

# EMERGENCY RESPONSE RESOURCE BOOK CANADA

24-Hour Emergency Response Services

1.800. OIL.TANK  
(1.800.645.8265)



## **COMPANY QUALIFICATIONS**

Clean Harbors manages over three thousand environmental emergency responses or disaster recovery operations on land and water throughout North America each year. Whether it's a cleanup and removal of a single mercury bottle or a large-scale multiphase containment and cleanup of a coastal oil spill or damage from a hurricane, companies and governmental agencies trust our expertise and technical knowledge to handle any emergency with the highest regard to the environment and health and safety.

Since 1980, Clean Harbors has taken the lead in identifying the most effective, safe, and environmentally sound options for managing environmental emergencies. Our commitment to integrity and high performance standards has resulted in long-standing business relationships with government agencies, insurance companies, and public/private companies. With more than 100 service locations and over 48 waste management facilities in North America, Clean Harbors is your single source for the safest and most efficient management of any environmental emergency.

Emergencies can happen anywhere and anytime in facilities, on roadways or in waterways. When time and safety are of the essence, Clean Harbors is ready to take control of your emergency situation and make appropriate decisions that will save you time and money. Depending on the nature of the emergency, Clean Harbors can deploy mobilized central command centers and a national response team. Command centers are fully equipped with communication and computer equipment, and utilize a satellite link to Clean Harbors systems allowing the team to effectively coordinate all response activities, even in the most remote locations.

Public and private companies along with municipal, provincial, and federal government agencies trust Clean Harbors to handle their emergency response and disaster recovery needs because they know we have the experience, technical knowledge, and operational resources to get the job done right, while adhering to strict regulatory statutes as well as health and safety standards. From immediate response and containment to cleanup operations, Clean Harbors provides the manpower and equipment, logistical support, ICS integration, and operational oversight to manage any size environmental emergency.

Clean Harbors can rapidly deploy hundreds of experienced NFPA 472 Operations and Technician certified workers to meet the needs of any incident. Whatever the response requires, from Level C through Level A, we handle a wide range of hazardous materials including oil, gasoline, chemical, PCB's, and biological hazards.

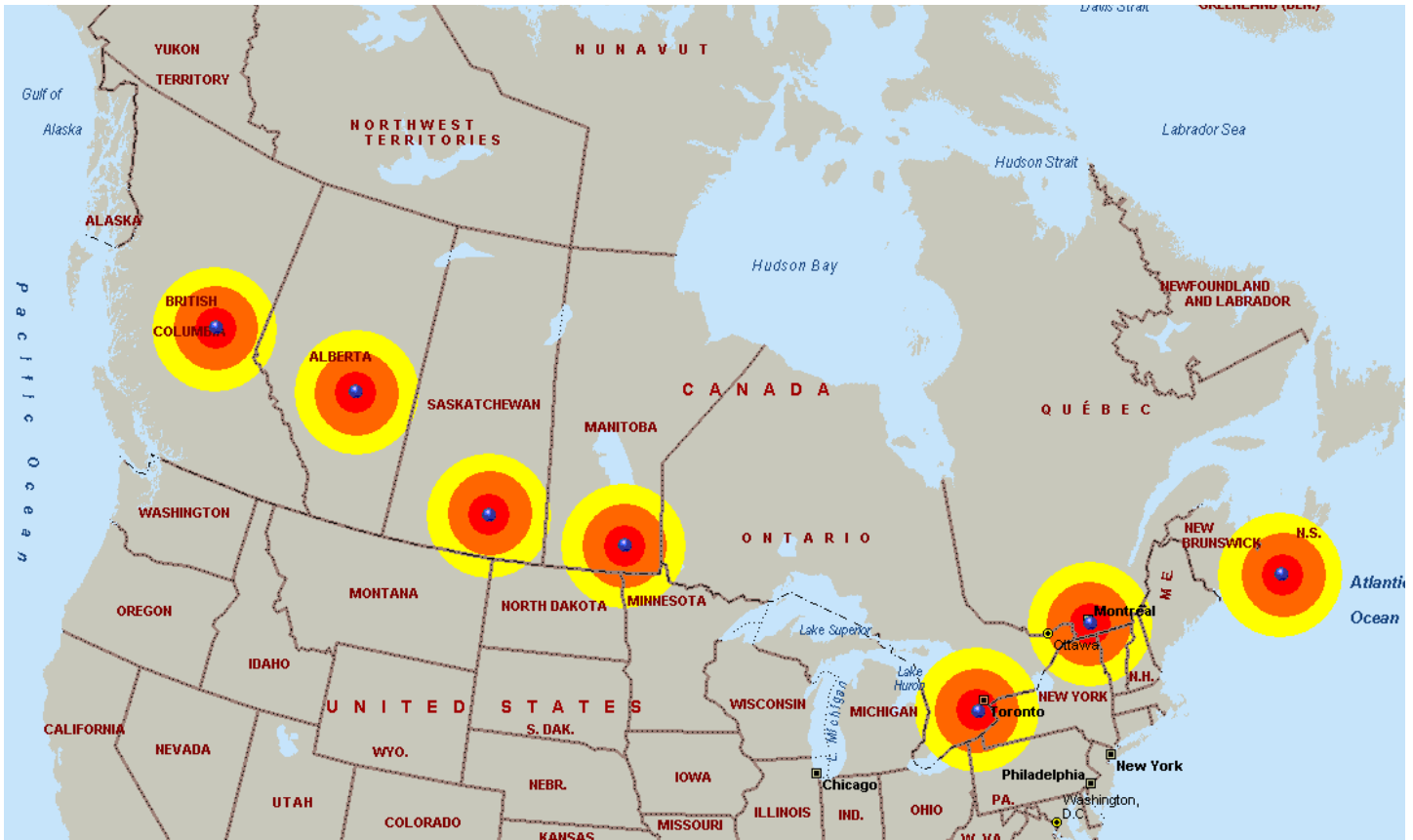
Clean Harbors typically responds to over-the-road incidents, punctured lines, tank overflows, leaking drums, and saddle tank spills, to major and catastrophic incidents such as large pipeline ruptures, ship groundings, tanker truck rollovers and facility releases that can easily threaten oceans, rivers, streams and lakes, as well as roadways, facilities, and public areas."

Clean Harbors offers its customers emergency response services along with the necessary backup components to complete an entire project. Services such as environmental remediation including surface remediation, groundwater restoration, underground storage tank management, and site decontamination are essential to successful emergency response activities. Our remedial programs are designed to provide both planned and emergency services to any environmental situation that can develop from an emergency spill.

One call to 1.800.OIL.TANK (1.800.645.8265) from anywhere across North America connects you to Clean Harbors' network of emergency response service centers. With our experience, technical knowledge and vast array of resources, Clean Harbors provides a complete solution. Customers know they are in good hands.

For more information about Clean Harbors and the services we provide, please visit our website at [www.cleanharbors.com](http://www.cleanharbors.com).

## EMERGENCY RESPONSE COVERAGE MAP



Coverage Map Updated February, 2015

**Red = 50 mile coverage area**  
**Orange = 100 mile coverage area**  
**Yellow = 150 mile coverage area**

Blue pegs = Canadian Service Centers  
Red Sea Gulls = Surrounding U.S. Service Centers

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## **STATEMENT OF PURPOSE**

This booklet is provided to assist all those involved in emergency response services. The booklet contains names and phone numbers of key personnel throughout Clean Harbors who may be needed "on" or "off" hours to support an emergency response incident.

The listing will be updated twice a year and distributed to managers and supervisors in all divisions involved in emergency response operations.

Clean Harbors Environmental Services, Inc.  
International Response Team  
42 Longwater Drive  
P.O. Box 9149  
Norwell, MA 02061-9149

Attn: John J. Rodier  
[rodier.john@cleanharbors.com](mailto:rodier.john@cleanharbors.com)

## SUPPORT CENTERS & CONTRACTORS

### SUPPORT CENTERS

#### INTERNATIONAL ER PROGRAM

Clean Harbors' International ER Program is designed to provide worldwide emergency and incident response services. For many companies, today's marketplace has expanded across the nation and beyond our borders, and the potential for exposure to environmentally related incidents has grown. These factors combined with the move by corporations to reduce overhead in order to increase margins, have put significant demands on corporate environmental managers.

#### International ER offers:

- Worldwide coverage - 24 hours a day
- One call - one invoice
- Management of risks and liabilities
- Complete management of incidents and spills
- Accurate and timely reporting systems



**Worldwide Coverage** - With in-house resources, Clean Harbors provides exceptional coverage throughout North America. Contractual relationships with subcontractors and engineers throughout the country combined with our disposal network result in worldwide coverage.

**One Call/One Invoice** - Clean Harbors tailored this program to enable customers "in need" to call one phone number 800.483.3718 and receive one invoice for an incident or spill.

**Management of Risks and Liabilities** - Through this program, Clean Harbors will take on and manage the risks associated with emergency incidents. The management of risks and liabilities will be through contractor selection, response communications and reporting, insurance programs, and the use of approved disposal facilities. Clean Harbors and the customer will openly discuss the risks and liabilities associated with this program.

Clean Harbors will control costs through 'pre-arranged spill agreements' and through the use of National ER Subcontractor Authorization Form. Initial authorization of resources will be based on what is initially known about the spill. Contractors will not be permitted to "over respond."

**Complete Management of Incidents and Spills** - Customers will be able to turn over the management and reporting of spills through the International ER Program. Clean Harbors will respond through this program; however, response times will vary and cannot be guaranteed. Clean Harbors' management of the incidents may carry over to the assessment and remediation of the sites, should remediation be required.

**Accurate and Timely Reporting Systems** - Clean Harbors will tailor a program to meet the customer's needs. Various report formats will be available.

**Summary of International ER Program** - Clean Harbors Environmental Services is a recognized leader in Emergency Response. Our expertise and ability to respond provide a complete, secure and cost-effective solution to your environmental needs.

## INTERNATIONAL RESPONSE TEAM

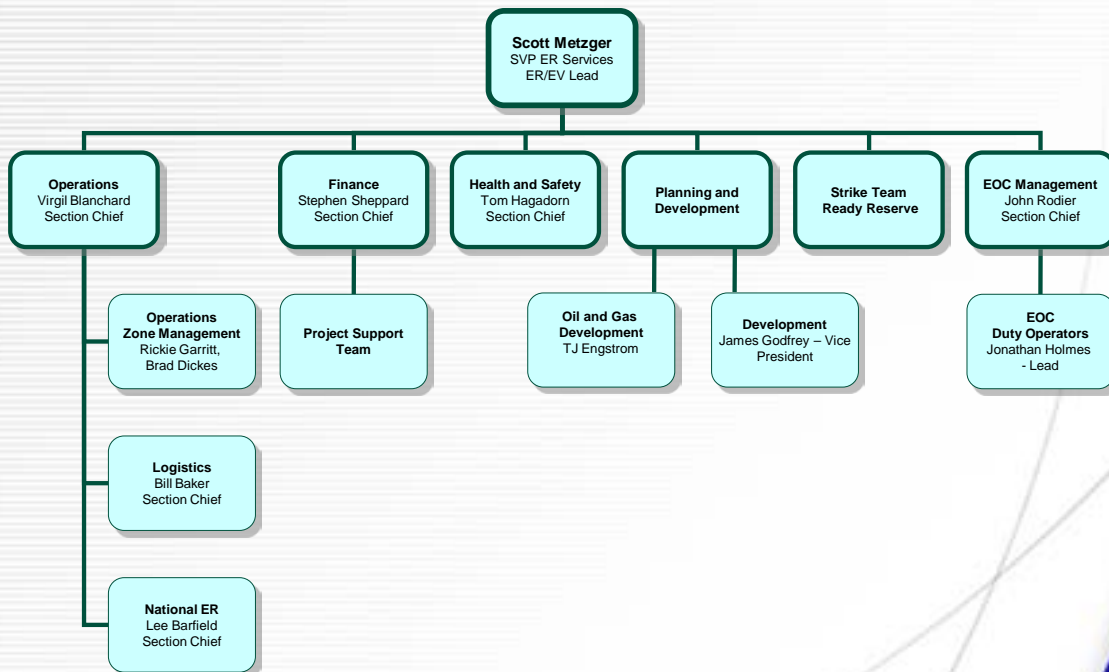
The International Response Team responds to large scale emergencies where more than the local support is required. The team consists of a Support & Planning crew to assist with large scale event readiness and response, as well as a regional network of managers to assist local Service Centers with response and readiness.

Perhaps the greatest benefit of the International Response Team is the ability to manage a large-scale event **without** interrupting base business. Local Service Centers can perform and manage the initial response until the transition is made to the International Response Team.

## INTERNATIONAL RESPONSE TEAM ORGANIZATIONAL CHART



# International Response Team





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<b>INTERNATIONAL RESPONSE CENTER INVENTORY</b>	<b>24-Hr. # 781.792.50</b>
<b>Mailing Address: 101 Philip Drive</b>	<b>24-Hr. # 800.645.82</b>
<b>Norwell, MA 02061</b>	<b>Fax # 781.878.80</b>
	<b>90</b>

Response centers hold dedicated response equipment to support the regional service centers in the event of a large spill, as well as specialty equipment to support a non-standard response. All equipment is readily available to be shipped to anywhere in the region.

Scott Metzger, VP Emergency Services  
 Virgil Blanchard, CHES Incident Commander  
 Stephen Sheppard, Finance Section Chief  
 Lee Barfield, National Emergency Response Manager  
 John Rodier, EOC Mgmt Section Chief  
 Rickie Garritt, Event Supervisor/Admin  
 James Godfrey, VP Emergency Response Services

Billy Baker, Logistics Section Chief  
 TJ Engstrom, Field Operations Manager  
 Michael Brajer, Project Support Team  
 Brad Dickes, Field Project Manager ER  
 Cory Blanchard, Field Project Manager ER

**Personnel Authorized to release equipment / materials / manpower, etc:**

Scott Metzger  
 Virgil Blanchard

Billy Baker  
 Stephen Sheppard

**40-Hour OSHA Trained Personnel:**

Supervisor 5

<b>Equipment List</b>	<b>Location</b>	<b>Capacity / Size / Key Features</b>	<b># of Units</b>
<b>(1) Vessels &amp; Marine Support Equipment</b>			
NAIAD	Providence, RI	19' 150hp Aluminum/Rib V310	1
ROV	Weymouth, MA	NA PVC/Aluminum V318	1
Stanley/LCM (Resolute)	Providence, RI	26' 2x115 Aluminum V320	1
JBF DIP420	Seymour, CT	27' 2x115 Aluminum V334	1
JBF DIP420	Houston, TX	27' 2x115 Aluminum V335	1
Stanley/LCM	New Iberia, LA	26' 2x130 Aluminum V351	1
Stanley/LCM	New Iberia, LA	26' 250hp Aluminum V352	1
Stanley/LCM	Benicia, CA	28' 2x200 Aluminum V353	1
Stanley/LCM	Sydney, MT	26' 225hp Aluminum V354	1
Svendsen/LCM	New Iberia, LA	27' 2x150 Aluminum V355	1
ATEC/LCM	New Iberia, LA	32' 2x150 Aluminum V356	1
Reynolds/LCM	Norwell, MA	30' 2x225 Aluminum V358	1
ATEC/LCM (Rebecca Anne)	New Iberia, LA	41' 2x275 Aluminum V359	1
LCM8 (Olivia D)	New Iberia, LA	70' 2x471 Steel V360	1
B.Bros/LCM	Puerto Rico	30' 2x200 Aluminum V361	1
B.Bros/LCM	New Iberia, LA	30' 2x200 Aluminum V362	1
B.Bros/LCM	New Iberia, LA	30' 2x200 Aluminum V364	1
B.Bros/LCM	New Iberia, LA	30' 2x200 Aluminum V365	1
B.Bros/LCM	New Iberia, LA	30' 2x200 Aluminum V366	1
B.Bros/LCM	Puerto Rico	30' 2x200 Aluminum V367	1
B.Bros/LCM	Compton, CA	30' 2x200 Aluminum V368 2335720 ME	1
B.Bros/LCM	Houston, TX	30' 2x200 Aluminum V369 2335721 ME	1
B.Bros/LCM	New Iberia, LA	30' 2x200 Aluminum V370 2335722 ME	1
Hanko	New Iberia, LA	24' 1x 150 Aluminum V232	1
Gator Tail	New Iberia, LA	18' 1x35 Aluminum V441	1
Jon Boats	New Iberia, LA	15' 1x25 Aluminum - on trailer	15

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<b>Equipment List Cont.</b>			
<b>Item Description / Manufacturer</b>	<b>Location</b>	<b>Capacity / Size / Key Features</b>	<b># of Units</b>
<b>(2) Motor Vehicles &amp; Vacuum Equipment</b>			
UTV	New Iberia, LA	Polaris Ranger 400cc (Red)	1
UTV	New Iberia, LA	Polaris Ranger 400cc (Red)	1
UTV	New Iberia, LA	Polaris Ranger XP 800cc (Camo)	1
UTV	New Iberia, LA	Polaris Ranger XP 800cc (Gray)	1
UTV	New Iberia, LA	Polaris Ranger XP 800cc (Red)	1
UTV	New Iberia, LA	Polaris Ranger XP 800cc (Camo)	1
UTV	New Iberia, LA	Polaris Ranger XP 800cc (Green)	1
UTV	New Iberia, LA	Polaris Ranger XP 800cc (Red)	1
UTV	New Iberia, LA	Polaris Ranger 500cc (Green)	1
UTV	New Iberia, LA	Honda Big Red 4x4 (Green)	1
UTV	New Iberia, LA	Honda Big Red 4x4 (Green)	1
UTV	New Iberia, LA	Honda Big Red 4x4 (Green)	1
<b>(3) Pumps and Pressure Equipment</b>			
Single Diaphragm Mudhen Pump	New Iberia, LA	3", Cap 88, Weight 186	2
Hot Pressure Washer	New Iberia, LA	2500 psi	3
Hotsy and Trash Pumps	New Iberia, LA	on flatbed 6158	
Compressors and 2" Pumps (w/hoses)	Memphis, TN	on horse trailer CH727	3
<b>(4) Oil Spill Containment Booms</b>			
Hard Boom	New Iberia, LA	Trailer 2514	6500
Hard Boom	New Iberia, LA	Trailer 6436	10300
Hard Boom	New Iberia, LA	16ft util trl	1000
Hard Boom	Mt Airy, LA	Trailer CH462	1600
Hard Boom	Norwell, MA	V358	600
Hard Boom	Arnegard, ND	Trailer 2334T	8500
Containment Boom	Williamsport, PA	CH683	2000
Containment Boom	Sydney, MT		1000
Containment Boom	Houston, TX	Trailer 526384T	7600
Containment Boom	Houston, TX	Trailer 6432	15000
Containment Boom	Carson, CA	Trailer 6468	11600
Containment Boom	Carson, CA	Trailer 6472	12300
Containment Boom	Carson, CA	Trailer SKT831	7200
Containment Boom	Clackamas, OR	Trailer 6471	11600
Containment Boom	Bridgeport, NJ	Trailer 7909T	8,700
Containment Boom	Bridgeport, NJ	Trailer 15003T	7700
Containment Boom	Bridgeport, NJ	On Ground	8200
Containment Boom	Denver, CO	Trailer 6469	12500
<b>(5) Environmental Monitoring Equipment</b>			

**1.800. OIL.TANK (1.800.645.8265) – 24-HR WORLDWIDE EMERGENCY RESPONSE #**

<b>Equipment List Cont. Item Description / Manufacturer</b>	<b>Location</b>	<b>Capacity / Size / Key Features</b>	<b># of Units</b>
<b>(6) Recovery Equipment</b>			
VOSS	Lake Charles, LA	JBF portable	1
VOSS	New Iberia, LA	JBF portable	1
Brush Skimmer	New Iberia, LA	Hydraulic Lamor 5160	12
Drum Skimmer	New Iberia, LA	Curucial Skimmer 1D18p-36	16
Elastec Drum Skimmer	New Iberia, LA	TDS 118	4
Rope Mop Skimmer (AIR)	New Iberia, LA	C1-135A	1
Rope Mop Skimmer	New Iberia, LA	C-14-DRL	5
<b>(7) Beach or Earth Cleaning and Excavating Equipment</b>			
<b>(8) Generators / Compressors / Light Towers</b>			
Rigid Compressor for Skimmers	Weymouth, MA	10 CFM, Wheelbarrow	20
<b>(9) Health and Safety Equipment</b>			
Portable Washroom Stations	Arnegard, ND	portable bathroom/shower	1
Portable Washroom Stations	Baton Rouge, LA	portable bathroom/shower	4
Portable Washroom Stations	Port Arthur, TX	portable bathroom/shower	1
<b>(10) Communications</b>			
Satellite Phone	Norwell, MA	Iridium 9505A	4
Satellite Phone	Sparks, NV	Iridium 9505A	2
Satellite System	Norwell, MA	Internet, Phone Capable	1
<b>(11) Miscellaneous</b>			
Flat Bed	New Iberia, LA	40 ft 1990	1
Utility trailer	New Iberia, LA	CH718 pamu	1
Pace Command Trailer	Houston, TX	CH737 RED 24'	1
Pace Command Trailer	Bridgeport, NJ	CH736 24'	1
Pace Command Trailer	Cincinnati, OH	CH735 24'	1
Pace Command Trailer	New Iberia, LA	CH734 24'	1
Mobile Incident Command Unit	Avard, OK	40', Wired for Internet, Phone, UHF/VHF 6169	1
Mobile Incident Command Unit	Chandler, AZ	40', Wired for Internet, Phone, UHF/VHF 6201	1
Mobile Incident Command Unit	New Iberia, LA	40', Wired for Internet, Phone, UHF/VHF 6202	1

