www.capp.ca/publications-and-statistics/publications/261805>. The following table provides suggested actions in response to varying levels of particulate matter.

<b>CAPP Recommended Response to Wildfire Smoke</b>			
<b>Air Quality Category</b>	<b>Health Messages for At-Risk Personnel</b>	<b>Health Messages for All Other Personnel</b>	<b>Recommended Actions</b>
<b>Good</b>  Visibility: 15 km and up  1-3 hour average: PM2.5 0-40 µg/m3	Continue with usual outdoor activities.	Ideal air quality for outdoor activities.	Be aware of forecast (current, daily, tomorrow).
<b>Moderate/ Unhealthy for Sensitive Groups</b>  Visibility: 5-14 km  1-3 hour average: PM2.5 41-175 µg/m3	Reduce or reschedule prolonged strenuous activities and limit time spent outdoors.	Be aware of health effects of smoke and related symptom.	Advise workers about: health effects of smoke, related symptoms, and ways to reduce exposure.  If the smoke event is projected to be prolonged, evaluate and notify possible cleaner air shelter sites and prepare evacuation plans for at-risk populations.
<b>Unhealthy</b>  Visibility: 2.5-4 km  1-3 hour average: PM2.5 176-300 µg/m3	Avoid prolonged strenuous activities and stay indoors if possible.	Reduce or reschedule prolonged strenuous activities outdoors, especially if you experience symptom.	Consider cancelling non-essential outdoor activities. Restrict or eliminate access to the site by other visitors,  Consider the distribution and use of respirators and masks.
<b>Very Unhealthy</b>  Visibility: 1.5 -2 km  1-3 hour average: PM2.5 301-500µg/m3	Avoid all strenuous activities and stay indoors if possible.	Avoid prolonged strenuous activities and stay indoors if possible.	Consider having at-risk personnel go to designated air shelters.  Make preparations and take precautions against the threat from a wildfire, including the risk from fire (see Appendix A).  Consider the distribution and use of respirators and masks.
<b>Hazardous</b>  Visibility: < 1 km  1-3 hour average: PM2.5 >500 µg/m3	Avoid all strenuous activities and stay indoors.	Avoid all strenuous activities and stay indoors.	Restrict activities to the essentials.  If smoke event is projected to be prolonged, consider evacuation of at-risk personnel.  Make preparations and take precautions against the threat from a wildfire, including the threat from fire (see Appendix A).  Consider the distribution and use of respirators and masks.

**HAZARD ANALYSIS**

HAZARD ANALYSIS				
HAZARD	GENERAL DESCRIPTION	HEALTH EFFECTS	EXPOSURE DIST.	RESPONSE
<b>H<sub>2</sub>S release</b>	Colourless; Extremely flammable when mixed with air; Rotten egg smell at lower concentrations, odourless at elevated concentrations;	Respiratory issues, Eye irritation, Skin irritation. See "General Health Effects of H <sub>2</sub> S" below.	See "Technical Data" in this section for Well and Pipeline Lists	Isolate, Report, Monitor, Evacuate/Shelter, mitigate, repair, resume operations. Ensure applicable PPE is utilized and maintained.
<b>SO<sub>2</sub> release</b>	Choking gas; Formed by the combustion of H <sub>2</sub> S; Non-Flammable; Odour of a wooden match when extinguished; toxic and corrosive.	Respiratory issues – Choking gas, Eye irritation, Skin irritation, Can be inhaled or absorbed. See "General Health Effects of SO <sub>2</sub> " below.	See "Technical Data" in this section for Well and Pipeline Lists	Isolate, Report, Monitor, Evacuate/Shelter, mitigate, repair, resume operations. Ensure applicable PPE is utilized and maintained.
<b>Crude Oil</b>	Dark brown or straw coloured liquid that smells of hydrocarbon; Highly flammable liquid and vapour easily ignited by heat, sparks or flames.	Fire, Toxic, Eye irritation; Skin irritation, May cause respiratory irritation, drowsiness or dizziness; Environmental (if not contained)	Immediately isolate spill for 50 meters in all directions. If tank, rail car or tank truck is involved in a fire, isolate to 800 meters in all directions.	Isolate spill. Eliminate all ignition sources. Shut-in. Keep unauthorized personnel away. Stay upwind and out of low lying areas. Ventilate closed spaces before entering. Repair and resume operations.
<b>LPGs / Condensates</b>	Transparent, colourless gas with a natural gas smell; Extremely flammable gas; Contains gas under pressure; May explode if heated, easily ignited by heat, sparks or flames; Vapors from liquefied gas are initially heavier than air and spread along the ground; Ruptured cylinders may rocket.	May cause drowsiness or dizziness. May displace oxygen and cause rapid suffocation. Respiratory irritation. Eye and skin irritation and/or frostbite. May be fatal if swallowed.	Immediately isolate leak for 100 meters in all directions. If tank, rail car or tank truck is involved in a fire, isolate to 1600 meters in all directions.	Isolate leak. Eliminate all ignition sources. Shut-in. Keep unauthorized personnel away. Stay upwind and out of low lying areas. Ventilate closed spaces before entering. Repair and resume operations.
<b>Natural Gas</b>	Clear, colourless gas; Extremely flammable, may explode if heated; Slightly soluble in water; Lighter than air.	Fire, Heat Radiation, Toxic, Asphyxiate. <i>See LEL and Heat Radiation below for further details about Natural Gas Release Hazards.</i>	Immediately isolate leak for 100 meters in all directions. If tank, rail car or tank truck is involved in a fire, isolate to 1600 meters in all directions.	Isolate leak. Eliminate all ignition sources. Shut-in. Keep unauthorized personnel away. Stay upwind and out of low lying areas. Ventilate closed spaces before entering. Repair and resume operations.
<b>Lower Explosive Limit (LEL)</b>	The lowest concentration of a gas or vapour that is capable of igniting when exposed to an ignition source at atmospheric conditions. If ignited a Flash Fire may result with extremely rapid and high thermal radiation caused by the flame front.	Fire, explosion	See "Technical Data" in this section for Well and Pipeline Lists – Flash Fire	Extinguish all sources of ignition, isolate source and shut-in, evacuate personnel and public from calculated planning zone, repair, return evacuees and resume work.
<b>Heat Radiation</b>	Radiation given off by a heat source like the following: Jet Fire – An uncontrolled jet or spray fire caused by immediate ignition of a fuel and is being continuously released with velocity in a specific direction. Pool Fire – A fire caused by ignition of vapours being emitted from a pool (little momentum of product) of hydrocarbon.	Depending on heat intensity and duration of the exposer, may cause discomfort or burns. Prolonged exposer may lead to a fatality	See "Technical Data" in this section for Well and Pipeline Lists – Jet / Pool Fire	Extinguish all sources of ignition, isolate source and shut-in, evacuate personnel and public from calculated planning zone, repair, return evacuees and resume work.
<b>Fire /</b>	---	Burns, injuries caused	Determined based on	Isolate, shut-in, extinguish fire,