## EASTERN CANADA SERVICE CENTERS



**1.800. OIL.TANK (1.800.645.8265) – 24-HR WORLDWIDE EMERGENCY RESPONSE #**

<b>DARTMOUTH SERVICE CENTER</b>	<b>24-Hr. #</b>	<b>902.481.0842</b>
<b>110 Thornhill Drive</b>	<b>24-Hr. #</b>	<b>800.645.8265</b>
<b>Dartmouth, NS B3B 1S7</b>	<b>Fax #</b>	<b>902.481.0873</b>

EPA / Federal ID #: N/A

**Personnel Authorized to release equipment / materials / manpower, etc:**

Brett Herman (DOSS)  
 Daniel Hamel (FSS)  
 Sandra Armstrong (FAM)  
 Ross Dargavel (Foreman)

**40-Hour OSHA Trained Personnel:**

Supervisor	0
Foreman	1
Equipment Operator	1
Field Technician	3

<b>Equipment List</b>							
<b>Item Description / Manufacturer</b>	<b>Location</b>	<b>Capacity / Size / Key Features</b>	<b># of Units</b>	<b>A</b>	<b>T</b>	<b>P</b>	<b>D</b>
<b>(1) Vessels &amp; Marine Support Equipment</b>				<b>None</b>			
			<b>N/A</b>				
<b>(2) Motor Vehicles &amp; Vacuum Equipment</b>							
Vac SJ	Dartmouth	3000 gal (32509 & 79460)	2	Y	Y	N	N
Air mover	Dartmouth	2500 gal - 5800 cfm - wet or dry (4176)	1	Y	Y	N	N
Air Mover (Dry Only)	Dartmouth	2500 gal - 2450 cfm - dry only (site truck only)	1	Y	Y	N	N
Tractor	Dartmouth	Sleeper	1	Y	Y	N	N
Roll Off Frame	Dartmouth	Single Frame	1	Y	Y	N	N
Vac Trailer	Dartmouth	5000 gal	0	Y	Y	N	N
Stainless Steel Tanker	Dartmouth	5000 gal	0	Y	Y	N	N
P/ U Truck	Dartmouth	1 tonne	2	Y	Y	N	N
ER Trailer	Dartmouth	16 Foot Enclosed Trailer	1	Y	Y	N	N
John Deer Farm Tractor	Dartmouth	4 Wheel Drive, Unit EQ1213	1	Y	Y	N	N
<b>(3) Pumps and Pressure Equipment</b>							
Hotzy Pressure Washer Trailer	Dartmouth	3500 PSI - Hot / Cold Trailer Mounted	1	Y	Y	N	N
Air Diaphragm Pumps	Dartmouth	2 inch and 3 inch	1	Y	Y	N	N
<b>(4) Oil Spill Containment Booms</b>							
Variety of Pads, Boom, Absorbent	Dartmouth						
<b>(5) Environmental Monitoring Equipment</b>							
5 gas meter	Dartmouth	MSA Multi Gas Meter	1	Y	Y	N	N
H2S Personnal Badges	Dartmouth	MSA H2S Badges	4	Y	Y	N	N
<b>(6) Recovery Equipment</b>							
Elastic Double Drum Skimmer	Dartmouth	Air Operated, Double Drum Oil Skimmer	1	Y	Y	N	N
<b>(7) Beach or Earth Cleaning and Excavating Equipment</b>							
<b>(8) Generators / Compressors / Light Towers</b>							

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<b>Equipment List Continued.</b>				
<b>(9) Health and Safety Equipment</b>				
Retrival Winch 100'	Dartmouth		1	Y Y N N
Tripod	Dartmouth		1	Y Y N N
SCBA & Bottles	Dartmouth		4	Y Y N N
SABA	Dartmouth		2	Y Y N N
<b>(10) Communications</b>				
Cell Phones	Dartmouth		7	Y Y N N
Intrinsically Safe Radios	Dartmouth		2	Y Y N N
<b>(11) Miscellaneous</b>				
Oil Hoses	Dartmouth	2", 3", 4"	700'	Y Y N N
Chem Hoses	Dartmouth	2",3", 4"	700'	Y Y N N
<b>Emergency Response Subcontractors</b>				

**1.800. OIL.TANK (1.800.645.8265) – 24-HR WORLDWIDE EMERGENCY RESPONSE #**

<b>BURLINGTON SERVICE CENTER</b> 1790 Ironstone Drive Burlington, ON L7L 5V3	<b>43.33 N - 79.80 W</b>	24-Hr. # 24-Hr. # Fax #	905.332.1111 800.645.8265 905-315-5633
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Daniel Rockel, General Manager

EPA / Federal ID #: N/A

**Personnel Authorized to release equipment / materials / manpower, etc:**

Chris Havens (FS Coordinator)  
Dan Rockel (FSGM)  
Brett Herman (DOSS)

Tyrone Heiman (FSS)  
Gary Gaston (FSS)

Scott Foreman (FS Supervisor)  
Blair Dunlop (FS Supervisor)

**40-Hour OSHA Trained Personnel:**

Supervisor	2
Foreman	3
Equipment Operator	6
Field Technician	5

<b>Equipment List</b>						
<b>Item Description / Manufacturer</b>	<b>Location</b>	<b>Capacity / Size / Key Features</b>	<b># of Units</b>	<b>A</b>	<b>T</b>	<b>P D</b>
<b>(1) Vessels &amp; Marine Support Equipment</b>						
Power Workboat, Alweld	Burlington	16', 25HP, AWLCO762H607, V313	1	Y	Y	N N
				Y	Y	N N
Drum Skimmer	Burlington	Drum Skimmer	1	Y	Y	N N
<b>(2) Motor Vehicles &amp; Vacuum Equipment</b>						
Turbo Vacuum Trailer (SS,Wet)	Burlington	PressVac - 7,500 gal. (2600 CFM)	1	Y	Y	N N
Turbo Vacuum Trailer (Wet)	Burlington	Cusco - 4,000 gal. (3800 CFM)	1	Y	Y	N N
Turbo Vacuum Loader (SS, Wet/Dry)	Burlington	Cusco - 3,000 gal. (5300 CFM)	3	Y	Y	N N
Cube Van	Burlington	Ford E450	2	Y	Y	N N
Tractor with Sleeper	Burlington	Tractors	2	Y	Y	N N
Pick-Up Trucks	Burlington	Ford F350/F250/Dodge 3500	6	Y	Y	N N
Pick-Up Trucks	Burlington	Ford F150	1	Y	Y	N N
Boom Trailer	Burlington	Boom Trailer	2	Y	Y	N N
Spill Trailers	Burlington	Spill Trailers	3	Y	Y	N N
Hotsy on Trailer	Burlington	3,500 PSI	3	Y	Y	N N
				Y	Y	N N
High Pressure Water Blaster	Burlington	15,000 PSI (1 trailer mount, 1 straight truck)	2	Y	Y	N N
<b>(3) Pumps and Pressure Equipment</b>						
SS Diaphragm pump	Burlington	2" Stainless Steel	1	Y	Y	N N
Diaphragm pump	Burlington	3" Cast Aluminum	1	Y	Y	N N
<b>(4) Oil Spill Containment Booms</b>						
Oil Spill Containment Boom	Burlington	19" Optimax 1 boom	1000	Y	Y	N Y

**1.800. OIL.TANK (1.800.645.8265) – 24-HR WORLDWIDE EMERGENCY RESPONSE #**

<b>Equipment List Cont.</b>							
<b>Item Description / Manufacturer</b>	<b>Location</b>	<b>Capacity / Size / Key Features</b>	<b># of Units</b>	<b>A</b>	<b>T</b>	<b>P</b>	<b>D</b>
<b>(5) Environmental Monitoring Equipment</b>							
Gastec Pump	Burlington	Sample Pump	2	Y	Y	N	N
MSA 4-gas with PID	Burlington	MSA, Sirius 4-gas air monitor with PID	2	Y	Y	N	N
Rattler H2S Personal Monitor	Burlington	H2S Badges	10	Y	Y	N	N
IS IBRID 4-gas monitor with PID	Burlington	IS 4-gas monitor with PID	1	Y	Y	N	N
Pyrolyzer	Burlington	Pyrolizer	1				
<b>(6) Recovery Equipment</b>							
Portable Tanks	Burlington	500 gallon Poly	1	Y	Y	N	N
Cement Tank	Burlington	8000 gallon	1	Y	Y	N	N
<b>(7) Beach or Earth Cleaning and Excavating Equipment</b>							
Skid Steer	Burlington	Case 1845C , Skidsteer	1	Y	Y	N	N
<b>(8) Generators / Compressors / Light Towers</b>							
5000 Watt gas Generator	Burlington	5000 Watt	1	Y	Y	N	N
Tow Behind Compressors	Burlington	185 cfm	2	Y	Y	N	N
<b>(9) Health and Safety Equipment</b>							
Confined Space Retrievals	Burlington	DBI/SALA Tripod	4	Y	Y	N	N
<b>(10) Communications</b>							
Company 2-ways	Burlington	Telus (Nextel)	20	Y	Y	N	N
<b>(11) Miscellaneous</b>							
6" Hard Pipe	Burlington	6" Bush Hog Hard Pipe	450'	Y	Y	N	N



**1.800. OIL.TANK (1.800.645.8265) – 24-HR WORLDWIDE EMERGENCY RESPONSE #**

<b>WINNIPEG SERVICE CENTER</b>	<b>49.90 N - 97.14 W</b>	<b>24-Hr. #</b>	<b>204.231.9448</b>
<b>45 Terracon Place</b>		<b>24-Hr. #</b>	<b>800.645.8265</b>
<b>Winnipeg, MB R2J 4B3</b>		<b>Fax #</b>	<b>204.233.4177</b>

Alfio Corvino, General  
Manager

EPA / Federal ID #: N/A

**Personnel Authorized to release equipment / materials / manpower, etc:**

Alfio Corvino

**40-Hour OSHA Trained Personnel:**

Supervisor	2	1 Supervisor trained as Hazmat Technicain
Equipment Operator	3	
Field Technician	2	

Equipment List							
Item Description / Manufacturer	Location	Capacity / Size / Key Features	# of Units	A	T	P	D
<b>(1) Vessels &amp; Marine Support Equipment</b>							
Drum Skimmer	Winnipeg	48"	1	Y	Y	N	N
<b>(2) Motor Vehicles &amp; Vacuum Equipment</b>							
Vacuum Straight Truck	Winnipeg	10,000L Tandem	1	Y	Y	N	N
High Powered Vacuum	Winnipeg	10,000L Tridem Large Capacity	1	Y	Y	N	N
Pick-Up Trucks	Winnipeg	GMC	3	Y	Y	N	N
Hotsy on Trailer	Winnipeg	3,500 PSI	1	Y	Y	N	N
660,000 BTU Steamer	Winnipeg	3,000 PSI	1	Y	Y	N	N
15,000 PSI Waterblast Unit	Winnipeg	15,000 PSI	1	Y	Y	N	N
Wet/Dry Vac	Winnipeg	5700 CFM	1	Y	Y	N	N
Hydro Vac	Winnipeg	5700 CFM	1	Y	Y	N	N
Response Trailer - Stocked	Winnipeg		1	Y	Y	N	Y
<b>(3) Pumps and Pressure Equipment</b>							
Diaphragm Pump for Fuels	Winnipeg	2"	1	Y	Y	N	N
Diaphragm Pump for Corrosives	Winnipeg	2"	1	Y	Y	N	N
Diaphragm Pump	Winnipeg	3"	2	Y	Y	N	N
Trash Pump	Winnipeg	2"	2	Y	Y	N	N
<b>(4) Oil Spill Containment Booms</b>							
<b>(5) Environmental Monitoring Equipment</b>							
4/5 Gas Meters	Winnipeg	MSA	2	Y	Y	N	N
Gastech Monitors	Winnipeg		1	Y	Y	N	N
H2S Meters	Winnipeg	MSA	2				
<b>(6) Recovery Equipment</b>							
Open top drums	Winnipeg	205 L	20	Y	Y	Y	N
Closed Top Drums	Winnipeg	205L	12	Y	Y	Y	N
Poly Drums	Winnipeg	205L	4	Y	Y	N	N
Overpack	Winnipeg	320L	3	Y	Y	N	N
Poly Tank	Winnipeg	500 Gal	1	Y	Y	N	N

**1.800. OIL.TANK (1.800.645.8265) – 24-HR WORLDWIDE EMERGENCY RESPONSE #**

<b>Equipment List Cont.</b>							
<b>Item Description / Manufacturer</b>	<b>Location</b>	<b>Capacity / Size / Key Features</b>	<b># of Units</b>	<b>A</b>	<b>T</b>	<b>P</b>	<b>D</b>
<b>(8) Generators / Compressors / Light Towers</b>							
5K Generator	Winnipeg	Wacker 5K	1	Y	Y	Y	N
Compressor	Winnipeg	Sullivan Palatek 220cfm	1				
<b>(9) Health and Safety Equipment</b>							
Confined Space Entry Gear	Winnipeg		2	Y	Y	Y	N
<b>(10) Communications</b>							
<b>(11) Miscellaneous</b>							
Mercury Vacuum	Winnipeg		1	Y	Y	Y	Y
HEPA Vacuum	Winnipeg		2	Y	Y	Y	Y
Dry Ice Blaster	Winnipeg	Cold Jet	1	Y	Y	Y	Y

**1.800. OIL.TANK (1.800.645.8265) – 24-HR WORLDWIDE EMERGENCY RESPONSE #**

<b>VILLE STE-CATHERINE SERVICE CENTER</b>				<b>24-Hr. #</b>	<b>450-632-6640 ext3</b>			
<b>6785 route 132</b>				<b>24-Hr. #</b>	<b>450-632-6640 ext3</b>			
<b>Ste-Catherine, Qc J5C1b6</b>				<b>Fax #</b>	<b>450-632-1055</b>			
Luc Mcsween, General Manager				EPA / Federal ID #:	N/A			
<b>Personnel Authorized to release equipment / materials / manpower, etc:</b>								
Emilien Lepage Luc Mscween								
<b>40-Hour OSHA Trained Personnel:</b>								
Supervisor			3					
Equipment Operator			13					
Field Technician			6					
<b>Equipment List</b>								
<b>Item Description / Manufacturer</b>	<b>Location</b>	<b>Capacity / Size / Key Features</b>	<b># of Units</b>	<b>A</b>	<b>T</b>	<b>P</b>	<b>D</b>	
<b>(1) Vessels &amp; Marine Support Equipment</b>			<b>0</b>					
<b>(2) Motor Vehicles &amp; Vacuum Equipment</b>								
Turbo Vacuum Trailer (SS,Wet)	VSC	Cusco - 3,500 gal. (2600 CFM)	1	Y	Y	N	N	
Turbo Vacuum Trailer (ss Wet/dry)	VSC	5000 gallons cusco	1	Y	Y	N	N	
Cube Van	VSC	Ford E450	1	Y	Y	N	N	
Shell Tanker (SS) vac 800cfm	VSC	5,000 gal	6	Y	Y	N	N	
Tractor with Sleeper	VSC	Tractors	6	Y	Y	N	N	
Pick-Up Trucks	VSC	Ford F350/F250	3	Y	Y	N	N	
Hotsy on Trailer	VSC	3,500 PSI	2	Y	Y	N	N	
High Pressure Water Blaster	VSC	17,500 PSI	0	Y	Y	N	N	
<b>(3) Pumps and Pressure Equipment</b>								
SS Diaphragm pump	VSC	3" Stainless Steel	1	Y	Y	N	N	
Diaphragm pump	VSC	2" Cast Aluminum	1	Y	Y	N	N	
<b>(4) Oil Spill Containment Booms</b>								
Oil Spill Containment Boom	VSC	19" Optimax 1 boom	200	Y	Y	N	Y	

**1.800. OIL.TANK (1.800.645.8265) – 24-HR WORLDWIDE EMERGENCY RESPONSE #**

<b>Equipment List Cont.</b>							
<b>Item Description / Manufacturer</b>	<b>Location</b>	<b>Capacity / Size / Key Features</b>	<b># of Units</b>	<b>A</b>	<b>T</b>	<b>P</b>	<b>D</b>
<b>(5) Environmental Monitoring Equipment</b>							
Gastec Pump	VSC	Sample Pump	1	Y	Y	N	N
MSA 4-gas with PID	VSC	MSA, Sirius 4-gas air monitor with PID	1	Y	Y	N	N
Q-Rae - 4 gas Monitor	VSC	Q-Rae 4 - gas air monitor	6	Y	Y	N	N
<b>(6) Recovery Equipment</b>							
<b>(7) Beach or Earth Cleaning and Excavating Equipment</b>							
<b>(8) Generators / Compressors / Light Towers</b>							
<b>(9) Health and Safety Equipment</b>							
Confined Space Retrievals	VSC	DBI/SALA Tripod	2	Y	Y	N	N
<b>(10) Communications</b>							
Company 2-ways	VSC	Telus (Nextel)	5	Y	Y	N	N
<b>(11) Miscellaneous</b>							

## WESTERN CANADA SERVICE CENTERS



**1.800. OIL.TANK (1.800.645.8265) – 24-HR WORLDWIDE EMERGENCY RESPONSE #**

<b>PRINCE GEORGE SERVICE CENTER</b>	<b>24-Hr. #</b>	<b>250.563.5882</b>
<b>1-405 McAloney Road</b>	<b>24-Hr. #</b>	<b>800.645.8265</b>
<b>Prince George, BC, V2K 4L2</b>	<b>Fax #</b>	<b>250.563.5884</b>

Clint Tuftin, Area Manager

EPA / Federal ID #: N/A

**Personnel Authorized to release equipment / materials / manpower, etc:**

Clint Tuftin (Field Operations Manager)

**40-Hour OSHA Trained Personnel:**

Supervisor	4
Foreman	2
Equipment Operator	15
Field Technician	6

Equipment List							
Item Description / Manufacturer	Location	Capacity / Size / Key Features	# of Units	A	T	P	D
<b>(1) Vessels &amp; Marine Support Equipment</b>							
<b>(2) Motor Vehicles &amp; Vacuum Equipment</b>							
Pick-Up Truck	Prince George	791340 : 2012 Ford	1	Y	Y	N	N
Pick-Up Truck	Prince George	791349 : 2012 Ford	1	Y	Y	N	N
Pick-Up Truck	Prince George	793024: 2002 Chevy	1	Y	Y	N	N
Pick-Up Truck	Prince George	793140: 2004 Ford	1	Y	Y	N	N
Pick-Up Truck	Prince George	793170: 2004 GMC	1	Y	Y	N	N
Pick-Up Truck	Prince George	7910413: 2008 Ford	1	Y	Y	N	N
Pick-Up Truck	Prince George	7910753: 2009 Ford	1	Y	Y	N	N
Pick-Up Truck	Prince George	7910866: 2009 Ford	1	Y	Y	N	N
Pick-Up Truck	Prince George	80106: 2012 Ford	1	Y	Y	N	N
Pick-Up Truck	Prince George	80107: 2012 Ford	1	Y	Y	N	N
Pick-Up Truck	Prince George	80108: 2012 Ford	1	Y	Y	N	N
Wet/Dry PresVac	Prince George	7911 Kenworth	1	Y	Y	N	N
Wet/Dry PresVac	Prince George	79628 Kenworth	1	Y	Y	N	N
Wet/Dry PresVac	Prince George	791172 Kenworth	1	Y	Y	N	N
Forklift	Prince George	792040 Nissan	1	Y	Y	N	N
Office Trailer	Prince George	792041	1	Y	Y	N	N
Support Trailer	Prince George	792239	1	Y	Y	N	N
Support Trailer	Prince George	792241	1	Y	Y	N	N
Drop-Deck Trailer	Prince George	794040	1	Y	Y	N	N
Utility Trailer	Prince George	794058	1	Y	Y	N	N
Utility Trailer	Prince George	794083	1	Y	Y	N	N
Drop-Deck Trailer	Prince George	794124	1	Y	Y	N	N
Washroom	Prince George	796005	1	Y	Y	N	N
Pick-Up Truck	Mackenzie	791348 : 2012 Ford	1	Y	Y	N	N
Pick-Up Truck	Mackenzie	793016 : 1999 Ford	1	Y	Y	N	N
Hyrdo Vac Unit	Mackenzie	791145 Western Star	1	Y	Y	N	N
<b>(3) Pumps and Pressure Equipment</b>							
Diaphragm pump	Prince George		4	Y	Y	N	N
Gorman Rump Pumps (4x6 & 8x6)	Mackenzie		2	Y	Y	N	N
High Pressure Unit	Prince George	796028 10-15K International	1	Y	Y	N	N
High Pressure Unit	Prince George	796033 15-20K International	1	Y	Y	N	N
High Pressure Unit	Prince George	791030 15K Freightliner	1	Y	Y	N	N
High Pressure Unit	Mackenzie	79140 10-15K Kenworth	1	Y	Y	N	N
High Pressure Unit	Mackenzie	796150 15-20K Kenworth	1	Y	Y	N	N