<b>HAZARD ANALYSIS</b>				
<b>HAZARD</b>	<b>GENERAL DESCRIPTION</b>	<b>HEALTH EFFECTS</b>	<b>EXPOSURE DIST.</b>	<b>RESPONSE</b>
<b>Explosion</b>		by concussive factors, loss of equipment causing other hazards such as a gas/oil release	incident and the impact the incident has caused.	account for personnel, recover unaccounted for personnel, resuscitate, revive, administer medical aid, provide transportation as required, repair, resume operations.
<b>Wildfire</b>	---	Respiratory issues, loss of equipment, burns, evacuation from area/operations	Determined based on incident and the impact the incident has caused.	Abide by government issued evacuation orders, shut-in operations as able, address and first aid concerns and seek medical assistance if required, repair, resume operations.
<b>Spill on Land</b>	---	Environmental, Chemical hazards based on spilled product	Determined based on incident and the impact the incident has caused.	Shut-in source of spill, isolate, determine extent of spill, evaluate safe work procedure, clean up, resume operations
<b>Motor Vehicle Accident</b>	---	Bodily injury, equipment damage	Determined based on incident and the impact the incident has caused.	Approach scene if safe to do so, contact 911, administer first aid as required.
<b>Natural Hazard / Disasters</b>	---	Unable to access and operate as intended, bodily injury, equipment damage	Determined based on incident and the impact the incident has caused.	Abide by government issued evacuation orders, shut-in operations as able (as per BCER regulations for earth quakes), address any first aid concerns and seek medical assistance if required, Classify level of emergency using the BCER Incident Classification Matrix, repair, resume operations.
<b>Severe Weather</b>	---	Exposure	Determined based on incident and the impact the incident has caused.	Seek shelter from elements. Do not drive in whiteout conditions. Report to supervisor as soon as able, continue with work once weather is passed and it's deemed safe to do so.
<b>Lost Worker</b>	---	Medical Emergency, Exposure	Determined based on incident and the impact the incident has caused.	Review JSA or working alone records. Dispatch company representative to search for missing person based on last known location, contact RCMP or local police service to assist as required.
<b>Civil unrest restricting access</b>	---	Unable to access and operate as intended	Determined based on incident and the impact the incident has caused.	Do not enter area beyond blockade without permission from local authority. If blockade impedes your ability to continue operations and you are beyond the blockade, shut-in operations and evacuate the area until local authority permits access to the area.
<b>Wildlife</b>	---	Bodily injury, equipment damage	Determined based on incident and the impact the incident has caused.	Keep distance and do not approach. Return to work once wildlife has gone. Contact Fish & Wildlife if treat is persistent and ongoing.



**GENERAL HEALTH EFFECTS OF HYDROGEN SULPHIDE (H<sub>2</sub>S)**

Hydrogen Sulphide (H<sub>2</sub>S) is:

- A naturally occurring gas found in geological formations and is also formed by natural decomposition of organic matter in absence of oxygen.
- Colourless, flammable (should it become ignited, it will be converted to Sulphur Dioxide) & extremely toxic.
- Heavier than air on its own and will tend to accumulate in low lying areas. When mixed with other gases, may be the same weight or lighter than air.
- H<sub>2</sub>S smells like rotten eggs at low concentrations. However, H<sub>2</sub>S rapidly impairs the sense of smell; therefore, smell should not be used as a detector of its presence.
- The impact of H<sub>2</sub>S on people is dependent on the concentration, length of exposure and current state of health. Potential health impacts are displayed in the table below.

<b>Acute Health Effects of Hydrogen Sulphide (H<sub>2</sub>S)<sup>1</sup></b>	
<b>H<sub>2</sub>S in Air</b>	<b>Description of Potential Health Effects</b>
<b>1 ppm</b>	A noticeable odour that may be offensive to some individuals. People may temporarily experience mild symptoms of discomfort, including nausea, headache, and irritability due to the odour. Asthma symptoms may worsen.
<b>10-20 ppm</b>	An obvious offensive odour. Temporary eye irritation may occur after a single exposure and last several hours. Symptoms include mild itchiness, dryness, increased blink reflex and slight watering. Some people may experience headaches, nausea and vomiting. Symptoms of asthma, bronchitis or other forms of chronic respiratory disease may worsen.
<b>50 ppm</b>	A strong, intense offensive odour that may irritate eyes and breathing passages. Eyes may be itchy, stinging, and red with increased blinking, tearing and tendency to rub eyes. Breathing passages could feel tingly or sting, with increased tendency to clear throat and cough. Symptoms of pre-existing respiratory disease may worsen. No permanent injury to eyes or breathing passages is expected unless exposure is prolonged. Odour-sensitive individuals may experience headaches, nausea, vomiting and diarrhea.
<b>100 ppm</b>	Initially there is a strong objectionable odour that lessens with prolonged exposure due to olfactory "fatigue." Eyes and breathing passages are often irritated within one hour of exposure. Eyes may be sore, stinging, burning, tearing, redness, swelling of eyelids, and possible blurred vision. Respiratory irritation may include sore throat, cough, soreness or stinging of breathing passages, and wheezing. The symptoms of asthma, bronchitis or other forms of chronic respiratory disease will worsen. Odour may cause headache, nausea, vomiting and diarrhea.
<b>250 ppm</b>	There may or may not be an odour present due to olfactory paralysis. Eyes and breathing passages will become irritated within minutes of exposure, and the irritation will worsen with longer exposure. The outer surface of the eyes and inner eyelids will be inflamed, red and sore. Eyes will begin watering and tearing immediately and vision may be blurred. Eyes may be permanently harmed if exposure is prolonged. Respiratory irritation will include sore throat, cough, difficulty breathing, soreness of chest, and wheezing. Asthma symptoms will worsen. People may experience "systemic" effects, including headache, nausea and vertigo depending on duration of exposure.
<b>500 ppm</b>	No odour is present due to olfactory paralysis. Severe irritation and possible permanent injury to the eyes and breathing passages within 30 minutes of exposure. Lung and breathing passage damage may cause „chemical pneumonia“ following exposure if the exposure was prolonged. Systemic effects involving the central nervous system may occur within one hour of exposure and include headache, anxiety, dizziness, loss of coordination and slurred speech. People may lose consciousness or collapse suddenly, and die if exposure persists.
<b>750 ppm</b>	No odour is present due to olfactory paralysis. Central nervous system effects will be most obvious, and could include anxiety, confusion, headache, slurred speech, dizziness, stumbling, loss of coordination, and other signs of motor dysfunction. People may lose consciousness, collapse suddenly and possibly die, if exposure continues for more than a few minutes. Lung and breathing passage damage will likely cause „chemical pneumonia“ among survivors.
<b>1000 ppm</b>	Immediate "knock-down" and loss of consciousness. Death within moments to minutes. Immediate medical attention needed if victim is to survive.