**1.800. OIL.TANK (1.800.645.8265) – 24-HR WORLDWIDE EMERGENCY RESPONSE #**

Equipment List Cont.				A	T	P	D
Item Description / Manufacturer	Location	Capacity / Size / Key Features	# of Units				
<b>(5) Environmental Monitoring Equipment</b>							
<b>(6) Recovery Equipment</b>							
<b>(7) Beach or Earth Cleaning and Excavating Equipment</b>							
<b>(8) Generators / Compressors / Light Towers</b>							
<b>(9) Health and Safety Equipment</b>							
PPE (Full Array)	Prince George			Y	Y	N	N
<b>(10) Communications</b>							
2-way Radios	Prince George		14	Y	Y	N	N
<b>(11) Miscellaneous</b>							
Assorted chemical for neutralization	Prince George			Y	Y	N	N
Emergency Response Trailer	Prince George		1	Y	Y	N	N

**1.800. OIL.TANK (1.800.645.8265) – 24-HR WORLDWIDE EMERGENCY RESPONSE #**

<b>EDMONTON SERVICE CENTER</b> 15715-121A Ave  Edmonton, AB	<b>24-Hr. #</b> <b>24-Hr. #</b> <b>Fax #</b>	<b>780-451-6969</b> <b>587-984-7101</b> <b>780-451-6947</b>
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Joshua Perry, Branch Manager

EPA / Federal ID #: N/A

**Personnel Authorized to release equipment / materials / manpower, etc:**

Cody Issler - Project Manager  
Micheal Erickson - VP  
Joshua Perry - Branch Manager

**40-Hour OSHA Trained Personnel:**

Cody Issler  
Josh Perry  
Adam George  
Wade Halpin

<b>Equipment List</b>							
<b>Item Description / Manufacturer</b>	<b>Location</b>	<b>Capacity / Size / Key Features</b>	<b># of Units</b>	<b>A</b>	<b>T</b>	<b>P</b>	<b>D</b>
<b>(1) Vessels &amp; Marine Support Equipment</b>							
Jon Boat	Edmonton	18 ft boat	3	Y	Y	N	Y
Aluminum Boat	Edmonton	16 ft flat bottom boat	1	Y	Y	N	Y
Landing Craft	Edmonton	30 ft Landing craft boat	1	Y	Y	N	Y
<b>(2) Vacuum Equipment</b>							
Trailer Vac with Tractor (sleeper)	Red Deer		1	Y	Y	N	N
Tri Drive Vac Truck	Red Deer		1	Y	Y	N	N
Tandem Combo Unit	Red Deer		1	Y	Y	N	N
Tandem Drive Vac Truck	Red Deer		2	Y	Y	N	N
Wet/Dry Vac Truck Tandem	Red Deer		1	Y	Y	N	N
Tri Axle pup	Red Deer		1	Y	Y	N	N
Quad Axle Wagon	Red Deer		1	Y	Y	N	N
F550 Straight Vac Truck	Edmonton	Ford F550 4X4	1	Y	Y	N	Y
Skid Vac	Edmonton	Vacuum Unit on a skid	1	Y	Y	N	N
Tri Drive Hydrovac	Red Deer		1	Y	Y	N	N
Tandem Drive Hydrovac	Red Deer		1	Y	Y	N	N
<b>(3) Emergency Response Units</b>							
40 ft Sea Can	Edmonton	Full of ER gear	2	Y	Y	N	Y
20 ft Sea Can	Edmonton	Full of ER gear	2	Y	Y	N	Y
20ft Enclosed Trailer	Edmonton	Emergency Response Trailer	1	Y	Y	N	N
<b>(4) Miscellaneous</b>							
Containment Boom	Red Deer	approx 11,000 ft		Y	Y	N	Y
<b>(5) Trailers</b>							
Wellsite Skid Trailer	Red Deer	Office Space	30	Y	Y	N	N
Wash Car/Bathrooms	Red Deer	Portable Bathrooms	4	Y	Y	N	N
<b>(6) Rig Matting</b>							
8 X 20 ft	Red Deer			Y	Y	N	N
8 X 40 ft	Red Deer			Y	Y	N	N



**1.800. OIL.TANK (1.800.645.8265) – 24-HR WORLDWIDE EMERGENCY RESPONSE #**

<b>REGINA SERVICE CENTER</b>	<b>24-Hr. # 306-546-3322</b>
<b>525 Dewdney Ave East</b>	<b>24-Hr. # 306-531-9744</b>
<b>Regina, SK</b>	<b>Fax # 306-546-3321</b>

Alfio Corvino, General Manager

EPA / Federal ID #: N/A

**Personnel Authorized to release equipment / materials / manpower, etc:**

Rob Mahood  
Kevin Smart

Kirk Bradley

**40-Hour OSHA Trained Personnel:**

Supervisor	1
Foreman	1
Equipment Operator	1
Field Technician	1

Equipment List							
Item Description / Manufacturer	Location	Capacity / Size / Key Features	# of Units	A	T	P	D
<b>(1) Vessels &amp; Marine Support Equipment</b>							
				Y	Y	N	N
<b>(2) Motor Vehicles &amp; Vacuum Equipment</b>							
SS Vacuum Truck	Regina	Stainless Vacuum unit,	1	Y	Y	N	N
Vacuum Truck lined tank	Regina	Vane pump, oil field setup	1	Y	Y	N	N
Vacuum Truck lined tank	Regina	Single Axle	1	Y	Y	N	N
Presvac	Regina	Presvac 5300 CFM, SS tank	1	Y	Y	N	N
Guzzler	Regina	Presvac 5300 CFM	1	Y	Y	N	N
Semi-Vac	Regina	Semi-vac (TC350 cude tank)	0	Y	Y	N	N
Combo Unit	Regina	Non-Coded tank, 3500 PSI pump	1	Y	Y	N	N
Pressure Washer	Regina	Ford F550 4X4, 3,500 PSI	1	Y	Y	N	N
Steamer	Regina	3,500 PSI with Steam Pot	2	Y	Y	N	N
Hydrovac	Regina	Foremost	1	Y	Y	N	N
Tractor with Sleeper	Regina	Tractors	1	Y	Y	N	N
Pick-Up Trucks	Regina	Ford F350/F250	7	Y	Y	N	N
Office Trailer	Regina	Office trailer, 23 Foot	1	Y	Y	N	N
Flusher	Regina	60 GPM, 2000 PSI	1	Y	Y	N	N
Van Trailers	Regina	Van Trailers (48 foot lined with sump & mounity forklift)	1	Y	Y	N	N
Flat Deck Trailer, tri-axle	Regina	Flat Deck Trailer, 5th wheel hitch	1	Y	Y	N	N
Flat Deck Trailer, tandem axle	Regina	Flat Deck Trailer, bumper pull	1	Y	Y	N	N
Mobile Hotsy	Regina	2,500 PSI	1	Y	Y	N	N
High Pressure Water Blaster	Regina	15,000 PSI	1	Y	Y	N	N
High Pressure Water Blaster	Regina	20,000 PSI	3	Y	Y	N	N
<b>(3) Pumps and Pressure Equipment</b>							
SS Diaphragm pump	Regina	1.5" Stainless Steel	1	Y	Y	N	N
<b>(4) Oil Spill Containment Booms</b>							

**1.800. OIL.TANK (1.800.645.8265) – 24-HR WORLDWIDE EMERGENCY RESPONSE #**

<b>Equipment List Cont.</b>							
<b>Item Description / Manufacturer</b>	<b>Location</b>	<b>Capacity / Size / Key Features</b>	<b># of Units</b>	<b>A</b>	<b>T</b>	<b>P</b>	<b>D</b>
<b>(5) Environmental Monitoring Equipment</b>							
M40 4-gas Monitor	Regina	4-gas air monitor	0	Y	Y	N	N
<b>(6) Recovery Equipment</b>							
<b>(7) Beach or Earth Cleaning and Excavating Equipment</b>							
<b>(8) Generators / Compressors / Light Towers</b>							
Generator	Regina	7000w Honda Inverter	0	Y	Y	N	N
<b>(9) Health and Safety Equipment</b>							
Confined Space Retrievals	Regina	DBI/SALA Tripod	1	Y	Y	N	N
<b>(10) Communications</b>							
<b>(11) Miscellaneous</b>							
6" Hard Pipe	Regina	6" Aluminium hard pipe	300'	Y	Y	N	N

## FACILITIES

### CANADIAN FACILITIES

#### GRAND PRAIRIE, AB FACILITY

EnviroSort Inc., a Clean Harbors Canada company, located in Grande Prairie, Alberta is a hazardous waste and recyclables transfer facility.

#### Permits

- AENV Approval 70990-00-00 issued May 2001; Amendment 70990-00-01 issued July 18, 2006; Amendment 70990-00-02 issued September 6, 2006
- AENV Import Hazardous Recyclables and Store Imported Hazardous Waste issued August 20, 2003
- AENV Receiver #ABR 10033 issued March 11, 2002
- AENV Generator #ABG 06041 issued December 14, 1999
- Albert Transportation Permit for Equivalent Level of Safety (unknown waste) #2007-2274 issued December 31, 2007
- AENV Carrier #ABC 02338 issued December 14, 1999

#### Facility Description

**Start-up Date:** 2001

**Facility Size:** 1.7 hectares

#### Services Provided:

- Sort plastic, cardboard and steel for recycling
- Hazardous waste services
- Household hazardous waste services
- Drill site bins
- Vacuum trucks



**Typical Customers:** industrial clients, laboratories, oil and gas customers, HHW programs.

**Typical Waste Streams:** chemicals generated by schools, colleges, hospitals and laboratories; dangerous oilfield waste (DOW); industrial waste; waste paint related materials; PCB ballast, oil and transformers; mercury and lead; empty drum and containers; sorbents, floor dry and rags; aerosols; fluorescent tubes; dry cell, lithium, nicad, and lead acid batteries.

#### Treatment, Storage and Disposal Capabilities

- Class 2.1, 2.2 (Compressed Gases) \*35,000 litres at any one time
- Class 3 (Flammable Liquids) \*35,000 litres at any one time
- Class 4.1, 4.2 & 4.3 (Flammable Solids) \*35,000 litres at any one time
- Class 5.1 & 5.2 (Oxidizing Material) \*35,000 litres at any one time
- Class 6 (Toxic Material) \*35,000 litres at any one time
- Class 8 (Corrosive Material) \*35,000 litres at any one time
- Class 9 (Miscellaneous Material) \*35,000 litres at any one time
- Class 9 (Used Oil) 25,000 litres at any one time

## RED DEER, AB FACILITY

EnviroSort Inc., a Clean Harbors Canada company, located in Red Deer, Alberta is a hazardous waste and recyclables transfer facility located in the Blindman Industrial Park.

### Services Provided

- Sort plastic, cardboard, and steel for recycling
- Hazardous waste services
- Household hazardous waste services
- Drill site bins
- Vacuum trucks

### Typical Customers

Industrial clients, laboratories, oil and gas customers, HHW programs

### Typical Waste Streams

- Chemicals generated by schools, colleges, hospitals and laboratories
- Dangerous oilfield waste (DOW)
- Industrial waste
- Waste paint-related materials
- PCB ballast, oil, and transformers
- Mercury and lead
- Empty drums and containers
- Sorbents, floor dry, and rags
- Aerosols
- Fluorescent tubes
- Dry cell, lithium, nicad, and lead acid batteries



### Permits

- AENV Approval #9963-01-00 issued February 5, 2003
- AENV Import Hazardous Recyclables and Store Imported Hazardous Waste issued November 1, 2005
- AENV Receiver #ABR 01121 issued February 8, 1995
- AENV Generator #ABG 06041 issued February 8, 1995
- Alberta Transportation Permit for Equivalent Level of Safety (unknown waste) #2005-2274 issued November 29, 2005
- AENV Carrier #ABC 02338 issued May 13, 1996

### Treatment, Storage and Disposal Capabilities

- Class 2.1, 2.2 (Compressed Gases) \*49,200 litres at any one time
- Class 3 (Flammable Liquids) \*71,700 litres at any one time
- Class 4.1, 4.2 & 4.3 (Flammable Solids) \*49,200 litres at any one time
- Class 5.1 & 5.2 (Oxidizing Material) \*49,200 litres at any one time
- Class 6 (Poisonous Material) \*49,200 litres at any one time
- Class 8 (Corrosive Material) \*49,200 litres at any one time
- Class 9 (Miscellaneous Material) \*49,200 litres at any one time
- Class 9 (Used Oil) 25,000 litres at any one time

## BURLINGTON, ON FACILITY

The Burlington, Ontario facility recovers used oil by means of separation and filtration. All reclaimed specification used oil is marketed as a supplemental fuel. This facility is authorized to accept non-hazardous wastewaters and used antifreeze. Used oil filters are also accepted and recycled for metals reclamation.

### Typical Customers

Automotive industry and related services

### Typical Waste Streams

Waste oil, oily water, Glycol, oil filters

### Facility Description & General Information

Start-up Date: 1987

Facility Size: 3.4 acres

Services Provided:

- Oil recovery
- Waste oil collection
- Oil/Water bulk transportation
- Oil filter collection and recycling
- Antifreeze collection
- Plastic containers collections
- Interceptor clean outs
- Emergency response

Oil Recovery Services

### Treatment, Storage and Disposal Capabilities

- Tank Farm Capacity: 772,820 liters or 204,180 U.S. gallons
- Warehouse Capacity: Equivalent to 1,000 45-gallon drums



### Permits

- Generator Permit #ON0039013
- Receiver Permit #A210108
- Transporter Permit #A8581



## RYLEY, AB FACILITY



The Ryley facility is a hazardous waste transfer station as well as a secure landfill located in east central Alberta, a western Canadian province. This facility is permitted to accept all hazardous wastes with the exception of explosives, radioactive wastes and infectious wastes.

Although the Ryley facility is prohibited by permit to treat hazardous waste on its site and cannot import hazardous waste for landfill disposal, it can import non-hazardous waste for landfill disposal.

### Permits

- Alberta Environment Approval No. 10348-01-00
- Surface and Water Drainage License 24753 issued by Alberta Environment

## Facility Description & General Information

**Start-up Date:** 1991

**Facility Size:** 160 acres

### Services Provided:

- Secure Hazardous Waste Landfill Disposal
- Secure Non-Hazardous Waste Landfill Disposal
- Storage prior to Treatment and Disposal

**Typical Customers:** R&D facilities, oil companies, chemical producers, federal and provincial government departments, institutional laboratories and other heavy manufacturers.

**Typical Waste Streams:** hazardous landfill solids, non-hazardous landfill solids, contaminated process wastewaters, inorganic cleaning solutions, oils, spent flammable solvents, organic and inorganic laboratory chemicals, paint residues, debris from toxic or reactive chemical cleanups.

### Treatment, Storage and Disposal Capabilities

Drum Storage Capacity: 2500 drums of hazardous waste.

PCB storage is included in the 2500 drums permitted.



## DEBERT, NS FACILITY



The Debert facility is located in the Atlantic Region of Canada and is positioned to service Nova Scotia, Newfoundland, Prince Edward Island and New Brunswick. This fully permitted facility manages regulated and non-regulated waste materials.

The Debert facility is utilized for bulking and storage prior to shipment to company-owned and operated treatment and disposal facilities.

### Permits

- 2002-025886-A02

## Facility Description & General Information

**Start-up Date:** 1993

**Facility Size:** 6 acres

### Services Provided:

- Bulking of Regulated and Non-Regulated Waste Materials
- Storage prior to final Treatment and Disposal

**Typical Customers:** oil and gas companies, refineries, HHW municipal programs, military bases, aircraft industries, pulp and paper mills, medical facilities, and a variety of small businesses.

**Typical Waste Streams:** contaminated process wastewaters, inorganic cleaning solutions, oils, spent flammable solvents, organic and inorganic laboratory chemicals, paint residues, debris from toxic or reactive chemical cleanups.

### Treatment, Storage and Disposal Capabilities

- Drum Storage Capacity: 1,000 Drums
- Four (4) 32,000-Litre Tanks



## LAMBTON, ON INORGANIC PRE-TREATMENT PLANT



Ontario's Land Disposal Restriction (LDR) is now law. The LDR regulation prohibits the land disposal of untreated hazardous waste and requires the waste to meet specific treatment standards. The requirements will primarily affect companies in the following industry sectors: primary metals, petroleum refining, transportation equipment, fabricated metal products, and chemicals and chemical products.

Clean Harbors' team of technical service chemists and customer service specialist's work with our clients to develop pre-treatment recipes to manage their specific waste streams and to evaluate the most cost effective waste management options and solutions.

Construction of the Lambton pre-treatment processing plant for inorganic solids was completed in September 2007. This project represents an investment of over \$2.5 million at the Clean Harbors Lambton Facility.

The plant provides solidification and stabilization for numerous inorganic solid waste streams currently accepted at Lambton and subject to the new LDR regulation.

### Acceptable Waste Types

Clean Harbors' analytical resources and unique variety of chemical treatment and stabilization processes make possible the cost-effective, environmentally secure disposal of most inorganic industrial waste streams and contaminated soil. The list below provides some examples of inorganic waste that can be treated in the pre-treatment plant.

- Contaminated soil
- Heavy metal compounds
- Electric arc furnace dust (EAF) from steel manufacturing
- Acid residues (solids, slurries)
- Alkaline residues (solids, slurries)
- Electrical/electronic manufacturing waste
- Inorganic waste from chemical and petrochemical industry processes
- Incinerator, boiler and industrial furnace residues
- Water treatment plant waste solids
- Debris

### Facility Description

**Start-up Date:** September 2007

**Capacity:** 50,000 tonnes per year

**Operating Hours:** 24 hours

**Container Handling:** Dump units, roll-offs, lugger boxes

**Final Disposal:** On-site secure, chemical landfill

**Other Services:** On-site analytical laboratory





## LAMBTON, ON INCINERATION FACILITY



Clean Harbors' Lambton incineration facility is ISO 14001 certified and services Canada and the United States. The facility utilizes a *liquid waste injection incineration* consisting of a fixed unit incinerator, a semi-dry spray dryer absorber, and a four-compartment baghouse. This high-temperature incineration system provides a cost-effective and environmentally sound option for the management of liquid and pumpable materials.

The facility, which is operational 24 hours a day, 7 days a week, also has a certified laboratory and a household hazardous waste depot.

### Permits

- Certificate of Approval # A031813
- Certificate of Approval (Air) # 8-1030-94-006

### Waste Acceptance Criteria

- PCB wastes < 50 ppm
- Organic halogens < 2%
- Viscosity < 1000 c.p.s.
- Total mercury < 10 ppm
- Chlorinated pesticides (case by case)
- No pathological/biological wastes

- No radioactive wastes
- Reactive wastes (case by case)

### Facility Description & General Information

**Startup Date:** 1969

**Facility Size:** 298 acres

### Services Provided:

- Direct Burn Capability
- On-Site Ash Disposal

**Typical Customers:** business sectors including electronics, automotive, lubricants, chemicals, plastics, agriculture, and steel.

**Typical Waste Streams:** water and organic liquid wastes containing metals, landfill leachates, phenolic waste waters.

### Treatment, Storage and Disposal Capabilities

- The incinerator has a practical capacity of about 100,000 tonnes per year (220,000,000 lbs.). Material processed must be pumpable and can include all waste except PCBs, pathogens, radioactives, and cylinders.
- The tank farm consists of 25 storage tanks with approximately 8,000,000 liters (2,000,000 U.S. gallons) of storage capacity.
- The certificate of approval limits the amount of organic halogen to less than 2% at the gate.



## LAMBTON, ON LANDFILL



The Lambton Landfill is located in southwestern Ontario approximately 15km southeast of the city of Sarnia. This facility is positioned to service customers in the Great Lakes Basin located in Canada and the United States.

The facility is permitted to manage a wide variety of hazardous wastes excluding explosives, PCBs, radioactive and pathological wastes. Waste is accepted at this facility directly from customers or from Clean Harbors' extensive network of service centers.

### Permits

- Ontario of Ministry of the Environment Certificate of Approval #A031806

### Waste Acceptance Criteria

- PCBs < 50 ppm
- No pathological/biological wastes
- No radioactive wastes
- No compressed gases

- No reactive or ignitable wastes
- Pesticides (case by case)
- Dioxins and Furans (case by case)
- Total mercury < 3000 ppm
- Total volatile organics < 2%
- Waste must exceed 15 p.s.i. compressive strength

### Facility Description & General Information

**Start-up Date:** 1969

**Facility Size:** 300 acres

### Services Provided:

- Secure Chemical Landfill Disposal
- Flexible Container Handling
- Certified Laboratory (CAEAL, AIHA Accreditation)
- State-of-the-Art Treatment Process for Inorganic Waste

**Typical Customers:** manufacturers, remediation, Fortune 500 companies, medium and small generators.

**Typical Waste Streams:** contaminated process wastewaters, inorganic cleaning solutions, oils, spent flammable solvents, organic and inorganic laboratory chemicals, paint residues, debris from toxic or reactive chemical cleanups.

### Treatment Storage and Disposal Capabilities

- Total Capacity of Cell 18: 1.91 million cubic meters.



## LAMBTON, ON ACID & ALKALI PLANT



The Lambton Acid & Alkali Plant receives liquid wastes for neutralization. The wastes are blended in a controlled neutralization process and fed to the incinerator for final processing. The pretreatment process features large throughput and has the capability to receive waste in bulk, drums and totes.

This ISO 14001 certified plant is operational twenty-four hours a day, accepts a wide range of permitted waste codes, and services customers in Canada and the United States.

### Permits

- Certificate of Approval #A031806 (Neutralization/Incineration)

### Facility Description & General Information

**Start-up Date:** September 2002

**Facility Size:** 300 acres (total site)

### Services Provided:

- Acid and Alkali Neutralization
- Re-use of Clean Caustics

- On-site Ash Disposal
- Waste Profiling and Characterization

**Typical Customers:** steel mills, automotive industry, oil refineries, chemical manufacturing.

**Typical Waste Streams:** spent pickle liquor, degreasers, solvents and cleansing agents.

### Treatment Storage and Disposal Capabilities

#### U.S. EPA Inorganic Acids and Alkali

Constituent	Containers	Bulk
Caustic and Alkali	No limit	No limit
Hydrofluoric acid	No limit	< 50%
Sulfuric acid	< 60%	< 50%
Hydrochloric acid	No limit	No limit
Non-fuming Nitric acid	< 30%	< 20%
Phosphoric acid Maximum temperature restrictions may apply; (case by case).	< 85%	< 50%
Chromic acid	No limit	No limit
Hydrobromic acid	< 50%	< 50%

Viscosity	Must be pumpable in winter (<1000 cps at 4° C)
PCBs	< 50 ppm
Reactivity	Non-reactive with receiving tank
Solids	Suspended solids only (<1/8")
Organic Halogens	< 2% w/w
Organic Fluorine	< 200 ppm
Ammonia	< 10 % w/w
Mercury	< 10 ppm
Odour	Minimal



## LONDON, ON FACILITY



The London facility services Ontario, Canada and the United States providing waste transfer and processing including reduction, re-use, recycling and recovery of waste materials. This facility is designed to receive, store and process drum and bulk wastes and is permitted to receive a variety of hazardous and non-hazardous wastes.

### Permits:

- Certificate of Approval No. A041603
- Type of Approval: Waste Disposal Site (Transfer/Processing)
- Acceptable RCRA EPA Codes: D001 – D043, F, K, P, & U codes
- Unacceptable RCRA EPA Codes: F020, F021, F022, F023, F026, F027, F028, K043, K099, K174, K178

## Facility Description & General Information

**Start -up Date:** 1977

**Facility Size:** 5.9 Acres

### Services Provided:

- Chemical waste treatment (neutralization, hydrolysis, oxidation, reduction)
- Drum processing
- Waste profiling / characterization
- Brokerage
- Solidification and stabilization
- Recycling
- Industrial maintenance
- Storage tanks (including indoor heated storage)

**Typical Customers:** industrial plants and companies, chemical and petro-chemical industries, transportation companies, cosmetic and pharmaceutical manufacturers, hospitals, and educational and research institutions

**Typical Waste Streams:** contaminated process wastewaters, inorganic cleaning solutions, oils, spent flammable solvents, organic and inorganic laboratory chemicals, paint residues, debris from toxic or reactive chemical cleanups, off-spec commercial products

### Treatment, Storage and Disposal Capabilities

- Maximum amount of processed waste removed per day shall not exceed 199 tonnes
- Total combined amount of processed and/or transferred waste not to exceed 299 tonnes per day
- Maximum amount of waste that may be stored on site at one time shall not exceed 2,419 tonnes



## THOROLD, ON FACILITY



Clean Harbors' Niagara transfer, recycling and processing facility is located in southern Ontario in the city of Thorold and services Canada, the United States and Basel Signatory Countries. The facility is utilized for pretreatment and consolidation of lab pack and drummed wastes prior to final disposal, and is fully permitted to manage the majority of waste types with the exception of PCBs, explosives, radioactive, and pathological waste streams.

### Permits

- MOE Permit to A121026
- PCB Storage Site 20392A031
- Storm Water General Discharge Permit-4-0157-88-967

### Facility Description & General Information

**Start-up Date:** 1981

**Facility Size:** 10.5 acres

### Services Provided:

- Waste Pretreatment
- Storage prior to Final Disposal
- Reactive and Compressed Gas Cylinder Treatment
- Neutralization
- Container Shredding
- Solids Consolidation
- Recycling
- Repackaging
- Lab Pack Processing for Fuels Blending

**Typical Customers:** R&D facilities, colleges and universities, government research facilities, pharmaceutical companies, chemical facilities, provincial, state and municipal manufacturers, medical facilities, brokers.

**Typical Waste Streams:** contaminated process wastewaters, inorganic cleaning solutions, oils, spent flammable solvents, organic and inorganic laboratory chemicals, paint residues, debris from toxic or reactive chemical cleanups.

### Treatment Storage and Disposal Capabilities

- Drum Storage Capacity: 741,280 liters (3,616 drums)
- PCB Storage: 88,560 liters (432 drums)
- Maximum transported off site for direct/indirect disposal not to exceed 199 tonnes/day
- Receiving capacity of 215 tonnes/day
- Bulk storage of liquid hazardous waste not to exceed 531,974 liters



## MISSISSAUGA, ON FACILITY



The Mississauga facility is located in the Greater Toronto area and serves all areas of the Golden Horseshoe of Ontario, as well as adjacent areas of the United States. This facility is fully permitted to process and transfer a wide variety of regulated and non-regulated waste materials and specializes in fuels blending.

### Permits

#### Provisional Certificates of Approval

- No. A220106 (transfer station)
- No. A8581 (transportation)
- 8-3373-90-916 (air-drum bulking building)
- 8-3013-89-006 (air-tank farm)
- 8-3486-97-986 (air-air emissions)

## Facility Description & General Information

**Start-up Date:** 1970

**Facility Size:** 10 acres

### Services Provided:

- Drum Collection and Consolidation
- Drum Identification and Labeling
- Bulk and Drum Fuels Blending
- Pharmaceutical and Drum Shredding
- Solids and Liquids Bulking for final Disposal
- Storage prior to final Treatment and/or Disposal

**Typical Customers:** auto manufacturing, steel production, pharmaceutical companies, chemical facilities, manufacturers and municipalities.

**Typical Waste Streams:** contaminated process wastewaters, inorganic cleaning solutions, oils, spent flammable solvents, organic and inorganic laboratory chemicals, paint residues, debris from toxic or reactive chemical cleanups, off-spec commercial products.

### Treatment, Storage and Disposal Capabilities

- Bulk Liquid Storage Capacity: 1,180,400 liters
- Drum Storage Capacity: 7,158 drums
- Bulk Solids Storage Capacity: 38 luggers/rolloffs (460 cubic meters)



## VILLE MERCIER, PQ FACILITY



Located near Montreal, Clean Harbors' Mercier facility is an incineration complex that includes an analytical laboratory, material storage and decontamination station facilities.

This facility is fully permitted to manage liquid and semi-liquid hazardous waste streams and is utilized for final destruction.

### Permits

- Registration No. 1142749697
- Ministry of the Environment of Quebec, Site for the Disposal of Liquid and Semi-Liquid Hazardous Waste
- Ministry of the Environment of Quebec, Operating Permit of a Storage Site for Hazardous Waste Generated by Others, Prior to Disposal
- Certificate of Approval for a Decontamination Station

## Facility Description & General Information

**Start-up Date:** 1972

**Facility Size:** 54 acres

### Services Provided:

- Storage prior to final Disposal
- Final Disposal by Incineration

**Typical Customers:** petrochemical industry, aerospace, pharmaceutical companies, chemical facilities, state and municipal agencies, manufacturers, transfer stations.

**Typical Waste Streams:** contaminated process wastewaters, oils, spent flammable solvents, organic laboratory chemicals; paint residues, debris from toxic or reactive chemical cleanups, off-spec commercial products.

### Treatment, Storage and Disposal Capabilities

- Tank Storage Capacity: 1,951,000 liters of liquid and semi-liquid waste
- Maximum Feed Rate: 140 liters per minute
- Annual Maximum Capacity: 70,900 metric tonnes.



## THURSO, PQ FACILITY



Located in the western region of Quebec province, the Thurso facility is positioned to service Quebec and east of Ontario provinces, and to receive wastes from other facilities in Canada and the United States.

This facility is designed to receive, store and process drummed wastes and is permitted to receive all wastes with the exception of PCB > 50 ppm, explosive, radioactive and pathological wastes. The Thurso facility, which is ISO 14001 certified, possesses permits for the fuels blending process, for the transfer station to approved site, and for bulking of solid wastes.

### Permits

- Permit issued by the Ministry of Environment of Quebec province for the operation of a transfer station for hazardous wastes
- Permit issued by the Ministry of Environment of Quebec province for the transportation of hazardous wastes

## Facility Description & General Information

**Start-up Date:** 1990

**Facility Size:** 43 acres

### Services Provided:

- Transportation, Control and Storage of Wastes
- Laboratory Technical Analysis
- Unknown Identification
- Fuels Blending using Extruding System for Viscous Material
- Drum Shredding
- Storage prior to final Treatment and/or Disposal

**Typical Customers:** industrial plants and companies, chemical and petrochemical industries, transportation companies, cosmetic and pharmaceutical manufacturers, hospitals, and educational and research institutions.

**Typical Waste Streams:** contaminated process wastewaters, inorganic cleaning solutions, oils, spent flammable solvents, organic and inorganic laboratory chemicals, paint residues, debris from toxic or reactive chemical cleanups, off-spec commercial products.

### Treatment, Storage and Disposal Capabilities

- Drum Storage Capacity: 7,245 drums
- Solids in Bulk Capacity: 800 tonnes
- Wide range of permitted waste codes





## VILLE ST. CATHERINE, PQ FACILITY



Clean Harbors operates a hazardous waste storage and transfer facility located in Ville Ste-Catherine, Quebec. This facility has been permitted by the Quebec Ministère de l'Environnement et de la Faune to receive, store, and transfer a variety of waste streams.

The facility is permitted to manage a wide variety of hazardous wastes excluding explosives, PCBs, radioactive and pathological wastes. Waste is accepted at this facility directly from customers or from Clean Harbors' extensive network of service centers.

### Permits

- Québec Ministère de l'Environnement et de la Faune facility I.D. #1145021615

### Waste Acceptance Criteria

- PCBs < 50 ppm
- No pathological/biological wastes

- No radioactive wastes
- No compressed gases
- No reactive or ignitable wastes
- Pesticides (case by case)
- Dioxins & Furans (case by case)
- Total mercury < 500 ppm
- Total volatile organics < 2%
- Waste must exceed 15 p.s.i.

### Facility Description & General Information

**Start-up Date:** 1973

**Facility Size:** 4.52 acres

#### Services Provided:

- Storage/Transfer
- Consolidation

**Typical Customers:** manufacturers, remediation, Fortune 500 companies, medium and small generators.

**Typical Waste Streams:** contaminated process wastewaters, inorganic cleaning solutions, oils, spent flammable solvents, organic and inorganic laboratory chemicals, paint residues, debris from toxic or reactive chemical cleanups.

### Treatment Storage and Disposal Capabilities

- Liquid wastes are stored in a 1,135,000 liter tank farm
- 400 cubic meters of solid wastes can be stored in containers at the site.



## DELTA, BC FACILITY



The Delta facility, located at the southwest tip of British Columbia, services BC, Alberta and the Pacific Northwest, USA. This facility is fully permitted to manage a wide variety of materials including hazardous and non-regulated waste materials. The Delta location is utilized for treatment as well as permitted storage prior to shipment to company-owned treatment and disposal facilities.

Additionally, Delta supports one permitted 10-day transfer facility (Pacific, Washington). This enables the region to benefit from economies of bulk purchasing and handling, particularly as Delta is rail served.

### Permits

- Special Waste Management Facility Permit No. PS-8388
- License to Transport Special Waste No. LT0249
- Discharge of Air Contaminates Permit No. GVA0277

## Facility Description & General Information

**Start-up Date:** 1991

**Facility Size:** 3.5 acres

### Services Provided:

- Fuels Blending
- Liquid/Solid Bulking
- Chemical Treatment
- Paint Can Bulking, Latex/Oil
- Remedial Services-Special Projects
- Oil Filter Crushing
- Storage prior to final Treatment and/or Disposal

**Typical Customers:** manufacturers, pharmaceutical and chemical companies, colleges and universities, government facilities, hospitals.

**Typical Waste Streams:** automotive and industrial wastes, contaminated process wastewaters, inorganic cleaning solutions, oils, spent flammable solvents, organic and inorganic laboratory chemicals, paint residues, debris from toxic or reactive chemical cleanups, off-spec commercial products.

### Treatment, Storage and Disposal Capabilities

- Drum Storage Capacity: 379,250 liters (1,850 drums) hazardous
- Two tank farms for regulated and non-regulated waste
- 5.2 million liters total liquid capacity
- 80 metric tonnes of bulk storage
- Wide range of permitted waste codes



## WINNIPEG, MB FACILITY



The Winnipeg facility is located in the Prairie Region of Canada and is positioned to service the provinces of northwestern Ontario, Manitoba, and Saskatchewan. The facility is permitted to receive a wide range of regulated materials. Radioactives, explosives, and PCBs are prohibited.

Additionally, the facility is utilized for permitted storage prior to shipment to company owned and approved treatment and disposal facilities.

### Permits

- Manitoba Conservation 70HW Generator ID MBG07391, Receiver ID MBR07393 and Carrier Permit MBC07392

### Facility Description & General Information

**Start-up Date:** 1990

**Facility Size:** 0.25 acres

### Service Provided:

- Storage prior to final Treatment or Disposal up to 180 days

**Typical Customers:** colleges and universities, government and R&D facilities, pharmaceutical companies, chemical and pesticide manufacturers, provincial and municipal departments, industrial equipment manufacturers, medical facilities.

**Typical Waste Streams:** contaminated process wastewaters, inorganic cleaning solutions, oils, spent flammable solvents, organic and inorganic laboratory chemicals, paint residues, debris from toxic or reactive chemical cleanups.

### Treatment, Storage and Disposal Capabilities

- Drum Storage Capacity: 300 drum equivalent



## SELECT PROJECT ABSTRACTS

Clean Harbors responds to emergencies from almost every service location on a daily basis. This section provides overviews of large-scale projects that have utilized Clean Harbors' International Response Team (IRT). We would like to note that we are available worldwide for any type of emergency, while still being capable to respond on a large scale without interrupting the day-to-day business at local service centers and facilities.



# Project Abstract

## EMERGENCY RESPONSE DUE TO HURRICANE SANDY

**Client Type:** State and Federal Agencies and Private Utilities

### **Project Description:**

In late October of 2012, Hurricane Sandy, the largest Atlantic hurricane on record, devastated portions of the Caribbean, the mid-Atlantic, and Northeastern U.S. In the U.S., Sandy affected 24 states including the entire eastern seaboard from Florida to Maine, and west across the Appalachian Mountains to Michigan and Wisconsin. Hit particularly hard were the states of New Jersey and New York. On October 29, 2012 Sandy came ashore near Atlantic City as a post tropical cyclone with hurricane force winds. Ultimately this hurricane caused tens of billions of dollars in damage, destroyed thousands of homes, and left millions of people without power.

Along the New York/New Jersey coastline a surge of ocean water moved inland, even before Sandy made landfall at about 8 p.m., filling up streets and washing away piers and boardwalks. In New York City the storm's surge flooded streets, tunnels, and subway lines, and contributed to widespread power outages. The East River overflowed its banks flooding large sections of lower Manhattan.

In the New York/New Jersey metro areas, a Hurricane Sandy Unified Command was established to coordinate response activity among state and federal agencies. Clean Harbors was asked to assist the command with assessing affected areas for pollution and hazardous materials. Throughout the region, hazardous debris and containers of unknown material were tagged by a federal agency for testing and proper disposal by Clean Harbors workers.

Damage to portions of the city's subway, commuter rails, and tunnels was unprecedented. The Metropolitan Transportation Authority said the destruction caused by the storm was the worst disaster in the 108 year history of the NYC subway system. Transit tunnels filled with water and needed pumping, a project conducted by a federal agency. In less than two weeks, they removed over 470 million gallons of water.

Near the Brooklyn Battery Tunnel, a 25,000 gallon heating oil tank ruptured with the oil flowing straight into the tunnel. When the water was removed, thousands of gallons of oil coated tunnel ceilings and walls. This problem of oil coating the insides of subway tunnels was widespread and removal of oily residue was needed at numerous sites. Clean Harbors workers cleaned the Brooklyn Battery tunnel and a number of others.

Along with the transit systems, utilities were hard hit. An explosion at a power plant contributed to a power failure that plunged people into darkness in Manhattan. The CEO of the company said it was the worst storm the utility had ever experienced. One of the most immediate and critical response activities for Clean Harbors workers was to support the power companies in the replacement of damaged transformers. This usually involved cleanup of downed transformers and transformer oil from the ground—oftentimes oil which contained PCBs.

An oil company in New Jersey had two large capacity diesel storage tanks that were hit by the tidal surge and ruptured. The release of approximately 380,000 gallons of low-sulfur diesel overflowed the tanks' containment area reaching the Arthur Kill Waterway between New Jersey and Staten Island. Approximately 14,000 feet of containment booms and absorbent boom were deployed to protect sensitive areas. A crew of 130 responders (including Clean Harbors personnel), using skimmers, vacuum trucks, and on-site storage tanks, labored to recover product and water. As of November 6, the responders had recovered well over one million gallons of the diesel/water mixture.



Elsewhere, a New Jersey refinery took on 12 feet of salt water. When the surge receded, the operator discovered that almost 8,000 gallons of crude oil had been spilled. Over a three week period, Clean Harbors workers cleaned waterways and the ground. Clean Harbors' skimming operation employed up to 477 workers, 30 vac trucks, 30 boats, 30 skimmers, and 10,000 to 15,000 feet of containment boom. Also, as part of the cleanup effort for this refinery, our responders were charged with remediation of a nearby cemetery where oily water had mixed with soil and covered gravestones. Clean Harbors cleaned the stones and removed the impacted soil.

One of the most dramatic examples of Clean Harbors' capabilities in times of crisis occurred after the hurricane at the location of a New Jersey chemical tank farm. The facility had been ravaged by the storm and approximately 18 chemical tanks, each with a 10,000- to 30,000-gallon storage capacity, were upset or completely upended. The piping associated with the tipped tanks was, in many cases, bent or broken and needed to be disconnected and safely purged of vapors and chemicals. In addition, the solvents, spirits, and alcohols housed in these tanks had spilled into concrete containment areas and had become mixed with storm water and seawater. To compound the problems, the facility was without electricity and heat and had no fire suppression capabilities. The response at this particular facility then comprised evacuating and collecting liquid and vapors, removing damaged piping, and staging the tanks for scrap or reuse.

Because of complexities, members of Clean Harbors' Remediation Group, which provides long term technical expertise, were brought in to manage the project. One of their first priorities was to install a temporary boiler to provide heat in the company's office building and a portable foam machine to suppress odor and vapor. After a thorough review of the facility's damage, a two phase plan was created and implemented for the tank farm, with a one month de-energizing phase and a recovery period, which went for two months more.