**GENERAL HEALTH EFFECTS OF SULPHUR DIOXIDE (SO<sub>2</sub>)**

Sulphur Dioxide (SO<sub>2</sub>) is:

- SO<sub>2</sub> is a by-product resulting from the combustion of H<sub>2</sub>S.
- The heat of the combustion of H<sub>2</sub>S carries the SO<sub>2</sub> up into the atmosphere allowing it to disperse.
- SO<sub>2</sub> can be easily detected by its pungent odour similar to a burnt match.

<b>Acute Health Effects of Sulphur Dioxide (SO<sub>2</sub>)<sup>1</sup></b>	
<b>SO<sub>2</sub> in Air</b>	<b>Description of Potential Health Effects</b>
<b>0.1 ppm</b>	Transient bronchoconstriction <sup>1</sup> in sensitive exercising asthmatic individuals that ceases when exposure ceases.
<b>0.3 – 1 ppm</b>	Possible detection by taste or smell.
<b>0.75 ppm</b>	Transient lung function changes in healthy, moderately exercising, non-asthmatic individuals.
<b>1 – 2 ppm</b>	Lung function changes in healthy non-asthmatics. Symptoms in asthmatics would likely increase in severity. There may be a shift to clinical symptoms from changes detectable only via spirometry.
<b>3.0 ppm</b>	Easily detected odour.
<b>6 – 12 ppm</b>	May cause nasal and throat irritation.
<b>10 ppm</b>	Upper respiratory irritation, some nosebleeds.
<b>20 ppm</b>	Definitely irritating to the eyes; chronic respiratory symptoms develop; respiratory protection is necessary.
<b>50 – 100 ppm</b>	Maximum tolerable exposures for 30 – 60 minutes.
<b>greater than 100 ppm</b>	Immediate Danger to Life (NIOSH recommendation).

<sup>1</sup> Obtained from Alberta Health Services Acute Health Effects of Hydrogen Sulphide (H<sub>2</sub>S) and Sulphur Dioxide (SO<sub>2</sub>) June 2012 which was adapted from Technical Advisory Committee on Public Health and the Oil and Gas Industry, Environmental Public Health Manual for Oil and Gas Activities in Alberta, 2007.

**TECHNICAL DATA**

- Note:
1. There are no Canada Energy Regulator regulated wells in the Harvest Operations Corp. Hay River Field.
  2. Emergency Planning Zone(s) less than or equal to 50 metres will not be displayed on the map.
  3. Pipelines regulated by the Canadian Energy Regulator are owned by 1057533 Alberta Ltd. a wholly owned company of Harvest Operations Corp. Pipelines owned by 1057533 Alberta Ltd. are operated by Harvest Operations Corp.

CANADIAN ENERGY REGULATOR REGULATED PIPELINE LISTINGS																																					
CER Order #	Operator Code	From Location								To Location								Length (km)	Status	Substance	Outside Diameter (mm)	Inside Diameter (mm)	Wall Thickness (mm)	Material	Licenced MOP (kPa)	Licenced H <sub>2</sub> S (%)	Expected H <sub>2</sub> S (%)	Compressibility Factor (Z)	Release Volume (m <sup>3</sup> )	Group Release Volume (m <sup>3</sup> )	H <sub>2</sub> S Endpoint (km)	Distance to Critical Thermal Load of 4.73 kW/m <sup>2</sup> (km)	Distance to Flammability Extent of LEL/2	Explosive Overpressure to 6.89 kPa (km)	Pipeline Level	EPZ (km)	Modified EPZ
		LSD / Quarter	Section / Unit	Township / Block	Range / Primary	W / Letter	Meridian / Sheet	Facility	Valve	LSD / Quarter	Section / Unit	Township / Block	Range / Primary	W / Letter	Meridian / Sheet	Facility	Valve																				
AO-2-XO-C373-35-98	12625	B	76	H	94	I	9			D	52	H	94	I	9			2.98	O	OE	219.1	209.54	4.78	S	9930	0	0	n/a	n/a	n/a	0	0.09	NE	NE	0.09	No	
		D	52	H	94	I	9			C	51	H	94	I	9			0.18																			
		C	51	H	94	I	9			12	34	110	12	W	6			6.67																			
		12	34	110	12	W	6			11	36	110	12	W	6			3.67																			
		11	36	110	12	W	6			11	17	110	9	W	6			24.5																			
		Pipeline lengths listed above for CER line AO-2-XO-C373-35-98 are approximate. Total licenced pipeline length for this line is 38 km.																																			
XG-Z027-22-2011 XG-Z027-002-2014	12625	12	11	111	12	W	6	WE	BV	8	7	111	12	W	6		BV	6.6	O	SW	168.3	158.74	4.78	S	9930	0	0	n/a	n/a	n/a	0	0	0	0	0	No	
A0-01-XG-E024-02-2006 MO-026-2012 ZO-003-2020	12625	A	33	A	94	I	16	BE		13	32	112	12	W	6	BE		2.133	A	NG	168.3	158.7	4.8	S	103	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	No	