Of immediate concern was that the containment areas be emptied of all water and chemicals. This meant pumping, sampling, and disposing of thousands of gallons of recovered liquid. In the second non emergency phase, more than half of the large tanks were lifted out of their containment areas. The first step to accomplish this was the cleansing and removal of bent and broken pipes. Afterward, a rigging subcontractor was engaged and a massive crane was brought in to lift the chemical tanks out of containment. In fact, the crane was so tall that FAA approval for the site was needed and obtained.

Due to the size and nature of this project, Clean Harbors drew support personnel and equipment from its Field Service offices all over the country. The event was lengthy and complex, and further complicated by the customer's European based management, which required frequent and detailed updates. The great significance and success of this project came about because of incredible planning and execution. In the words of one of our project managers, "Everything went according to plan. Nothing went awry!"

For the millions of people who were impacted by Hurricane Sandy, the memories of devastation and loss will linger for years. The employees of our company witnessed that devastation first hand and they welcomed the opportunity to assist with the recovery in a meaningful way. They were put in that position by a company with vast resources. Clean Harbors was able to demonstrate once again, that in times of need and when it really matters, it can marshal personnel, equipment, and expertise to a degree that simply cannot be matched in all of North America.



# Project Abstract

## EMERGENCY RESPONSE TO AN OIL PIPELINE BREAK BENEATH A HIGH FLOOD STAGE RIVER

**Client Type:** Major Oil Company

### **Project Description:**

The Yellowstone River in northwestern United States is the longest undammed river in the country and is described by former Montana Governor Brian Schweitzer as one of the most phenomenal trout fisheries in America. In the late evening hours of Friday, July 1, 2011, a 12" oil pipeline, buried 5-8 feet below the river, burst and spilled an estimated 1,500 barrels (63,000 gallons) of medium crude into the river. The pipeline break occurred approximately 20 miles upstream from a major oil company refinery in Billings, Montana. The river, at a high flood stage and with a fast moving current, had exposed the pipeline or left it buried in spots under minimal cover. Debris washing downriver had piled up, increasing pressure on the pipeline until it ruptured.

Governor Schweitzer insisted on a physical inspection of the river from small boats as quickly as possible, but crews were forced to work from the shore due to the raging waters. The Environmental Protection Agency conducted an aerial survey that identified oil deposited along the riverbanks and pools of oil in backwaters and eddies. At the time of survey, oil was visible along the river for 45 miles downstream. Ultimately, this rupture would foul 70 miles of riverbank, and thousands of acres (throughout 7 counties) of wetlands and farmland.

Crews from the oil company's Billings refinery initially installed booms to isolate oil that had pooled adjacent to the river, but the flooding carried globs of oil into fields hundreds of feet from the riverbank and would leave a ring of oily grime around nearby buildings. It was quickly apparent that outside help and expertise were needed. Clean Harbors was contacted and the company's National Strike Team was mobilized and deployed to the damaged area.

As more personnel and equipment came on scene, crews used absorbent pads, vacuum trucks, and tankers to pick up and dispose of the oil. And although floodwaters began to recede by Sunday, river turbulence still precluded the use of boats. Clean Harbors provided Swift Water Rescue Training for personnel, and retro fitted many of its 60 boats with jet drives. By Monday, when water levels dropped below flood stage, company employees were able to participate safely in all phases of the cleanup including product recovery, shoreline assessment and cleaning, logistics support, and resource tracking.

By Thursday, 6 days after the initial break, more than 8,000 feet of absorbent boom and 150,000 absorbent pads had been deployed along the river. This cleanup went on for over 4 months and, at peak, involved over 1,000 personnel on the shores and in the river, 700 workers having been provided by Clean Harbors. In addition to participating in all phases of the cleanup, Clean Harbors disposed of all waste from the project with contaminated material being transported to the company's Grassy Mountain landfill in Utah. The Yellowstone River cleanup of 2011 demonstrated not only the effectiveness of the National Strike Team concept, but also the company's depth of resources and its high level of support for Strike Team events.



# Project Abstract

## RESPONSE TO AN OIL RIG EXPLOSION IN THE GULF OF MEXICO

**Client Type:** Major Oil Company

**Project Description:**

On Tuesday, April 20, 2010, an ultra deepwater, offshore oil drilling rig, the Deepwater Horizon, operating in the Mississippi Canyon, experienced a well blowout and a violent explosion which led to the deaths of 11 crewmen and which ignited a fireball visible from 35 miles away. The resulting fire could not be extinguished, and on April 22, the Deepwater Horizon oil rig sank leaving the well gushing on the sea floor approximately 5,000 feet deep and causing the largest offshore oil release in U.S history. The oil flow continued until July 15, 2010 when the well was capped. The U.S. government estimated that, at its highest rate, 60,000 barrels of oil flowed into the Gulf every day. By the end of June, several million barrels had spewed into the Gulf and tar balls were washing up on the beaches of Louisiana, Alabama, Mississippi, and Florida.

Even before the disaster, the Responsible Party was a longtime Clean Harbors customer and familiar with our work and our efforts as a result of Hurricane Katrina in 2005. Clean Harbors was contacted by client representatives, a government agency, and others to supply personnel, booms, boats, skimmers, vacuum trucks, and other specialized equipment for the Deepwater Horizon cleanup.

The response was quickly organized. Clean Harbors' management had recognized that the effort would be easier to manage in its early stages before a significant amount of petroleum washed ashore. At the corporate office in Norwell, Massachusetts, a Spill Operations War Room was activated to handle all logistic, procurement, administration, and personnel needs for this release. Our workforce and the equipment on site were ramped up in the Gulf by drawing on the company's extensive resources throughout the U.S. and Canada. Over 400 full time Clean Harbors employees were sent to the Gulf on extended tours of duty. In addition, the company activated its national subcontractor network and was involved with recruiting and training Gulf area residents in oil spill remediation. In terms of personnel, we achieved a peak of over 3,600 workers for this spill.

This Emergency Response was conducted on an unprecedented scale in terms of deployment, equipment, and size of the disaster area. Clean Harbors' cleanup efforts on behalf of the oil company and the residents of Louisiana, Alabama, Mississippi, and Florida took place from April 2010 through March 2011—almost a full year. In that period, the company was involved in every aspect of the spill response including containment, removal, and the ultimate treatment and disposal/recycling of recovered product. The company's growth over the past 30 years, plus its increasing capabilities, gave it the capacity to sustain an effort as large as the Deepwater Horizon cleanup while simultaneously meeting its day-to-day service requirements for existing customers throughout the U.S. and Canada. As it did with Hurricane Katrina, the company demonstrated it is an efficient and dedicated national response organization in times of national crisis.





# Project Abstract

## SITE REMEDIATION/LAGOON CLOSURE AT PRIVATE FACILITY IN SENNEVILLE, QUEBEC

**Client Type:** North American Petrochemical Company

**Project Value:** \$350,000

### Project Description:



The project involved the removal of industrial waste contaminants from a settling pond of a major facility. The facility was a central research center for a multi-national corporation involved in many research efforts on a variety of products. The facility was first occupied in 1962 and subsequently closed in 2000.

The facility was constructed with its own sewage treatment system for domestic waste management. Three main feeds into this treatment lagoon included a housing sewage system, a processer to include the lab sinks and equipment rejects, and a third system, which included all water runoff from the roofs and foundation drainage. The lower treatment pond was designed for a 30-day settling period and contained over 2.3 million gallons. The lower pond had never been dredged to remove any sediment since it was put in service, and an attempt to sell the property initiated this cleanup. The goal of the project was to bring the sludge contaminants below the “B” level as prescribed by the government agency. The lower pond was divided into quadrants of which quadrant one was described as the inlet side of the pond and contained the highest contamination. Quadrant four was described as the outlet side of the pond where minimal contamination was found. The lower pond was constructed in a kidney shape with the longest part being 430 feet by the widest part being 240 feet. The pond is approximately 4.7 feet deep and is constructed with a clay liner. The total volume of the pond was 10,400 cubic meters and contained approximately 2,000 cubic meters of sludge that needed to be removed.

The primary contaminants in the sludge included PAHs (Polycyclic Aromatic Hydrocarbons) and heavy metals, both of which were located mainly in the inlet side of the pond. In total, 954,010 kilograms of filter cake were generated from the dredging and dewatering process, and approximately 6,248,536 liters had been dredged and processed.



# Project Abstract

## SITE REMEDIATION / CONTAMINATED CREEK SEDIMENTS-SUDBURY, ONTARIO

**Client Type:** Municipal Government partnered with Industry

**Project Value:** \$2,200,000

**Project Description:**



Junction Creek located in the City of Sudbury, Ontario serves as a main storm water discharge for the downtown area of Sudbury. As a result of former manufacturing activities, the creek was found to be contaminated with creosote. Through a public tendering process Clean Harbors was awarded the contract to remediate the creek area, and remove and dispose of an estimated 20,000 tonnes of impacted sediment and creek bank. Before the creek sediments could be excavated, Clean Harbors designed and installed a by-pass pumping system capable of handling the typical creek water flow. The installed system was capable of pumping 75,000U.S. gpm; water was pumped through five 18” diameter HDPE pipelines and discharged 1,600 feet downstream. Four stone cofferdams, lined with geo-synthetic clay (GCL) were installed in order to remediate two separate sections of creek bottom.



Additionally, 2,800 feet of access road were established, a dewatering pad was constructed capable of storing 5,000 tonnes of sediment, and an on-site water treatment plant was installed. Over 16,000 tonnes of impacted sediments were excavated, dewatered, and transported off-site for disposal; 2,500,000 litres of contaminated water were treated and discharged; and, 20,000 tonnes of granular and rock material were imported onto the site and used for the restoration of the creek section. Forty rolls of GCL were installed to line sections of creek bottom, which could not be totally remediated by removal methods. Two riffle pools were constructed as part of the contract to enhance the aquatic habitat for fish and wildlife. Clean Harbors was required to execute this project under tight time guidelines.

Excavation and restoration work proceeded on a 24/7 schedule and took three months to complete. The entire project was accomplished during a six month period. Clean Harbors was required to adhere to stringent guidelines for air and noise levels, and the project was completed within the requirements of the guidelines. Waste processing and water treatment were done under the authorization of two Certificates of Approval issued on an annual basis to Clean Harbors.



# Project Abstract

## EMERGENCY RESPONSE TO TANK FARM EXPLOSION, BAYAMON, PUERTO RICO

**Client Type:** Spill/ ER Management Company

**Project Description:**

On October 23, 2009 at 12:30 am an explosion at a fuel storage facility in Bayamon, Puerto Rico shook the city with a force equivalent to a 2.8 magnitude earthquake, according to the Puerto Rico Seismic Network. The Fires burned for three days and destroyed 11 of the facilities storage tanks containing such products as jet fuel, gasoline, and number 2 fuel oil.

The United States Coast Guard contacted the local office, Clean Harbors Caribe Inc., and requested an emergency response. Within an hour a Clean Harbors' crew was on site assisting with the cleanup efforts at the facility. Within hours of the reports of the fire at the facility Clean Harbors activated their International Strike Team sending Kevin Sheppard and Lee Barfield to Puerto Rico to assist in our response. Initially our resources used for the response were minimal due to the continued danger as the fires took days to completely extinguish. Further slowing the cleanup effort was the fact that the F.B.I had taken over the site and was treating it as a crime scene and we were limited in our response efforts during their investigation. Eventually we would be contracted through a spill/ER management company to provide response and recovery resources for the site. Clean Harbors would continue to work around the clock until December 8<sup>th</sup>, 2009 providing as many as 35 people and various skimming equipment and three vacuum trucks. The local office was able to continue to support their everyday clients because they received assistance for this project from Clean Harbors International Strike Team as Virgil Blanchard was brought in to manage our response and Stephen Sheppard was tasked with the finances of the project for us. These employees spent over a month on the island including their Thanksgiving holiday.



# Project Abstract

## HAZARDOUS CHEMICALS TRANSPORT/ MGMT- INTERNATIONAL OILFIELD SERVICES

**Client Location:** Throughout Western Sedimentary Basin – Western Canada

### **Project Description:**

Clean Harbors' Peak Energy Chemical Fluid Handling has been managing the transportation and products delivery process for this client since 2007. Clean Harbors provides an average of 23 to 45 container loads per week— split between Super B's and Tandem Body jobs —depending upon the drilling fluids market activity in western Canada. Our Fluids Handling services provide more than 30 trained and certified full-time drivers to manage the specific contract requirements for this client's needs.

Clean Harbors has invested in specialized equipment to support the specific needs of the client in Canada. Our investments have included specialized Wash/Flush facilities in Leduc and Calgary as well as strategically located Tank Farms in Calgary (south markets), Red Deer (central markets) and Leduc (north markets) to manage inventory and support product movement throughout the region.

Clean Harbors' *SafetyFirst!* philosophy has resulted in an operationally sound, safety forward approach to managing the client's transport and inventory management challenges. The Fluids Handling team has provided the client with the specialized materials transportation and management processes necessary for them to remain a supplier of choice for the Oil and Gas drilling fluids marketplace in Canada. Ensuring a safe, environmentally sound supply chain has provided competitive advantage to our client in working with their end customers.

The Hazardous Chemicals Transport and Management Program delivers

- Transportation and Management of all hazardous chemicals and material including
  - Raw Chemicals
  - Methanol
  - Glycol
  - Xylene
  - Toluene
- All refined products, throughout the Western Sedimentary Basin, deriving from the proprietary mixing and blending of chemicals
- Safety supervision management program to ensure safe work practices and procedures are adhered to throughout the process

Transport and delivery of chemicals occurs across a breadth of the most challenging road and weather conditions in Canada. Access types include gravel roads, high mountain roads, remote mining and forestry roads, radio controlled access roads, ice roads and many other difficult and environmentally sensitive roads. Clean Harbors Fluids Handling team has developed a strong industry reputation of safe, cost effective transport and delivery of hazardous chemicals throughout western Canada.



# Project Abstract

## HURRICANE KATRINA RESPONSE, NEW ORLEANS, LOUISIANA

**Client Type:** Various

**Project Description:**

On August 31, 2005, Hurricane Katrina hit the areas of southeastern Louisiana and southern Mississippi. Arguably the worst natural disaster in United States history, the hurricane destroyed thousands of homes and lives. Levee walls in New Orleans, Louisiana ruptured and flooded the entire city, forcing a complete evacuation of over 450,000 people in the city. Looting and violence ensued as much of the city searched for food and shelter, turning the city essentially into a war zone. The environmental damages and effects of the hurricane were numerous. According to the Natural Resources Defense Council, Hurricane Katrina triggered over 575 chemical and oil spills throughout the region, not to mention all of the water and mold damage that ensued from the flooding.

Clean Harbors Environmental Services response employees went to Baton Rouge to ensure the safety of employees in that area and to assess damages. The Clean Harbors office in Baton Rouge had minimal damage, and was equipped with hundreds of acres of land. Event Strike Team personnel contacted a federal agency and informed them of our available resources in the area. The federal agency then requested to use the Baton Rouge facility as a command center for their response due to the security and available land. Within days Clean Harbors had procured over 30 camping trailers and set up a base to house over 300 people. The site was run as a normal service center at a much higher scale. Clean Harbors serviced over 30 customers and over 80 individual projects in the span of 8 months.

The Clean Harbors facility in Baton Rouge turned into a miniature city, with several customers living on the property. Campers were set up with fully functioning sewerage, water, electricity, and any other essentials. Utility services were installed to handle the increased phone and internet capacity of two federal agencies. Over 200 people were working under Clean Harbors' command including upper level managers, project managers, and technicians. More than 100 non-employees were using the facility as a base. Emergency response services were utilized near their full capacity for the entire company. Nearly every product line Clean Harbors offers worked during this response, including National Transportation, Technical and Remediation Services, Clean Pack, and Disposal. The field at the entrance of the facility was used as a helicopter launching pad for the two federal agencies and several other customers. At times there were over 15 helicopters on the property.

Within a day of the initial call, Clean Harbors procured a barge containing over 300,000 gallons of fuel to use for one of the federal agencies' fueling operations. On top of the barge fuel that was used, Clean Harbors had fuel station capabilities at the Baton Rouge facility that were fully utilized. A fueling team was set up to carry totes of fuel to several locations throughout the ravaged area, a job that lasted over 8 months. More than half a million gallons of fuel were delivered throughout the project.

It took another federal agency nearly a month to pump all of the water out of the city of New Orleans. The flooding caused all chemicals and oils to spill into the water, creating a massive potential for infection. Clean Harbors utilized their hazardous materials handling training as well as their marine operations expertise to deploy boom at each individual pumping location on Lake Pontchartrain. Clean Harbors also assisted this



federal agency in decontaminating their mobile morgues. Much of this work was considered highly hazardous due to all of the unknown pathological variables involved.

At the Murphy's Oil facility in New Orleans, a 250,000-barrel above ground storage tank (tank # 250-2) was dislodged, lifted and damaged in flooding associated with Hurricane Katrina. At the time, the tank contained 65,000 barrels of mixed crude oil, and released approximately 25,110 barrels (1,050,000 gallons). The released oil impacted approximately 1,700 homes in an adjacent residential neighborhood, an area of approximately one square mile. A federal agency along with the spill management company hired by Murphy's, hired Clean Harbors to assist in the initial cleanup. Clean Harbors mobilized over 30 workers, several small workboats, and several skimmer setups. Clean Harbors was a presence on the spill until the maintenance phase began in late October 2005.

After the storm initially hit, a federal postal service required cleaning of several offices in eastern Mississippi. Clean Harbors responded with over 100 workers to the Bay St. Louis and Kiln, Mississippi postal services. Within a week they had cleaned each office and decontaminated the machines from any unknowns, and set up disposal services for future use at the locations. Also in Mississippi, Clean Harbors was contacted by a private defense contractor to decontaminate their dry docks. Vacuum trucks and crews with pressure washing equipment were mobilized to accomplish the task.

In New Orleans itself there was much more work to be done. Since the city was evacuated and there was so much time without power, several food processing plants in New Orleans needed electricity to power their refrigeration units. Clean Harbors was asked to clean out two locations that had rancid meat in them. The cleanup of each location was managed and completed through disposal of the product by Clean Harbors. Disposal was sent to Clean Harbors' facility in White Castle, Louisiana.

Within two months of the cleanup operation, so much of the work was based in New Orleans or further south that Clean Harbors mobilized another command center into the city. During the first two months of the cleanup phase, it was impossible and unfeasible to enter the city and live there. But, once it had been drained out, moving there was an option. Clean Harbors set up another campground across the river in Gretna and began to run all New Orleans operations from there. A Mobil Incident Command Unit was set up there for all operations to report to, and an office was rented to run all finance operations.

After the flooding in New Orleans, a regional utility company contacted Clean Harbors to aid in cleaning their offices in the city. Clean Harbors cleaned several buildings directly for this utility company and for a consultant. Due to their excellent work on the building decontaminations, the utility company asked Clean Harbors to begin cleaning manholes throughout the city. Several high-powered vacuum trucks were involved, and Clean Harbors used their confined space expertise to pump out and clean hundreds of manholes throughout New Orleans and southern Mississippi. The utility company was so impressed with the work that they awarded Clean Harbors the maintenance contract for the manholes in the entire Southeast and Gulf Area regions.

Once areas of the city were re-opened to the public, waste from houses needed to be collected and removed from the destroyed area. Clean Harbors utilized nearly 100 workers to walk debris lines and roads and collect any household hazardous waste (HHW) for disposal. The disposal was managed by a federal agency. Clean Harbors then used its strong subcontractor network to manage the asbestos and asbestos-containing materials cleanup among the HHW. This project lasted through late March 2006 until the demolition of the damaged homes began.



After over 8 months of work, Clean Harbors proved once again that they are the leader in nearly all aspects of emergency response on a large scale. Nearly all product lines Clean Harbors has to offer were used over this time period; many jobs used multiple product lines on them such as response, transportation of waste, and disposal.





# Project Abstract

## EMERGENCY RESPONSE AT A REFINERY IN CANADA

**Client Type:** Major Integrated Energy Company

**Project Value:** \$10,000,000

### **Project Description:**

One of the largest independent crude oil and natural gas producers in the world called on Clean Harbors to help manage an emergency response at one of their plants in Northern Alberta. Less than 24 hours after an explosion and fire shut down the plant, Clean Harbors was on site to help respond to the emergency situation. One major challenge posed by this event was that the extreme cold conditions when this event occurred combined with the plant being shut down caused the entire facility to completely freeze over. The first part of this project required Clean Harbors to create a plan for de-icing the plant safely and efficiently and then carry out that plan. Over the course of three weeks, using cranes with man baskets, Clean Harbors' personnel were able to utilize steam to safely complete this task.