*Note: Locations of surface installations, valves and maximum operating pressures have been removed from the publicly posted version of the Emergency Response Plan for the security of operations and protection of private and confidential information.*

This Page Has Been Left Blank Intentionally

## PUBLIC / ENVIRONMENTAL PROTECTION

### LAND USE – EMERGENCY PLANNING DATA

The Hay River Area encompasses the area from Township 107 to Township 114, Range 10 to Range 12 west of the sixth Meridian on the Alberta side of the border and Series 94, Map Area I, Map Sheets 7 (Blocks I & J), 8 (Blocks I, J, K & L), 9 (Blocks A through L), 10 (Blocks A, B, G, H, I & J), 15 (Blocks A & B) & 16 (Blocks A, B, C & D) on the British Columbia side of the Border. Area is heavily forested and development is predominantly oil & gas development and forestry. A general overview of area stakeholders is listed below. A detailed analysis of surface developments within the calculated EPZ's is listed in the Confidential Stakeholder Information listed at the end of this section (note: only select plan holders will receive confidential stakeholder information). Stakeholders are made up of residents, businesses (and industrial operators), registered permit holders and recreational area users.

<b>Hay River</b>	
Number of Surface Developments	1 (1 Manned Oil & Gas Facility and camp)
Municipality(ies)	Northern Rockies Regional Municipality
	Mackenzie County (in AB for CER pipeline)
Industrial Operators	15 (1 within calculated EPZ)
Grazing Lease Holders	0
Traplines	1 (within calculated EPZ)
Wildlife Management Unit Areas	0 in BC / 2 WMU boundaries in AB not in EPZ
Forest Management Area	1
Water bodies	Little Hay River – <del>XXXXXXXXXX</del>
	Fire Creek – <del>XXXXXXXXXX</del>
	Numerous un-named creeks in the area
Closest Urban Centre to Harvest Field	Rainbow Lake, AB – approximately 70km southeast of the Harvest manned Battery at <del>XXXXXXXXXX</del>
Roadway(s)	<i>Note: Information that Harvest deems to be a security risk has been removed from the publicly posted version of the Emergency Response Plan for the security of operations and protection of private and confidential information.</i>

### AREA UNIQUE FEATURES

There are **no** unique features to the Hay River Area which require enhanced emergency management planning for Harvest Operations Corp. beyond what is currently addressed in this Site Specific Supplement.

### RECREATIONAL AREAS

There are **no** identified Recreational Areas within the operating portion of the Hay River Area for Harvest Operations Corp.



**ROADBLOCKS**

In the event of an emergency, the Incident Commander would identify the size of the emergency planning zone(s) based on the incident, surrounding conditions and/or on the well and pipeline tables in the Facility Data section.

Roadblock locations will be determined when an emergency is detected, the situation is understood and the hazards are identified. Roadblocks will be used to keep members of the public away from the hazardous area.

**TRANSIENT ACTIVITY**

Members of the public identified through Roving at time of an incident, will be treated as transients and provided with public safety instructions by Harvest Rover personnel. Industrial operator contact information is listed in the Area Industrial Operators section below.

**RECEPTION CENTRE(S)**

A Reception Centre is as a registration and inquiry centre for evacuated members of the public. It is not usually used as a location where evacuees are housed. In some situations where the number of evacuated public is small, a reception centre may not be established. In these cases, evacuees will be advised to evacuate to a safe area of their choice outside of the response area and advise Harvest of that location and how best to contact them. Harvest will provide a means by which the evacuees can obtain up-to-date information throughout the response.

To ensure a coordinated response, the Reception Centre(s) is ideally activated jointly by Harvest Operations Corp. and the Local Authority. These agencies have pre-established locations throughout the municipality and should be notified early to discuss site options. Based on location of operations, the most likely locations for a Reception Centre would not be within the geographic boundary of the Local Authority. Rainbow Lake is the nearest settlement to the Hay River Field and a location would be utilized there for a reception centre. Potential reception centres are listed below. Hotels/Motels may be considered in situations where immediate access is required or a location is required outside of normal business hours.

RECEPTION CENTRE(S)			
Centre	Address	Contact	Telephone #

*Note: Names, Phone numbers, communication channels and addresses (mailing and e-mail) not publicly posted by the owner, have been removed from the publicly posted Emergency Response Plan for the protection of private and/or confidential information.*

**AREA INDUSTRIAL OPERATORS**

Industrial operators within the Hay River Area boundaries are listed below. Operators who are within the calculated emergency planning zone are bolded.

AREA INDUSTRIAL OPERATORS		
Company	24 Hour Phone #	Main Phone

**SCHOOL DIVISION INFORMATION**

The Harvest Hay River Area is in a remote location without any residences within the operating area or calculated emergency planning zone(s). Due to the remote nature of the field, no school transportation department would utilize area roads for student bussing. Based on the remoteness of the area, no school division listing has been provided for this emergency response plan.

**PUBLIC INFORMATION PACKAGE**

Surface developments, operators and stakeholders within the calculated emergency planning zones for the Hay River Area were provided with the following Public Information Package. Identified surface developments and applicable government agencies were contacted via telephone and e-mail in March 2024 to obtain updated confidential emergency response information.

*Note: Names, Phone numbers, communication channels and addresses (mailing and e-mail) not publicly posted by the owner, have been removed from the publicly posted Emergency Response Plan for the protection of private and/or confidential information.*

**This Page Has Been Left Blank Intentionally**





## Hay River Area

Public Information Package

Annual Update: March 2024

### Contact Information

**If you suspect an EMERGENCY involving H<sub>2</sub>S or SO<sub>2</sub>, Shelter-In-Place and contact one of the following 24-hour numbers:**

**Harvest Operations Corp. 24 Hour Emergency Number  
1-800-760-2826**

**BC Energy Regulator (BCER) - 250-794-5200**

**Northern Rockies Regional District: 250-774-2541**

### Introduction

Harvest Operations Corp. ("Harvest") owns and operates assets in the Hay River area including wells, associated pipelines and an oil and gas battery located at b-76-H / 94-I-9. Harvest also owns two shut-in (cleaned, purged and suspended) wells in the Shekilie area. Future plans for assets in the Shekilie area include abandonment. To assist in our commitment to work in a safe and environmentally friendly manner, you are being provided with this information package as an identified potential land user in the area.

This package is designed to provide you with information about Harvest's operations within the Hay River Area, and provide details on actions which may be taken in the event of an emergency to ensure you are kept safe. Please familiarize yourself with our emergency response procedures, how you may be notified in the event of an emergency and potential public protection actions you may be asked to follow.

Harvest monitors its systems on a 24 hour basis; however, if you have concerns or notice anything out of the ordinary, please contact our 24 hour emergency number immediately and we will dispatch a Harvest representative to investigate. Examples of situations outside of normal operations may include, but are not limited to, unusual sounds (hissing/blowing/loud roaring), odours (slight or strong hydrocarbon smells), sights (fires/smoke/fog-vapour cloud/product pooling/sheen on water/dead vegetation) at or near our facilities.

By communicating emergency response details with Harvest, you consent to the collection and use of that data for the purposes of emergency response planning and execution. All information collected as part of our public involvement program is kept confidential as per Harvest's privacy policies and applicable legislation. Information is only used by Harvest or its emergency response partners or affiliates. Data may also be provided to applicable energy regulators who are governed by freedom of information and protection of privacy legislation.

A comprehensive Emergency Response Plan (ERP) has been developed and is maintained for the Hay River Area to ensure our primary objectives of Life Safety, Environmental Protection and Control and Containment are the driving factors in any emergency response situation.

### What to do if you suspect a problem

If you suspect a sour gas release (you can smell a rotten egg like odour), shelter-in-place, immediately call Harvest's 24 hour emergency number and follow the "Shelter-In-Place" instructions in this handout.

If sheltering is not an option, move away from the area by traveling at right angles to the wind until you are upwind of the source and immediately call Harvest's 24 hour emergency number. A Harvest representative will provide further instructions. Remember to stay away from any ignition sources, including your vehicle.

All other types of incidents should be immediately reported to Harvest. Public protection measures will be communicated at the time based on the incident type.

### Description of Operations

Production in the Hay River Field is sweet oil and gas, with trace (<40ppm) amounts of sour gas present after processing. Production is gathered at the Harvest Multiwell Battery located in b-76-H/94-I-9, then sales oil is pipelined across the Alberta border to a truck loading facility and gas is re-injected. Please refer to the attached map of the area and the corresponding emergency planning zones.

Emergency Planning Zones (EPZ) calculations are based on; Sour gas; Radiant Heat from a fire or explosion; and Distance to flammability extent (how far from the source product may still ignite and flashback). The following data is relevant for this area:



Summary of Operating Conditions and H <sub>2</sub> S in Hay River Area		
	Pipeline Info.	Well Info.
Licensed Maximum Operating Pressure	9930 kPa	N/A
Licensed H <sub>2</sub> S Concentrations	0 – 0.04 %	0%
Maximum H <sub>2</sub> S Release Volumes / Rates	0 m <sup>3</sup>	0 m <sup>3</sup> /sec
Distance to Critical Thermal Load of 4.73	0 – 0.19 km	0 – 0.08
Distance to Flammability Extent of LEL/2	0 – 0.1 km	0 – 0.02
Explosive Overpressure to 6.89 kPa	Not Exceeded	
Calculated Emergency Planning Zone (EPZ)	ROW – 0.19 km	0 – 0.08 km

**Responding to Potential Emergencies**

The possibility of a release of H<sub>2</sub>S to the atmosphere is remote because of the safety procedures, stringent designs and the standard of equipment that is in place at the operation. Nevertheless, to maximize public safety, Harvest's emergency response team is prepared to respond to any incident.

Harvest Operations is committed to public safety and operating in a safe and environmentally friendly manner. To ensure full preparedness to react to the remote possibility of a release from a well, pipeline or production facility that would threaten public safety, Harvest has developed an emergency response plan. The emergency response plan allows us to respond to all types of potential emergencies in an organized fashion, quickly and effectively. The emergency response plan has been developed in accordance with BC Energy Regulator (BCER) Oil and Gas Activities Act, Emergency Management Regulation. Part of these regulations is to classify an emergency as a specific level using the BCER Incident Classification Matrix (Table 1) below. These levels allow both the company and government organizations to respond effectively to public safety concerns.

**Hydrogen Sulphide (H<sub>2</sub>S)**

Characteristics and Dangers of Hydrogen Sulphide (H<sub>2</sub>S):

- Found in decaying organic matter, natural oil and gas, silos, sewers.
- Found as a gas at temperatures above -60°C.
- Colourless.
- Flammable - burns to form SO<sub>2</sub>.
- 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 or low lying areas.
- Extremely toxic.
- At lower concentrations (20-50 ppm) irritates mucous membranes (eyes, throat, lungs), causes headache, dizziness, nausea, may cause pulmonary edema (fluid in the lungs) upon prolonged exposure.
- High concentrations (500-1000 ppm) causes paralysis of the respiratory centre in the brain - breathing stops, suffocation occurs.
- This gas is dangerous because it kills the sense of smell very quickly and one is not aware of the level of concentration that is present.

General Health Effects of Hydrogen Sulphide (H <sub>2</sub> S)	
Concentration	Effects
0.01-0.3 ppm	Odour threshold
1-5 ppm	Moderate to strong offensive odour may create nausea, tearing of the eyes, headaches or loss of sleep upon prolonged exposure-effects are moderate
10 ppm	Ceiling Limit (B.C. WCB)

Table 1:

 <b>BCER Incident Classification Matrix</b>		Probability of Escalation or Control				
		Uncontrolled, control unlikely in near term	Escalation possible; under or imminent control	Escalation unlikely; controlled or likely imminent control	Escalation highly unlikely; controlled or imminent control	Will not escalate; no hazard; no monitoring required
Event or Consequence	<input type="checkbox"/> Major on site equipment or infrastructure loss <input type="checkbox"/> Persistent and malicious equipment damage or tampering <input type="checkbox"/> Liquid spill or gas release beyond site, affecting persons, property or the environment	Level 3 Incident	Level 3 Incident	Level 2 Incident	Level 2 Incident	Level 1 Incident
	<input type="checkbox"/> Major on-site equipment failure <input type="checkbox"/> Malicious equipment damage or tampering <input type="checkbox"/> Liquid spill or gas release beyond site, potentially affecting persons, property or the environment. <input type="checkbox"/> Occurrence of magnitude 4.5 or greater induced earthquake (felt at surface, probability must be recorded as 2 or higher)	Level 3 Incident	Level 2 Incident	Level 2 Incident	Level 1 Incident	Level 1 Incident
	<input type="checkbox"/> Major on site equipment damage <input type="checkbox"/> Kick size in excess of 3 cubic metres or shut-in casing pressure in excess of 1000 kilopascals <input type="checkbox"/> Persistent / multiple minor vandalism or security incidents <input type="checkbox"/> Liquid spill or gas release on site or potentially beyond site, not affecting persons, property or the environment	Level 2 Incident	Level 2 Incident	Level 1 Incident	Level 1 Incident	Minor Incident
	<input type="checkbox"/> Moderate on-site equipment damage <input type="checkbox"/> Minor vandalism or facility security incident <input type="checkbox"/> Liquid spill or gas release confined to site <input type="checkbox"/> Occurrence of magnitude 4.0 or greater induced earthquake (felt on surface, probability must be recorded as 2 or higher)	Level 2 Incident	Level 1 Incident	Level 1 Incident	Minor Incident	Minor Incident
	<input type="checkbox"/> No consequential impacts	Level 1 Incident	Level 1 Incident	Minor Incident	Minor Incident	No notification Required

## PUBLIC INFORMATION PACKAGE Hay River Area – 2024 Annual Update

General Health Effects of Hydrogen Sulphide (H <sub>2</sub> S) – Cont'd.	
Concentration	Effects
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 one or two breaths

Adapted from:  
Canada Safety Council Data Sheet "Hydrogen Sulphide," No. B-3.  
Alberta Provincial Board of Health "Guidelines for Action Regarding Hydrogen Sulphide."  
National Research Council of Canada, "Hydrogen Sulfide in the Atmospheric Environment:  
Scientific Criteria for Addressing its Effects on Environmental Quality," publication #18467.

### Sulphur Dioxide (SO<sub>2</sub>)

Characteristics and Health Affects of Sulphur Dioxide (SO<sub>2</sub>) is:

- This is a choking gas, unlike H<sub>2</sub>S, and one wants to move to an area where the discomfort is not experienced.
- Formed by the combustion of H<sub>2</sub>S 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 the eyes, nose and throat, causes difficulty in breathing and shortness of breath;
- Causes pulmonary edema at high concentrations - may be fatal; and
- Effects on heavy smokers are more severe.

General Health Effects of Sulphur Dioxide (SO <sub>2</sub> )	
Concentration	Effects
0.13 ppm	24 hour evacuation level (Min. Envir. Level B criteria)
0.34 ppm	One hour average evacuation level (Min. Envir. Level B criteria)
2 ppm	Eight hour Occupational Exposure Limit (BC WCB)
3-5 ppm	Odour Threshold
5 ppm	15 minute Occupational Exposure Limit (BC WCB)
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

Adapted from Canada Safety Council Data Sheet "Sulphur Dioxide," No. B-4.

### Crude Oil / Condensate

**Crude Oil** is a complex mixture of aliphatic and aromatic hydrocarbons containing low percentages of sulfur and trace amounts of nitrogen and oxygen compounds. The substance is a black sticky liquid with a strong hydrocarbon odour. Extremely flammable liquid and vapour. **Condensate** is a light petroleum liquid used to dilute heavier products. Colourless to brown liquid in colour with odours similar to oil

Inhalation or contact with material may irritate or burn skin and eyes. Fire may produce irritating, corrosive and/or toxic gases. Vapours may cause dizziness or suffocation. Spilled product may cause pollution and/or environmental damage if in significant enough quantities.

**Inhalation:** May cause drowsiness or dizziness. May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Excessive inhalation may cause headache, dizziness, confusion, loss of appetite and/or loss of consciousness.

**Eye:** May cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

**Skin:** Causes skin irritation. Signs/symptoms may include localized redness, swelling, and itching.

**Ingestion:** May be fatal if swallowed and enters airways. May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

### Thermal Radiation (Heat)

Impacts from heat sources, such as fire, will have varying degrees of physiological effects depending on the intensity of the heat and the time a person is exposed. If exposed to thermal radiation in an emergency situation, move away from the source as quickly as possible and seek medical advice as required. The following chart displays guidelines to thermal radiation exposure:

Time for physiological effects (on bare skin) to occur following exposure to specific thermal radiation levels		
Radiation Intensity (kW/m <sup>2</sup> )	Time for Severe Pain (seconds)	Time for 2 <sup>nd</sup> Degree Burns (seconds)
1	115	663
2	45	187
3	27	92
4	18	57
5	13	40
6	11	30
8	7	20
10	5	14
12	4	11

Federal Emergency Management Agency, U.S. Department of Transportation, and U.S. Environmental Protection Agency. 1988. *Handbook of Chemical Hazard Analysis Procedures*. Washington, D.C.: Federal Emergency Management Agency Publications Office.

### BC Energy Regulator (BCER)

The BCER regulates the oil and gas industry in British Columbia and has stringent regulations that cover public safety, environmental protection and oil and gas conservation. The BCER encourages companies and communities to work together to address public concerns or issues and will not grant licenses until petroleum companies have met their rigorous standards.

- If you require additional details about your rights as a neighbor to oil and gas operations or about how the BCER operates, the BCER would be happy to supply additional information.

### Click or Call Before You Dig



BC 1 Call is the link between the excavating community and the owners of underground facilities. Damage to buried infrastructure that creates a potential threat to the asset, people and environment is preventable. If you plan to dig contact your local One-Call centre for a locate request at:

[info@bc1c.ca](mailto:info@bc1c.ca) or 1-800-474-6886

**If you are planning to cross or dig within a Harvest pipeline right-of-way, a written crossing or encroachment agreement from Harvest may be required.**

### Public Protection Measures

Upon notification of a potential problem with one of Harvest's assets, a field representative will be dispatched immediately to investigate. If they determine the situation cannot be rectified immediately or public safety is at risk, the emergency response plan will be enacted and appropriate public protection measures put in to place. If you are contacted by a Harvest representative (either by telephone or in person) during a potential emergency situation, please follow their directions. Instructions will be given based on the type of emergency and your location in reference to that emergency, and are meant to ensure your safety. If you require assistance in executing the instructions provided, please inform the Harvest representative who will make arrangements for that assistance. Public protections



**PUBLIC INFORMATION PACKAGE**

**Hay River – 2024 Annual Update**

**Public Protection Measures – Cont'd.**

measures may include establishing roadblocks and site security; initiating shelter-in-place procedures; directing evacuation away from the area or instituting ignition procedures.