The second major effect of the plant having to go into an emergency shutdown was that none of the other refinery operations had been stopped correctly. This caused over 100 tube exchangers to become clogged, charge pumps were coked off, and the sulfur labs required extensive chemical cleaning.

The unique challenges of the extreme temperatures and a plant that had been shut down incorrectly required Clean Harbors to pull personnel and expertise from its facilities and resources across Canada— particularly from British Columbia, Alberta and Saskatchewan. During the busiest weeks of the \$10 million project, Clean Harbors managed shifts of 120 employees 24/7. These employees came from a wide variety of divisions within Clean Harbors in order to contribute to the complicated response, the majority from High Pressure Services, Chemical Cleaning, and Tech Sonic Cleaning, which was called upon to help remove naturally occurring radioactive material. Clean Harbors' vast network in Western Canada and expertise across all aspects of the industry gave it the ability to manage a complex and unordinary response and allowed the plant to safely recover from a near disastrous event.



# Program Abstract

## INSITE SERVICES CHEMICAL PLANT IN FORT SASKATCHEWAN, ALBERTA

**Industry Vertical:** Chemical

### **Program Description:**

The chemical plant has been benefitting from part time environmental staffing and support from Clean Harbors' InSite Services Program since 1998. Currently, one part-time InSite Services program manager oversees the waste management and coordination of transportation and disposal services of onsite hazardous and non hazardous waste. The scope of services performed at the chemical plant reflects a fully encompassing environmental waste management program. The InSite program manager's activities include identifying and packaging waste; provision of waste containment including lugger bins and roll off containers; monitoring and managing the waste storage facility and waste accumulation areas within the operating units; coordinating bulk solid and liquid movements with offsite transportation to disposal facilities. Clean Harbors provides 24/7 – 365 days per year on-call services for response to any afterhours facility need. The InSite Program scope and service are not limited to day-to-day waste management activities. Clean Harbors also performs Field Services, which include vacuum services, pigging, chemical cleaning, equipment maintenance, and turnaround services. The InSite program manager is a one point contact for the coordination of all onsite Clean Harbors services.



# Project Abstract

## EMERGENCY ANTHRAX CLEANUP AT A MAIL PROCESSING FACILITY

**Client Type:** United States Government

**Project Description:**

Clean Harbors Environmental Services was directed to proceed with emergency Anthrax cleanup at a United States government site in New York City, New York. The initial emergency response work was to be conducted on the third floor in an area of approximately 120,000 square feet containing 26 machines. The subject area was bordered to the North by 29th Street, to the South by 28th Street, to the West by 10th Avenue and to the East by an area known as ASM 100. This governmental site is located in the Manhattan section of New York City. This facility is the city's main processing center and employs 5,500 people. Five machines tested positive for Anthrax.

**Procedures:**

Pursuant to plans, specifications and safety protocols prepared by an independent consultant, Clean Harbors was responsible for isolation of work areas identified by the client. Work zone isolation techniques included standard protocol incorporating polyethylene sheeting barriers, warning tape and high volume air movers equipped with HEPA filters. The high volume air movers or negative air machines were used to maintain negative pressure with the exhaust either running to the building exterior or running to a second machine before discharging into the building interior. In general, all elevated horizontal surfaces and all machine surfaces within the affected areas were initially cleaned with HEPA-filter equipped vacuums. A 0.5% sodium hypochlorite solution was subsequently applied to all surfaces of the machines. Contact time for this solution was at least 15 minutes. The surface was then neutralized using a sodium thiosulfate and water solution. All machine surfaces were then water washed and ultimately wrapped in polyethylene sheeting. Exterior surfaces of non-porous equipment and floor surfaces in the affected areas were cleaned in the same manner. Air diffuser ducts and the exterior of the HVAC return ducts in the affected area were vacuumed and washed as previously described. All return ducts were then covered using polyethylene sheeting.

**Summary:**

In addition to more than 200 other personnel engaged in various support functions associated with recovery efforts, Clean Harbors mobilized approximately 225 people to staff this time-critical project. Technical support teams managed cleanup crews who worked around the clock, 7 days per week for over 5 weeks to restore the city's main processing center to full capacity. Areas of the facility were able to remain functional while Clean Harbors crews effectively decontaminated more than 60 machines, 400,000 square feet of floor space and associated ventilation systems. Clean Harbors also managed transportation and disposal of decontamination derived wastes and coordinated the overall effort with the client's consultant.



# Project Abstract

## EMERGENCY RESPONSE TO 9-11 WORLD TRADE CENTER TERRORIST ATTACKS

**Client Type:** Major Utility Company, U.S. Government, and National Television Broadcasting

**Project Description:**

On the morning of September 11, 2001, the United States Homeland suffered the most devastating attack in American history. Four commercial airline flights were hijacked that day. Two of the four planes crashed into each of the World Trade Center's (WTC) landmark Twin Towers. Clean Harbors Environmental Services was immediately called upon to deploy personnel and equipment to assist local businesses, utility companies, and government agencies in protecting public health, safety and the environment.

Clean Harbors activated one of its Mobile Incident Command Units to lower Manhattan and began dispatching crews to assist in debris removal from various utility manholes located in proximity to the WTC Twin Towers. Crews were awaiting clearance to proceed from the New York Fire Department when the first tower collapsed.

Clean Harbors crews from around the country were dispatched to our Command Center located near Ground Zero. Their working relationships with several local utility companies as well as emergency response agreements with several federal agencies, allowed Clean Harbors to play a primary role in the disaster response. Clean Harbors was recognized by New York City's Office of Emergency Management, Federal Emergency Management Agency, and Joint Incident Command System (ICS) as a leader in the area of environmental emergency response.

Due to wide ranging task assignments, Clean Harbors personnel reported to several different authorities within the ICS. Local businesses utilized Clean Harbors to remove and dispose of oily debris from flooded basements and to abate dust from various offices, warehouses, and retail stores. Local utility companies employed Clean Harbors to clean manholes potentially contaminated with debris, cable oil, transformer oil and lead. Our crews saw-cut trenches to allow for new cable to be installed. Consulting Engineers utilized our resources to remove petroleum products from various underground storage tanks and pump oil-contaminated water through portable treatment systems. Air movers with HEPA filters were deployed to remove debris from neighboring areas as far as a mile away from Ground Zero.

Clean Harbors carried out New York City's Department of Health requirement to wash and contain runoff from every vehicle leaving Ground Zero in order to capture any loose debris, dust, and potential contaminants that might otherwise escape from the exclusion zone. Portable decontamination pads were installed to contain runoff from the vehicle wash stations set up in the support zone. Additionally, under the direction of the federal government, Clean Harbors supported Urban Search and Rescue Teams by obtaining and strategically staging portable wash stations and comfort areas.



All response and rescue personnel were able to use hot showers and wash-sinks located throughout the Ground Zero Support Zone. This allowed them to remove any potential inhalant particulates and/or blood borne pathogens as well as sanitize their respirators for reuse on their next shift.

At the peak of this demanding and extremely emotional project, Clean Harbors deployed in excess of 140 technicians, equipment operators, foremen and project supervisors to the site. Clean Harbors employees, drawn from various Response Centers around the country, maintained many wash stations throughout Ground Zero as well as supported the day-to-day efforts of debris removal and utility repair.

This coordinated, around-the-clock deployment of highly skilled and trained emergency environmental response personnel representing a diverse array of specialties, by itself, was an outstanding accomplishment. To add to this accomplishment, while Clean Harbors' Emergency Response Strike Force was fully deployed at Ground Zero, anthrax began to threaten America's health and the environment, and Clean Harbors deployed an additional 225 employees strictly for anthrax response. Clean Harbors' simultaneous response to the government's call for help at Ground Zero and help in decontaminating anthrax locations in New York City, transformed their already outstanding accomplishment into a truly extraordinary feat.

Clean Harbors was called upon to decontaminate two national television studios with locations in Manhattan, as well as the largest U.S. postal facility in Manhattan, which with its 5,500 postal employees, moves more mail per day than any other facility in the country. Clean Harbors crews decontaminated each facility efficiently and effectively, completing the postal facility project ahead of schedule and under budget without closing it for even one day. While undertaking these projects, Clean Harbors never lost its focus on, or commitment to, the important work we continued to do at Ground Zero.

In summary, within hours after the two airliners struck the World Trade Towers on September 11, Clean Harbors was on the scene providing comprehensive environmental emergency response services. These services continued to be provided 24 hours a day until demobilization orders were received in early April as the clean-up process neared completion. These services also demonstrated Clean Harbors' efficient mobilization, organizational, logistical and operational capabilities as well as its ability to continue to provide normal emergency and non-emergency services to its regular clients throughout the nation during the emergency



# RESUMES OF KEY PERSONNEL

## INTERNATIONAL RESPONSE TEAM & CORPORATE SUPPORT RESUMES

<b>a. Name, Title &amp; Local Company Address:</b>				
<p><b>SCOTT F. METZGER</b>                  Senior Vice President, Emergency Response Services                  101 Philip Drive                  Norwell, Ma 02061</p>				
<b>b. Project Assignment</b>				
<p>Senior Vice President, Field Service Operations                  Emergency Services</p>				
<b>c. Corporate Address:</b>				
<p>Clean Harbors Environmental Services                  42 Longwater Drive                  Norwell, Massachusetts 02061</p>				
<b>d. Years Experience – With This Firm:</b>	20	<b>With Other Firms:</b>	4	
<b>e. Education: Degree(s) / Year / Specialization &amp; Licenses / Registrations</b>				
<ul style="list-style-type: none"> <li>• Bachelor of Science, Resource Development, University of Rhode Island</li> <li>• Board of Directors, Vice President Spill Control Association of America</li> <li>• International Spill Control Organization</li> </ul>				
<b>f. Other Experience and Qualifications Relevant to the Proposed Project:</b>				
<ul style="list-style-type: none"> <li>• Director of Marine Operations, Clean Harbors Env Services, Norwell, MA</li> <li>• General Manager, Clean Harbors Env Services, Albany, NY</li> <li>• Field Service Specialist, Clean Harbors Env Services, Providence, RI</li> <li>• Research Diver and Vessel Operator, URI Graduate School of Oceanography, Narragansett, RI</li> </ul>				
<b>g. Major Project Experience:</b>				
<ul style="list-style-type: none"> <li>• M/T World Prodigy, Newport, RI</li> <li>• M/V Chiara, Buzzards Bay, MA</li> <li>• M/V Bermuda Star, Vineyard Sound, MA</li> <li>• Sunken Fuel Barge, New London, CT</li> <li>• M/V Royal Majesty, Nantucket Sound, MA</li> <li>• Brayton Point Power Release, Somerset, MA</li> <li>• North Cape, Barge, Rhode Island Sound, RI</li> <li>• Egyptair Flt 990, Off Nantucket Coast, MA</li> <li>• PENN 460, Barge, Narragansett Bay, RI</li> <li>• M/V Anthea Y, Hudson River, NY</li> <li>• B120 Barge, Buzzards Bay, MA</li> <li>• M/V Stellamare, Hudson River, NY</li> <li>• Buzzards Bay Light Tower, Buzzards Bay, MA</li> <li>• Hope Island PCB soil Removal, Narragansett Bay, RI</li> <li>• De-Fueling USS Forestall and USS Saratoga, Newport, RI</li> </ul>				



	<ul style="list-style-type: none"> <li>• De-Fueling T/S Patriot State, Bourne, MA</li> <li>• Gould Island Drilling Project, Narragansett Bay, RI</li> <li>• World Trade Center, New York, NY</li> <li>• U. S. Postal Service – Morgan Distribution Center, Anthrax Decontamination, New York, NY</li> <li>• NBC - Anthrax Decontamination, New York, NY</li> <li>• CBS - Anthrax Decontamination, New York, NY</li> <li>• M/V Athos I, Delaware River, NJ/PA</li> <li>• Hurricane Katrina, Gulf Coast states</li> <li>• Hurricane Rita, Gulf Coast states</li> <li>• Refinery Release, Lake Charles, LA</li> <li>• M/V Cosco Busan, San Francisco Bay, CA</li> <li>• Midwest Floods, Iowa</li> <li>• Barge DM932, Mississippi River, LA</li> <li>• Hurricane Gustav, Gulf Coast States</li> <li>• Hurricane Ike, Gulf Coast States</li> <li>• Terminal/Refinery Fire, Puerto Rico</li> <li>• M/T Eagle Otome, Port Arthur, TX</li> <li>• Deepwater Horizon, Gulf of Mexico</li> <li>• Line 6B leak, Marshall, MI</li> <li>• Yellowstone River Spill, Billings MT</li> </ul>
<b>h.</b>	<b>Environmental &amp; Health and Safety Training:</b>
	<ul style="list-style-type: none"> <li>• Confined Space Rescue Training/ CHES</li> <li>• Confined Space Supervisor, CHES</li> <li>• 40 Hour OSHA Required Training for Hazardous Waste / CHES Corporate</li> <li>• 8 Hour OSHA Supervisor Training for Hazardous Waste / CHES Corporate</li> <li>• Certified CPR &amp; Basic First Aid / CHES Corporate</li> <li>• Supervisor Substance Abuse Awareness Training / CHES Corporate</li> <li>• Blue Water Diver Qualified, URI Graduate School of Oceanography</li> <li>• Research Diver Qualified, URI Graduate School of Oceanography</li> <li>• Underwater Rescue and Recovery, Plymouth, England</li> <li>• Hard Hat/Dry Suit Certified Diver/ Plymouth England</li> <li>• ICS/NIMS Training</li> <li>• CHES Certified Vessel Operator Trainer</li> </ul>



<b>a.</b>	<b>Name, Title &amp; Local Company Address:</b>			
	<b>VIRGIL BLANCHARD</b> Project Manager 3201 Petro Drive Sulphur, LA 70663			
<b>b.</b>	<b>Project Assignment</b>			
	Incident Commander – National Response Team			
<b>c.</b>	<b>Corporate Address:</b>			
	Clean Harbors Environmental Services 42 Longwater Drive Norwell, MA 02061			
<b>d.</b>	<b>Years Experience – With This Firm:</b>	4	<b>With Other Firms:</b>	16
<b>e.</b>	<b>Education: Degree(s) / Year / Specialization &amp; Licenses / Registrations</b>			
	<ul style="list-style-type: none"> <li>St. Martinville, LA Senior High School</li> <li>Highway and Rail emergency response training, Pueblo, Colorado</li> </ul>			
<b>f.</b>	<b>Other Experience and Qualifications Relevant to the Proposed Project:</b>			
	<p>Mr. Blanchard came to Clean Harbors in 2005 with nearly 17 years of emergency response experience. He has numerous contacts in the Gulf Coast region from working as a General Manager and Vice President of Operations for previous companies. He has also been the owner and co-owner of several companies, most notably an Oil field construction company for over eight years, and a fire and safety services company. Mr. Blanchard has great experience with the ICS system and has acted as log chief, operations section chief and deputy incident commander on several oil spills and hazardous materials cleanup projects since 1992.</p> <p>Recently during the Hurricane Katrina response, Mr. Blanchard managed all water operations in New Orleans for a federal client. During the Hurricane Rita debris recovery projects for several federal clients he was the primary contractor project manager.</p> <p>Mr. Blanchard is currently the manager of Clean Harbors National Response Team, which assists all service centers with emergency response activities. Mr. Blanchard is based out of Lafayette, Louisiana.</p>			
<b>g.</b>	<b>Major Project Experience:</b>			
	<p>Mr. Blanchard has assisted on countless projects in the Gulf Coast region and throughout the United States. Listed here are recent incidents of relevant importance.</p> <ul style="list-style-type: none"> <li><b>Container Ship Allision With San Francisco Bay Bridge, 2007</b> – Mr. Blanchard managed all Clean Harbors operations and resources during the cleanup of a 58,000 gallon oil spill in the San Francisco Bay and surrounding areas.</li> <li><b>Container/Debris Recovery from Marshes, Federal Client, 2007-2007</b> – Mr. Blanchard was the operations section chief for the cleanup of several marshes on federal land. During these projects, Mr. Blanchard managed several specialty operations designed to locate, remove, transport, and dispose or recycle all hazardous debris from the marshes deposited from Hurricanes Katrina and Rita. Mr. Blanchard also managed the restoration of much of the land that was damaged during the hurricanes. The project lasted for nearly six months at a level of roughly 100 people and included multiple specialty subcontractors.</li> <li><b>Hurricane Rita Recovery, Gulf Coast states, 2005-2006</b> – On this project, Mr. Blanchard was the lead Project Manager for all marine and marsh operations in the recovery of hazardous debris from the marshes left by Hurricane Rita. Tasks included managing crews to walk the marshes and locate materials and managing specialty equipment to remove the material.</li> <li><b>Hurricane Katrina, Gulf Coast states, 2005</b> – During the initial weeks after Hurricane Katrina hit New Orleans, Mr. Blanchard was the lead logistical contact with multiple federal agencies to provide potable water to damaged areas. A network of water trucks was managed by Mr. Blanchard to meet the customers' needs.</li> <li><b>Oil Tanker Spill in Delaware River, Philadelphia, PA, 2004-2005</b> – Mr. Blanchard managed several zones during the cleanup of beaches, rocks, and marinas. He also managed a fleet of over 20 vessels that brought spill cleanup resources</li> </ul>			





	<p>to remote locations.</p> <ul style="list-style-type: none"> <li>• <b>Anthrax Decontamination of Major Television Networks and Post Office, New York, NY, 2001</b> – After the World Trade Center attacks, multiple federal agencies and television networks in New York City received threats of anthrax. Mr. Blanchard assisted in the 24 hour-per-day operation of decontaminating these locations.</li> <li>• <b>World Trade Center Cleanup, New York, NY, 2001</b> – Mr. Blanchard assisted in managing operations for the hazardous waste cleanup after the World Trade Center attacks. Duties included debris removal, air ventilation and hazardous waste pump outs from the surrounding areas.</li> <li>• <b>Barge Spill in Buzzards Bay, Cape Cod, MA, 2003</b> – On a large oil spill response in a high profile and environmentally conscious area, Mr. Blanchard was the lead contact for private party claims. He ensured that any homeowner or private land owner was satisfied with the cleanup of oil from their property.</li> <li>• <b>M/V Cosco Busan, San Francisco Bay, CA</b></li> <li>• <b>Midwest Floods, Iowa</b></li> <li>• <b>Barge DM932, Mississippi River, LA</b></li> <li>• <b>Hurricane Gustav, Gulf Coast States</b></li> <li>• <b>Hurricane Ike, Gulf Coast States</b></li> <li>• <b>Sunoco Pipeline Spill, Cygnet, OH</b></li> <li>• <b>Marathon Pipeline Spill, Winchester Kentucky</b></li> <li>• <b>City of Atlanta flash Floods, September-November 2009</b></li> <li>• <b>Gulf Refinery Explosion, Catano, PR</b></li> <li>• <b>Port Arthur, Texas M/T Eagle Otome Crude Oil Spill</b></li> </ul>
<b>h.</b>	<b>Environmental &amp; Health and Safety Training:</b>
	<ul style="list-style-type: none"> <li>• 40 hours Hazardous Material Training</li> <li>• 8 hours Supervisor training</li> <li>• 24 hour confined space training</li> <li>• ICS level 700 training</li> </ul>



<b>a.</b>	<b>Name, Title &amp; Local Company Address:</b>		
	<b>STEPHEN J SHEPPARD</b> Site Services General Manager Clean Harbors Environmental Services 42 Longwater Drive Norwell, MA, 02061		
<b>b.</b>	<b>Project Assignment</b>		
	Field Accountant/ Project Manager– National Response Team		
<b>c.</b>	<b>Corporate Address:</b>		
	Clean Harbors Environmental Services 42 Longwater Drive Norwell, MA, 02061		
<b>d.</b>	<b>Years Experience – With This Firm:</b>	5	<b>With Other Firms:</b>
<b>e.</b>	<b>Education: Degree(s) / Year / Specialization &amp; Licenses / Registrations</b>		
	<ul style="list-style-type: none"> <li>Abington High School, 2005</li> <li>Suffolk University- BS in Business Administration, 2009</li> </ul>		
<b>f.</b>	<b>Other Experience and Qualifications Relevant to the Proposed Project:</b>		
<b>g.</b>	<b>Major Project Experience:</b>		
	<ul style="list-style-type: none"> <li>Hurricane Rita Recovery Projects, US Fish &amp; Wildlife, Sabine, Cameron, Bayou Savage, LA Refuges</li> <li>Exxon Mobil Spill, Everett, MA</li> <li>Citgo Oil Spill, Sulpher, LA</li> <li>Cosco Busan Oil Spill, San Francisco, CA</li> <li>Barge DM932, Mississippi River, LA</li> <li>Marathon Pipeline Graysville, IL</li> <li>Gulf Refinery Explosion, Catano, PR</li> <li>Hurricane Ike Restoration Projects, US Fish and Wildlife, Anahuac, Matagorda Island, McFadden , Moody TX Refuges</li> <li>Deepwater Horizon MC-252 Oil Spill- Gulf of Mexico</li> </ul>		
<b>h.</b>	<b>Environmental &amp; Health and Safety Training:</b>		
	<ul style="list-style-type: none"> <li>40 Hour OSHA Required Training for Hazardous Waste/ CHES Corporate</li> <li>8 Hour OSHA Supervisor Training for Hazardous Waste/ CHES Corporate</li> <li>Certified CPR &amp; Basic First Aid</li> </ul>		



<b>a.</b>	<b>Name, Title &amp; Local Company Address:</b>			
	<b>CODY J. ISSLER</b> Project Manager, Emergency Response 15715-121A Ave Edmonton, Alberta T5V 1B1			
<b>b.</b>	<b>Project Assignment</b>			
	Project Manager, Emergency Response			
<b>c.</b>	<b>Corporate Address:</b>			
	Clean Harbors Environmental Services 42 Longwater Drive Norwell, Massachusetts 02061			
<b>d.</b>	<b>Years Experience – With This Firm:</b>	1	<b>With Other Firms:</b>	3
<b>e.</b>	<b>Education: Degree(s) / Year / Specialization &amp; Licenses / Registrations</b>			
	<ul style="list-style-type: none"> <li>Diploma in Land and Water Resources with a Major in Land Reclamation from Olds College</li> </ul>			
<b>f.</b>	<b>Other Experience and Qualifications Relevant to the Proposed Project:</b>			
	<ul style="list-style-type: none"> <li>Field Service Technician, Tervita Corporation, Edmonton, AB</li> </ul>			
<b>g.</b>	<b>Major Project Experience:</b>			
	<ul style="list-style-type: none"> <li>Pipeline Break, Oil Spill into wetland area, Red Earth, AB</li> <li>Pipeline Break, Oil Spill into Red Deer River, Glennifer Lake, AB</li> <li>Pipeline Break, Condensate Spill, Manning, AB</li> <li>Wolf Lake Oil Spill, Cold Lake Air Weapons Range, AB</li> <li>Diesel Spill, Fort McMurray, AB</li> <li></li> </ul>			
<b>h.</b>	<b>Environmental &amp; Health and Safety Training:</b>			
	<ul style="list-style-type: none"> <li>Confined Space Entry/Monitor Training / CHES</li> <li>Certified CPR &amp; Basic First Aid / Saint John's Ambulance</li> <li>Asbestos Safety / Golder Environmental</li> <li>H2S Alive / Enform</li> <li>Respiratory Protection / The Learning Center</li> <li>Fatigue Management / CHES</li> <li>WHIMIS / CHES</li> <li>CSTS / CHES</li> <li>TDG / CHES</li> <li>Fire Extinguisher Training / CHES</li> <li>OSSA Fall Protection / CHES</li> <li>Swift Water Technician SRT-1 / Rescue 3</li> <li>Pleasure Craft Operating Certificate</li> <li>Marine Emergency Duties (MED-A3) / WCSS</li> <li>Small Vessel Operating Proficiency (SVOP) / ITE</li> <li>Class 7 Training (Radioactive Materials) / ALARA</li> <li>Ground Disturbance level II /Global</li> </ul>			



<b>a.</b>	<b>Name, Title &amp; Local Company Address:</b>				
	<b>JOSHUA T. PERRY</b> Shutdown/Workforce Planning Manager 15715-121A Ave Edmonton, Alberta T5V 1B1				
<b>b.</b>	<b>Project Assignment</b>				
	Branch Manager – Emergency Response Canada Branch Manager – Labour Pool				
<b>c.</b>	<b>Corporate Address:</b>				
	Clean Harbors Environmental Services 42 Longwater Drive Norwell, Massachusetts 02061				
<b>d.</b>	<b>Years Experience – With This Firm:</b>	6	<b>With Other Firms:</b>	3	
<b>e.</b>	<b>Education: Degree(s) / Year / Specialization &amp; Licenses / Registrations</b>				
<b>f.</b>	<b>Other Experience and Qualifications Relevant to the Proposed Project:</b>				
	<ul style="list-style-type: none"> <li>• Operations Manager Industrial Services – Clean Harbors</li> <li>• Dispatcher Industrial Services – Clean Harbors</li> <li>• Project Manager - Genivar</li> </ul>				
<b>g.</b>	<b>Major Project Experience:</b>				
	<ul style="list-style-type: none"> <li>• Tailings Pond Breach Obed Mine, Hinton, AB 2013</li> </ul>				
<b>h.</b>	<b>Environmental &amp; Health and Safety Training:</b>				
	<ul style="list-style-type: none"> <li>• OSSA Confined Space Entry/Monitor Training / MI Safety</li> <li>• OSSA Fall Protection / Fall Protection Group</li> <li>• Certified CPR &amp; Basic First Aid / Canadian Red Cross</li> <li>• H2S Alive / Enform</li> <li>• Supervisor Safety Development Program / CHES</li> <li>• Fatigue Management / CHES</li> <li>• WHIMIS / CHES</li> <li>• CSTS / ACSA</li> <li>• TDG / CHES</li> <li>• Fire Extinguisher Training / CHES</li> <li>• OSSA Fall Protection / CHES</li> <li>• Pleasure Craft Operating Certificate</li> <li>• Marine Emergency Duties (MED-A3) / ITE Training and Consulting Inc</li> <li>• Small Vessel Operating Proficiency (SVOP) / ITE Training and Consulting Inc</li> <li>• 40 Hour Hazwoper Training / CHES</li> <li>• Leadership for Safety Excellence / ACSA</li> <li>• Loss Prevention and Control / CHES</li> <li>• Hours of Service Awareness / CHES</li> </ul>				



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| <ul style="list-style-type: none"><li>• Behavioral Training for Managers and Supervisors / CHES</li><li>• Basic Spill Training / Quantum Murray</li><li>• HSSE Leadership On The Front Line / Global Training Centre</li></ul> |
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<b>a.</b>	<b>Name, Title &amp; Local Company Address:</b>				
	<b>JAMES J. GODFREY, JR.</b> Vice President, Emergency Response Services 2 South Road Wading River, New York 11792				
<b>b.</b>	<b>Project Assignment</b>				
	Vice President, Emergency Response Services				
<b>c.</b>	<b>Corporate Address:</b>				
	Clean Harbors Environmental Services 42 Longwater Drive Norwell, Massachusetts 02061				
<b>d.</b>	<b>Years Experience – With This Firm:</b>	Since 3/11	<b>With Other Firms:</b>	29	
<b>e.</b>	<b>Education: Degree(s) / Year / Specialization &amp; Licenses / Registrations</b>				
	<ul style="list-style-type: none"> <li>Bachelor of Science, Marine Engineering Systems, US Merchant Marine Academy, 1982, 3<sup>rd</sup> Assistant Engineer's License, Steam and Diesel, Unlimited Horsepower</li> <li>Juris Doctor, Touro College, Jacob D. Fuchsberg Law Center, 1986, Admitted, NY Bar, 1988, Admitted Southern and Eastern Federal District Courts of New York, 1990</li> </ul>				
<b>f.</b>	<b>Other Experience and Qualifications Relevant to the Proposed Project:</b>				
	<ul style="list-style-type: none"> <li>Project Manager, High Flux Beam Reactor Decommissioning, Brookhaven National Laboratory, Upton, NY</li> <li>Vice President Operations, Client Services and Cosel, National Response Corporation, Great River, NY</li> <li>Maintenance Manager, Shoreham Nuclear Power Station Decommissioning, Shoreham, NY</li> <li>Associate Attorney, Hill, Betts and Nash, New York, NY</li> <li>Trial Attorney, Suffolk County Legal Aid Society, Hauppauge, NY</li> <li>Startup Engineer, Shoreham Nuclear Power Station, Shoreham, NY</li> </ul>				
<b>g.</b>	<b>Major Project Experience:</b>				
	<ul style="list-style-type: none"> <li>Shoreham Nuclear Power Station Startup, Shoreham, New York</li> <li>Shoreham Nuclear Power Station Decommissioning, Shoreham New York</li> <li>San Jacinto River Spill, Houston, Tx.</li> <li>TWA Flight 800, LI, NY</li> <li>World Trade Center, New York, NY</li> <li>M/V Athos I, Delaware River, NJ/PA</li> <li>Mid-Valley Pipeline, Carrollton, Kentucky</li> <li>Hurricane Katrina, Gulf Coast states</li> <li>Hurricane Rita, Gulf Coast states</li> <li>DBL-152, Port Arthur, Texas</li> <li>Refinery Release, Lake Charles, LA</li> <li>Gulf Capeco Refinery Fire, San Juan, Puerto Rico</li> <li>Barge Spill, Yabucoa, Puerto Rico</li> <li>M/V Cosco Busan, San Francisco Bay, CA</li> </ul>				



	<ul style="list-style-type: none"><li>• High Flux Beam Reactor Decommissioning, Brookhaven National Laboratory, Upton, NY</li></ul>
<b>h.</b>	<b>Environmental &amp; Health and Safety Training:</b>
	<ul style="list-style-type: none"><li>• 40 Hour OSHA Required Training for Hazardous Waste</li><li>• 8 Hour OSHA Supervisor Training</li><li>• ICS/NIMS Training</li></ul>



<b>a.</b>	<b>Name, Title &amp; Local Company Address:</b>			
	<b>THOMAS B. HAGADORN</b> Director Health & Safety 3 Sutton Place Edison, NJ 08817			
<b>b.</b>	<b>Project Assignment</b>			
	Director of Health & Safety			
<b>c.</b>	<b>Corporate Address:</b>			
	Clean Harbors, Inc. 42 Longwater Drive Norwell, Massachusetts, 02061			
<b>d.</b>	<b>Years Experience – With This Firm:</b>	24	<b>With Other Firms:</b>	7
<b>e.</b>	<b>Education: Degree(s) / Year / Specialization &amp; Licenses / Registrations</b>			
	University of Southern Maine – Gorham, ME 1993 - 1995  <i>Environmental Health &amp; Safety Program</i>			
<b>f.</b>	<b>Other Experience and Qualifications Relevant to the Proposed Project:</b>			
	<ul style="list-style-type: none"> <li>• Supervise ten health and safety professionals in developing and implementing strategic programs and plans with the purpose of creating a safe environment for all employees within the organization.</li> <li>• Responsible for the development and implementation of corporate health and safety policies for 66 different business units with 1200+ employees company wide.</li> <li>• Develop and implement accident prevention and loss control methods and programs at operations in all field locations to improve safety performance.</li> <li>• Chairperson of Divisions' Incident Review Committee with responsibility to review all incidents including but not limited to near misses, injuries, and property damage and motor vehicle accidents.</li> <li>• Represent the organization on O.S.H.A. citation matters.</li> <li>• Safety Incident Commander on all large-scale emergency response events.</li> <li>• Assisted in development of Behavior Based Safety program, which was implemented throughout the company.</li> <li>• Work closely with various government agencies (e.g. OSHA, EPA, Health Departments, Coast Guard, etc.), and client and owner Environmental, Health and Safety personnel in addressing various EHS issues and concerns associated with the remediation and environmental work conducted by Clean Harbors.</li> </ul>			
<b>g.</b>	<b>Major Project Experience:</b>			
	<ul style="list-style-type: none"> <li>• <b>Chlorine Fire Emergency Response/Remediation, Advanced Laboratories Springfield, MA – 1988</b> Response to a fire at a swimming pool chemical plant fire. Site Safety Officer.</li> <li>• <b>PCB Emergency Response/Remediation SUNY New Paltz, NY –1991</b> Response to an event where transformers containing PCB oil overheated, exploded and/or burned on the State University of New York at New Paltz campus. Long-term remediation project. Site Safety Officer</li> <li>• <b>T/V “Julie N, Portland, ME – 1996</b> 170,000 gallon marine oil spill 700+ total responders, Safety Incident Commander of 150 responders.</li> <li>• <b>World Trade Center Response, New York, NY - 2001</b> Response to support recovery efforts associated with terrorist attacks on WTC. Primary response activity decontamination of equipment and personnel involved in the response effort. Safety Incident Commander of 180 responders.</li> <li>• <b>U. S. Postal Service –Morgan Distribution Center, Anthrax Decontamination, New York, NY – 2001</b> Response &amp; decontamination of US Postal Distribution Facility contaminated with anthrax. Safety Incident Commander of 200 responders.</li> <li>• <b>NBC, Anthrax Decontamination, New York, NY – 2001</b> Response &amp; decontamination of national television studio contaminated with anthrax. Safety Incident Commander of 50 responders</li> <li>• <b>CBS, Anthrax Decontamination, New York, NY – 2001</b> Response &amp; decontamination of national television studio contaminated with anthrax. Safety Incident Commander of 30 responders</li> </ul>			





	<ul style="list-style-type: none"> <li>• <b>Bouchard “B-120”, Buzzards Bay, MA – 2003</b> 100,000-gallon marine oil spill. Safety Incident Commander of 850 responders.</li> <li>• <b>Athos I, Delaware River, NJ/PA – 2004</b> 265,000-gallon marine oil spill. 700+ total responders, Safety Incident Commander of 250 responders.</li> <li>• <b>Hurricane Katrina/Rita Response, MS/LA – 2005</b> Response to natural disaster. Multiple projects associated with this disaster including the response and clean up of a 1 million gallon oil spill at Murphy’s Refining Meraux, LA. Safety Incident Commander of 220 responders.</li> <li>• <b>Barge DM932 New Orleans, LA– 2008</b> 400,000–gallon marine oil spill. Safety Incident Commander of 450 responders.</li> <li>• <b>Hurricane Gustav/Ike Response, LA/TX – 2008</b> Response to natural disaster. Multiple projects associated with this disaster. Safety Incident Commander CHES Response Team.</li> <li>• <b>Deepwater Horizon Response, LA/MS/AL/FL – 2010-</b> 2 million gallon marine oil spill. Safety Incident Commander of 3,000 responders.</li> <li>• <b>Silvertip Pipeline Response, MT – 2011-</b> 42,000 gallon crude oil response into the Yellowstone River. Safety Incident Commander of 680 responders.</li> </ul>
<b>h.</b>	<b>Environmental &amp; Health and Safety Training:</b>
	<ul style="list-style-type: none"> <li>• 40-Hour Hazardous Materials Operations Level</li> <li>• 8-Hour Hazardous Materials Supervisor</li> <li>• NFPA Firefighter I</li> <li>• National Fire Academy – <b><i>Preparing for Incident Command &amp; Commanding The Initial Response</i></b></li> <li>• United States EPA – <b><i>Hazardous Materials Response Safety Decision Making</i></b></li> <li>• New Jersey State Fire College – <b><i>Staff and Command</i></b></li> <li>• New Jersey Department of Environmental Protection – <b><i>Radiation and Hazardous Materials</i></b></li> <li>• National Safety Council – <b><i>Principals of Occupational Safety &amp; Health</i></b></li> <li>• OSHA Training Institute – <b><i>Introduction to Industrial Hygiene for Safety Personnel &amp; Health Hazards in the Construction Industry for Safety Personnel</i></b></li> <li>• International Association of Firefighters – <b><i>Confined Space Operations</i></b></li> <li>• University of Maryland Fire &amp; Rescue Institute – <b><i>Confined Space Entry &amp; Rescue</i></b></li> <li>• Lamar University Center for Industrial Fire and Hazardous Materials Training – <b><i>Industrial Rescue Training Level I</i></b></li> <li>• Tennessee Safety and Environmental, Inc – Leading and Managing Process Hazard Analyses</li> <li>• Confined Space “Competent” Person</li> <li>• Excavation/Trenching “Competent” Person</li> </ul>



<b>a.</b>	<b>Name, Title &amp; Local Company Address:</b>			
	<b>BRIAN POTT</b> Director of Site Services Pricing 42 Longwater Drive Norwell, MA 02061			
<b>b.</b>	<b>Project Assignment</b>			
	Field Accountant / Finance Supervisor/ Director of Site Services Pricing and Contracts			
<b>c.</b>	<b>Corporate Address:</b>			
	Clean Harbors Environmental Services 42 Longwater Drive Norwell, MA 02061			
<b>d.</b>	<b>Years Experience – With This Firm:</b>	11	<b>With Other Firms:</b>	0
<b>e.</b>	<b>Education: Degree(s) / Year / Specialization &amp; Licenses / Registrations</b>			
	<ul style="list-style-type: none"> <li>• B.S., Industrial and Systems Engineering, Business Minor, Virginia Polytechnic Institute and State University (Virginia Tech), 2004</li> <li>• ICS-100, ICS-200, ICS-700, ICS-800 Certified, December, 2006</li> <li>• Certified Crisis Management Plan Writing, May, 2007</li> </ul>			
<b>f.</b>	<b>Other Experience and Qualifications Relevant to the Proposed Project:</b>			
	<ul style="list-style-type: none"> <li>• As Director of Site Services Pricing, Mr. Pott manages the company's Site Service pricing strategies in all business segments, including Tank Cleaning, Emergency Response, Industrial Services, etc, playing an important role in the growth and profitability of the business. Mr. Pott also assists in system development to make the jobs of field workers easier.</li> <li>• Prior to his position of Direct of Site Services Pricing, Mr. Pott was a Field Project Manager for major emergency responses and large-scale projects. His roles included developing and communicating pricing estimates to customers and upper management on a daily basis, managing subcontractors and subcontractor costs, and providing accurate resource usage on large projects. Mr. Pott has developed several specialized spreadsheets and programs for customer and internal use that quickly portray accurate costs and resource usage on large events. Mr. Pott has also been a lead contact and finance representative with Maintenance &amp; Logistics Command Atlantic for any project involving the US Coast Guard.</li> <li>• Prior to being a Field Project Manager, Mr. Pott was a Field Technician part-time while he earned his B.S. in Industrial &amp; Systems Engineering. Mr. Pott gained a great deal of field experience in marine response, marine services, tank cleaning, chemical decontamination, and general site services.</li> </ul>			
<b>g.</b>	<b>Major Project Experience:</b>			
	<ul style="list-style-type: none"> <li>• <b>Oil Spill on Mississippi River, New Orleans, LA, 2008</b> – On this large oil spill that stretched from New Orleans, LA to the Gulf of Mexico Mr. Pott again managed the finance operations of a response that included 450 responders working under Clean Harbors. Mr. Pott ensured that all resources were tracked as they were moved and conveyed the information daily to the spill command center.</li> <li>• <b>Container Ship Fuel Oil Spill in San Francisco Bay, 2007</b> – Mr. Pott worked in conjunction of the Clean Harbors National Response Team to clean up a major oil spill in the San Francisco Bay. Clean Harbors worked the spill again without outside help in daily cost reporting to customers due to Mr. Pott's efforts. Because their work outshined all competitors on the initial portion of this spill, Clean Harbors was asked to continue working on the maintenance phase of the project.</li> <li>• <b>Tank Cleaning &amp; Construction Project Audit, Freeport, TX, 2007</b> – This was a large tank cleaning and reconstruction project that had reporting issues to the customer for months of the project. Mr. Pott was brought in to audit and review the project and to determine the true cost of the project according to the terms and conditions of the contract. The project went to settlement and Mr. Pott's work (among others) saved the company a sizeable amount of money.</li> <li>• <b>Container Recovery in Marsh, Federal Client, Southeastern Louisiana, 2007</b> – This project was notably smaller than the Southwestern LA project, but Mr. Pott's responsibilities were similar. Since this was not an emergency response project, Clean Harbors was required to submit a proposal for the work, and Mr. Pott completed the winning bid largely as a solo effort.</li> </ul>			