**Roadblocks / Site Security**

Roadblocks are established to isolate the identified emergency response zone. Members of the public, residents and businesses will be restricted from entering the emergency response zone to ensure their safety and allow response personnel to operate safely and to effectively respond to the emergency. Harvest will work with the Local Authority when establishing roadblocks to ensure the safety and security of your property.

**Shelter-In-Place Introduction**

Shelter-In-Place is the practice of going or remaining indoors during an outdoor release of a hazardous substance. The aim is to keep the public safe. Shelter-In-Place has been demonstrated to be the most effective public protection measure during the first few hours of a substance release where the public would be at higher risk outdoors. With Sheltering-In-Place the public places a barrier between themselves and the more hazardous substance outside. This barrier consists of both the actual structure and the fresh air within it. Effective Sheltering-In-Place actions are based on using a building that is built and maintained for typical Canadian winter weather conditions.

The goal of Shelter-In-Place is to reduce the transfer of air into and out of the building until either the hazard has passed or other emergency actions can be taken when appropriate.

There are various incidents, both man-made and natural that may result in the release of a hazardous substance. Such events include:

- Fire
- Motor vehicle accident
- Train derailment
- Industrial incident
- Natural disaster

Here are some examples of when you may be asked by emergency response personnel to Shelter-In-Place:

- An outdoor release may affect your building
- There is not enough time or warning to safely evacuate
- The release is expected to pass over the area quickly
- The source and nature of the release has yet to be determined
- A safe evacuation route has yet to be verified
- While awaiting for assistance to evacuate

It is important that instructions provided by the emergency response personnel are followed.

Those who have been advised to Shelter-In-Place will be notified if additional measures are required, and when it is "all-clear".

**Shelter-In-Place Instructions**

- Immediately gather everyone indoors and stay there.
- Close and lock all windows and outside doors.
- Extinguish indoor wood burning fires.
  - If possible, close flue dampers.
- **Turn off** appliances or equipment that either:
  - Blows out or uses indoor air, such as:
    - ❖ Bathroom and kitchen exhaust fans
    - ❖ Gas / wood fireplaces
    - ❖ Built-in vacuum systems
    - ❖ Gas / wood stoves
    - ❖ Clothes dryers
  - Sucks in outside air, such as:
    - ❖ Heating ventilation and air conditioning (HVAC) systems for apartments, commercial or public facilities
    - ❖ Fans for heat recovery ventilators or energy recovery ventilators (HRV/ERV)
- **Turn down** thermostats to the minimum setting and **turn off** air conditioners.
- Leave open all inside doors to allow for the exchange of internal air in the building.
- Avoid using the telephone, except for emergencies, so

that you can be contacted by emergency response personnel.

- Call Harvest's 24-hour emergency numbers listed on the front page of this handout:
  - ❖ If you experience symptoms or smell odours (so that we can address your concerns and adjust our response priorities)
  - ❖ If you have contacted fire, police or ambulance (so that response actions can be coordinated)
- Stay tuned to local radio and television for possible information updates.
- Do not leave the building until told to do so, even if you see people outside.
- If you are unable to follow these instructions, please notify Harvest emergency response personnel.
- After the hazardous substance has passed through the area, you will receive an "all-clear" message from the company emergency response personnel. You may also receive, if required, instructions to:
  - Ventilate your building by opening all windows and doors, turning on fans and turning up thermostats. During this time, the air outside may be fresher and you may choose to leave your building while the building is being ventilated.
  - Once the building is completely ventilated, return all equipment to normal settings and operation.

**Evacuation Instructions**

If the company deems it safe, evacuation from the emergency response zone may be the preferred public protection measure. Only evacuate if directed to do so, otherwise shelter-in-place. If you wish to voluntarily evacuate, inform the Harvest representative to ensure it is safe and the best direction to take.

If a Harvest representative directs you to evacuate, please do so immediately. Although you may appear to be in no danger, a shift in wind direction or a change in the emergency parameters could change the situation. If you are aware of place in the area that may be impacted by the emergency and not accessible by telephone (eg. Camp grounds, recreational area, current farming operations etc.), please advise the Harvest representative so they may arrange for those locations to be contacted by a member of our Rover/Evacuation team.

Evacuation instructions will include:

- Directions to leave the area using the safest route
- The location of the designated Reception Centre
- Establishing if you require evacuation assistance or transportation
- Determining if anyone else is expected at your location and how best to contact them to ensure they avoid the area.

Once you have evacuated the area, please proceed directly to the established Reception Centre and check in with the Harvest representative on site. Your check in will ensure you have safely left the area, provide you with further details about the situation and address any questions or concerns you may have.

**Ignition**

Ignition of the hazardous release is considered under pre-determined criteria. The decision to ignite would be done in consultation with the AER and is meant to reduce the risk of exposure to the hazard. Ignition of a sour gas flow to atmosphere must take place as soon as all personnel working at the site have cleared to a safe distance and one of the following conditions has been met:

- Evacuation of the Emergency Planning Zone cannot be accomplished.
- Monitoring results indicate H2S concentrations in excess of 15 parts per million (ppm) for 15 minutes in un-evacuated areas.
- Monitoring is not taking place due to unforeseen circumstances such as weather or communications breakdown.
- The release cannot be brought under control in the short term (ignition decision will be made in consultation with BCER).

## **AREA STAKEHOLDERS**

Area Stakeholders such as Grazing Lease Holders, Forest Management Agreement (FMA) Holders, Trappers, Wildlife Management Unit (WMU) Holders – Outfitters and Surface Development Occupants are only included in select (confidential) emergency response manuals. If your copy of the emergency response plan has been designated at confidential, a listing of Area Stakeholders will be included below.

## **SURFACE DEVELOPMENT INFORMATION**

Surface Development (Resident / Business) information gathered for locations within the calculated emergency planning zone within the Hay River Area are only included in select (confidential) emergency response manuals. If your copy of the emergency response plan has been designated at confidential, a listing of Surface Developments will be included below.

## **STAKEHOLDER / SURFACE DEVELOPMENT / PUBLIC COMMUNICATION**

In the event of an emergency situation that impacts members of the public, Harvest Operations will designate personnel to occupy the role of Telephoner to contact known members of the public who may be in proximity to the incident and provide applicable public protection messaging. Rover personnel may also be deployed to identify people not immediately accessible by telephone and provide public protection communications. Harvest Operations may also work with the Local Authority for the area, to communicate public protection measures. The Local Authority may utilize Media, Social Media, Contact Databases and Face-to-face contact methods of communication.

## **EMERGENCY PLANNING BASE AREA MAP - MAP NUMBERING SYSTEM**

Locations of surface developments (such as residences, businesses and manned facilities) have been annotated on the Emergency Planning Area Map with an Alpha identifier. Cross referencing of resident data listed in this ERP and its corresponding location on the map can be done by using the legal survey (LSD) location in Alberta (LSD-SEC-TWP-RGE W M) or the National Topographic System (NTS) in British Columbia (Quarter-Unit-Block/Primary-Letter-Sheet) and the assigned Alpha. Alpha identifiers begin at “A” in each section or block where surface developments are present and subsequent letters are assigned within the section or block as required.

Example:      12-36-71-6 W6M – A (Alberta)  
                    a-73-J/094-G-07 – A (British Columbia)

## **AREA MAPPING**

To assist Harvest responders during an alert or level of emergency, this Site-Specific Supplemental Section contains the following maps:

- General Area Map
- Emergency Planning Base Area Map (plastic pocket)

**This Page Has Been Left Blank Intentionally**



TRAPPER LIST			
Trapline	Name	Address	Telephone #
TR0756T017			

Note: As the BC Ministry of Forests no longer maintain a trapper list they are willing to provide to industry, trapline contacts may not be confirmed. If contact names and numbers cannot be confirmed (e.g. phone number is no longer in service) and research into available public dataset did not uncover additional contact numbers, the trappers are listed from historical datasets. Trappers who may be within the calculated emergency planning zone during an emergency who can't be reached by telephone will be treated as transients and provided with public protection information by Rover personnel.

*Note: Names, Phone numbers, communication channels and addresses (mailing and e-mail) not publicly posted by the owner, have been removed from the publicly posted Emergency Response Plan for the protection of private and/or confidential information.*



**WILDLIFE MANAGEMENT UNIT HOLDERS (WMU) – GUIDES/OUTFITTERS**

All WMU’s within the entire Hay River Field are listed for information purposes. Those Outfitters who operate within the calculated emergency planning zone are bolded.

<b>WILDLIFE MANAGEMENT UNIT HOLDERS (WMU) – GUIDES / OUTFITTERS</b>				
<b>WMU</b>	<b>Company</b>	<b>Contact</b>	<b>Address</b>	<b>Telephone #</b>
<b>Alberta</b>				
<b>British Columbia</b>				
There are no Guides / Outfitters within the Hay River Field in the province of British Columbia.				

*Note: Names, Phone numbers, communication channels and addresses (mailing and e-mail) not publicly posted by the owner, have been removed from the publicly posted Emergency Response Plan for the protection of private and/or confidential information.*



**GRAZING LEASE HOLDER(S)**

There are no Grazing Lease Holders with the Hay River Field.

Note: Grazing Lease Holders listed are sorted by LSD – Twp, Rge then LSD.

GRAZING LEASE HOLDER(S)				
GRL	Location	Name	Telephone #1	Telephone #2
---	---	---	---	---

**FOREST MANAGEMENT AGREEMENT (FMA) HOLDERS**

Forest Management Agreement FMA-Holders within the Hay River Field are listed below.

FOREST MANAGEMENT AGREEMENT (FMA) HOLDER(S)			
FMA Holder	Contact Name	24 Hour #	Telephone #1

**NON-RESIDENT LANDOWNERS**

Harvest’s Hay River operations are all located and Crown Land with no Freehold Landowners. All applicable Crown Land lease holders are listed above.

*Note: Names, Phone numbers, communication channels and addresses (mailing and e-mail) not publicly posted by the owner, have been removed from the publicly posted Emergency Response Plan for the protection of private and/or confidential information.*

## **CONFIDENTIAL SURFACE DEVELOPMENT OCCUPANTS**

Below is a **CONFIDENTIAL** report with details about surface developments within the emergency planning zone. This information must be kept secure at all times and should not be left in an area that the information can be easily lost, obtained by others or stolen.

Harvest Operations has prepared two confidential stakeholder reports for the surface developments within the Hay River area. One is a “Summary Report” meant to be a limited amount of key information about the surface development(s) and the second a more comprehensive recording of emergency response details for each surface development (“Surface Development Listing”). Which listing is included within your ERP binder will be dependent on your likely position within the Incident Command System structure during an emergency or need to possess confidential information. Refer to the distribution list to determine which plans contain which confidential report.

Both the Summary Report and Surface Development Listing are sorted as follows and as applicable:

In **Alberta** – by LSD

1. Meridian – Ascending order
2. Township – Ascending order
3. Range – Ascending order
4. Section – Ascending order
5. LSD – Ascending order
6. Alpha – Ascending order

In **British Columbia** – by NTS

1. Prime – Ascending order
2. Letter – Ascending order
3. Sheet – Ascending order
4. Block – Ascending order
5. Unit – Ascending order
6. Quarter – Ascending order
7. Alpha – Ascending order

For ease of identification of surface developments listed as Special Needs<sup>1</sup>, the special needs are highlighted with a red background.

---

<sup>1</sup> Special Needs - As per Alberta Energy Regulator (AER) Directive 71, those persons for whom early response actions must be taken because they require evacuation assistance, requested early notification, do not have telephones, require transportation assistance, have a language or comprehension barrier, or have specific medical needs. Special needs also include those who decline to give information during the public consultation process and any residences or businesses where contact cannot be made.

**This Page Has Been Left Blank Intentionally**