	<ul style="list-style-type: none"> <li>• <b>Container Recovery in Marsh, Federal Client, Southwestern Louisiana, 2006-2007</b> – On this project Mr. Pott was the lead finance representative to a federal client and joint task force managing the project. Clean Harbors used several specialty subcontractors to remove hazardous debris from the marsh, including helicopters, marsh draglines/excavators, and several types of airboats, and Mr. Pott was responsible for tracking their time and billing and portraying it to the customer on a daily basis, as well as portraying financial data to upper management within Clean Harbors.</li> <li>• <b>Flash Flood Spill, Sulphur, LA, 2006</b> – On this project, Mr. Pott used his cost tracking sheet to perform all customer billing of over 100 people. This was the first major oil spill or event that Clean Harbors was performed independently on cost tracking and financial duties.</li> <li>• <b>Rocky Mountain Arsenal (RMA) Landfill Project, Denver, CO, 2006</b> – Mr. Pott worked checking grade as a landfill was filled in 2’ high sections with loaders and dozers, compacted with lamb’s feet, and then covered with 1’ of clean fill for odor control. Throughout the length of the project, all members of the crew were donned in either Level-C PPE with air purifying respirator, or Level-B PPE with supplied air.</li> <li>• <b>Hurricane Rita Container Recovery Project, Cameron Parish, LA, 2005-2006</b> – Mr. Pott developed and used a new cost tracking system that could be used for both internal uses a federal client.</li> <li>• <b>Hurricane Katrina Response, New Orleans, LA, 2005-2006</b> – Mr. Pott worked as a finance representative to several customers and vendors. He developed several cost tracking systems for both internal and external uses which allowed Clean Harbors to portray cost data in the real time. His roles included real-time cost tracking of over 200 personnel and several equipment &amp; materials resources to nearly 40 customers, managing subcontractor billing, and coordinating resources to customer sites.</li> <li>• <b>Krout’s Creek Benzene Remediation, Oil Refinery Company, Huntington, WV, 2005</b> – Mr. Pott managed the field crew on the remediation of the creek, and also coordinated the transportation and disposal of hazardous and non-hazardous excavated material. Despite significant challenges posed by low threshold air monitoring notification requirements and proximity to residential properties, project operations were never interrupted and were completed on time.</li> <li>• <b>Mid-Valley Pipeline Release, Carrolton, KY, 2005</b> – Mr. Pott managed customer billing and estimates on a daily basis.</li> <li>• <b>Crude Oil Tanker Spill, Delaware River NJ/PA, 2004-2005</b> – Mr. Pott maintained the daily billing summaries of over 360 people for the client, as well as maintaining estimates for all subcontractors on the project. Mr. Pott developed a spreadsheet program to track daily resource usage for a federal client once the project was federalized and maintained coordination of several crews.</li> <li>• <b>Mercury Spill in Apartment Complex, Utility Company, Pawtucket, RI, 2004</b> – Mr. Pott was responsible for cleaning several apartments contaminated with mercury, taking detailed inventory of the occupants’ personal belongings, and managing the transportation of roll-off containers.</li> </ul>
<b>h.</b>	<p><b>Environmental &amp; Health and Safety Training:</b></p> <ul style="list-style-type: none"> <li>• OSHA 40-Hour HAZWOPER Training, June 2000</li> </ul>



<b>a.</b>	<b>Name, Title &amp; Local Company Address:</b>			
	<b>FRANKLIN LEE BARFIELD</b> National Emergency Response Manager, Clean Harbors Environmental Services, Inc. 55 Silicon Drive, McCarran, NV. 89434			
<b>b.</b>	<b>Project Assignment</b>			
	National Emergency Response Manager			
<b>c.</b>	<b>Corporate Address:</b>			
	Clean harbors Environmental Services, Inc. 42 Longwater Drive Norwell, Massachusetts, 02061			
<b>d.</b>	<b>Years Experience – With This Firm:</b>	5.5	<b>With Other Firms:</b>	24
<b>e.</b>	<b>Education: Degree(s) / Year / Specialization &amp; Licenses / Registrations</b>			
	Hazardous Materials Managers Certificate – University Of California, Riverside Class A Driver Lic. With All Endorsements			
<b>f.</b>	<b>Other Experience and Qualifications Relevant to the Proposed Project:</b>			
	<p>As National Emergency Response Manager for Clean Harbors, Mr. Barfield is responsible overseeing all of the Emergency Responses in the Country for all the National accounts. This also includes getting and maintaining relationships with all OPA 90 clients as well as developing relationships with new clients for Emergency Response. It also includes responding and running responses at any National disasters.</p> <p>As a former General Manager of Site Services for Clean Harbors in the bay area, Mr. Barfield was responsible for overseeing all of the field and on site activity in the San Francisco bay area. This responsibility included Emergency response as well as planned work at customer sites. This also included the overseeing of all aspects of running the office.</p> <p>Mr. Barfield has worked in the environmental field at all levels including laborer, foreman, equipment operator and superintendent. He has extensive field knowledge in managing environmental remediation events.</p> <p>Mr. Barfield has over twenty five years of experience in the hazardous waste and remediation field. This includes Emergency Response and Transportation of all classifications of waste streams.</p>			
<b>g.</b>	<b>Major Project Experience:</b>			
	<ul style="list-style-type: none"> <li>• Montana: Spent several months running crews on the Yellow Stone River clean up of oil that was released.</li> <li>• Gulf Spill: Ran a very large site in Mississippi for Clean Harbors during the Deepwater Horizon spill for over nine months.</li> <li>• Michigan: Spent time running a crew during the Pipeline 6A spill in Michigan.</li> <li>• New Orleans: Ran multiple crews on a tanker spill in the Mississippi River.</li> <li>• Northern California: Obrien – Major oil spill in the San Francisco Bay.</li> <li>• Louisiana and Texas: Helped clean up and run projects for the clean up efforts after Hurricane Ike.</li> <li>• Southern California: BLM – Mercury Mine site clean up near Santa Barbara, CA- A three month project to restore and clean up an abandon Mercury Mine Site that covered over twenty acres of woodland.</li> </ul>			



- Southern California: Riverside County Health – Ran the House Hold Collection events for the Riverside County Health Dept. in nine different areas for over four years.
- Southern & Northern California. – DTSC – Responded to and cleaned up Drug Labs all over the State of California for over sixteen years.
- Southern California: BNSF Railroad – Responded and cleaned up the major train derailment in the Cajon Pass that lasted for two months at a cost of approximately 1.5 million dollars.

**h. Environmental & Health and Safety Training:**

- University Of Ca. riverside – Hazardous Materials Certificate
- 40 Hour Hazardous waste Operations and Emergency Response
- 8 Hour Updates Every Year starting In 1987
- 40 Hour Hazardous waste Operations, Supervisor Course
- 40 Hour Project Management Course
- Dale Carnegie Management Course 1
- Dale Carnegie Management Course 2
- OSHA Health and Safety Training
- PPE Respiratory Protection
- Hearing Conservation Training
- HazCat Identification – Beg, intermediate and Advanced Course
- Confined Space Entry
- Confined Space Entry Supervisor
- Confined Space Rescue Training
- Red Cross first Aid and CPR Training
- BHA Air Pollution Control Maintenance certificate
- Professional Development Program / dale Carnegie
- Leadership for Professionals / Dale Carnegie
- Gas Cylinder Training
- Specialty Gas Emergency Response Training
- Specialty Gas Emergency Response 2 Training
- Incident Commander Training – Ca. ( Hazardous Material)
- Technician Course – Home Land Security (COBRA)
- Incident Commander training – Home Land Security (COBRA)
- Weapons of Mass Destruction Technician Course – Home Land Security ( COBRA )
- Weapons of Mass Destruction Technician Course 2 – Home Land Security (COBRA)
- Weapons of Mass Destruction Incident Command Course – Home Land Security (COBRA)
- Qualified individual Training – (On Scene Incident Commander)
- Cal Tran Rail Road Training
- Rail Car Specialist Training
- Rail Car Specialist Training 2
- Rail Car Supervisor Training
- Rail Car Intermodel Training
- Rail Car Training / Emergency Response (BNSF)



- Rail Car Training / Emergency Response ( UP)
- Rail Car (Tanks) Chlorine Release Training
- Rail Car Roll Over Training
- Rail Road Safety Training
- Highway Response Training
- Highway Specialist Response Training
- Bio Waste Training
- Blood Born Pathogen Training
- Mine Health and Safety Training
- Over The Water response Training
- HM 181 DOT Training and certification
- Class A Driver Training – (Tanker, Roll Off, Van, End Dump, Haz Mat)
- Hours Of Service Auditing For Drivers Logs Training
- Forklift Safety Training
- Material handling / Transportation Certification
- Lead Abatement Training
- Bay Area Safety Orientation Course (BAT )
- Manifest training
- D.O.T. HazMat Training



<b>a.</b>	<b>Name, Title &amp; Local Company Address:</b>			
	<b>JOHN RODIER</b> Director, Emergency Response Services Clean Harbors Environmental Services, Inc. 101 Philip Drive Norwell, MA 02061-9149			
<b>b.</b>	<b>Project Assignment</b>			
	Manager, Emergency Operations Center and Emergency Response Contracts / Field Accountant			
<b>c.</b>	<b>Years Experience – With This Firm:</b>	5	<b>With Other Firms:</b>	
<b>d.</b>	<b>Current Work Assignments</b>			
	<ul style="list-style-type: none"> <li>• Manage 24/7/365 Emergency Operations Center <ul style="list-style-type: none"> <li>○ 7 Full Time and 4 Part Time Phone Operators that handle incoming phone traffic on the company's 5 emergency response phone numbers, as well as all after hours phone traffic for the company</li> </ul> </li> <li>• Oversee implementation and management of all emergency response contracts for the company</li> <li>• Responsible for all US Coast Guard reporting as it pertains to the Oil Pollution Act of 1990</li> <li>• Financial oversight of large emergency response events</li> </ul>			
<b>e.</b>	<b>Education: Degree(s) / Year / Specialization &amp; Licenses / Registrations</b>			
	<ul style="list-style-type: none"> <li>• Bachelor of Science, Management, Boston College Carroll School of Management Honors Program (2009) <ul style="list-style-type: none"> <li>○ Concentrations – Operations and Strategic Management, Marketing, and Management and Leadership</li> <li>○ Received Dean's Letter of commendation and was a Golden Key International Honor Society Member</li> <li>○ Worked as a research assistant for the Winston Center for Ethics developing a new freshman curriculum and as an Orientation Leader responsible for familiarizing incoming classes with the University's values</li> <li>○ Student Manager of an on campus café for two years</li> <li>○ Public Relations Chair for the Honors Program – created marketing campaign for a local nonprofit bakery</li> </ul> </li> <li>• St. John's High School, Shrewsbury, MA (2005) <ul style="list-style-type: none"> <li>○ Senior Class President</li> </ul> </li> </ul>			
<b>g.</b>	<b>Major Project Experience:</b>			
	<ul style="list-style-type: none"> <li>• Hurricane Irene, Schoharie County, NY – 2011 <ul style="list-style-type: none"> <li>○ Managed all financial aspects of the flood cleanup for Schoharie and the surrounding counties as the result of the flooding caused by Hurricane Irene and Tropical Storm Lee - including client communication, resource tracking, subcontractor management and the entire invoicing process. Created a smooth process flow for the local office to follow for future projects in order to better comply with strict state requirements.</li> </ul> </li> <li>• Pipeline Failure, Kalamazoo River, MI – 2010 <ul style="list-style-type: none"> <li>○ Oversaw audit of all daily worksheets and estimates to the customer, tracked all equipment resources on project, and led the invoicing process.</li> </ul> </li> <li>• Deepwater Horizon, Gulf of Mexico - 2010 <ul style="list-style-type: none"> <li>○ Managed flow of paperwork and nightly entry for over 60 work sites and 3,000 workers.</li> </ul> </li> <li>• Other Major Project Experience <ul style="list-style-type: none"> <li>○ Pipeline Failure, Yellowstone River, MT – 2011; Western MA Tornadoes, Springfield, MA – 2011; Training and Integration of New Acquisition, AB, Canada - 2011</li> </ul> </li> </ul>			
<b>h.</b>	<b>Environmental &amp; Health and Safety Training:</b>			
	<ul style="list-style-type: none"> <li>• OSHA 40-Hour HAZWOPER Training</li> <li>• ICS 100, 200</li> </ul>			



<b>a.</b>	<b>Name, Title &amp; Local Company Address:</b>				
	<b>MICHAEL M. BRAJER</b> Field Service Supervisor 101 Philip Drive Norwell, Massachusetts 02061				
<b>b.</b>	<b>Project Assignment</b>				
	Project Supervisor/Administrator, Emergency Response				
<b>c.</b>	<b>Corporate Address:</b>				
	Clean Harbors Environmental Services 42 Longwater Drive Norwell, Massachusetts 02061				
<b>d.</b>	<b>Years Experience – With This Firm:</b>	1.5	<b>With Other Firms:</b>	3.5	
<b>e.</b>	<b>Education: Degree(s) / Year / Specialization &amp; Licenses / Registrations</b>				
	<ul style="list-style-type: none"> <li>Bachelor of Science, Business Administration, Towson University, 2008.</li> </ul>				
<b>f.</b>	<b>Other Experience and Qualifications Relevant to the Proposed Project:</b>				
	<ul style="list-style-type: none"> <li>Field Technician, CHES, Norwell, MA</li> <li>On Site Administrator, Prime 1 Staffing, Broussard, LA</li> <li>Health, Life, Property &amp; Casualty Insurance Producer, State Farm Insurance, Florham Park, NJ</li> <li>Campus Advertising Sales Manager, Off-Campus 101, Towson, MD</li> </ul>				
<b>g.</b>	<b>Major Project Experience:</b>				
	<ul style="list-style-type: none"> <li>Delaware City Refinery, Delaware City, DE</li> <li>Deepwater Horizon, Gulf Shores, AL</li> <li>Deepwater Horizon, Dauphin Island, AL</li> <li>Silvertip Response, Billings, MT</li> </ul>				
<b>h.</b>	<b>Environmental &amp; Health and Safety Training:</b>				
	<ul style="list-style-type: none"> <li>FAM Certified Training/ CHES Corporate</li> </ul>				





<b>a. Name, Title &amp; Local Company Address:</b>				
<b>RICKIE P. GARRITT</b> Field Service Supervisor 1205 Toole Drive New Iberia, Louisiana 70562				
<b>b. Project Assignment</b>				
Field Service Supervisor				
<b>c. Corporate Address:</b>				
Clean Harbors Environmental Services 42 Longwater Drive Norwell, Massachusetts 02061				
<b>d. Years Experience – With This Firm:</b>	7	<b>With Other Firms:</b>	10	
<b>e. Education: Degree(s) / Year / Specialization &amp; Licenses / Registrations</b>				
<ul style="list-style-type: none"> <li>Breaux Bridge High School, 1993</li> <li>United States Marine Corps Reserve, 1994-1997</li> </ul>				
<b>f. Other Experience and Qualifications Relevant to the Proposed Project:</b>				
<ul style="list-style-type: none"> <li>Environmental Technician- Four Seasons Environmental</li> <li>Environmental Technician and Supervisor- Oil Mop Inc.</li> <li>Foreman- ES&amp;H</li> <li>Facility Manager- B&amp;B Fire and Safety</li> </ul>				
<b>g. Major Project Experience:</b>				
<ul style="list-style-type: none"> <li>World Trade Center, New York, NY</li> <li>Hurricane Ike, Galveston, TX</li> <li>Floods, Cedar Rapids, IA</li> <li>Pipeline Oil Spill, Collins, MS</li> <li>Athosi Oil Spill, Philadelphia, PA</li> <li>Eagle Otome, Port Arthur, TX</li> <li>Cape Cod Canal Oil Spill, Buzzards Bay, MA</li> <li>Hurricane Katrina, Gulf Coast states</li> <li>Hurricane Rita, Gulf Coast states</li> <li>Refinery Release, Lake Charles, LA</li> <li>Buffalo Oil Spill, Galveston, TX</li> <li>Eunice Train Derailment, Eunice, LA</li> <li>Airport Jet Fuel Spill, San Juan, PR</li> <li>Hurricane Ike, Gulf Coast States</li> <li>Deepwater Horizon, Gulf Coast States</li> <li>Yellowstone River, Billings, MT</li> </ul>				
<b>h. Environmental &amp; Health and Safety Training:</b>				
<ul style="list-style-type: none"> <li>40 Hour OSHA Required Training for Hazardous Waste / CHES Corporate</li> <li>8 Hour OSHA Supervisor Training for Hazardous Waste / CHES Corporate</li> <li>Certified CPR &amp; Basic First Aid / CHES Corporate</li> </ul>				



<b>a.</b>	<b>Name, Title &amp; Local Company Address:</b>				
	<b>TJ ENGSTROM</b> Field Operations Manager 416 Woodman Dr Belgrade, MT 59714				
<b>b.</b>	<b>Project Assignment</b>				
	Rocky Mountain Emergency Response Coordinator				
<b>c.</b>	<b>Corporate Address:</b>				
	Clean Harbors Environmental Services 42 Longwater Drive Norwell, Massachusetts 02061				
<b>d.</b>	<b>Years Experience – With This Firm:</b>	>1	<b>With Other Firms:</b>	7	
<b>e.</b>	<b>Education: Degree(s) / Year / Specialization &amp; Licenses / Registrations</b>				
	<ul style="list-style-type: none"> <li>Bachelor of Construction Engineering Technology, Business Development, Montana State University</li> </ul>				
<b>f.</b>	<b>Other Experience and Qualifications Relevant to the Proposed Project:</b>				
	<ul style="list-style-type: none"> <li>Previous to joining Clean Harbors, I have been the principal of an Emergency Response Management organization for the last 7 years.</li> </ul>				
<b>g.</b>	<b>Major Project Experience:</b>				
	<ul style="list-style-type: none"> <li>2011 Silvertip Spill, Yellowstone River Billings MT-Project Manager</li> <li>2010 Enbridge Pipeline Spill, Marshal MI-Branch Manager</li> <li>2010 Deepwater Horizon Oil Spill, Mobile AL-Branch Manager</li> <li>2008 DM932 Barge Spill, New Orleans LA-Field Operations Manager</li> <li>2007 Energy Spill, Verdigris River KS-SCAT Unit Leader</li> <li>2006 Refinery Spill, Calcasieu River LA-Field Operations Manager</li> <li>2006 Bermuda Islander Spill, Dovre DE-Field Operations Manager</li> <li>2006 Wild Well Offshore HS&amp;E Specialist</li> <li>2005 Murphy Oil (Hurricane Katrina), New Orleans LA-Field Operations Manager</li> <li>2005 DBL 152, Port Arthur TX-Field Operations Manager</li> <li>2004 Athos Spill, Delaware River-Field Operations Manager</li> </ul>				
<b>h.</b>	<b>Environmental &amp; Health and Safety Training:</b>				
	<ul style="list-style-type: none"> <li>ICS 100-Introduction to ICS</li> <li>ICS 200-Single Resources and Initial Action</li> <li>IS 208-State Disaster Management</li> <li>ICS 288-Voluntary Agencies</li> <li>FEMA 325-Debris Removal</li> <li>ICS 700-NIMS</li> <li>IS 725-EOC Management and Operations</li> <li>IS 802-ESF &amp; Communications</li> <li>IS 809-Search and Rescue</li> </ul>				



<b>a.</b>	<b>Name, Title &amp; Local Company Address:</b>			
	<b>BRETT HERMAN</b> Director of Site Services Clean Harbors Canada Inc. 1790 Ironstone Drive, Burlington, Ontario L7L 5V3			
<b>b.</b>	<b>Corporate Address:</b>			
	Clean Harbors Environmental Services, Inc 42 Longwater Drive Norwell, MA. 02061			
<b>c.</b>	<b>Years Experience – With This Firm:</b>	15	<b>With Other Firms:</b>	0
<b>d.</b>	<b>Education: Degree(s) / Year / Specialization &amp; Licenses / Registrations</b>			
	1993 – Environmental Science Technician Diploma – Mohawk College of Applied Arts & Technology, Hamilton, Ontario			
<b>e.</b>	<b>Other Experience and Qualifications:</b>			
	<p>As Director of Field Services Operations Mr. Herman is responsible for all field service personnel and equipment needs within the Burlington operational area and as well supports other field service operations in Ontario, Eastern Provinces and into the Manitoba Region. Included in his current responsibilities is the general management of approximately 50 employees involved in Industrial Cleaning, High/Low Pressure Water Blasting, Confined Space Entry, Vacuum Services, Dewatering of surface impoundments and on site De-chlorination of PCB's. Waste handled encompasses both hazardous and non-hazardous materials. The Burlington field service team performs approximately \$6 Million dollars of revenue on a variety of projects annually, with on-site services bundles utilizing Clean Harbors' transportation and disposal assets, thereby providing seamless turnkey projects for customers.</p> <p>Mr. Herman's previous experience includes 6 years of direct project management, field work, quoting and complete project development from initial project scoping through to the implementation and completion of various high and low hazard projects. Responsibilities included coordinating the activities of the operational team, the sales staff, health &amp; safety professionals and transportation compliance departments in order to service clients on comprehensive waste management projects while achieving certain profit criteria as well as achieving the goals and objectives of the divisional and corporate management teams.</p>			
<b>f.</b>	<b>Environmental &amp; Health and Safety Training:</b>			
	<ul style="list-style-type: none"> <li>• First Aid and CPR Certification</li> <li>• 29 CFR 1910.120 40-hour safety Training</li> <li>• 29 CFR 1910.120 8-hour Supervisor Training</li> </ul>			

